2016

Church Street Access Study

SMTC

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Church Street Access Study

Syracuse Metropolitan Transportation Council

Final Report

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Executive Summary

Consistent with its recent planning and development efforts, the Village of North Syracuse wants to provide a second point of access for the 100 block of Church Street to encourage new economic growth and redevelopment. This study examines potential impacts to surrounding intersections that could result from extending Church Street to South Bay Road or to Centerville Place (at Trolley Barn Lane).

The Syracuse Metropolitan Transportation Council (SMTC) agreed to conduct this study in two phases. The purpose of Phase I was to determine traffic impacts on surrounding intersections caused by new traffic patterns from extension alternatives. The assessment considered new trips generated from 53,000 square feet of new development and an estimated background traffic growth of 0.3% per year over the next 20 years. The purpose of Phase II was to present the results of the assessment and the pros and cons of each alternative to the public to gather input and determine preferences.

The New York State Department of Transportation (NYSDOT) and the Onondaga County Department of Transportation (OCDOT) will require the village to obtain permits to extend the roadway.

Study Area

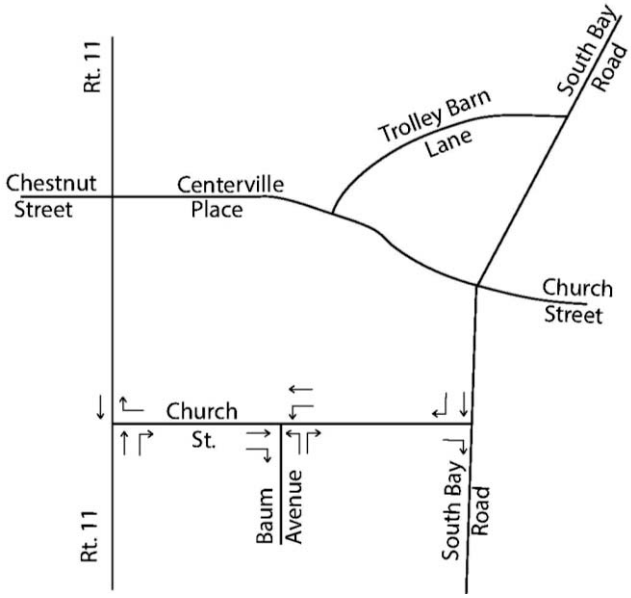
The study area is located within the village of North Syracuse. As shown in the following aerial image, Church Street is located within the Village Center. The study area includes Route 11, Centerville Place, South Bay Road, and Trolley Barn Lane.

Church Street Study Area

Access Alternatives

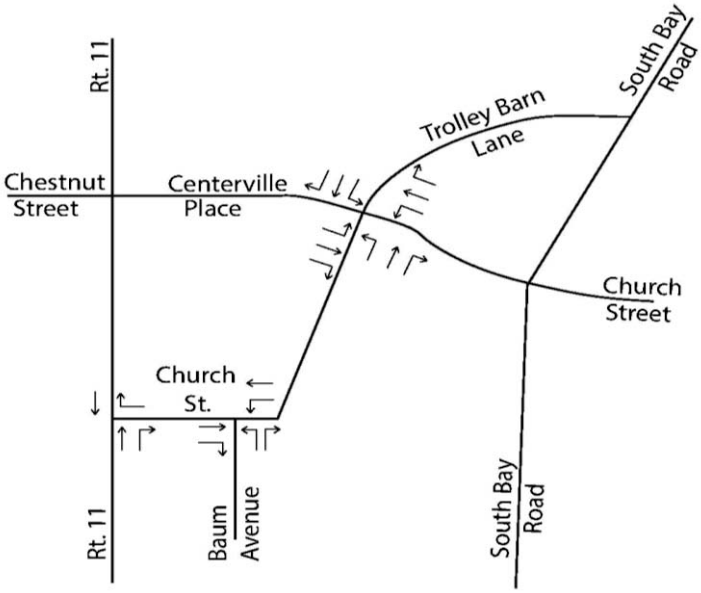
In conjunction with the NYSDOT, the OCDOT, and the village, the SMTC developed the following access alternatives to be analyzed:

Scenario 1



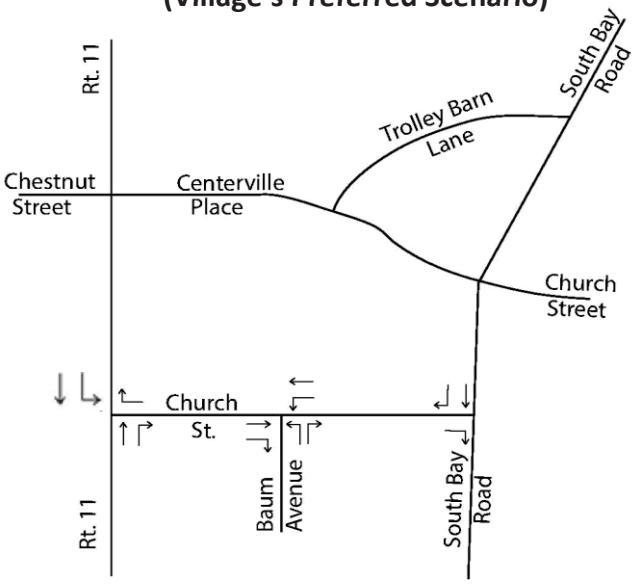
1. Extend to South Bay Road: Right-in, right-out only at Route 11 and South Bay Road.

Scenario 2



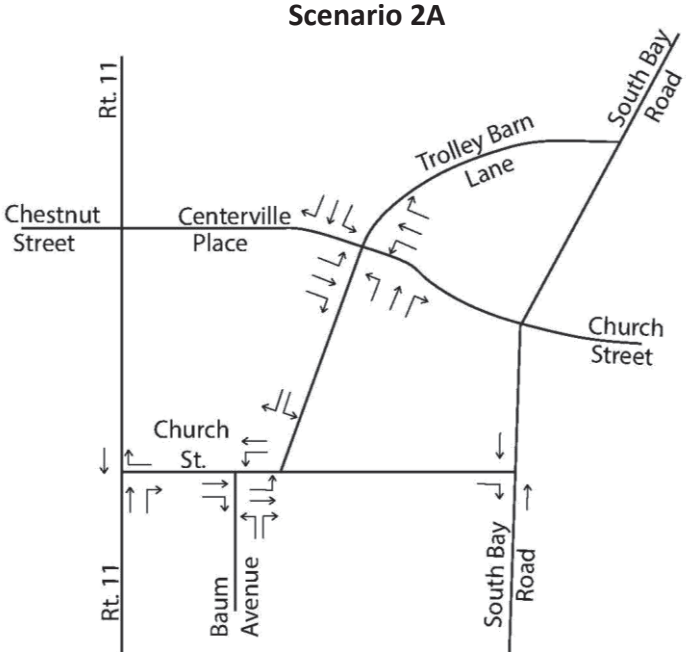
2. Extend to Centerville Place opposite Trolley Barn Lane: Extend Church Street (with full access) to Trolley Barn Lane.

Scenario 1A
(Village's Preferred Scenario)

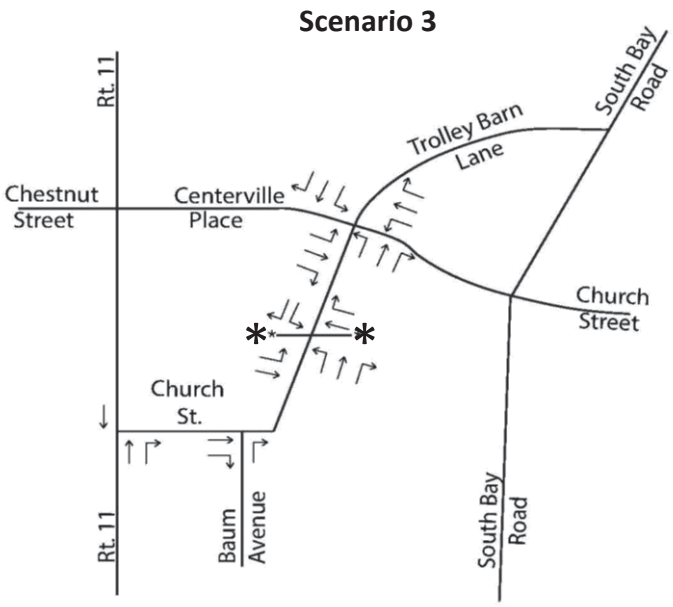


1A. Extend to South Bay Road: Right-in, right-out only at South Bay Road. The Route 11 southbound left turn is permitted; the westbound left is restricted.

Scenario 2A



2A. Extend to Centerville Place and to South Bay Road: Same as scenario 2, but add a right-out only at South Bay Road.



*Driveways to parking lots.

3. Extend to Centerville Place with one-way traffic to the community center parking lot; two-way traffic from the lot to Centerville Place: One-way to parking lots with full access from lots to Centerville/Trolley Barn/Church Street.

Phase I Findings

The traffic assessment found that intersections are generally anticipated to operate within acceptable limits and that each scenario is "technically feasible."

Phase II Conclusion

To determine public preferences, the SMTC conducted a public meeting to share the findings and review the pros and cons of each scenario. According to the following summary table, Scenario 2 may strike the best balance between achieving village planning objectives, overall performance, and anticipated construction cost.

Planning Factors	Future Build Scenario			
	1 & 1A	2	2A	3
Overall Delay	Poor	Good	Excellent	Fair
Connectivity (Drivers)	Poor (1); Good (1A)	Good	Excellent	Fair
Pedestrian Connectivity	Poor	Good	Excellent	Fair
Construction Cost	Excellent	Good	Poor	Fair
Parking Space Preservation	Excellent	Fair	Poor	Good

During the public meeting local business owners and residents expressed concerns about eliminating the southbound left turn from Route 11 on to Church Street. Maintaining the southbound left turn received overwhelming support by the meeting's participants and the other turning restrictions were generally accepted by meeting attendees. Village representatives indicated that Scenario 1A is their preferred scenario because it is anticipated to cost the least to construct and it will likely preserve the greatest number of parking spaces in the Community Center parking lot.

The Village of North Syracuse owns and maintains Church Street and is responsible for any improvements to the roadway. The SMTC does not own or control any infrastructure, so implementation of any alternative is at the discretion of the village as the local road owner. Should the village seek to implement an extension alternative, the village must also obtain necessary permits from the NYSDOT and the OCDOT as these agencies exercise jurisdictional authority at intersections where local roads connect to their roadways.

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1 - Introduction

1.1 Overview

In 2014, the Syracuse Metropolitan Transportation Council (SMTC) agreed to complete the Church Street Access Study on behalf of the Village of North Syracuse.

Currently, the 100 block of Church Street is a dead end road. The Village of North Syracuse wants to provide the 100 block with a second point of access to encourage new economic growth and redevelopment. This study examines potential impacts to surrounding intersections that could result from extending the 100 block of Church Street to South Bay Road or to Centerville Place at Trolley Barn Lane.

1.2 Purpose of this Assessment

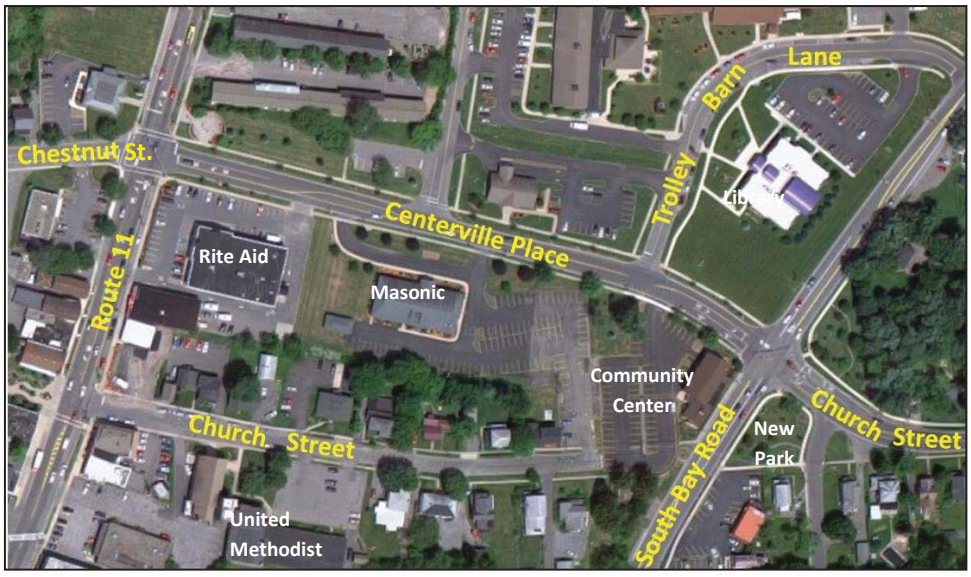
The New York State Department of Transportation (NYSDOT) and the Onondaga County Department of Transportation (OCDOT) will require the village to obtain permits to extend the roadway. Both agencies expressed concerns about potential traffic impacts. This study will help them determine their willingness to issue a permit.

The SMTC agreed to conduct this study in two phases. The purpose of Phase I was to determine traffic impacts on surrounding intersections caused by new traffic patterns from extension alternatives. The technical assessment considered trips generated from envisioned redevelopment (in 20 years) and an estimate of background traffic growth. The purpose of Phase II was to present the results and the pros and cons of each alternative to the public to determine preferences. The Phase I technical assessment found that the surrounding intersections are anticipated to operate within acceptable limits for each scenario. As such, the SMTC summarized the results, gathered public comments, and summarized preferences in this report.

1.3 Study Area

The study area is located within the Village of North Syracuse. As shown in Figure 1, Church Street is located within the Village Center. The study area includes Route 11,

Figure 1 - Church Street Study Area



Centerville Place, South Bay Road, and Trolley Barn Lane. Village representatives wish to connect Church Street to either South Bay Road or to Centerville Place at Trolley Barn Lane.

1.4 Background

According to village officials, the village developed its Village Center about 20 to 25 years ago. The project resulted in new development; most notably new senior housing, a drugstore, a bank, a public library, a community center, and a new Masonic Temple.

The development also included the installation of a new road, Centerville Place, to create a direct east-west connection between Chestnut Street and the 200 block of Church Street. Centerville Place simplified traffic patterns by eliminating the need to turn onto Route 11 to travel east-west.

To accommodate the new road alignments, the village closed the Church Street/South Bay Road intersection. Closing the intersection impacted the 100 and 200 blocks of Church Street. The village turned the 100 block into a dead end, but could not include a cul-de-sac due to insufficient space. The village closed a small portion of the 200 block east of South Bay Road and converted it into greenspace. The village then realigned the 200 block roadway with Centerville Place and Chestnut Street. Figures 2 and 3 show the 100 block of Church Street as it currently exists.

Figure 2 – 100 block of Church Street 'Dead End' looking east towards the Community Center, South Bay Road, and the new park

Figure 3 - Existing properties along the 100 block of Church Street

During the past 20 years, many single-and two-family homeowners along the 100 block of Church Street have retrofitted their properties for commercial use. Since a cul-de-sac does not exist, delivery trucks servicing these new establishments are unable to turn around and typically exit Church Street by backing onto Route 11 or turning around using private driveways. This presents safety issues and disrupts traffic flow on a heavily traveled state highway.

Figure 4 - South Bay Road Extension, Streetscape Plan

Figure 5 - Trolley Barn Lane Extension, Streetscape Plan

Looking towards the future, the village supports extending its central business district along Church Street. Recently, the village developed two plans with its consultant, the *2012 Village Center Master Plan* and the *2014 Village Streetscape Plan*, which suggest extending Church Street to South Bay Road or to Centerville Place at Trolley Barn Lane. The village believes that providing a second point of access to Church Street will improve truck egress and encourage developers to construct new mixed-use commercial buildings. To determine feasibility, village representatives approached the SMTC to study the potential impacts of extension alternatives on surrounding intersections. Figure 4 and Figure 5 show general extension alternative concepts based on the Village Streetscape Plan.

1.5 Study Advisory Committee

To oversee this study's development, the SMTC established a Study Advisory Committee (SAC) comprised of representatives from the following agencies:

- The Village of North Syracuse
- New York State Department of Transportation (NYSDOT)

- Onondaga County Department of Transportation (OCDOT)
- Syracuse-Onondaga County Planning Agency (SOCPA)
- The Central New York Regional Planning and Development Board (CNYRPDB).

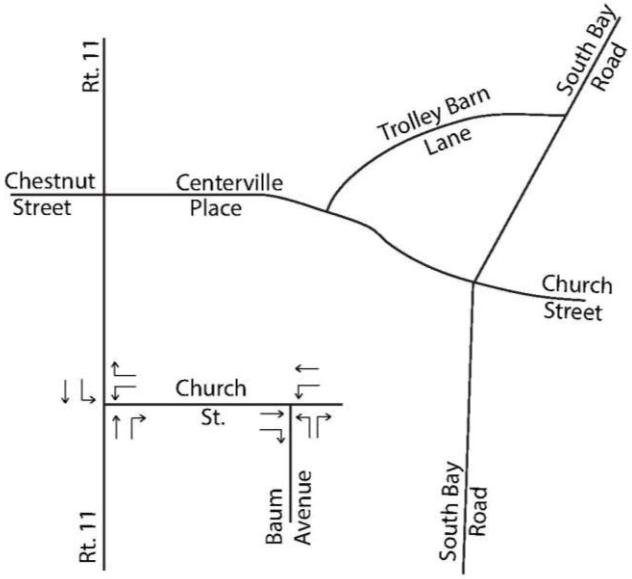
The SAC provided technical and procedural guidance throughout the planning process. However, a SAC doesn't vote on approval or disapproval of project-related products and documents.

Additionally, the SMTC developed a Public Involvement Plan (PIP) to guide the public meeting process. A copy of the PIP is provided in Appendix A. A well-attended public meeting occurred on Monday, November 16, 2015, at the Northern Onondaga Public Library (NOPL) at North Syracuse. A summary of the meeting is provided with Appendix B.

2 – Development of Alternatives

The SMTC met with village officials and with representatives from the New York State Department of Transportation (NYSDOT) and the Onondaga County Department of Transportation (OCDOT) to develop a scope of services. The discussions determined that the SMTC would assess traffic impacts for two intersections along Route 11, two intersections along South Bay Road, and one intersection along Centerville Place. Figure 6 shows the study area's intersections and Church Street's existing (and future No Build) turning movements.

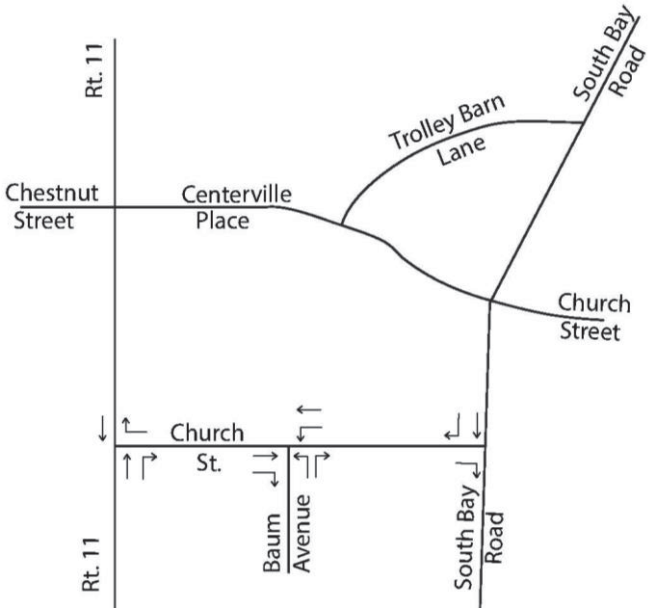
Figure 6 - Existing (and Future No Build) Church Street Turning Movements



The state stipulated that if they issue permits, they would require that the southbound left turn from Route 11 to Church Street and westbound left turn from Church Street to Route 11 be eliminated. As the process evolved, the NYSDOT expressed a willingness to reconsider the need to restrict the southbound left. Likewise, Church Street turning movements at South Bay Road should also be restricted to right-in/right-out only. Thus, extension scenarios included these turning restrictions. At the public meeting, the public and village representatives indicated an interest to analyze one scenario that maintains the southbound left turn. Therefore, the SAC and the SMTC developed the following access alternatives:

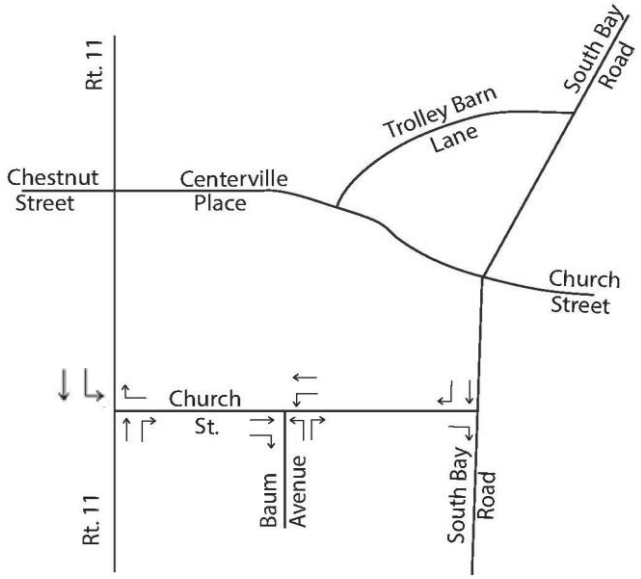
1. Extend to South Bay Road: As shown in Figure 7, right-in, right-out only at Route 11 and South Bay Road.

Figure 7 - Scenario 1 Movements



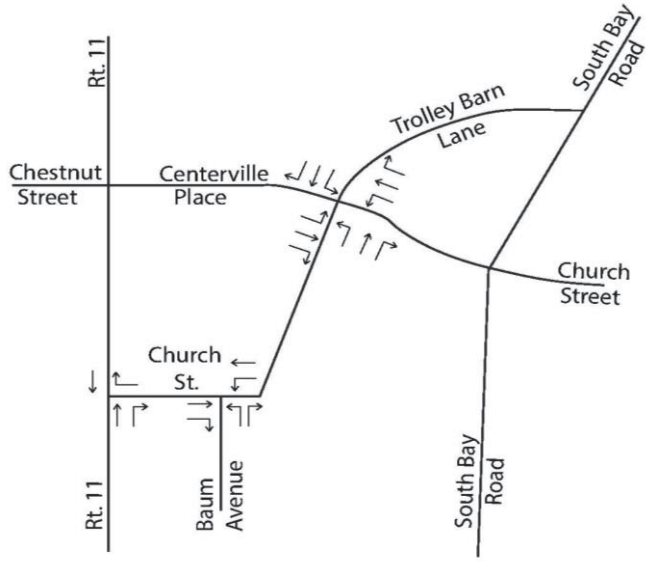
1A. Extend to South Bay Road: As shown in Figure 8, same as Scenario 1, but maintain the southbound left onto Church Street.

Figure 8 – Scenario 1A Movements



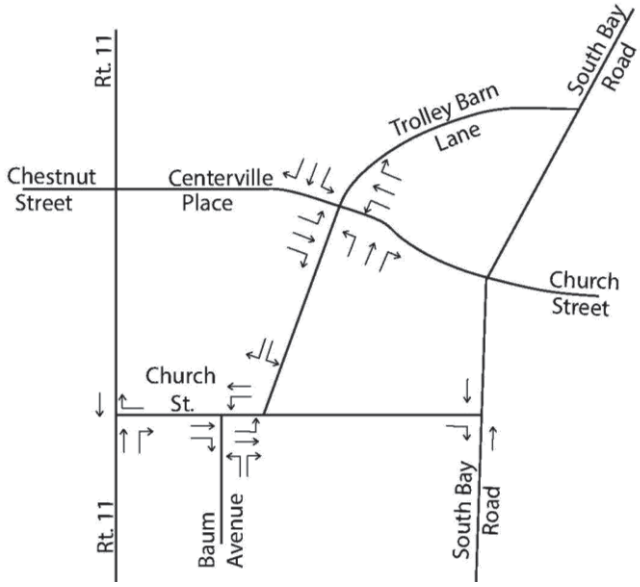
2. Extend to Centerville Place opposite Trolley Barn Lane: As shown in Figure 9, extend roadway to Trolley Barn Lane. Close the existing Community Center driveway and provide a new one at Church Street.

Figure 9 - Scenario 2 Movements



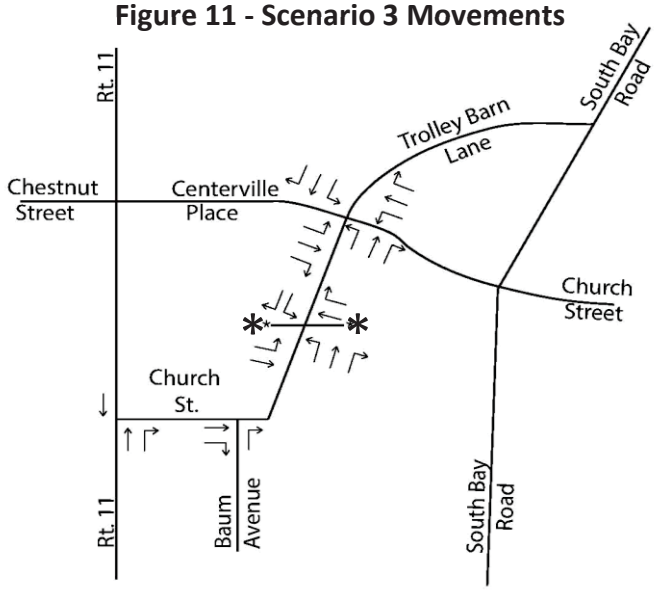
2A. Extend to Centerville Place and to South Bay Road: As shown in Figure 10, same as scenario 2, but add a right-out at South Bay.

Figure 10 - Scenario 2A Movements



3. Extend to Centerville Place with one-way traffic to the community center parking lot; two-way traffic from the lot to Centerville Place: As shown in Figure 11, one-way to parking lots with full access from lots to Centerville/Trolley Barn/Church Street.

Figure 11 - Scenario 3 Movements



*New driveways to parking lots. (Close existing Community Center driveway.)

3 – Research and Data Collection

3.1 Background

The SMTC reviewed the following community plans prepared by the village's planning consultant, CHA Companies, to identify Church Street extension alternatives, establish a future vision, and identify development objectives:

- 2004 Village of North Syracuse Comprehensive Plan
- 2012 Village Center Master Plan
- 2014 Village Streetscape Plan.

3.2 Existing Conditions

On June 4, 2014, staff from the SMTC conducted AM (7:00 to 9:00) and PM (4:00 to 6:00) turning movement counts at the following five intersections:

- Route 11/Chestnut/Centerville Place
- Route 11/Church Street
- South Bay Road/Centerville Place/Church Street
- Centerville Place/Trolley Barn Lane
- South Bay Road/Trolley Barn Lane.

Although the peak hour varied between intersections, the morning peak hour is generally 8:00 to 9:00 A.M. and the evening peak hour is generally 4:30 to 5:30 P.M. Turning movement volumes were balanced between intersections as necessary to adjust for differences in approach peak hour volumes. The existing (balanced) turning movement counts are shown on Figure 12. Staff also inventoried intersection geometry in 2014 and again in September 2015 following the completion of roadway improvements along Route 11 and South Bay Road. The assessment utilized 2015 geometry. Turning movement counts and intersection diagrams are included in appendices C and D.

3.3 Future 2034 No-Build Conditions

At the request of the state and the county, the SMTC used a 20-year background growth rate of 0.3% per year (based on the rate calculated for the *I-81 Challenge* study), which reflects a reasonable expectation of regional traffic growth.

Using the 2014 peak hour turning movement counts, the SMTC applied the 0.3% growth rate over 20 years to generate a 6.0% increase. The SMTC increased the 2014 volumes by 6.0% to reflect 2034 estimates of traffic volumes at the study area intersections. The results represent future "No-Build" conditions. Figure 13 shows the 2034 Future No-Build traffic volumes at the study area intersections.

3.4 New Trip Generation Estimates

The village requested that the SMTC reference the 2012 Village Center Master Plan to calculate new trips to be generated by the redevelopment concepts. Figure 14 shows building footprints envisioned in the 2012 Master Plan.

Figure 12 - 2014 Existing Traffic Volumes

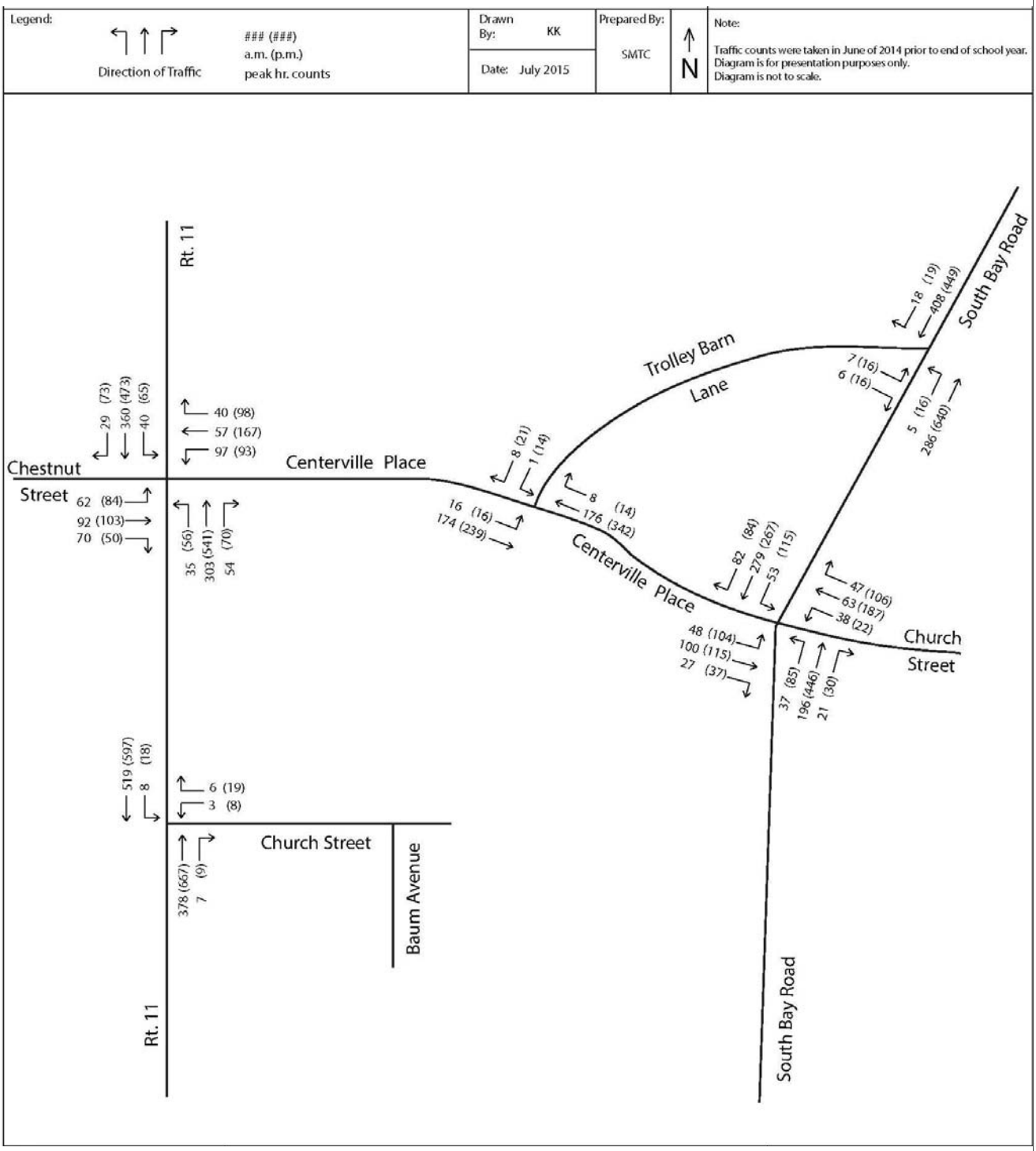
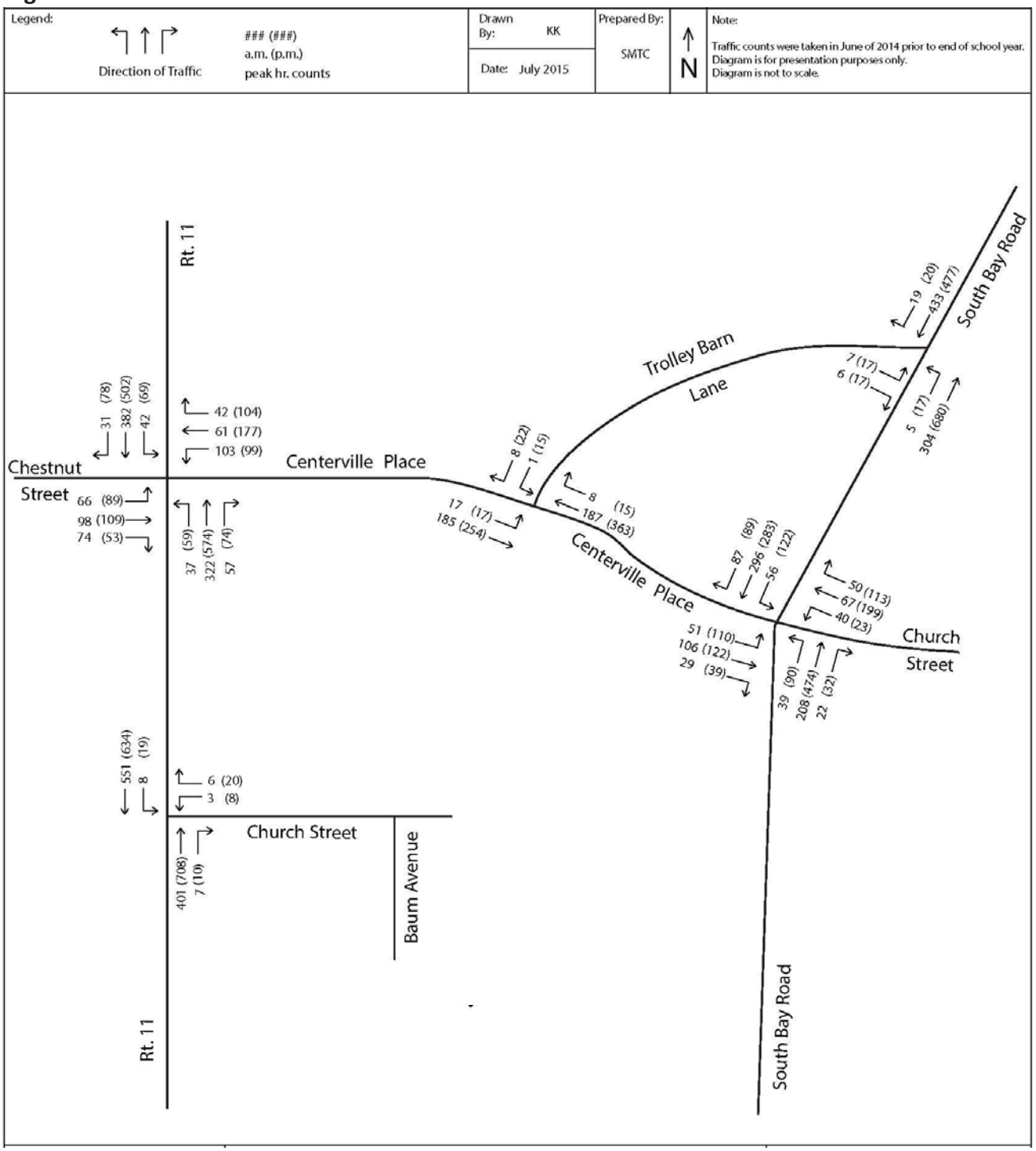


Figure 13 - 2034 'No-Build' Traffic Volumes



The village's engineer, CHA Companies, provided footprint size estimates for buildings, which allowed the SMTC to estimate the total square feet of new development. Although the plan does not indicate specific uses, it suggests that buildings are two-story mixed-use structures that contain a reasonable mixture of residential, office, retail, restaurant, and neighborhood service uses.

Based on the information provided by the village's consultant, the SMTC estimated 50,000 square feet of new space. However, to account for any additional unforeseen development that may occur, the SMTC used a slightly higher estimate of 53,000 square feet. Ground floor space was assumed to include 1/3 retail, 1/3 office, and 1/3 restaurant-coffee shop. Space on the second floor was assumed to include 2/3 residential and 1/3 office. Table 1 uses these assumptions to develop trip generation estimates.

Figure 14 - Footprint estimates for existing and future buildings, Village Center Master Plan

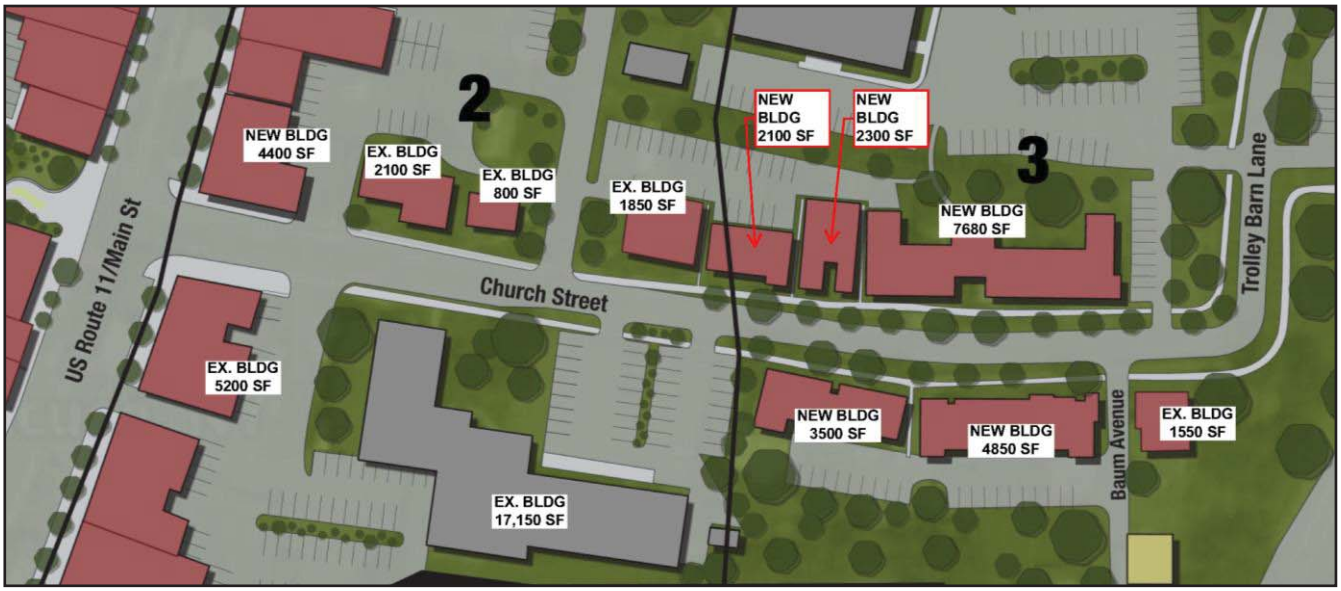


Table 1 - Trip Generation Estimates (Based on ITE Trip Generation Manual 9th Ed.)

LU Code	Land Use (LU)	Quantity	AM		PM	
			In	Out	In	Out
	New Development					
221	Low-Rise Residential (600SF per unit)	30 Units	4	17	17	9
710	General Office	13.5K SF	19	2	4	17
826	Specialty Retail	10K SF	33	36	28	22
852	Convenience Store	2.5K SF	42	40	44	46
925	Drinking Place	2.5K SF	-	-	26	12
932	High Turnover Sit Down Restaurant	5K SF	35	31	50	43
936	Coffee/Donut Shop w/o Drive thru	1.5K SF	49	47	19	20
	Total Trips Generated:		**182**	**173**	**188**	**169**
	Existing Properties to be Redeveloped					
210	One-family, two-family, and multi-family	17 Units	-4	-10	-11	-6
	Pass-by Trips					
932	Pass-by Trips for High Turnover Sit Down Restaurant	43% average pass-by	-15	-14	-22	-18
936	Pass-by Trips for Coffee/Donut Shop w/o Drive thru	70% average pass-by*	-35	-33	-13	-14
	Total New Trips:		**128**	**116**	**142**	**131**

***** Based on estimate provided by NYSDOT - Region 3

The SMTC referenced the Institute of Transportation Engineers (ITE) Trip Generation Manual 9th Edition to estimate the number of new vehicle trips expected from the future redevelopment of several Church Street properties. The Trip Generation Manual is the industry-standard for trip generation, but it assumes a suburban pattern for development – that is, it generates trip estimates based on single-use buildings on individual lots. As such, it does not factor internal trip capture achieved by mixing uses. The village, however, proposes an urban development pattern with mixed-use buildings that share parking. Urban development patterns maximize trip capture by converting vehicle trips to person trips. As such, customers visiting Church Street establishments may choose to park and walk to multiple shops, generating fewer overall vehicle trips than would be suggested by the standard trip generation calculations.

Church Street will likely also experience fewer trips than estimated due to the large number of residents living within walking distance. Future residents living on Church Street and village residents living within ½

mile may choose to walk or bike to visit Church Street's shops, restaurants, and neighborhood service establishments.

In light of these factors, the results in Table 1 reflect a reasonable mixture of uses and are based on available ITE rates. The results may be considered a worst case scenario for new trips generated. Due to the mixed-use development pattern, the number of new trips generated would likely be lower than what is shown in Table 1.

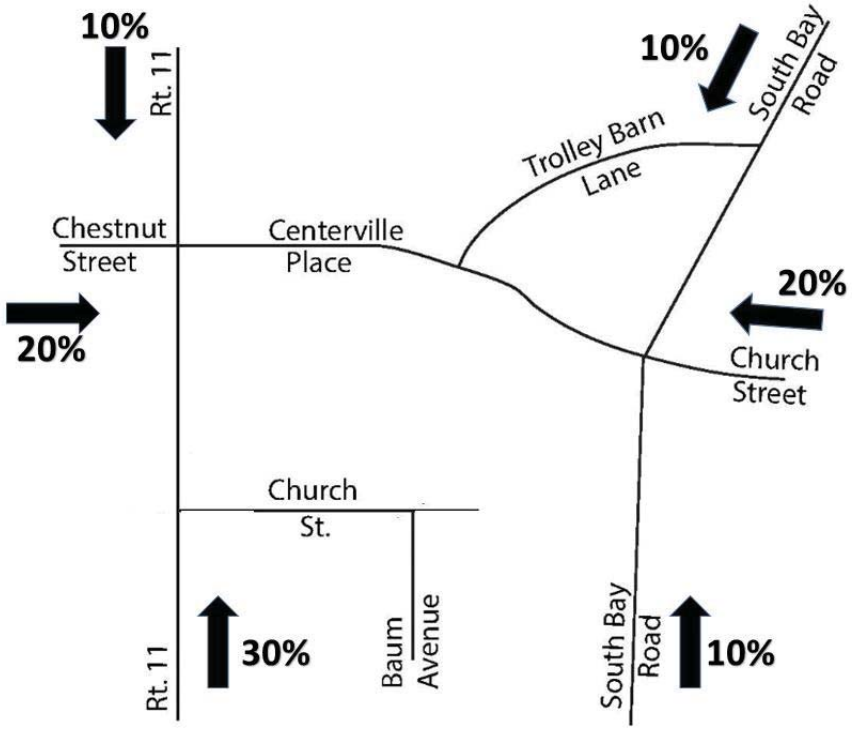
3.5 Future Build Conditions

Redeveloping properties along Church Street is dependent on the road being extended under one of the four alternatives. If the village extends Church Street, redevelopment of the properties is anticipated to occur by 2034.

As shown in Table 1, redeveloping several properties is anticipated to generate additional trips above and beyond the annual 0.3% background growth rate. The combination of the background growth and the 'New Trips' results in the volume estimates for the five 'Future Build' scenarios. Also, some movements needed to be redistributed due to the proposed turning restrictions referenced in Chapter 2.

The SMTC used existing land use patterns to develop a generalized distribution for new trips to Church Street as shown in Figure 15. The specific trip distributions for each access scenario are included in detail in Appendix E.

Figure 15 - Generalized Distribution of New Trips to Church Street



Using the trip distribution outlined in Figure 14, the SMTC assigned the 'New Trips' to the study area intersections for each alternative. Figures 16 to Figure 20 show the final volumes for each access alternative.

Figure 16 - Scenario 1 (2034) – Final Traffic Volumes

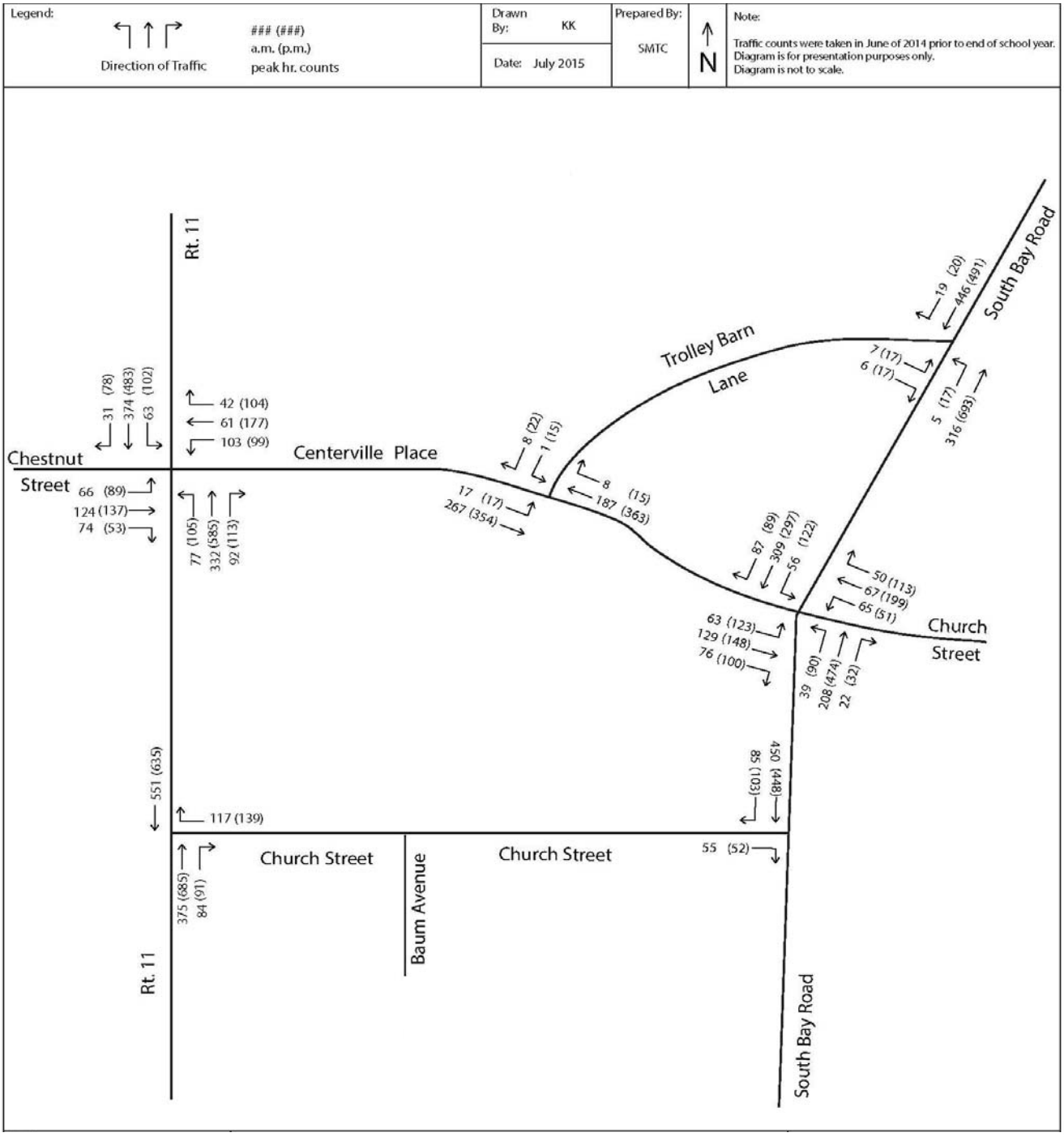


Figure 17 - Scenario 1A (2034) – Final Traffic Volumes (Village's Preferred Scenario)

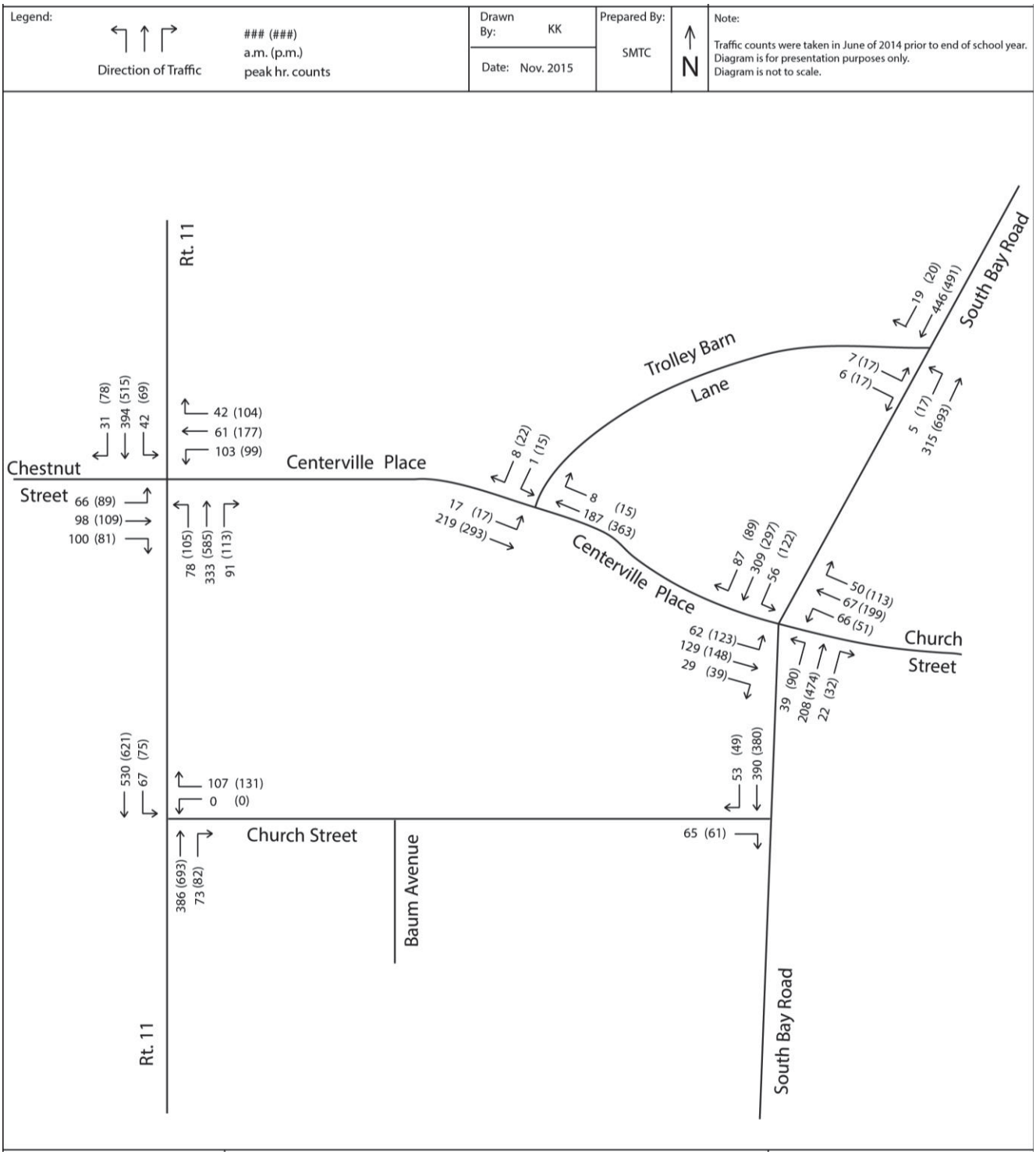


Figure 18 - Scenario 2 (2034) - Final Traffic Volumes

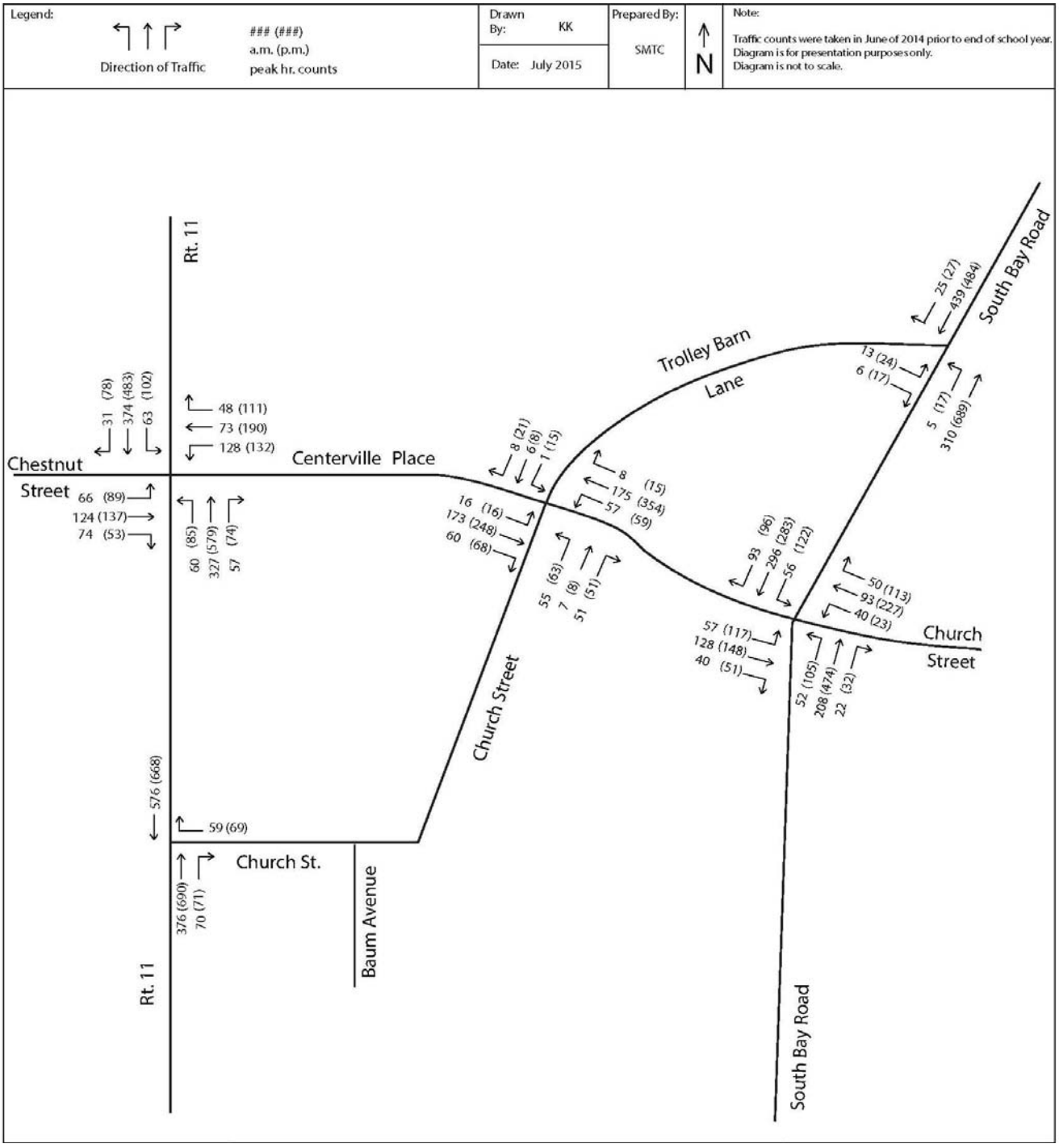


Figure 19 - Scenario 2A (2034) – Final Traffic Volumes

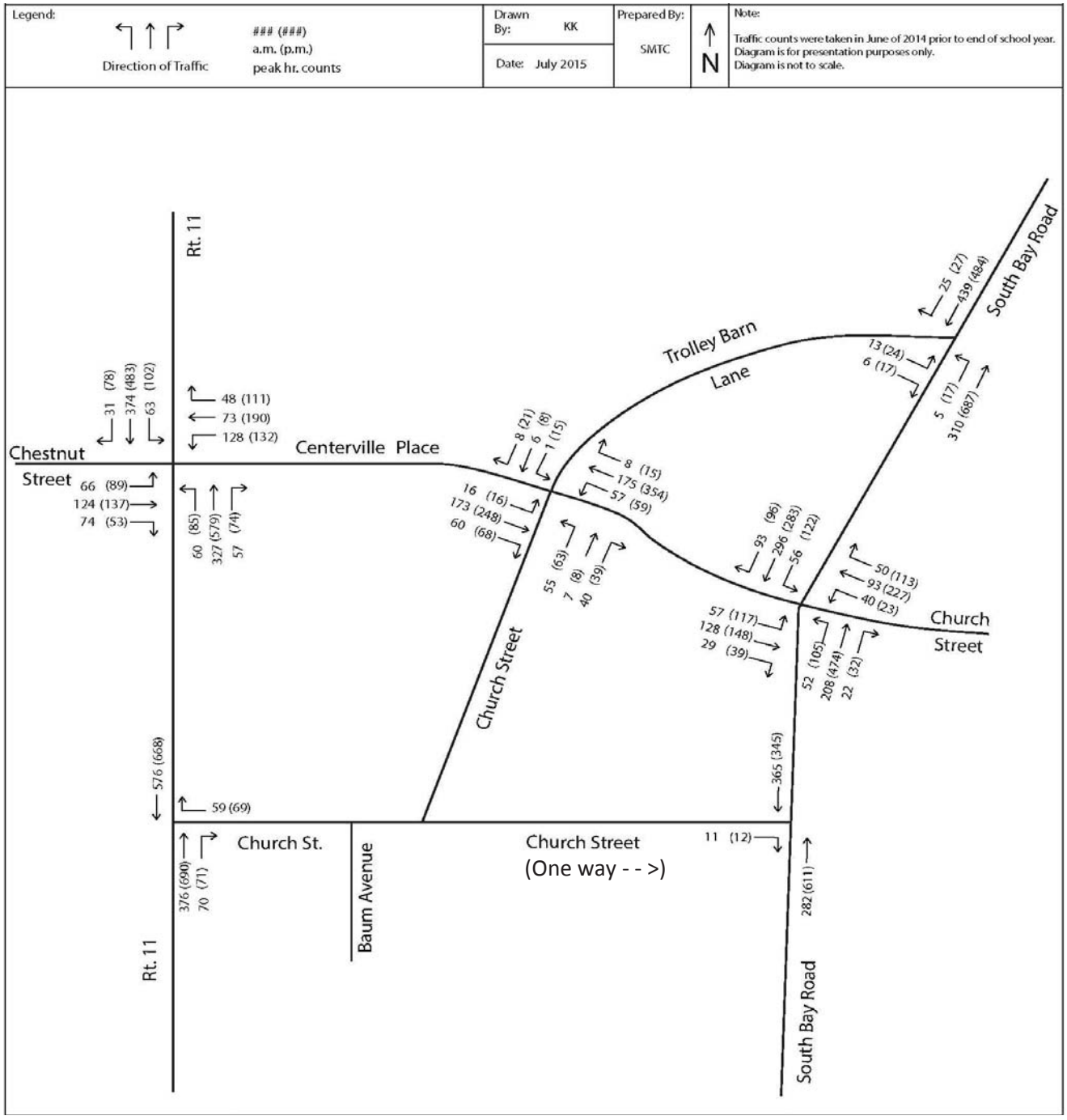
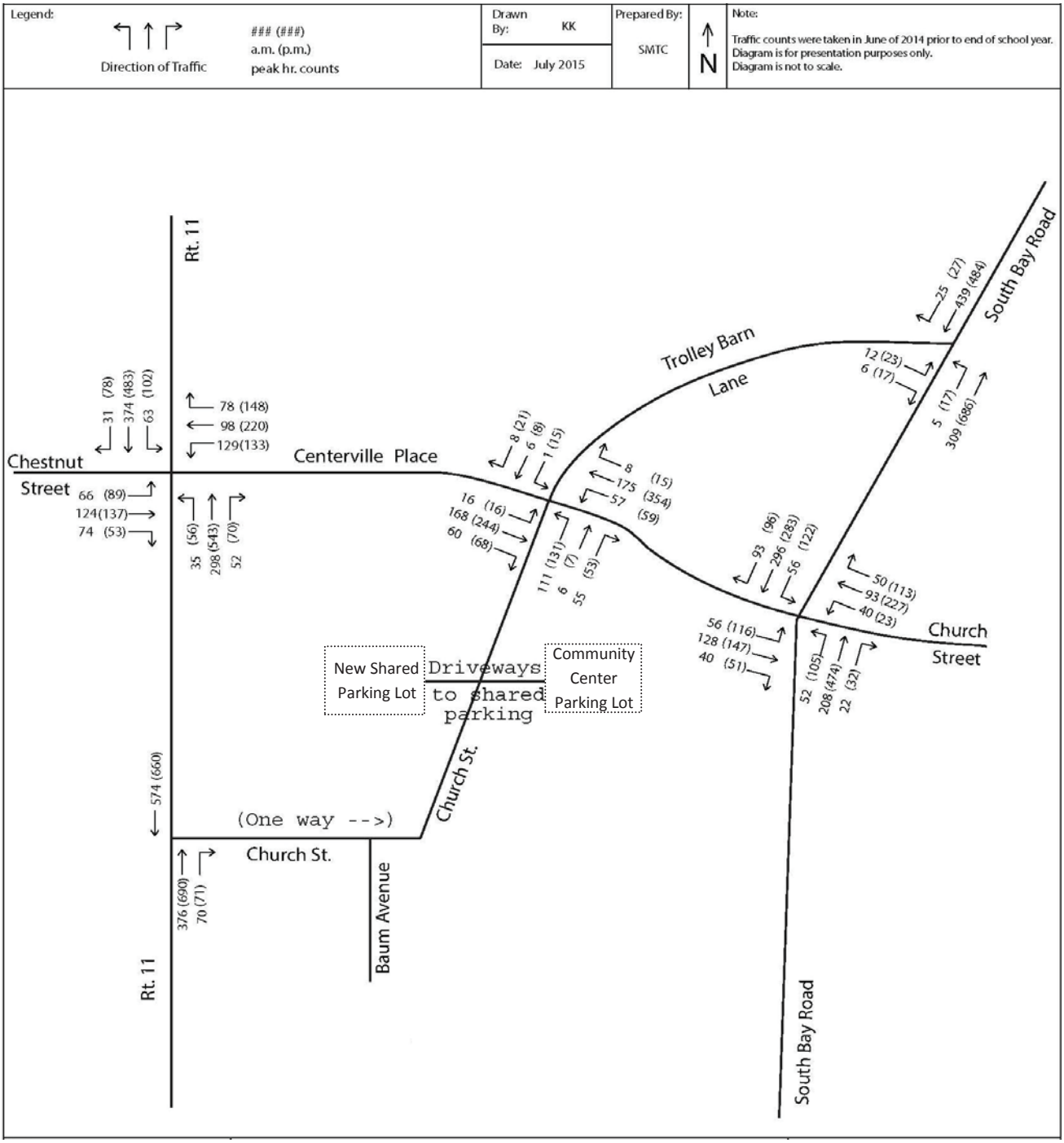


Figure 20 - Scenario 3 – Final Traffic Volumes



4 – Synchro Assessment

The SMTC analyzed study area intersections using Synchro 9.0 software. As a modeling tool, Synchro is used to describe the operation of signalized and unsignalized intersections. It also provides an interface to Simtraffic, which can be used to view a real-time simulation of traffic operations. Synchro is an industry-accepted standard and was therefore used to determine the Levels of Service (LOS) at the intersections within the study area.

4.1 Calculating Level of Service (LOS)

At intersections controlled by a signal or a stop sign, LOS may be calculated per movement (i.e., through, left, or right) or per approach (i.e., northbound, southbound, eastbound, or westbound).

LOS for an entire intersection is only defined for signalized intersections (and all-way stop controlled configurations). LOS for a two-way stop-controlled (TWSC) intersection is defined in terms of the average vehicle delay of an individual movement, not the entire intersection.

As it currently exists, the Church Street study area contains two signalized intersections and three TWSC intersections. Changes to the signalized intersections are not anticipated for any of the future-build scenarios. However, modifications to the TWSC intersections will vary depending on scenario and a new intersection could be developed with the extension of Church Street to South Bay Road.

4.2 LOS Thresholds

The LOS for both signalized and unsignalized intersections are defined in terms of control delay. Control delay is a measure of the total travel time lost and includes slowing delay, stopped delay, queue move up time, and start up lost time.

LOS thresholds are defined as average delay in seconds per vehicle over a fifteen-minute analysis period and, similar to report card scores in school, range from LOS "A" to "F" for both signalized and unsignalized intersections. Table 2 provides a summary of the LOS thresholds as defined in the 2010 Highway Capacity Manual.

Table 2 - Level of Service Thresholds

Level of Service Thresholds	Signalized Intersections (Delay in seconds)	Unsignalized Intersections (Delay in seconds)
A Little or no delay	< 10.0	< 10.0
B Minor, short delays	10.1 to 20.0	10.1 to 15.0
C Average delays	20.1 to 35.0	15.1 to 25.0
D Long, but acceptable delays	35.1 to 55.0	25.1 to 35.0
E Long, near unacceptable delays	55.1 to 80.0	35.1 to 50.0
F Unacceptable delay	> 80.0	> 50.0

LOS "A" represents free flowing traffic with little or no delay. LOS "F" represents highly congested traffic with substantial delays.

Different LOS thresholds exist for signalized and unsignalized intersections. Signalized intersections have higher traffic volumes and thus experience longer delays, so the acceptable LOS thresholds are higher for a signalized intersection.

An overall intersection LOS "D" or better is generally considered acceptable at a signalized intersection. This indicates that the average control delay will not exceed 55.0 seconds.

An overall intersection LOS "E" or better is typically considered acceptable at an unsignalized intersection indicating that the delay per vehicles will not exceed 50.0 seconds.

4.3 LOS Results

As appropriate, the SMTC optimized the signal timings (splits only) for the future No Build and Build scenarios. The SMTC optimized signals where appropriate to minimize northbound and southbound delay for Route 11 and South Bay Road. Summary Synchro reports are provided in Appendix F. Table 3 and Table 4 show the LOS results on the following pages.

Signalized Intersections

As shown in Table 3, both signalized intersections are expected to operate at an overall LOS D or better for all future build scenarios in both peak hours. Intersections are expected to experience an increase in overall average delay of only 1 to 7 seconds compared to the Future No-Build.

Only one movement (eastbound left/through/right at Route 11/Chestnut/Centerville) is expected to operate at a LOS E during the PM peak hour, and this movement currently operates at a LOS E. As mentioned, all other movements at signalized intersections are expected to operate at LOS D or better under future conditions.

Unsignalized Intersections

As shown in Table 4, most unsignalized movements are expected to operate at LOS C or better under all future build scenarios. However, under the PM conditions, a few movements may operate at LOS D and one may operate at LOS F. Delay is forecasted to decrease (i.e., improve) by up to 4 seconds for some movements while other movements experience an increase in delay of up to 6 seconds.

In addition to identifying future LOS conditions, the SMTC observed Simtraffic for each scenario to see if there were any queuing issues. As a result of the observed queuing on Church Street at Centerville Place, the SMTC included an exclusive left turn lane on the northbound approach at the Centerville/Trolley Barn/Church Street intersection. No other unusual queues or delays were observed.

Table 3 - Signalized Intersection LOS and Delay

AM PEAK

Intersection by Movement	Existing	Future Scenarios (Optimized*)					
		No Build	1	1A	2	2a	3
Route 11, Chestnut, Centerville Place	***C (21)***	***C (22)***	***C (26)***	***C(25)***	***C (25)***	***C (25)***	***C (24)***
EB Left/Through/Right	C (28)	C (32)	D (38)	D (37)	C (34)	C (34)	C (32)
WB Left	C (28)	C (33)	D (39)	D (39)	D (41)	D (41)	D (38)
WB Through/Right	B (15)	B (18)	B (19)	B (19)	B (18)	B (18)	B (19)
NB Left	A (8)	A (7)	A (9)	A (9)	A (9)	A (9)	A (9)
NB Through/Right	C (23)	C (22)	C (28)	C (24)	C (27)	C (27)	C (25)
SB Left	A (8)	A (8)	A (9)	A (8)	A (9)	A (9)	A (9)
SB Through/Right	B (18)	B (17)	B (19)	C (21)	C (21)	C (21)	B (19)
South Bay, Centerville Place, Church Street	***C (23)***	***C (22)***	***C (29)***	***C (25)***	***C (25)***	***C (23)***	***C (25)***
EB Left	C (31)	C (31)	D (38)	C (34)	C (34)	C (33)	C (34)
EB Through/Right	C (26)	C (27)	C (32)	C (30)	C (29)	C (28)	C (29)
WB Left	C (31)	C (32)	D (38)	C (34)	D (35)	C (33)	C (35)
WB Through	C (25)	C (26)	C (27)	C (27)	C (27)	C (27)	C (27)
WB Right	B (14)	B (15)	B (16)	B (16)	B (16)	B (16)	B (16)
NB Left	C (31)	C (31)	D (38)	C (34)	C (34)	C (32)	C (34)
NB Through/Right	C (21)	B (19)	C (25)	C (21)	C (22)	B (19)	C (22)
SB Left	C (30)	C (31)	D (37)	C (34)	C (34)	C (32)	C (34)
SB Through/Right	B (20)	B (18)	C (25)	C (20)	C (22)	B (19)	C (22)

PM PEAK

Intersection by Movement	Existing	Future Scenarios (Optimized**)					
		No build	1	1A	2	2a	3
Route 11, Chestnut, Centerville Place	***C (33)***	***C (34)***	***D (40)***	***D (40)***	***D (37)***	***D (37)***	***D (39)***
EB Left/Through/Right	E (67)	D (56)	E (78)	E (77)	E (60)	E (60)	E (60)
WB Left	C (27)	C (28)	C (30)	C (30)	C (31)	C (31)	C (26)
WB Through/Right	C (24)	C (26)	C (27)	C (27)	C (25)	C (25)	C (25)
NB Left	B (10)	B (11)	B (13)	B (15)	B (14)	B (14)	B (14)
NB Through/Right	D (36)	D (42)	D (50)	D (50)	D (48)	D (48)	D (53)
SB Left	B (11)	B (13)	C (23)	B (15)	C (23)	B (23)	C (27)
SB Through/Right	C (22)	C (24)	C (23)	C (24)	C (25)	C (25)	C (30)
South Bay, Centerville Place, Church Street	***C (35)***	***D (37)***	***D (38)***	***D (38)***	***D (39)***	***D (39)***	***D (39)***
EB Left	D (48)	D (52)	D (53)	D (53)	D (54)	D (54)	D (54)
EB Through/Right	C (27)	C (31)	D (39)	C (35)	C (31)	C (30)	C (31)
WB Left	D (47)	D (50)	D (52)	D (52)	D (51)	D (51)	D (51)
WB Through	D (43)	D (46)	D (47)	D (47)	D (48)	D (48)	D (48)
WB Right	C (21)	C (22)	C (23)	C (23)	C (22)	C (22)	C (22)
NB Left	D (47)	D (51)	D (51)	D (51)	D (52)	D (52)	D (52)
NB Through/Right	D (36)	D (37)	D (37)	D (37)	D (39)	D (39)	D (39)
SB Left	D (47)	D (51)	D (51)	D (51)	D (53)	D (53)	D (53)
SB Through/Right	C (25)	C (26)	C (27)	C (27)	C (31)	C (31)	C (31)

*Both intersections optimized.

**Only Route 11/Chestnut/Centerville optimized.

Table 4 - Unsignalized Intersection LOS and Delay

AM PEAK

Intersection by Movement	Existing	Future No build	Future Build Scenarios 1	1A	2	2a	3
Route 11 and Church							
WB Left/Right	C (17)	C (18)	C (18)	C (18)	B (15)	B (15)	-
SB Left	A (9)	A (9)	-	A (9)	-	-	-
South Bay and Church							
EB (Right)	-	-	B (12)	B (12)	-	B (11)	-
Centerville, Trolley Barn and (Church)							
EB Left/Through/(Right)	A (8)	A (8)	A (8)	A (8)	A (8)	A (8)	A (8)
WB (Left)/Through/Right	-	-	-	-	A (8)	A (8)	A (8)
SB Left/(Through)/Right	A (10)	A (10)	B (10)	B (10)	B (13)	B (13)	B (13)
NB (Left)/(Through)/(Right)	-	-	-	-	C (16)	C (16)	-
NB (Left)	-	-	-	-	-	-	C (21)
NB (Through)/(Right)	-	-	-	-	-	-	B(11)
South Bay and Trolley Barn							
EB Left/Right	B (14)	B (15)	C (15)	C (15)	C (16)	C (16)	C (16)
NB Left/Through	A (8)	A (8)	A (8)	A (8)	A (8)	A (8)	A (8)

PM PEAK

Intersection by Movement	Existing	Future No build	Future Build Scenarios 1	1A	2	2a	3
Route 11 and Church							
WB Left/Right	C (20)	C (22)	C (25)	C (24)	C (18)	C (18)	-
SB Left	A (9)	A (9)	-	A (10)	-	-	-
South Bay and Church							
EB (Right)	-	-	B(12)	B (12)	-	B (11)	-
Centerville, Trolley Barn and (Church)							
EB Left/Through/(Right)	A (8)	A (8)	A (8)	A (8)	A (8)	A (8)	A (8)
WB (Left)/Through/Right	-	-	-	-	A (8)	A (8)	A (8)
SB Left/(Through)/Right	B (13)	B (13)	B (14)	B (13)	C (19)	C (19)	C (19)
NB (Left)/(Through)/(Right)	-	-	-	-	D (29)	D (30)	-
NB (Left)	-	-	-	-	-	-	F (69)
NB (Through)/(Right)	-	-	-	-	-	-	B (12)
South Bay and Trolley Barn							
EB Left/Right	C (22)	C (24)	C(25)	C(25)	D (28)	D (28)	D (28)
NB Left/Through	A (9)	A (9)	A (9)	A (9)	A (9)	A (9)	A (9)

4.4 Findings

All scenarios are anticipated to achieve the desired project objectives. Table 5 rates each scenario based on planning factors ranging from "excellent," "good," "fair," and "poor." Table 5 serves as a general summary of each scenario's strengths for comparison purposes only. According to the table, Scenario 2 may strike the best balance between achieving village planning objectives, overall performance, and anticipated construction cost.

Table 5 – Summary Findings Comparing Future Build Scenarios

Planning Factors	Future Build Scenario			
	1 & 1A	2	2A	3
Overall Delay	Poor	Good	Excellent	Fair
Connectivity (Drivers)	Poor (1); Good (1A)	Good	Excellent	Fair
Pedestrian Connectivity	Poor	Good	Excellent	Fair
Construction Cost	Excellent	Good	Poor	Fair
Parking Space Preservation	Excellent	Fair	Poor	Good

To develop the summary table, the SMTC considered the following pros and cons for each future build scenario:

Scenario 1 and Scenario 1A

- May result in high overall delay at both signalized intersections. The eastbound left/through/right movement is expected to operate at LOS E (78) & (77) respectively, during the evening peak hour at Route11/Chestnut/Centerville.
- Although the scenarios allow for delivery truck movements, exiting movements are limited to right turns only from Route 11 (i.e., northbound only) and South Bay Road (i.e., southbound only). After making a delivery on Church Street, trucks wishing to head southbound on Route 11 or northbound on South Bay Road may decide to turn around using an adjacent neighborhood road network.
- Allowing the southbound left from Route 11 (i.e., Scenario 1A) improves driver connectivity over Scenario 1.
- Extending Church Street to South Bay Road does not improve pedestrian connections to the Village Center. This may discourage apartment and senior housing residents from walking the extra distance to the new businesses.
- The anticipated cost to extend the roadway is the lowest among all the alternatives as the extension requires the least amount of new pavement.
- The Community Center parking lot will lose the fewest number of spaces.

Scenario 2

- Scenarios 2 and 2A provide low overall delay, but Scenario 2 has a slightly longer overall delay during the morning peak hour at South Bay/Centerville Place/Church Street intersection.
- Provides unrestricted delivery truck (and car) egress at Centerville/Trolley Barn/Church Street. Trucks and cars may travel to Route 11 or South Bay Road and turn any direction.
- Provides enhanced pedestrian and vehicle connection into the Village Center. This design could encourage

local apartment and senior housing residents to walk to Church Street establishments and thus reduce vehicular traffic and parking demand.
- It is anticipated that this alternative will have the third highest cost to construct based on the amount of roadway pavement needed and reconfiguring the Community Center parking lot.
- Scenario 2 and Scenario 3 may reduce the number of parking spaces in the Community Center by a similar amount. However, because Church Street is a two-way road under this alternative, there may be fewer parking spaces.

Scenario 2A

- Scenario 2A is anticipated to provide lower overall delay at both signalized intersections.
- Provides unrestricted delivery truck (and car) egress at Centerville/Trolley Barn/Church Street. From there, trucks and cars can travel to Route 11 or South Bay Road and turn any direction.
- Provides an additional connection to South Bay Road via a one-way lane (right-out only heading southbound).
- Provides enhanced pedestrian and vehicle connection into the Village Center. This design could encourage local apartment and senior housing residents to walk to Church Street establishments and thus reduce vehicular traffic and parking demand.
- It is anticipated that this alternative will have the highest cost to construct based on the amount of roadway pavement needed and because of reconfiguring the Community Center parking lot.
- The Community Center parking lot will lose the greatest number of spaces.

Scenario 3

- Although scenarios 2 and 2A have the lowest overall delay, drivers would generally experience less overall delay in Scenario 3 than Scenario 1.
- The Centerville/Trolley Barn/Church Street northbound left is expected to operate at LOS F during PM peak hour.
- Provides enhanced pedestrian and vehicle connection into the Village Center. The design may encourage local apartment and senior housing residents to walk to Church Street establishments and reduce traffic and parking demand.
- One-way access from Route 11 would allow Church Street to be narrowed for traffic calming, additional parking, and green infrastructure.
- This alternative may have the second highest cost to construct based on the amount of roadway pavement needed and because of reconfiguring the Community Center parking lot. Since Church Street is a one-way street, the road could be reconfigured (to allow for traffic calming), to allow on street parking alternating on each side.
- Scenarios 2 and 3 will reduce the number of parking spaces in the Community Center by a similar amount, but on street parking could increase.

4.5 Conclusion

As indicated in recent planning efforts conducted by the Village of North Syracuse, the village is interested to provide the 100 block of Church Street with a second point of access to encourage economic growth and localized redevelopment. In 2014, the Village requested that the SMTC assess impacts to surrounding intersections that could result from extending Church Street to South Bay Road or to Centerville Place (at Trolley Barn Lane). The SMTC agreed to conduct the technical assessment, which included an estimate of background traffic growth plus new trips generated from envisioned redevelopment.

The traffic assessment found that intersections are anticipated to operate within acceptable limits and that all scenarios are "technically feasible." Since the alternatives operate within acceptable limits, the agencies and the SMTC advanced the study into Phase II to solicit public input and determine preferences.

On November 16, 2015, the SMTC conducted a public meeting to share the assessment's findings and review the pros and cons of each scenario. During the public meeting, local business owners and residents expressed concerns about eliminating the southbound left turn from Route 11 on to Church Street. Maintaining the southbound left turn received overwhelming support by local business owners and residents who attended the meeting. The other turning restrictions were generally more accepted by meeting attendees.

After hearing the public's concerns about maintaining the southbound left from Route 11 on to Church Street at the public meeting, the state expressed a willingness to consider maintaining the left turn.

Village representatives indicated that they would prefer to implement Scenario 1A, which connects Church Street to South Bay Road if the state would allow the southbound left from Route 11, since it would likely to be the most cost effective alternative and the one that displaces the fewest amount of parking spaces in the Community Center lot. The village owns the Community Center property that connects to South Bay Road and could facilitate this connection. Should the village pursue this option, some considerations during the design phase should include:

- Providing a pedestrian connection from Church Street to Trolley Barn Lane to shorten the walking distance into the village center.
- The potential for cut-through traffic if a connection were made between the Community Center parking lot and Church Street.
- Allowing for a limited number of parking spaces off of Church Street to supplement the existing Community Center lot.

- Improving pedestrian access across South Bay Road as well as to Centerville Place.

The Village of North Syracuse owns and maintains Church Street and is responsible for any improvements to the roadway. The SMTC does not own or control any infrastructure, so implementation of any alternative is at the discretion of the village as the local road owner. Should the village seek to implement an extension alternative, the village must also obtain necessary permits from the NYSDOT and the OCDOT as these agencies exercise jurisdictional authority at intersections where local roads connect to their roadways.

Church Street Access Study

Syracuse Metropolitan Transportation Council

Appendices

Appendix A – Public Involvement Plan (PIP)

Appendix B – Public Meeting Summary

Appendix C – Turning Movement Counts, June 4, 2014

Appendix D – Intersection Diagrams, June 4, 2014

Appendix E – Future Build Trip Distribution Estimates

Appendix F – Synchro Summary Tables

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Appendix A

Public Involvement Plan

Village of North Syracuse
Church Street Access Study

Public Involvement Plan

September 2014

Financial assistance for the preparation of this document was provided, in part, by the U.S. Department of Transportation's Federal Highway and Federal Transit Administrations and the New York State Department of Transportation. The Syracuse Metropolitan Transportation Council (SMTC) is solely responsible for its content.

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I. Introduction

Engaging the public early and often in the planning process is critical to the success of any transportation plan or program. When people are involved in a decision-making process and can see how their input has influenced that process, they are more likely to adopt its outcomes. As the Federal Highway Administration/Federal Transit Administration guidebook *Public Involvement Techniques for Transportation Decision-Making* states: "Through continued interaction with the entire community, agencies build community support and, more importantly, assure that the public has the opportunity to help shape the substance of plans and projects."

The importance of public involvement is underscored by the fact that it is required by numerous state and federal laws. Metropolitan Planning Organizations (MPO) such as the Syracuse Metropolitan Transportation Council (SMTC) must provide citizens, affected public agencies, businesses, local government, and other interested parties with a reasonable opportunity to comment on transportation plans and programs.

The Village of North Syracuse hopes that providing a second point of access from Church Street will enhance economic development opportunities and promote the adaptive reuse of existing buildings. The purpose of the **Church Street Access Study (Study)** is to study the feasibility of extending Church Street to South Bay Road or Centerville Place.

The **Study** is divided into two Phases. Phase I is a technical assessment and will be used to determine if access alternatives are feasible. Public meetings will not be conducted during this phase as it is a technical assessment.

If, at the conclusion of technical assessment, the Village of North Syracuse (Village), the Onondaga County Department of Transportation (OCDOT), and the New York State Department of Transportation (NYSDOT) indicate a willingness to consider an alternative(s) deemed feasible, the SMTC will conduct Phase II. The purpose of Phase II is to solicit public input on feasible alternatives prior to the development of final recommendations.

The SMTC will engage in a public outreach process as part Phase II to cast a wide net and get as much input and feedback as possible. This Public Involvement Plan (PIP) is intended to supplement the Scope of Work approved for this project that was approved in June 2014.

However, if at the conclusion of Phase I, the Village, OCDOT, and NYSDOT do not agree to consider implementing any alternative following the technical assessment, the SMTC will document the assessment in a technical memorandum and will conclude the study.

II. Goals

The intent of the Public Involvement Plan (PIP) for the **Church Street Access Study** is to engage the public during Phase II (if it is conducted) by:

(1) Creating public awareness of the study's goals, objectives, and process, as well as to publicize the public participation opportunities and activities for alternatives road owners are willing to consider; and

(2) Soliciting public input into the decision making process.

III. Study Advisory Committee

A Study Advisory Committee (SAC) will be established to provide technical and procedural guidance throughout the study. At a minimum, the following agencies will be invited to serve on the SAC:

- The Village of North Syracuse
- New York State Department of Transportation (NYSDOT)
- Onondaga County Department of Transportation (OCDOT)
- Syracuse-Onondaga County Planning Agency (SOCPA)
- Central New York Regional Planning and Development Board (CNYRPDB)

The SAC will meet as needed with the SMTC to assist in managing the project. The SAC's role will be to advise the SMTC on the technical content of deliverables and to provide needed input and guidance throughout the project.

SMTC anticipates holding a minimum of three SAC meetings over the course of this study, as shown below.

SAC meeting no.	Anticipated purpose
1	Kickoff: confirm study purpose, goals, objectives, schedule, PIP, future land use scenario, future traffic analysis year, future growth rate.
2	Review findings from Synchro assessment for up to four alternatives. Determine if road owners will consider alternatives feasible for consideration to move into Phase II. Outline public meeting needs.
3	Review feedback from public meeting and review and comment on draft report recommendations.

Securing a SAC meeting location, announcing SAC meetings through mail/e-mail, conducting SAC meetings (including preparation of agenda, materials, presentations,

etc.), and preparing the minutes from each meeting will be the responsibility of the SMTC.

IV. Public meetings

The SMTC anticipates holding one public meeting for this study. Provisions for a second meeting will be made only if public interest indicates additional community dialog is necessary. The exact format for these meetings will be determined in cooperation with the SAC as the study progresses, but may include traditional presentation and question-and-answer style meetings, workshops or open houses, or a "drop-in" informational session.

At the public meeting, the SMTC will introduce the study to the neighborhood, describe the data collected for the study, and review feasible alternatives (based on the Phase I assessment). The meeting will also provide the public with an opportunity to specify additional issues and opportunities. The SMTC will also present the initial list of recommendations for the corridor and gather public feedback.

The SMTC will be responsible for issuing press releases, creating meeting materials, mailing meeting fliers, running the meetings, and preparing a summary of each meeting. The Village of North Syracuse will assist the SMTC in securing a meeting location. SMTC will work with the SAC to develop a strategy for notifying the public. This is likely to include press releases, distribution of meeting fliers at key locations within the study area (such as libraries, schools, community centers, and/or businesses), and coordination with existing community groups. SMTC will also ask SAC members and stakeholders to assist with the outreach prior to each meeting.

All meetings related to this study will be held in a facility that is accessible to individuals with disabilities in compliance with the Americans with Disabilities Act. The SMTC will make every effort practicable to respond to those who need an American Sign Language interpreter, assistive learning system, or any other accommodations to facilitate the public's participation in the transportation planning process.

V. Additional public outreach

Stakeholders list
Stakeholders are those individuals that have a significant personal or professional interest in the study. At the second SAC meeting, SMTC will work with the SAC to compile an initial list of stakeholders based on staff and SAC members' existing knowledge of the community. Additional stakeholders will be added continuously throughout Phase II at the request of the SAC or any community member. The stakeholders will be sent pertinent study information, kept apprised of significant study

developments, notified of all public meetings, and encouraged to provide feedback and comment regarding the **Church Street Access Study**.

Coordination with community groups
SMTC staff will reach out to existing community groups in the study area and seek their assistance in notifying their members about the study in general and specifically about the public meetings. If requested, SMTC staff will attend existing community meetings to provide a brief overview of the project. Detailed discussion of the analysis and recommendations would be provided at study-specific public meetings. A relevant community group for this study may include: the local chamber of commerce. SMTC will work with the SAC to refine or update this list as necessary throughout the study.

Distribution of study materials
If deemed necessary (at the discretion of the SAC and/or other appropriate SMTC committees), the SMTC may distribute study-specific information at sites throughout the study area (e.g. schools, community centers, libraries, etc.). This information may include one or more of the following: introductory flier, meeting notice, comment card, and a pre-addressed survey on a particular study issue. It is also the SMTC's intent to work with and encourage other agencies to include this information in their publications or to assist in material distribution.

Approved documents, such as the study's Final Report, may be made available at libraries in the vicinity of the study area. News releases will be produced to announce the availability of such items, as well as invite written comments to be submitted to the SMTC.

Public comment
All interested individuals (especially those who are not able to attend the public meetings or participate in direct contact with the SMTC staff) are encouraged to submit comments to the SMTC. This message will be publicized and made clear verbally and on study material and publications. The public is also welcome to attend any of the publicized SMTC Executive, Planning and Policy Committee meetings, at which the **Church Street Access Study** project may be on the agenda as a discussion item.

VI. Press releases and media coverage

The SMTC will issue press releases announcing the details of the public meeting to all major and minor newspapers, television stations, and radio in advance. If necessary, the SMTC will also send additional news releases, or take the initiative to promote media coverage on pertinent developments pertaining to the **Church Street Access Study**.

All media inquiries should be directed to the SMTC director or project manager. However, this is not always possible. If you (e.g. SMTC committee members, SAC

members, and/or interested stakeholders associated with the study) are interviewed by the media, please limit your comments to your respective agency's opinion or involvement in the study. Speaking to the media on specific issues and questions regarding the **Church Street Access Study**, including its progress and development, is the exclusive responsibility of the SMTC.

VII. SMTC publications

The SMTC publishes a newsletter, *DIRECTIONS*, that offers news about its activities and particular studies. This newsletter is distributed to over 5,000 individuals, some of whom include the media; local, state, and federal agencies associated with the SMTC; municipal and elected officials; community agencies and representatives; and a large number of interested citizens. It is anticipated that articles on the **Church Street Access Study** (e.g. study development issues or the announcement or coverage of a public meeting) will be published in future issues of *DIRECTIONS*. Should the need arise for the production of a separate newsletter/flier/report to convey a timely study development, the SMTC staff is prepared to perform this additional task. It is also important to note that the mailing list of the SMTC newsletter, *DIRECTIONS*, will be updated to include all members of the SAC, stakeholders, and others interested or involved in the **Church Street Access Study**.

The SMTC web site (www.smtcmpo.org) will also serve as a resource for general information about the SMTC, the **Church Street Access Study**, and any final reports.

VIII. Conclusion

It is important for the SMTC to understand public attitudes and values throughout the **Church Street Access Study**. Through the activities described in this public involvement plan, the SMTC will solicit public input and provide opportunities for the public to develop greater awareness of, and active involvement, in the project. This study aims to identify opportunities for the Village of North Syracuse to connect Church Street to either South Bay Road or Centerville Place, and the involvement of those living and working in and near this corridor is crucial to the success of this study.

Appendix B

Public Meeting Minutes

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Church Street Access Study
Public Meeting
Northern Onondaga County Library (NOPL) at North Syracuse
Monday, November 16, 2015
5:30 p.m. to 7:00 p.m.

Attendees:

STMC Staff	Committee Members	Village Staff	General Public
James D'Agostino	Amy Franco - CHA Companies	Diane Browning	Nine residents and business owners attended the meeting.
Mike Alexander	Honorable Gary Butterfield, Mayor	Pat Gustafson	
Meghan Vitale	John Reichert - NYSDOT	John Metilek	
Andrew Frasier	Elizabeth Parmley - NYSDOT	Paul Linnertz	
Kevin Kosakowski	Dave Cooper - OCDOT	Dianne Kufel	
	Jeanie Gleisner - CNYRPDB	Fred Fergerson	

Welcome:

Mr. Alexander welcomed everyone to the meeting. Meeting began at approximately 5:30 p.m. Attendees included SMTC staff, members of the Study Advisory Committee, Village staff/elected officials, and several members of the public.

Mr. Alexander went over the agenda for the night, explaining that the meeting consists of a formal presentation followed by a question and answer session.

Presentation:

Mr. Alexander broke the presentation down into two parts. The first part gave an introduction into who the SMTC is and what the SMTC does. The second part of the presentation focused on the Church Street study findings. Mr. Alexander noted that the Church Street study is not a proposal for implementation. The study's only purpose is to conduct a technical feasibility assessment of various access alternatives.

Questions & Answer/ Open Discussion Session:

- There was a comment made about Scenario 1 not providing an opportunity to directly connect Church Street to the Village Center with a sidewalk, when in fact sidewalks exist throughout the village center. Mr. Alexander acknowledged the existing sidewalks, but explained that Scenario 1 will not provide additional pedestrian access and connectivity, via sidewalks on Trolley Barn Lane (the other scenarios provide this opportunity). As such, no new sidewalks would be developed in front of the Masonic Temple and Justice Hall connecting a pedestrian to Centerville Place.

- There was a question as to whether staff looked at the effect on traffic in the area since the traffic signals were taken down years ago. Mr. Alexander addressed the anticipated 6% growth in traffic in the next 20 years and the audience member wanted to know whether or not there had been a 6% increase in traffic since the traffic signals were removed approximately 20 years ago. Mr. Alexander said the forecasted growth was based on the SMTC's travel demand model and that the estimate was supported by the NYS and Onondaga County departments of transportation. Moreover, he mentioned that it would be difficult to find traffic data from 20 to 25 years ago.

- Another question was received – Does the State or County object to extending Church Street back to how it was 25 years ago, which would include adding traffic signals back at the two intersections of Route 11/Church Street and South Bay Road/Church Street? The NYSDOT representatives and Mr. Alexander spoke to this question by saying that they would be too close to the other traffic signals at Route 11/Centerville Place and South Bay Road/Centerville Place. Mr. Reichert noted that a signal warrant study would have to be conducted regarding re-installing the traffic signal. According to Ms. Parmley, adding additional traffic signals would most likely increase delay (i.e., make things worse) over what was already analyzed, because traffic would stop at two lights instead of one. Also, if adding a light at South Bay Road/Church Street, the traffic would run into a lengthy turning bay on South Bay Road which would not be ideal. In synopsis that audience member felt the solution was to put a traffic signal back at Route 11/Church Street, but this was not supported by the road owners.

- There was a question and a very lengthy discussion as to why right in and right out only is the only option on the table for Route 11 at Church Street. Most meeting participants spoke in favor of maintaining the southbound left from Route 11 to Church Street.

- An audience member asked - what is the goal of extending Church Street? Mr. Alexander explained that it was to promote the redevelopment of Church Street. There was a concern from this audience member about the removal of all the left turns in and out of Church

Street. He supported restricting the westbound left from Church Street, but favored keeping the southbound left from Route 11. Mr. Alexander referenced three previous planning reports completed by the Village of North Syracuse – all of which promote reducing left turns onto Route 11 and enhancing access management strategies. The audience member went on to say that he does not understand how the removal of southbound left from Route 11 to Church Street is a good thing. Mr. Alexander agreed – he said that this movement is actually operating decently, but that previous planning efforts undertaken by the village wanted an assessment of how the intersection would operate without the southbound left. Mr. Alexander also reminded the meeting participants that this study is simply a technical analysis and that nothing is currently being proposed for implementation. Mr. Reichert reminded the audience member that the demand on Church Street will increase due to new development and that extra traffic causes additional traffic impacts. The audience member agreed that the westbound left would fail, but still thinks the southbound left is feasible. He also mentioned that it will be difficult for a business owner on Church Street, (such as him), to explain to customers how to get to his business. They already have issues explaining to customers that they are on the incorrect part of Church Street. In synopsis this audience member felt restricting southbound lefts would not be a good thing.

Mr. Alexander asked this business owner how he would feel if the main entrance to Church Street was via Trolley Barn Lane. He explained that his business has been there since 1937 and said he views the main entrance to Church Street as from Route 11.

The mayor, who indicated that he was speaking as a Church Street business owner, said he would not favor eliminating the southbound left turn from Route 11.

- Regarding tractor trailers utilizing Church Street: There was the comment made that 50 foot tractor trailers currently, and will continue, to have a tough time turning right out of Church Street onto Route 11 due to the tight turning radius. Putting an extension onto Centerville Place would be the same issue. Currently, tractor trailers typically turn around in the church parking lot.

- Regarding the parking lots/parking in general: There was a question as to whether or not anyone has studied the parking lots. The audience member said the lots were always used to capacity and that reducing parking to accommodate a roadway would be a major adverse impact. Mr. Alexander said that the study committee is aware of the capacity issues at the parking lot and that is why impacts to parking were addressed in the pros and cons for each alternative.

- A question was asked whether or not the intention is to signalize the intersection at Trolley Barn Lane. Mr. Alexander responded that it was intended to be stop sign controlled.

- There was a comment from an audience member that said he likes the pork chop curbing that restricts the left-in/left-out, but he feels southbound left from Route 11 to Church Street should be kept.

- A comment was made that if the goal is to expand economic development on Church Street he wonders how many businesses would open on Church Street seeing as though visitors will not be able to take left turns out of Church Street. Mr. D'Agostino noted that there are examples in other areas of left turn restrictions onto Main Streets. One of those examples is the Village of Liverpool. Many businesses are also intended to cater to local residents who could chose to walk to these establishments.

- An audience member noted that the Church Street road bed once leading to South Bay Road is still there. The property is still owned by the municipality. Mr. Alexander said that this may in fact be the case, but without detailed design drawings knowing where the extension of Church Street would end up staff can not say if all the land needed would be all municipally owned. The left turn restriction would cause a slight bend in the road and it is possible (although unlikely) that private land may need to be utilized.

- When asked which option would be the cheapest to implement, Mr. Alexander responded by saying that from a planning perspective it would be scenario 1. He noted that the study offers a planning-level perspective of costs comparing each alternative.

- Someone asked why the northbound left from South Bay Road onto Church Street was prohibited. Mr. Alexander said that the left turn bay on South Bay Road currently extends beyond where the intersection is proposed which potentially could impact traffic safety.

- There was a comment that staff should look at the results of having closed down Church Street for all these years.

- There currently is a challenge on Church Street regarding access for fire, snowplow and emergency vehicles said an audience member.

- The village Mayor asked if the County was okay with right turn out, right turn in only at South Bay Road. The County representative nodded in agreement and said that the County favors a right in and right out only access alternative at South Bay Road.

- An audience member feels that traveling westbound on Centerville Place and taking a left onto Route 11 from Centerville Place can be tricky due to a grade issue with the roadway

intersection. He says that there are a lot of “near misses” at this intersection. Increasing the flow of traffic to that that left turn may make things worse. The Mayor noted that he believes the lights have been staggered to let the Centerville Place Traffic go first. It should be noted that there is a lot of pedestrian traffic at this intersection as well.

Mr. D’Agostino informed everyone that there has been no cost to the village for this study (funds came from the SMTC). If in the future, the village choses to implement a studied scenario, the village is responsible for any and all design, engineering, and construction costs.

Mr. Alexander also suggested that consideration may need to be given to renaming Church Street (depending on which alternative – if any – is advanced). One of the audience members noted that maybe the best solution would be to name the two sections of Church Street would be to name them East Church Street and West Church Street.

Mr. D’Agostino said to contact Mr. Alexander if there are any additional comments following the meeting.

Mr. Alexander thanked everyone for coming and for their participation.

Meeting adjourned at approximately 6:45 p.m.

Appendix C

Turning Movement Counts

Syracuse Metropolitan Transportation Council

126 N. Salina Street
Syracuse, NY, 13202
www.smtcmpo.org

Village of North Syracuse
Rt. 11 and Centerville Place
KK
Church Street Realignment

File Name : Rt. 11_Centerville_Chestnut_06_04_14_with 7-30 in replaced
Site Code : 06041407
Start Date : 6/4/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Chestnut Street Eastbound					Centerville Place Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	17	17	16	6	56	13	8	4	0	25	2	44	4	0	50	5	79	5	0	89	220
07:15 AM	19	24	19	5	67	10	12	2	0	24	4	55	13	2	74	9	62	2	1	74	239
07:30 AM	23	25	15	8	71	12	15	10	3	40	5	52	12	3	72	7	82	8	1	98	281
07:45 AM	19	31	15	4	69	17	12	13	5	47	5	38	6	3	52	11	79	6	0	96	264
Total	78	97	65	23	263	52	47	29	8	136	16	189	35	8	248	32	302	21	2	357	1004
08:00 AM	21	34	18	2	75	15	18	10	2	45	4	62	8	1	75	7	93	6	0	106	301
08:15 AM	16	27	22	8	73	18	16	16	7	57	8	84	2	1	95	9	83	5	0	97	322
08:30 AM	12	17	19	1	49	36	14	9	0	59	9	66	16	2	93	12	111	9	1	133	334
08:45 AM	19	14	11	2	46	28	9	5	1	43	14	91	28	2	135	12	73	9	1	95	319
Total	68	92	70	13	243	97	57	40	10	204	35	303	54	6	398	40	360	29	2	431	1276
*** BREAK ***																					
04:00 PM	26	22	5	2	55	19	36	21	1	77	15	145	20	1	181	15	126	26	3	170	483
04:15 PM	29	22	8	2	61	17	39	18	0	74	11	139	18	1	169	17	82	19	2	120	424
04:30 PM	24	23	7	1	55	17	31	21	4	73	12	129	20	0	161	13	117	12	2	144	433
04:45 PM	17	26	6	0	49	30	40	23	3	96	17	128	12	1	158	15	103	11	0	129	432
Total	96	93	26	5	220	83	146	83	8	320	55	541	70	3	669	60	428	68	7	563	1772
05:00 PM	19	23	13	0	55	27	42	33	0	102	16	114	22	1	153	12	107	15	0	134	444
05:15 PM	26	20	8	0	54	19	55	23	2	99	11	121	16	1	149	18	122	23	0	163	465
05:30 PM	24	30	15	3	72	21	33	22	1	77	10	109	20	2	141	10	113	21	2	146	436
05:45 PM	15	21	14	4	54	26	37	20	3	86	12	114	7	0	133	19	131	14	0	164	437
Total	84	94	50	7	235	93	167	98	6	364	49	458	65	4	576	59	473	73	2	607	1782
Grand Total	326	376	211	48	961	325	417	250	32	1024	155	1491	224	21	1891	191	1563	191	13	1958	5834
Apprch %	33.9	39.1	22	5		31.7	40.7	24.4	3.1		8.2	78.8	11.8	1.1		9.8	79.8	9.8	0.7		
Total %	5.6	6.4	3.6	0.8	16.5	5.6	7.1	4.3	0.5	17.6	2.7	25.6	3.8	0.4	32.4	3.3	26.8	3.3	0.2	33.6	
Cars	322	369	198	47	936	317	402	242	32	993	151	1457	210	21	1839	187	1527	189	13	1916	5684
% Cars	98.8	98.1	93.8	97.9	97.4	97.5	96.4	96.8	100	97	97.4	97.7	93.8	100	97.3	97.9	97.7	99	100	97.9	97.4
Heavy Vehicles	4	7	13	1	25	8	15	8	0	31	4	34	14	0	52	4	36	2	0	42	150
% Heavy Vehicles	1.2	1.9	6.2	2.1	2.6	2.5	3.6	3.2	0	3	2.6	2.3	6.2	0	2.7	2.1	2.3	1	0	2.1	2.6

Syracuse Metropolitan Transportation Council

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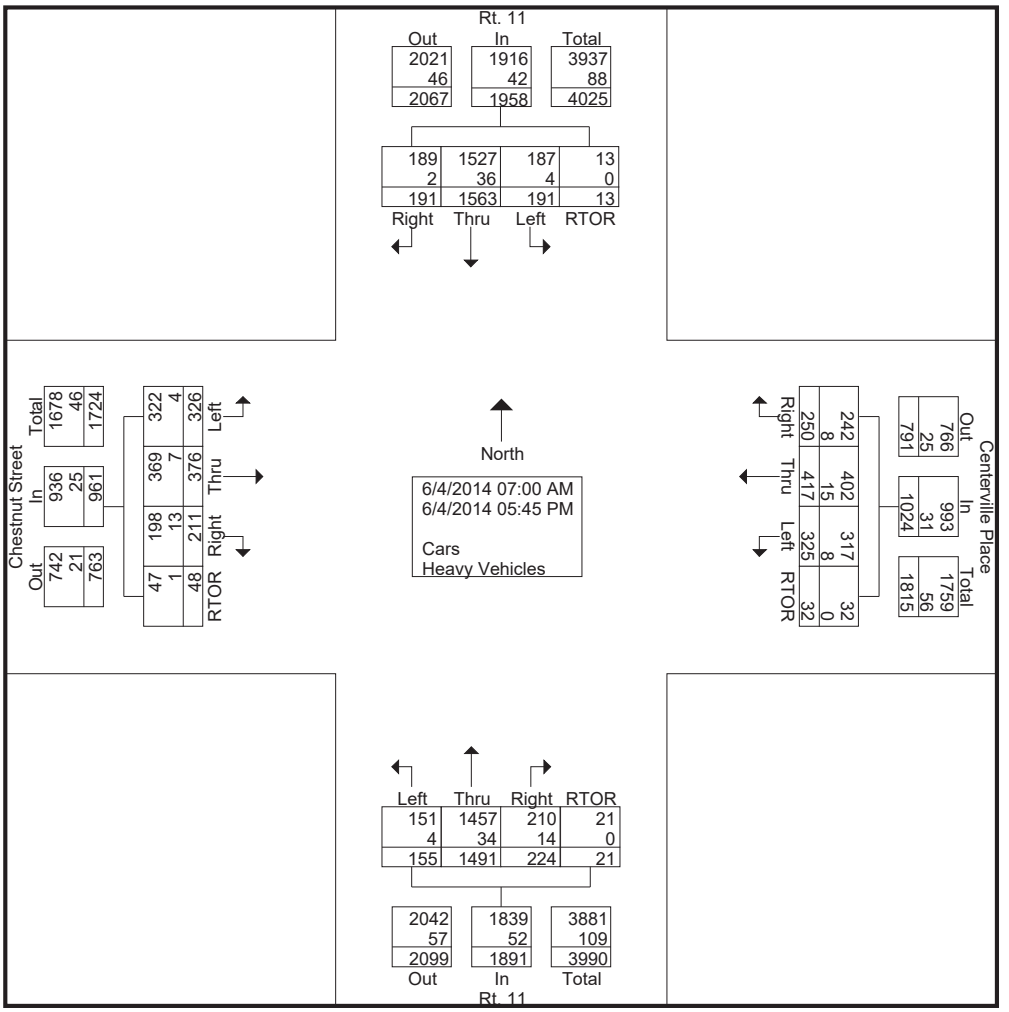
Rt. 11 and Centerville Place
KK
Church Street Realignment

File Name : Rt. 11_Centerville_Chestnut_06_04_14_with 7-30 in replaced
Site Code : 06041407
Start Date : 6/4/2014
Page No : 2



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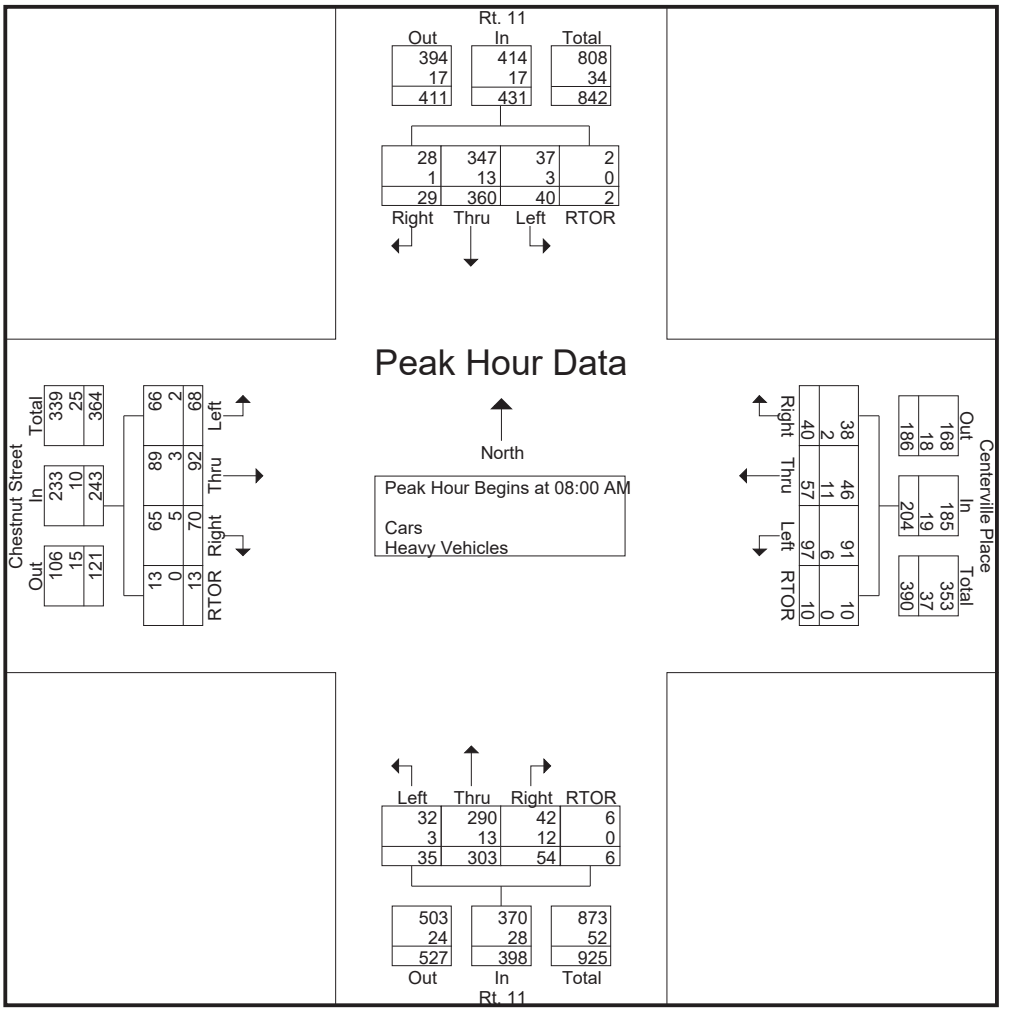
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**21**	**34**	18	2	**75**	15	**18**	10	2	45	4	62	8	1	75	7	93	6	0	106	301
08:15 AM	16	27	**22**	**8**	73	18	16	**16**	**7**	57	8	84	2	1	95	9	83	5	0	97	322
08:30 AM	12	17	19	1	49	**36**	14	9	0	**59**	9	66	16	**2**	93	**12**	**111**	**9**	**1**	**133**	**334**
08:45 AM	19	14	11	2	46	28	9	5	1	43	**14**	**91**	**28**	2	**135**	12	73	9	1	95	319
Total Volume	68	92	70	13	243	97	57	40	10	204	35	303	54	6	398	40	360	29	2	431	1276
% App. Total	28	37.9	28.8	5.3		47.5	27.9	19.6	4.9		8.8	76.1	13.6	1.5		9.3	83.5	6.7	0.5		
PHF	.810	.676	.795	.406	.810	.674	.792	.625	.357	.864	.625	.832	.482	.750	.737	.833	.811	.806	.500	.810	.955
Cars	66	89	65	13	233	91	46	38	10	185	32	290	42	6	370	37	347	28	2	414	1202
% Cars	97.1	96.7	92.9	100	95.9	93.8	80.7	95.0	100	90.7	91.4	95.7	77.8	100	93.0	92.5	96.4	96.6	100	96.1	94.2
Heavy Vehicles																					
% Heavy Vehicles	2.9	3.3	7.1	0	4.1	6.2	19.3	5.0	0	9.3	8.6	4.3	22.2	0	7.0	7.5	3.6	3.4	0	3.9	5.8



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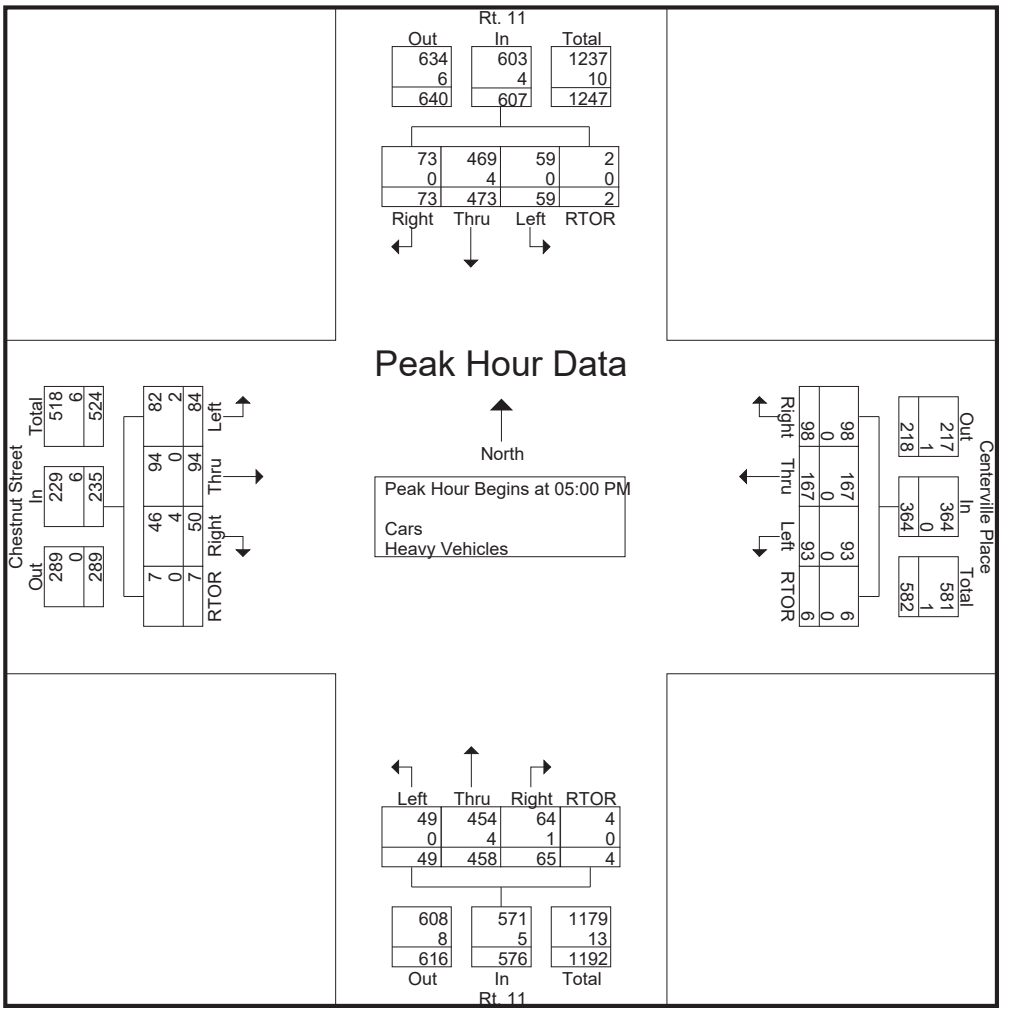
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	19	23	13	0	55	**27**	42	**33**	0	**102**	**16**	114	**22**	1	**153**	12	107	15	0	134	444
05:15 PM	**26**	20	8	0	54	19	**55**	23	2	99	11	**121**	16	1	149	18	122	**23**	0	163	**465**
05:30 PM	24	**30**	**15**	3	**72**	21	33	22	1	77	10	109	20	**2**	141	10	113	21	**2**	146	436
05:45 PM	15	21	14	**4**	54	26	37	20	**3**	86	12	114	7	0	133	**19**	**131**	14	0	**164**	437
Total Volume	84	94	50	7	235	93	167	98	6	364	49	458	65	4	576	59	473	73	2	607	1782
% App. Total	35.7	40	21.3	3		25.5	45.9	26.9	1.6		8.5	79.5	11.3	0.7		9.7	77.9	12	0.3		
PHF	.808	.783	.833	.438	.816	.861	.759	.742	.500	.892	.766	.946	.739	.500	.941	.776	.903	.793	.250	.925	.958
Cars	82	94	46	7	229	93	167	98	6	364	49	454	64	4	571	59	469	73	2	603	1767
% Cars	97.6	100	92.0	100	97.4	100	100	100	100	100	100	99.1	98.5	100	99.1	100	99.2	100	100	99.3	99.2
Heavy Vehicles																					
% Heavy Vehicles	2.4	0	8.0	0	2.6	0	0	0	0	0	0	0.9	1.5	0	0.9	0	0.8	0	0	0.7	0.8



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07:00 AM	0	0	1	0	1	0	0	1	0	1	0	2	0	0	2	0	5	1	0	6	10
07:15 AM	0	0	1	0	1	2	0	0	0	2	1	7	0	0	8	0	3	0	0	3	14
07:30 AM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	3
07:45 AM	0	2	2	1	5	0	3	2	0	5	0	2	0	0	2	0	2	0	0	2	14
Total	0	2	4	1	7	2	4	4	0	10	1	11	0	0	12	0	11	1	0	12	41
08:00 AM	0	0	1	0	1	1	2	0	0	3	0	2	0	0	2	0	6	0	0	6	12
08:15 AM	0	1	3	0	4	1	4	1	0	6	1	5	0	0	6	1	5	1	0	7	23
08:30 AM	0	2	1	0	3	3	3	1	0	7	1	3	4	0	8	0	2	0	0	2	20
08:45 AM	2	0	0	0	2	1	2	0	0	3	1	3	8	0	12	2	0	0	0	2	19
Total	2	3	5	0	10	6	11	2	0	19	3	13	12	0	28	3	13	1	0	17	74
*** BREAK ***																					
04:00 PM	0	1	0	0	1	0	0	2	0	2	0	1	0	0	1	0	2	0	0	2	6
04:15 PM	0	1	0	0	1	0	0	0	0	0	0	3	1	0	4	1	1	0	0	2	7
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	5	0	0	5	6
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	2	0	0	2	0	0	2	0	2	0	6	1	0	7	1	8	0	0	9	20
05:00 PM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
05:15 PM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
05:30 PM	0	0	2	0	2	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	5
05:45 PM	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	5
Total	2	0	4	0	6	0	0	0	0	0	0	4	1	0	5	0	4	0	0	4	15
Grand Total	4	7	13	1	25	8	15	8	0	31	4	34	14	0	52	4	36	2	0	42	150
Apprch %	16	28	52	4		25.8	48.4	25.8	0		7.7	65.4	26.9	0		9.5	85.7	4.8	0		
Total %	2.7	4.7	8.7	0.7	16.7	5.3	10	5.3	0	20.7	2.7	22.7	9.3	0	34.7	2.7	24	1.3	0	28	

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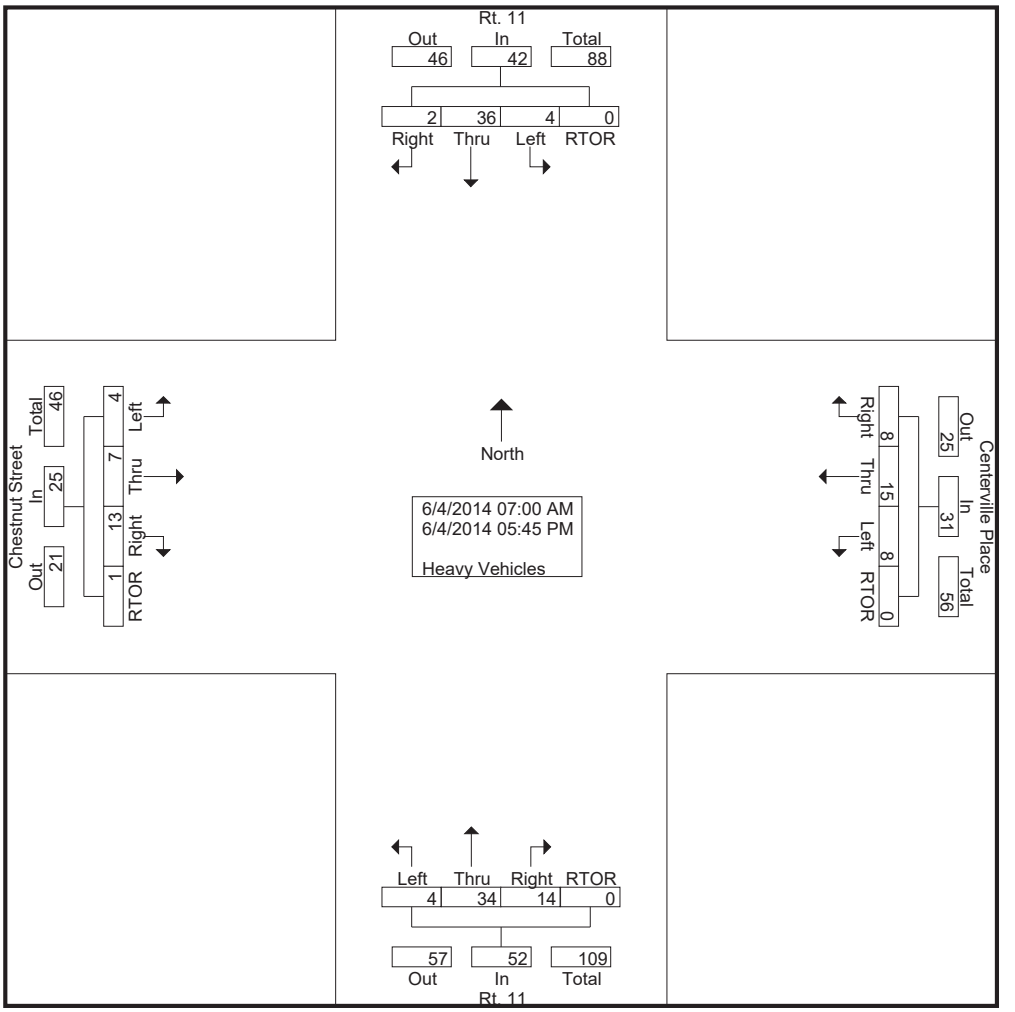

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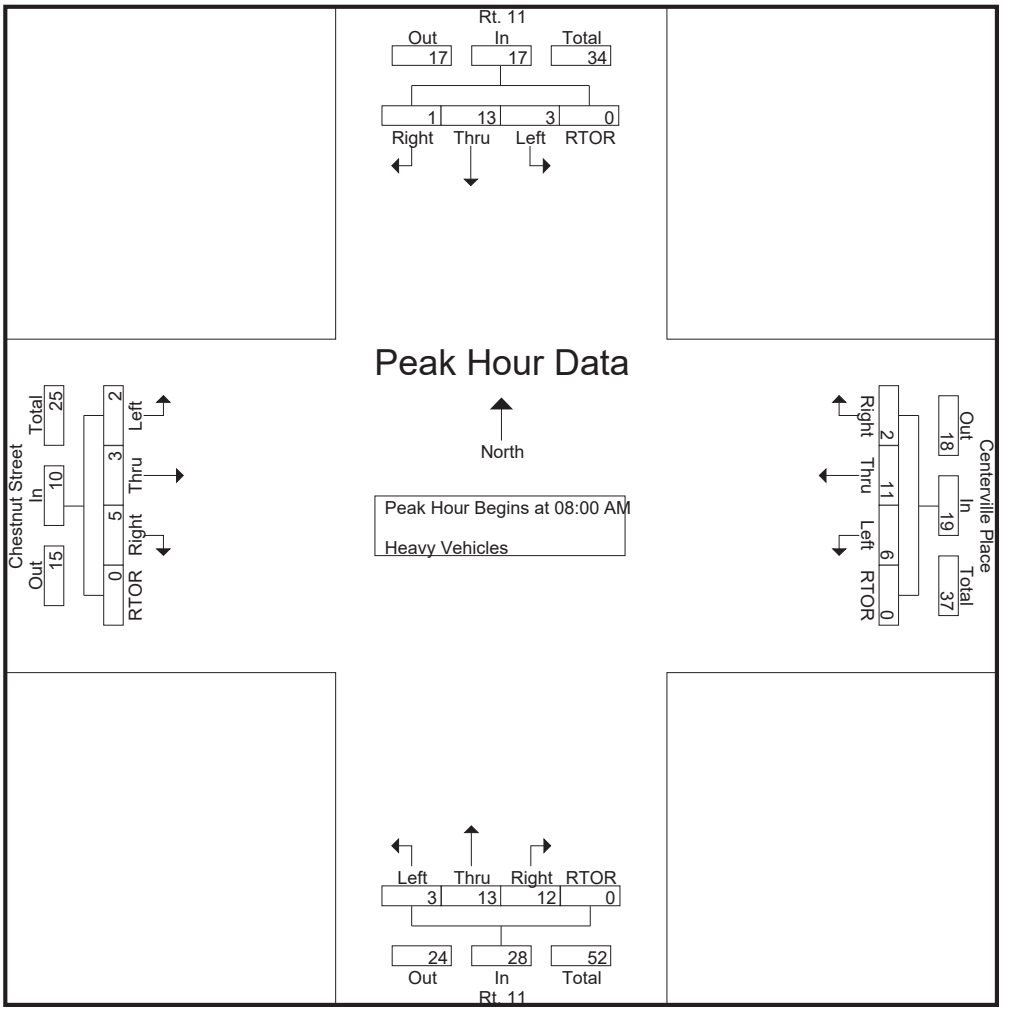
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	1	0	1	1	2	0	0	3	0	2	0	0	2	0	**6**	0	0	6	12
08:15 AM	0	1	**3**	0	**4**	1	**4**	**1**	0	6	**1**	**5**	0	0	6	1	5	**1**	0	**7**	**23**
08:30 AM	0	**2**	1	0	3	**3**	3	1	0	**7**	1	3	4	0	8	0	2	0	0	2	20
08:45 AM	**2**	0	0	0	2	1	2	0	0	3	1	3	**8**	0	**12**	**2**	0	0	0	2	19
Total Volume	2	3	5	0	10	6	11	2	0	19	3	13	12	0	28	3	13	1	0	17	74
% App. Total	20	30	50	0		31.6	57.9	10.5	0		10.7	46.4	42.9	0		17.6	76.5	5.9	0		
PHF	.250	.375	.417	.000	.625	.500	.688	.500	.000	.679	.750	.650	.375	.000	.583	.375	.542	.250	.000	.607	.804



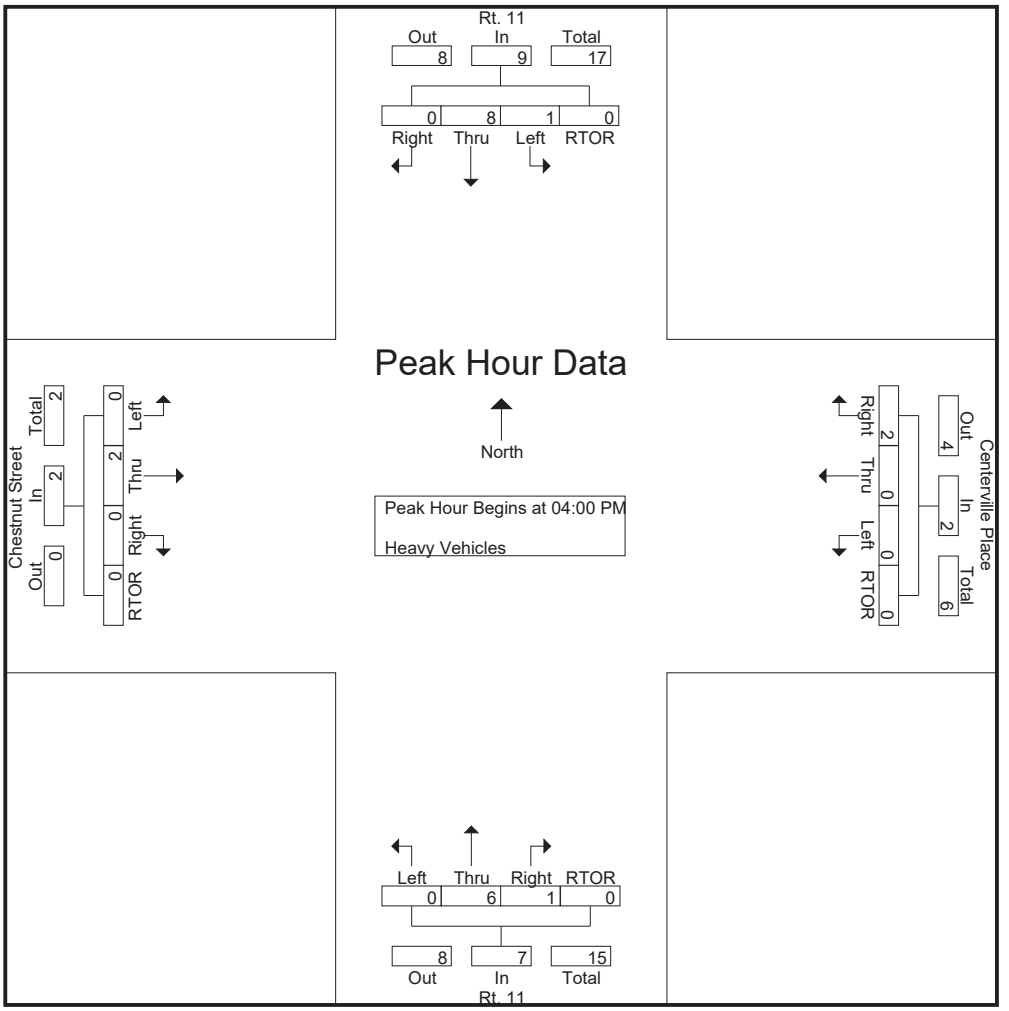
Syracuse Metropolitan Transportation Council

126 N. Salina Street
Syracuse, NY, 13202
www.smtcmpo.org

Village of North Syracuse
Rt. 11 and Centerville Place
KK
Church Street Realignment

File Name : Rt. 11_Centerville_Chestnut_06_04_14_with 7-30 in replaced
Site Code : 06041407
Start Date : 6/4/2014
Page No : 4

	Chestnut Street Eastbound					Centerville Place Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**1**	0	0	**1**	0	0	**2**	0	**2**	0	1	0	0	1	0	2	0	0	2	6
04:15 PM	0	1	0	0	1	0	0	0	0	0	0	**3**	**1**	0	**4**	**1**	1	0	0	2	**7**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	**5**	0	0	**5**	6
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	2	0	0	2	0	0	2	0	2	0	6	1	0	7	1	8	0	0	9	20
% App. Total	0	100	0	0		0	0	100	0		0	85.7	14.3	0		11.1	88.9	0	0		
PHF	.000	.500	.000	.000	.500	.000	.000	.250	.000	.250	.000	.500	.250	.000	.438	.250	.400	.000	.000	.450	.714



Syracuse Metropolitan Transportation Council

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Village of North Syracuse
Rt. 11 and Centerville Place
KK
Church Street Realignment

File Name : Rt. 11_Centerville_Chestnut_06_04_14_with 7-30 in replaced
Site Code : 06041407
Start Date : 6/4/2014
Page No : 1

Groups Printed- Bike_Peds

	Chestnut Street Eastbound					Centerville Place Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
07:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:45 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	4	5	0	0	0	1	1	0	0	0	0	0	0	1	0	0	1	7
08:00 AM	0	0	0	2	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	1	0	9	10	0	0	0	1	1	0	0	0	0	0	11
08:45 AM	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	3	3	0	1	0	12	13	0	1	0	1	2	0	0	0	0	0	18
*** BREAK ***																					
04:00 PM	0	0	0	1	1	0	0	0	3	3	0	3	0	0	3	0	0	0	0	0	7
04:15 PM	0	0	0	0	0	0	1	0	2	3	0	0	0	0	0	0	0	0	8	8	11
04:30 PM	0	0	0	3	3	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	6
04:45 PM	0	1	0	7	8	0	1	0	2	3	0	0	0	1	1	0	0	0	5	5	17
Total	0	1	0	11	12	0	3	0	7	10	0	3	0	1	4	0	2	0	13	15	41
05:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	8	8	0	0	0	2	2	0	0	0	0	0	0	0	0	6	6	16
05:30 PM	0	2	0	0	2	0	5	0	9	14	0	0	0	1	1	0	1	0	0	1	18
05:45 PM	0	0	0	2	2	0	1	2	9	12	0	1	0	0	1	0	1	0	2	3	18
Total	0	2	0	11	13	0	6	2	20	28	0	1	0	1	2	0	2	0	8	10	53
Grand Total	0	4	0	29	33	0	10	2	40	52	0	5	0	3	8	0	5	0	21	26	119
Apprch %	0	12.1	0	87.9		0	19.2	3.8	76.9		0	62.5	0	37.5		0	19.2	0	80.8		
Total %	0	3.4	0	24.4	27.7	0	8.4	1.7	33.6	43.7	0	4.2	0	2.5	6.7	0	4.2	0	17.6	21.8	

Syracuse Metropolitan Transportation Council

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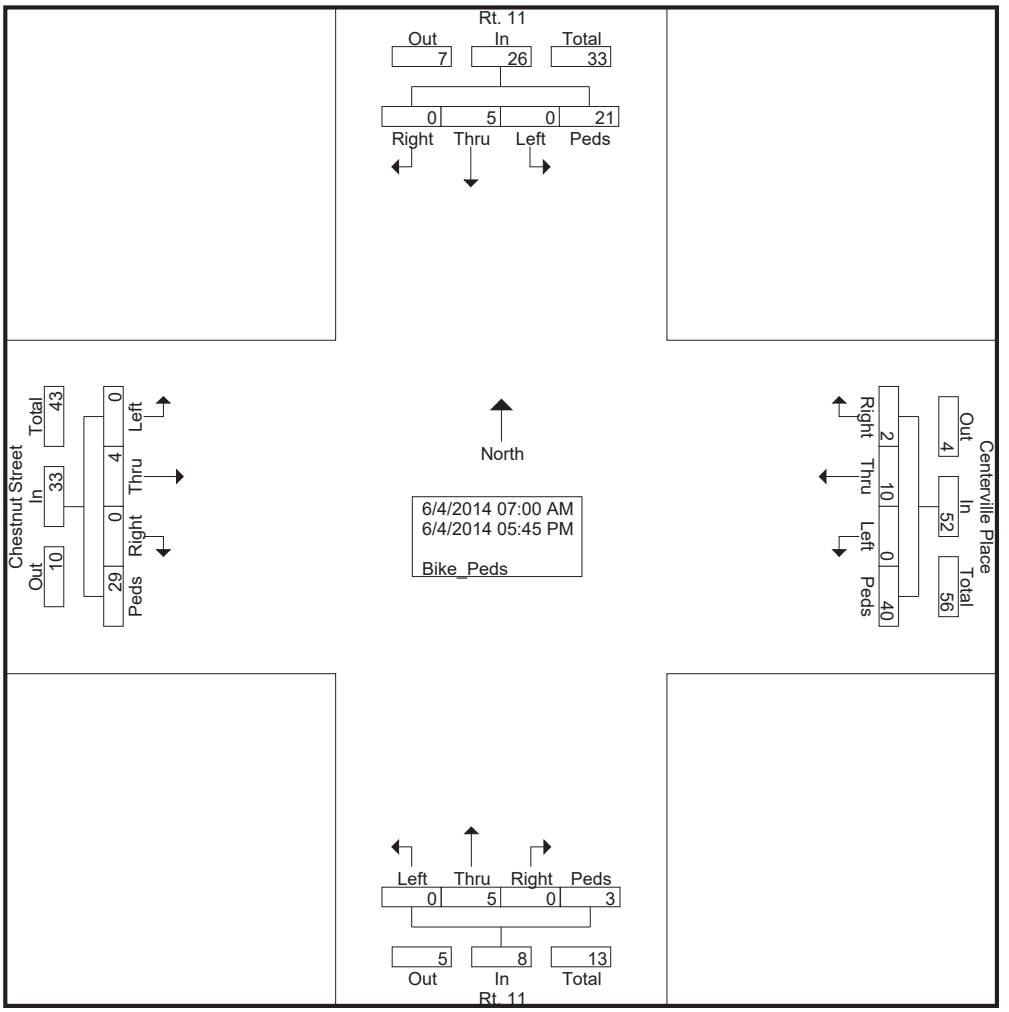
Village of North Syracuse
Rt. 11 and Centerville Place
KK
Church Street Realignment

File Name : Rt. 11_Centerville_Chestnut_06_04_14_with 7-30 in replaced
Site Code : 06041407
Start Date : 6/4/2014
Page No : 2



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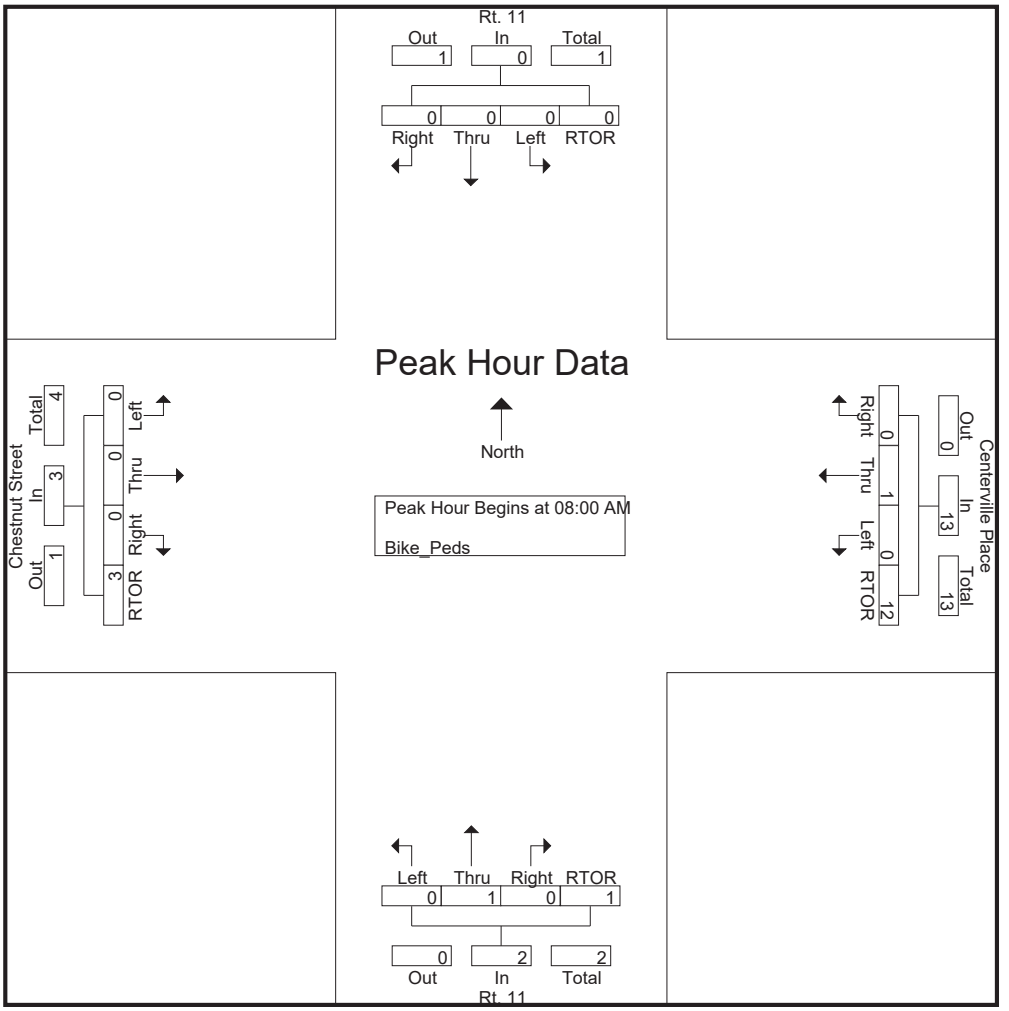
Site Code : 06041407
Start Date : 6/4/2014
Page No : 3

	Chestnut Street Eastbound					Centerville Place Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	**2**	**2**	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	**1**	0	**9**	**10**	0	0	0	**1**	1	0	0	0	0	0	**11**
08:45 AM	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	0	0	3	3	0	1	0	12	13	0	1	0	1	2	0	0	0	0	0	18
% App. Total	0	0	0	100		0	7.7	0	92.3		0	50	0	50		0	0	0	0		
PHF	.000	.000	.000	.375	.375	.000	.250	.000	.333	.325	.000	.250	.000	.250	.500	.000	.000	.000	.000	.000	.409



Syracuse Metropolitan Transportation Council

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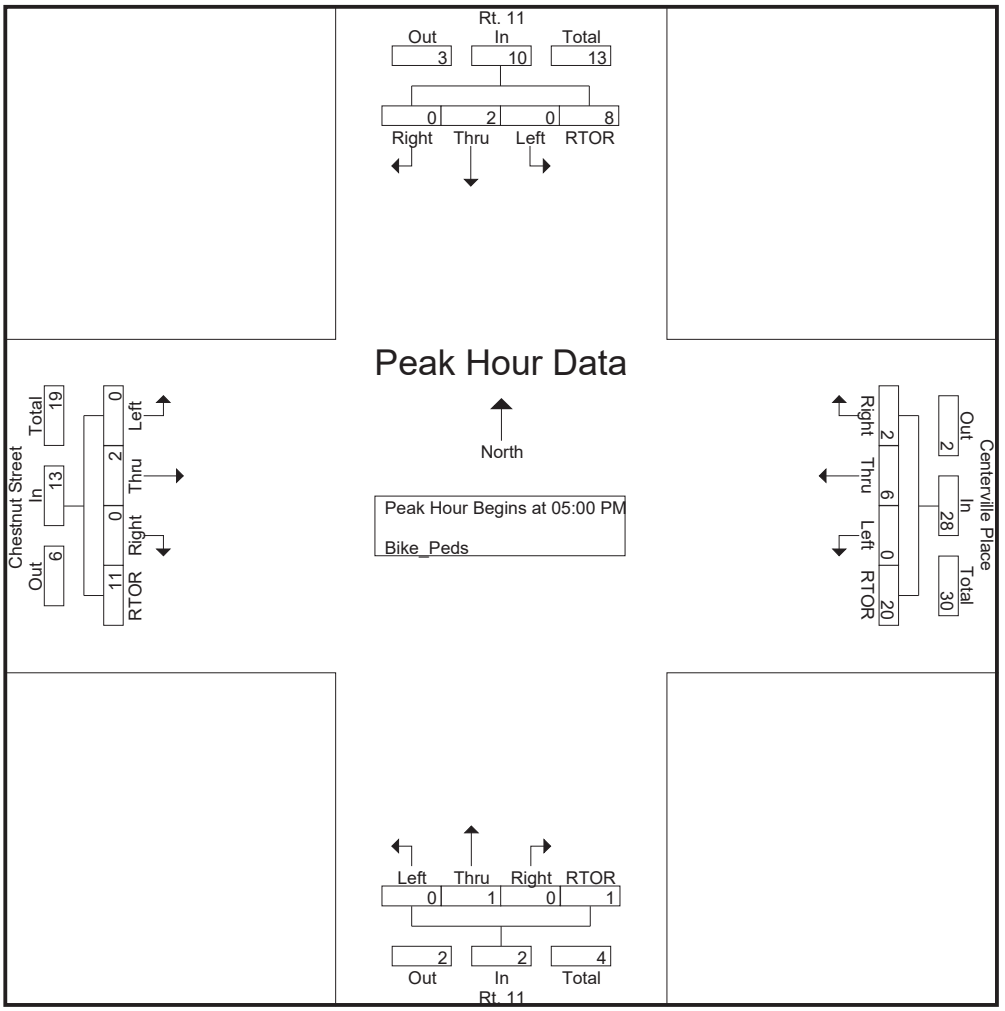
KK
Church Street Realignment

File Name : Rt. 11_Centerville_Chestnut_06_04_14_with 7-30 in replaced
Site Code : 06041407
Start Date : 6/4/2014
Page No : 4

	Chestnut Street Eastbound					Centerville Place Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	**8**	**8**	0	0	0	2	2	0	0	0	0	0	0	0	0	**6**	**6**	16
05:30 PM	0	**2**	0	0	2	0	**5**	0	**9**	**14**	0	0	0	**1**	**1**	0	**1**	0	0	1	**18**
05:45 PM	0	0	0	2	2	0	1	**2**	9	12	0	**1**	0	0	1	0	1	0	2	3	18
Total Volume	0	2	0	11	13	0	6	2	20	28	0	1	0	1	2	0	2	0	8	10	53
% App. Total	0	15.4	0	84.6		0	21.4	7.1	71.4		0	50	0	50		0	20	0	80		
PHF	.000	.250	.000	.344	.406	.000	.300	.250	.556	.500	.000	.250	.000	.250	.500	.000	.500	.000	.333	.417	.736



Syracuse Metropolitan Transportation Council

126 N. Salina Street
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Village of North Syracuse
Centerville Place and Trolley Barn Lane
DA
Church Street Realignment

File Name : Centerville_Trolley Barn_06_04_14_Formatted
Site Code : 06041403
Start Date : 6/4/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Centerville Place Eastbound					Centerville Place Westbound					Northbound					Trolley Barn Lane Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	1	26	0	0	27	0	25	0	0	25	0	0	0	0	0	0	0	0	0	0	52
07:15 AM	3	41	0	0	44	1	24	0	0	25	0	0	0	0	0	0	0	2	0	2	71
07:30 AM	2	54	0	0	56	0	32	0	0	32	0	0	1	0	1	0	0	2	0	2	91
07:45 AM	1	50	0	0	51	1	47	0	0	48	0	0	0	0	0	0	0	1	0	1	100
Total	7	171	0	0	178	2	128	0	0	130	0	0	1	0	1	0	0	5	0	5	314
08:00 AM	4	46	0	0	50	1	39	6	0	46	0	0	0	0	0	0	0	2	0	2	98
08:15 AM	2	42	0	0	44	0	39	2	0	41	0	0	0	0	0	0	0	2	0	2	87
08:30 AM	7	24	0	0	31	0	58	0	0	58	0	0	0	0	0	0	0	2	0	2	91
08:45 AM	3	62	0	0	65	0	40	0	0	40	0	0	0	0	0	0	0	2	0	2	107
Total	16	174	0	0	190	1	176	8	0	185	0	0	0	0	0	0	0	8	0	8	383
*** BREAK ***																					
04:00 PM	10	57	1	0	68	1	66	4	0	71	1	0	0	0	1	1	0	7	0	8	148
04:15 PM	3	58	2	0	63	6	61	2	0	69	0	0	0	0	0	0	0	5	0	5	137
04:30 PM	4	54	0	0	58	0	68	4	0	72	0	0	0	0	0	8	0	4	0	12	142
04:45 PM	2	66	0	0	68	0	91	3	0	94	0	0	0	0	0	2	0	4	0	6	168
Total	19	235	3	0	257	7	286	13	0	306	1	0	0	0	1	11	0	20	0	31	595
05:00 PM	4	58	0	0	62	0	88	4	0	92	0	0	0	0	0	3	0	7	0	10	164
05:15 PM	6	54	0	0	60	1	95	3	0	99	1	0	0	0	1	0	0	6	0	6	166
05:30 PM	9	57	1	0	67	0	66	1	0	67	0	0	1	0	1	1	0	4	0	5	140
05:45 PM	3	51	0	0	54	0	77	1	0	78	1	0	2	0	3	3	0	3	0	6	141
Total	22	220	1	0	243	1	326	9	0	336	2	0	3	0	5	7	0	20	0	27	611
Grand Total	64	800	4	0	868	11	916	30	0	957	3	0	4	0	7	18	0	53	0	71	1903
Apprch %	7.4	92.2	0.5	0		1.1	95.7	3.1	0		42.9	0	57.1	0		25.4	0	74.6	0		
Total %	3.4	42	0.2	0	45.6	0.6	48.1	1.6	0	50.3	0.2	0	0.2	0	0.4	0.9	0	2.8	0	3.7	
Cars	56	778	4	0	838	11	891	30	0	932	3	0	4	0	7	18	0	51	0	69	1846
% Cars	87.5	97.2	100	0	96.5	100	97.3	100	0	97.4	100	0	100	0	100	100	0	96.2	0	97.2	97
Heavy Vehicles	8	22	0	0	30	0	25	0	0	25	0	0	0	0	0	0	0	2	0	2	57
% Heavy Vehicles	12.5	2.8	0	0	3.5	0	2.7	0	0	2.6	0	0	0	0	0	0	0	3.8	0	2.8	3

Syracuse Metropolitan Transportation Council

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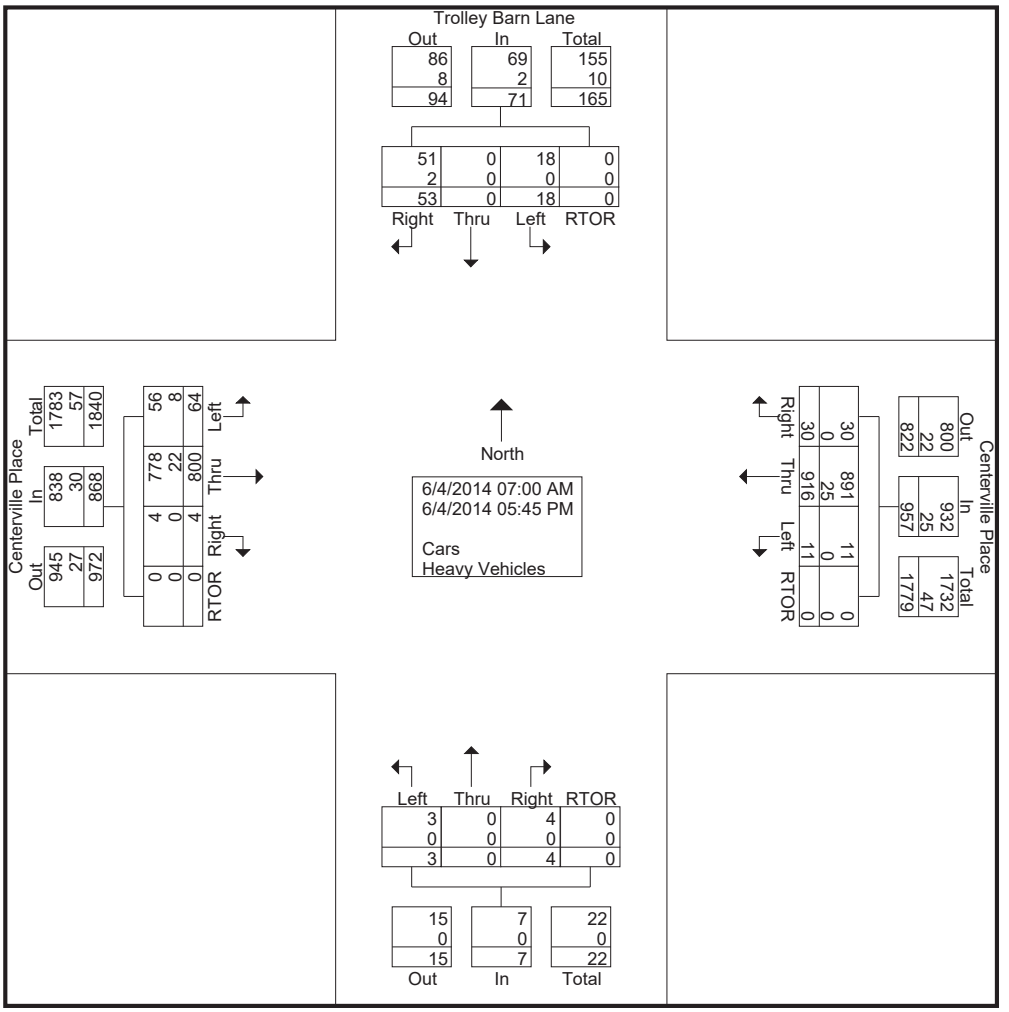
Village of North Syracuse
Centerville Place and Trolley Barn Lane
DA
Church Street Realignment

File Name : Centerville_Trolley Barn_06_04_14_Formatted
Site Code : 06041403
Start Date : 6/4/2014



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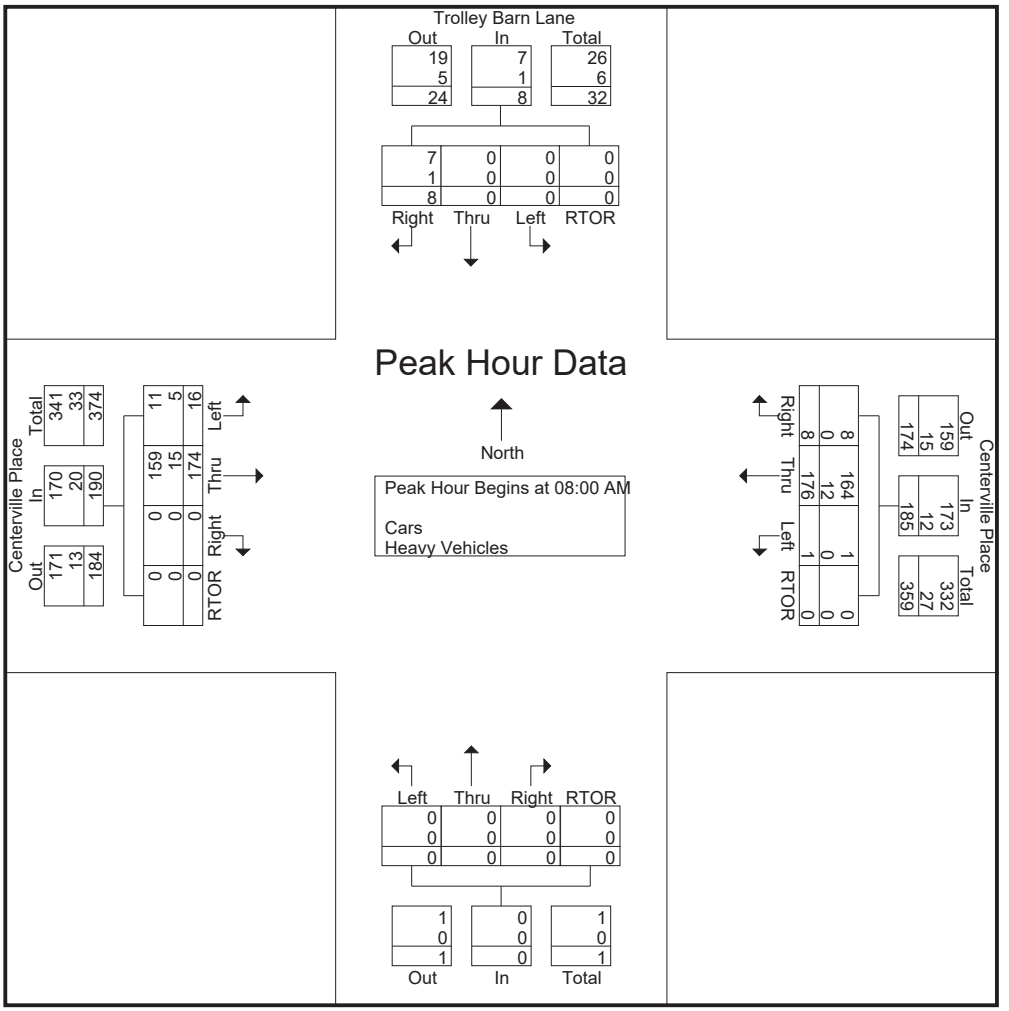
Site Code : 06041403
Start Date : 6/4/2014
Page No : 3

	Centerville Place Eastbound					Centerville Place Westbound					Northbound					Trolley Barn Lane Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	4	46	0	0	50	**1**	39	**6**	0	46	0	0	0	0	0	0	0	**2**	0	**2**	98
08:15 AM	2	42	0	0	44	0	39	2	0	41	0	0	0	0	0	0	0	2	0	2	87
08:30 AM	**7**	24	0	0	31	0	**58**	0	0	**58**	0	0	0	0	0	0	0	2	0	2	91
08:45 AM	3	**62**	0	0	**65**	0	40	0	0	40	0	0	0	0	0	0	0	2	0	2	**107**
Total Volume	16	174	0	0	190	1	176	8	0	185	0	0	0	0	0	0	0	8	0	8	383
% App. Total	8.4	91.6	0	0		0.5	95.1	4.3	0		0	0	0	0		0	0	100	0		
PHF	.571	.702	.000	.000	.731	.250	.759	.333	.000	.797	.000	.000	.000	.000	.000	.000	.000	1.00	.000	1.00	.895
Cars	11	159	0	0	170	1	164	8	0	173	0	0	0	0	0	0	0	7	0	7	350
% Cars	68.8	91.4	0	0	89.5	100	93.2	100	0	93.5	0	0	0	0	0	0	0	87.5	0	87.5	91.4
Heavy Vehicles																					
% Heavy Vehicles	31.3	8.6	0	0	10.5	0	6.8	0	0	6.5	0	0	0	0	0	0	0	12.5	0	12.5	8.6



Syracuse Metropolitan Transportation Council

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Village of North Syracuse
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DA
Church Street Realignment

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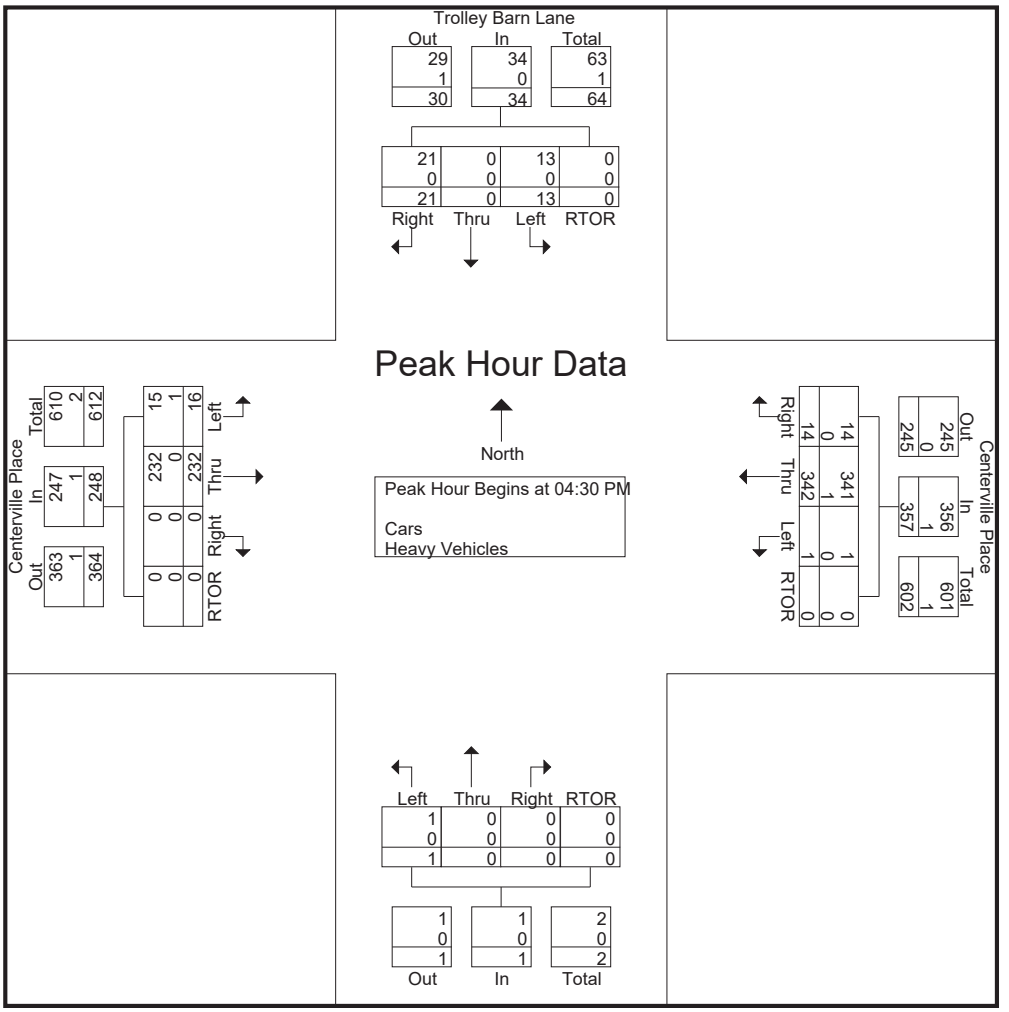
Site Code : 06041403
Start Date : 6/4/2014
Page No : 4

	Centerville Place Eastbound					Centerville Place Westbound					Northbound					Trolley Barn Lane Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	4	54	0	0	58	0	68	**4**	0	72	0	0	0	0	0	**8**	0	4	0	**12**	142
04:45 PM	2	**66**	0	0	**68**	0	91	3	0	94	0	0	0	0	0	2	0	4	0	6	**168**
05:00 PM	4	58	0	0	62	0	88	4	0	92	0	0	0	0	0	3	0	**7**	0	10	164
05:15 PM	**6**	54	0	0	60	**1**	**95**	3	0	**99**	**1**	0	0	0	**1**	0	0	6	0	6	166
Total Volume	16	232	0	0	248	1	342	14	0	357	1	0	0	0	1	13	0	21	0	34	640
% App. Total	6.5	93.5	0	0		0.3	95.8	3.9	0		100	0	0	0		38.2	0	61.8	0		
PHF	.667	.879	.000	.000	.912	.250	.900	.875	.000	.902	.250	.000	.000	.000	.250	.406	.000	.750	.000	.708	.952
Cars	15	232	0	0	247	1	341	14	0	356	1	0	0	0	1	13	0	21	0	34	638
% Cars	93.8	100	0	0	99.6	100	99.7	100	0	99.7	100	0	0	0	100	100	0	100	0	100	99.7
Heavy Vehicles																					
% Heavy Vehicles	6.3	0	0	0	0.4	0	0.3	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0.3



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Site Code : 06041403
Start Date : 6/4/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Centerville Place Eastbound					Centerville Place Westbound					Northbound					Trolley Barn Lane Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	1	1	0	0	2	0	6	0	0	6	0	0	0	0	0	0	0	1	0	1	9
Total	1	2	0	0	3	0	9	0	0	9	0	0	0	0	0	0	0	1	0	1	13
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	5
08:30 AM	4	2	0	0	6	0	5	0	0	5	0	0	0	0	0	0	0	1	0	1	12
08:45 AM	1	12	0	0	13	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	15
Total	5	15	0	0	20	0	12	0	0	12	0	0	0	0	0	0	0	1	0	1	33
*** BREAK ***																					
04:00 PM	1	1	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
04:15 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
*** BREAK ***																					
Total	1	4	0	0	5	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	7
*** BREAK ***																					
05:15 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	1	1	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
Grand Total	8	22	0	0	30	0	25	0	0	25	0	0	0	0	0	0	0	2	0	2	57
Apprch %	26.7	73.3	0	0		0	100	0	0		0	0	0	0		0	0	100	0		
Total %	14	38.6	0	0	52.6	0	43.9	0	0	43.9	0	0	0	0	0	0	0	3.5	0	3.5	

Syracuse Metropolitan Transportation Council
126 N. Salina Street
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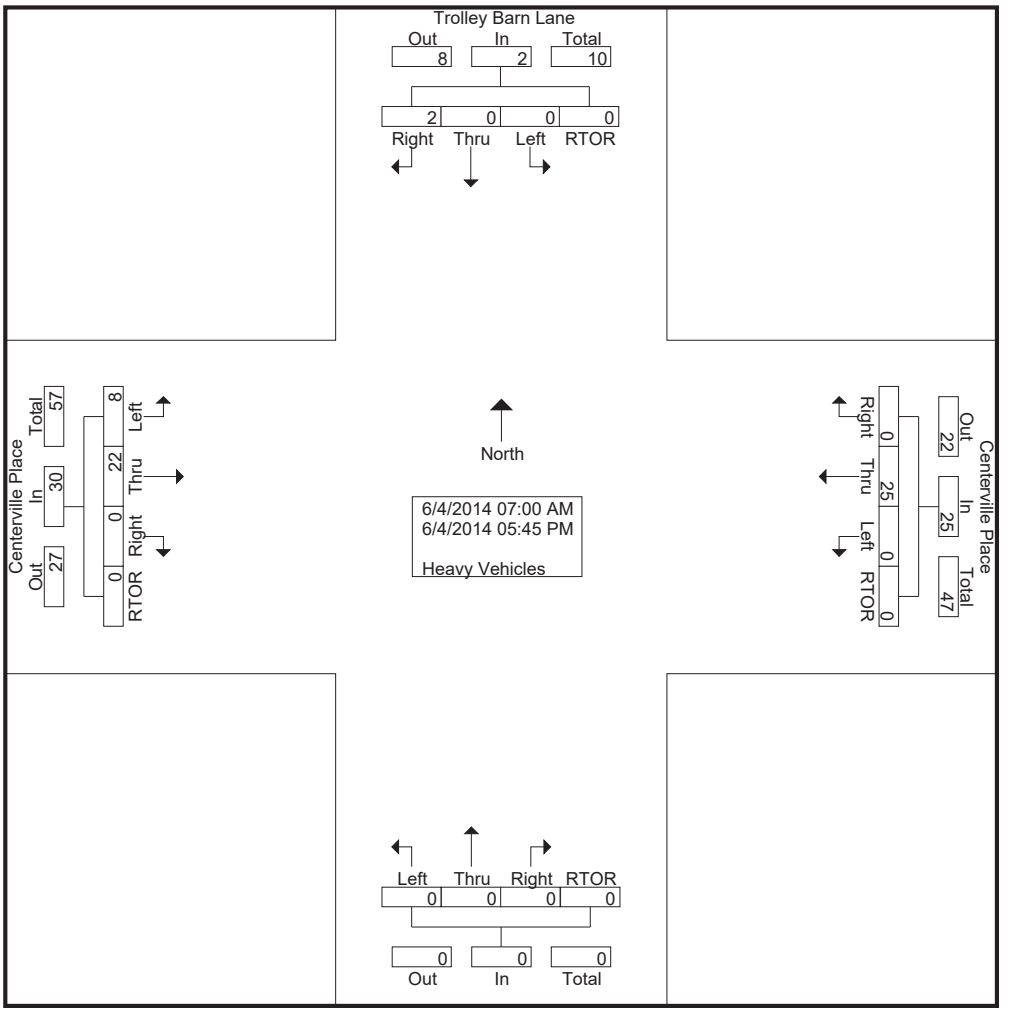
Village of North Syracuse
Centerville Place and Trolley Barn Lane
DA
Church Street Realignment

File Name : Centerville_Trolley Barn_06_04_14_Formatted
Site Code : 06041403
Start Date : 6/4/2014



Syracuse Metropolitan Transportation Council

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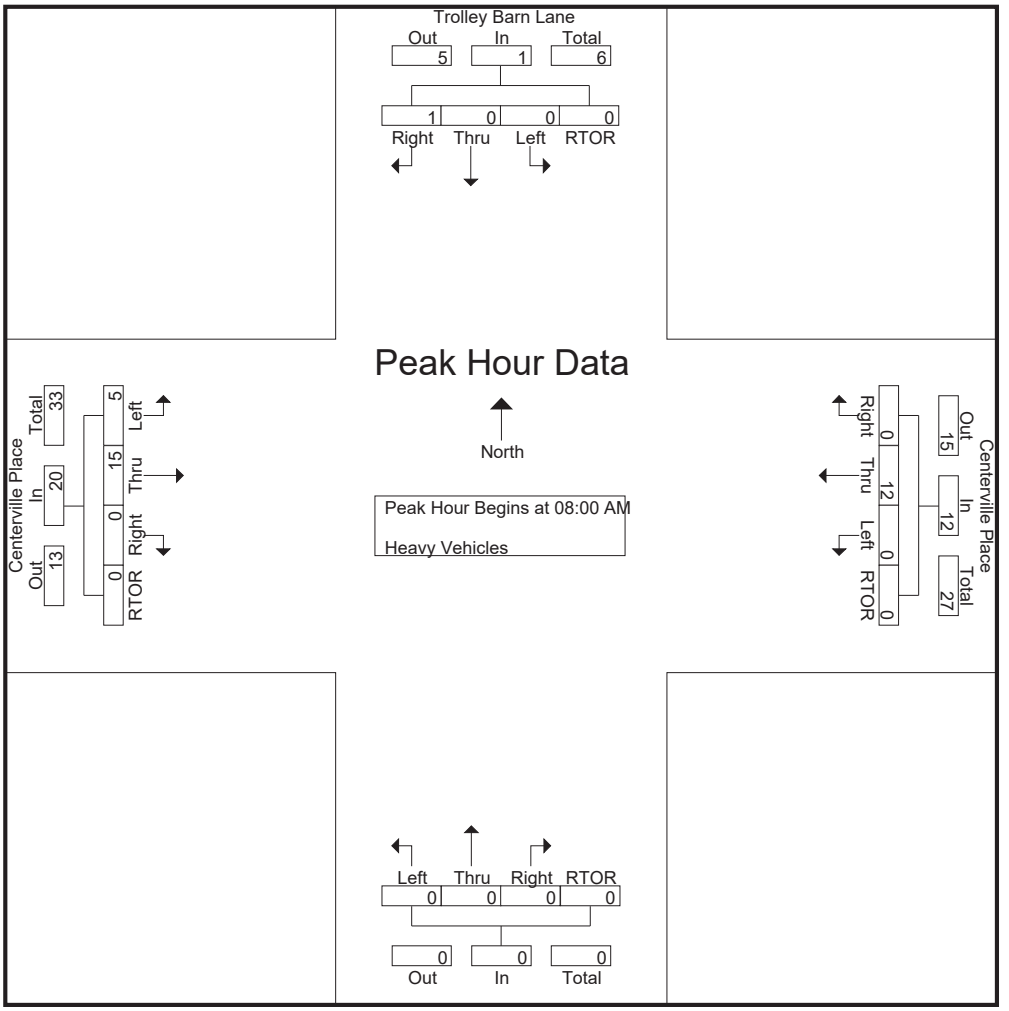
DA
Church Street Realignment

File Name : Centerville_Trolley Barn_06_04_14_Formatted
Site Code : 06041403
Start Date : 6/4/2014
Page No : 3

	Centerville Place Eastbound					Centerville Place Westbound					Northbound					Trolley Barn Lane Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	**5**	0	0	**5**	0	0	0	0	0	0	0	0	0	0	5
08:30 AM	**4**	2	0	0	6	0	5	0	0	5	0	0	0	0	0	0	0	**1**	0	**1**	12
08:45 AM	1	**12**	0	0	**13**	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	**15**
Total Volume	5	15	0	0	20	0	12	0	0	12	0	0	0	0	0	0	0	1	0	1	33
% App. Total	25	75	0	0		0	100	0	0		0	0	0	0		0	0	100	0		
PHF	.313	.313	.000	.000	.385	.000	.600	.000	.000	.600	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.550



Syracuse Metropolitan Transportation Council

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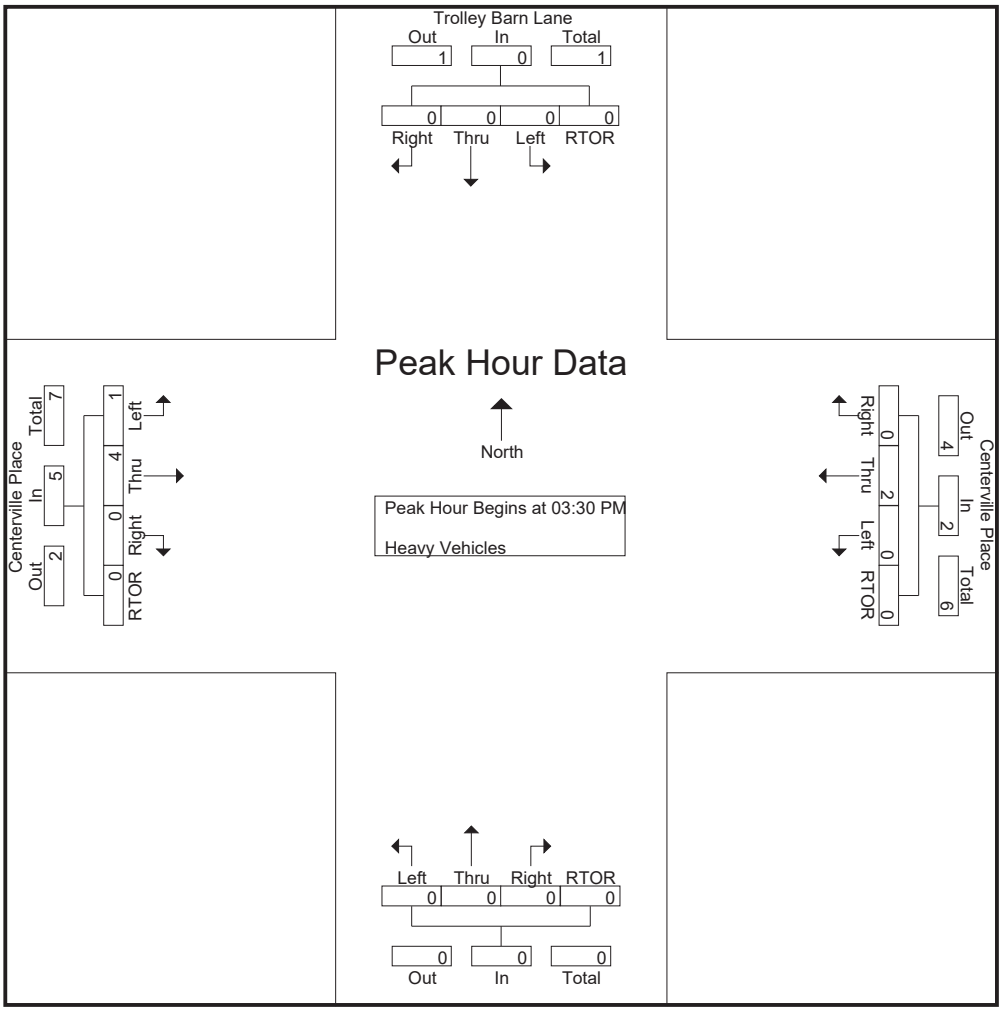
Village of North Syracuse
Centerville Place and Trolley Barn Lane
DA
Church Street Realignment

File Name : Centerville_Trolley Barn_06_04_14_Formatted
Site Code : 06041403
Start Date : 6/4/2014
Page No : 4

	Centerville Place Eastbound					Centerville Place Westbound					Northbound					Trolley Barn Lane Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	**1**	1	0	0	2	0	**2**	0	0	**2**	0	0	0	0	0	0	0	0	0	0	**4**
04:15 PM	0	**3**	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	1	4	0	0	5	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	7
% App. Total	20	80	0	0		0	100	0	0		0	0	0	0		0	0	0	0		
PHF	.250	.333	.000	.000	.417	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.438



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Village of North Syracuse
Centerville Place and Trolley Barn Lane
DA
Church Street Realignment

File Name : Centerville_Trolley Barn_06_04_14_Formatted
Site Code : 06041403
Start Date : 6/4/2014
Page No : 1

Groups Printed- Bike_Peds

	Centerville Place Eastbound					Centerville Place Westbound					Northbound					Trolley Barn Lane Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
*** BREAK ***																					
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***																					
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	3
*** BREAK ***																					
04:00 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	1	1	0	0	0	4	4	0	0	0	1	1	0	0	0	0	0	6
04:30 PM	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	1	0	5	6	11
04:45 PM	0	0	0	2	2	0	1	0	0	1	0	3	0	0	3	0	0	0	2	2	8
Total	0	0	0	3	3	0	1	0	11	12	0	3	0	1	4	0	1	0	7	8	27
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	1	1	4
*** BREAK ***																					
05:30 PM	1	0	0	0	1	0	0	0	2	2	0	0	0	2	2	0	1	0	1	2	7
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	5
Total	1	0	0	0	1	0	0	0	2	2	0	0	0	5	5	0	1	3	4	8	16
Grand Total	1	1	0	3	5	0	1	0	14	15	0	3	0	9	12	0	2	3	12	17	49
Apprch %	20	20	0	60		0	6.7	0	93.3		0	25	0	75		0	11.8	17.6	70.6		
Total %	2	2	0	6.1	10.2	0	2	0	28.6	30.6	0	6.1	0	18.4	24.5	0	4.1	6.1	24.5	34.7	

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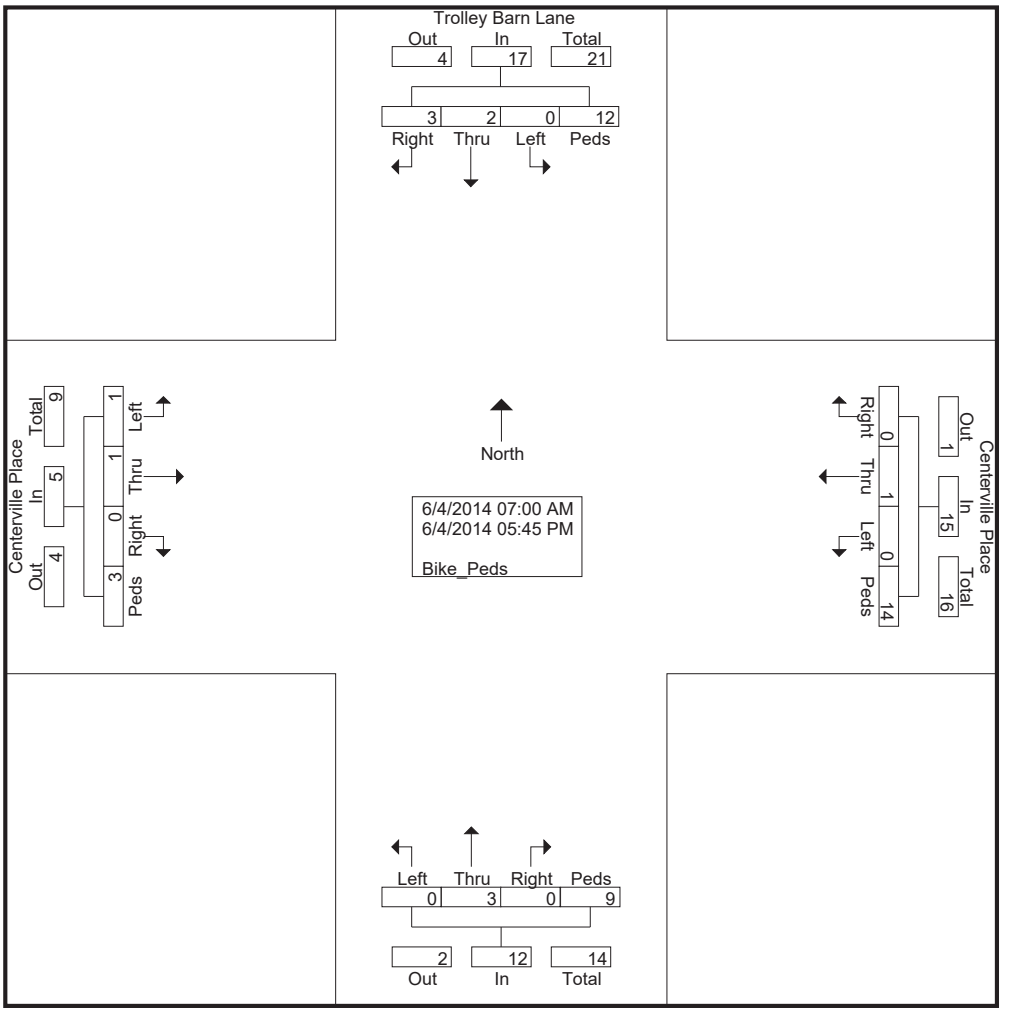
Church Street Realignment

File Name : Centerville_Trolley Barn_06_04_14_Formatted
Site Code : 06041403
Start Date : 6/4/2014



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Village of North Syracuse
Rt. 11 and Church Street
AJM (a.m.) and JRD (p.m.)
Church Street Realignment

File Name : Rt 11_Church_06_04_14_Merged_AM-PM
Site Code : 06041406
Start Date : 6/4/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Eastbound					Church St. Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	2	0	48	0	0	48	2	109	0	0	111	161
07:15 AM	0	0	0	0	0	3	0	2	0	5	0	77	2	0	79	0	96	0	0	96	180
07:30 AM	0	0	0	0	0	1	0	2	0	3	0	64	1	0	65	3	119	0	0	122	190
07:45 AM	0	0	0	0	0	1	0	2	0	3	0	63	1	0	64	2	123	0	0	125	192
Total	0	0	0	0	0	6	0	7	0	13	0	252	4	0	256	7	447	0	0	454	723
08:00 AM	0	0	0	0	0	0	0	4	0	4	0	64	1	0	65	2	116	0	0	118	187
08:15 AM	0	0	0	0	0	0	0	1	0	1	0	92	2	0	94	3	118	0	0	121	216
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	83	2	0	85	2	167	0	0	169	254
08:45 AM	0	0	0	0	0	3	0	1	0	4	0	139	2	0	141	1	118	0	0	119	264
Total	0	0	0	0	0	3	0	6	0	9	0	378	7	0	385	8	519	0	0	527	921
*** BREAK ***																					
04:00 PM	0	0	0	0	0	2	0	6	0	8	0	175	3	0	178	6	141	0	0	147	333
04:15 PM	0	0	0	0	0	2	0	8	0	10	0	170	3	0	173	0	113	0	0	113	296
04:30 PM	0	0	0	0	0	3	0	2	0	5	0	168	1	0	169	2	138	0	0	140	314
04:45 PM	0	0	0	0	0	1	0	3	0	4	0	154	2	0	156	1	139	0	0	140	300
Total	0	0	0	0	0	8	0	19	0	27	0	667	9	0	676	9	531	0	0	540	1243
05:00 PM	0	0	0	0	0	2	0	4	0	6	0	159	2	0	161	6	140	0	0	146	313
05:15 PM	0	0	0	0	0	1	0	7	0	8	0	147	4	0	151	7	140	0	0	147	306
05:30 PM	0	0	0	0	0	3	0	5	0	8	0	139	3	0	142	2	147	0	0	149	299
05:45 PM	0	0	0	0	0	1	0	1	0	2	0	143	1	0	144	3	170	0	0	173	319
Total	0	0	0	0	0	7	0	17	0	24	0	588	10	0	598	18	597	0	0	615	1237
Grand Total	0	0	0	0	0	24	0	49	0	73	0	1885	30	0	1915	42	2094	0	0	2136	4124
Apprch %	0	0	0	0		32.9	0	67.1	0		0	98.4	1.6	0		2	98	0	0		
Total %	0	0	0	0	0	0.6	0	1.2	0	1.8	0	45.7	0.7	0	46.4	1	50.8	0	0	51.8	
Cars	0	0	0	0	0	24	0	47	0	71	0	1829	28	0	1857	42	2030	0	0	2072	4000
% Cars	0	0	0	0	0	100	0	95.9	0	97.3	0	97	93.3	0	97	100	96.9	0	0	97	97
Heavy Vehicles	0	0	0	0	0	0	0	2	0	2	0	56	2	0	58	0	64	0	0	64	124
% Heavy Vehicles	0	0	0	0	0	0	0	4.1	0	2.7	0	3	6.7	0	3	0	3.1	0	0	3	3

Syracuse Metropolitan Transportation Council

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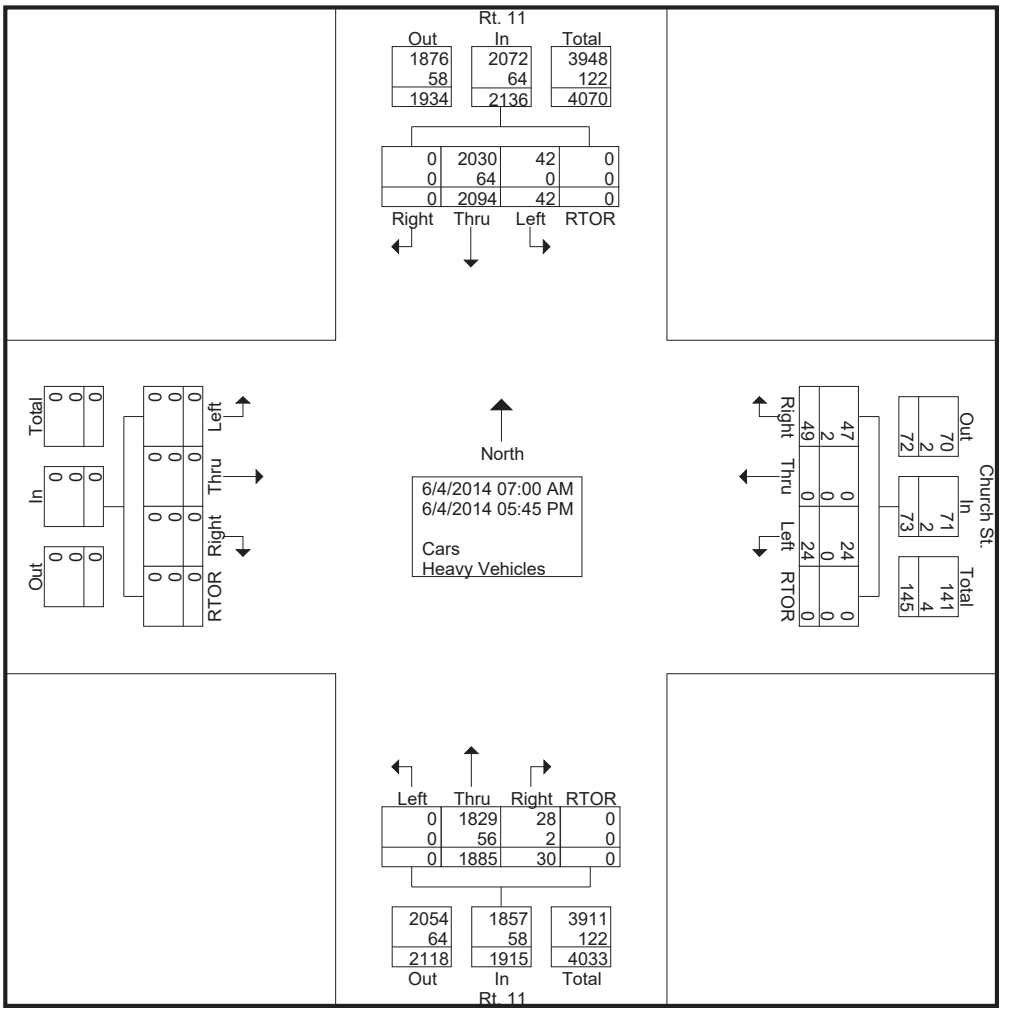
Village of North Syracuse
Rt. 11 and Church Street
AJM (a.m.) and JRD (p.m.)
Church Street Realignment

File Name : Rt 11_Church_06_04_14_Merged_AM-PM
Site Code : 06041406
Start Date : 6/4/2014
Page No : 2



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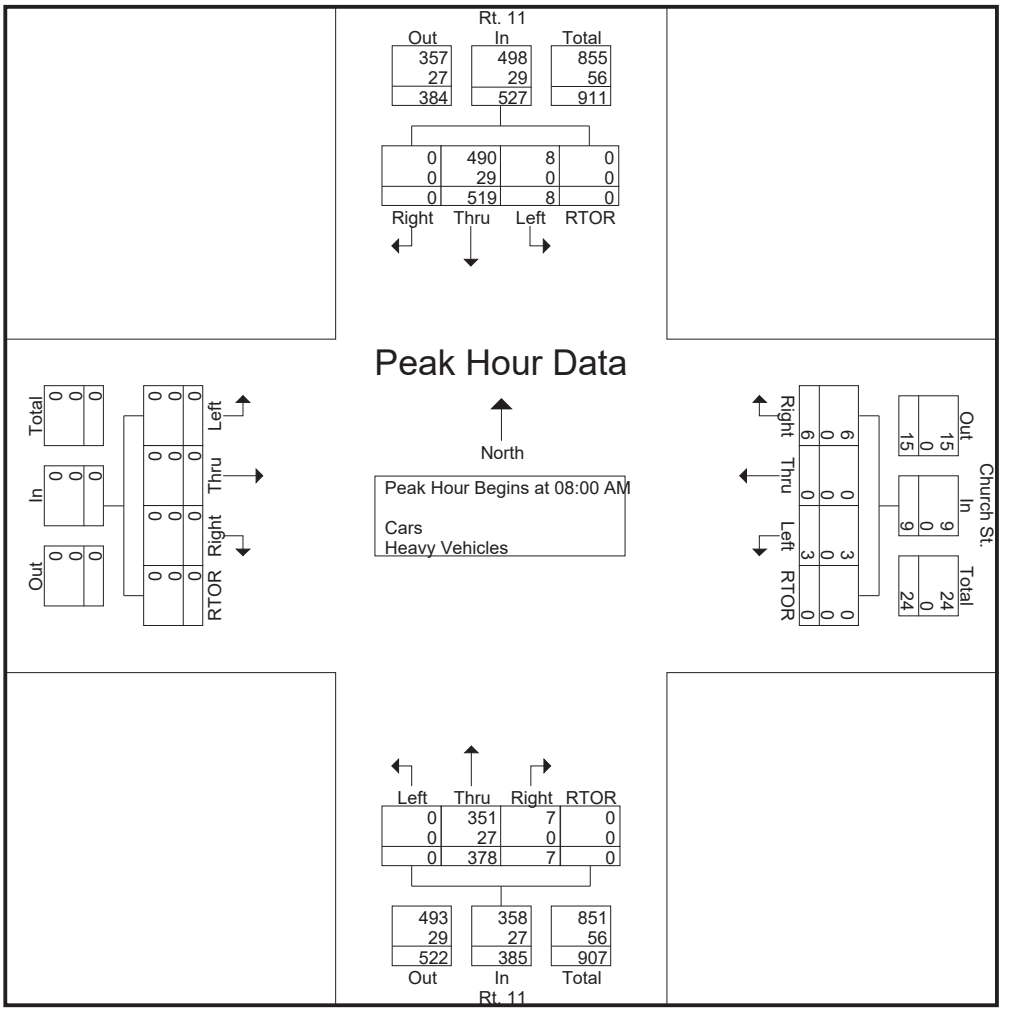
Site Code : 06041406
Start Date : 6/4/2014

	Eastbound					Church St. Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	**4**	0	**4**	0	64	1	0	65	2	116	0	0	118	187
08:15 AM	0	0	0	0	0	0	0	1	0	1	0	92	**2**	0	94	**3**	118	0	0	121	216
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	83	2	0	85	2	**167**	0	0	**169**	254
08:45 AM	0	0	0	0	0	**3**	0	1	0	4	0	**139**	2	0	**141**	1	118	0	0	119	**264**
Total Volume	0	0	0	0	0	3	0	6	0	9	0	378	7	0	385	8	519	0	0	527	921
% App. Total	0	0	0	0		33.3	0	66.7	0		0	98.2	1.8	0		1.5	98.5	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.375	.000	.563	.000	.680	.875	.000	.683	.667	.777	.000	.000	.780	.872
Cars	0	0	0	0	0	3	0	6	0	9	0	351	7	0	358	8	490	0	0	498	865
% Cars	0	0	0	0	0	100	0	100	0	100	0	92.9	100	0	93.0	100	94.4	0	0	94.5	93.9
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	7.1	0	0	7.0	0	5.6	0	0	5.5	6.1



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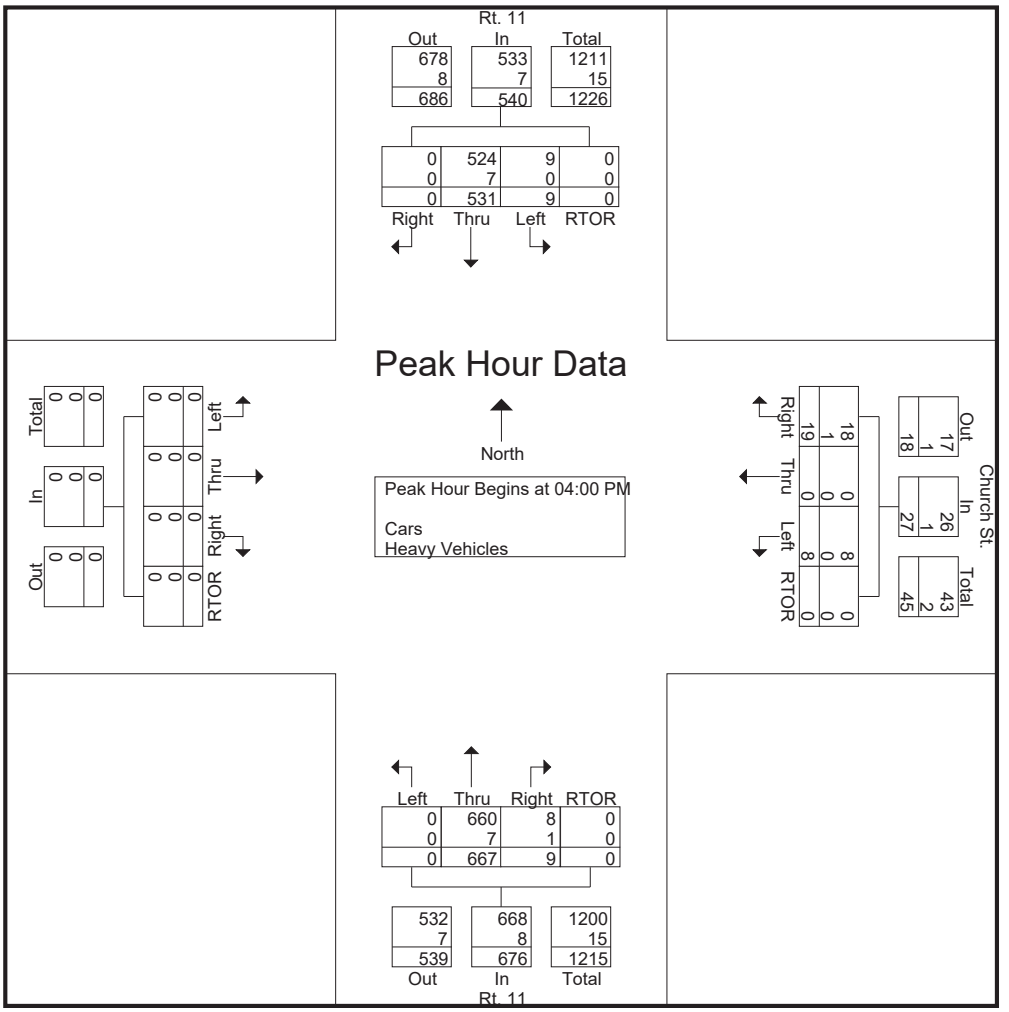
Site Code : 06041406
Start Date : 6/4/2014

	Eastbound					Church St. Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	2	0	6	0	8	0	**175**	**3**	0	**178**	**6**	**141**	0	0	**147**	**333**
04:15 PM	0	0	0	0	0	2	0	**8**	0	**10**	0	170	3	0	173	0	113	0	0	113	296
04:30 PM	0	0	0	0	0	**3**	0	2	0	5	0	168	1	0	169	2	138	0	0	140	314
04:45 PM	0	0	0	0	0	1	0	3	0	4	0	154	2	0	156	1	139	0	0	140	300
Total Volume	0	0	0	0	0	8	0	19	0	27	0	667	9	0	676	9	531	0	0	540	1243
% App. Total	0	0	0	0		29.6	0	70.4	0		0	98.7	1.3	0		1.7	98.3	0	0		
PHF	.000	.000	.000	.000	.000	.667	.000	.594	.000	.675	.000	.953	.750	.000	.949	.375	.941	.000	.000	.918	.933
Cars	0	0	0	0	0	8	0	18	0	26	0	660	8	0	668	9	524	0	0	533	1227
% Cars	0	0	0	0	0	100	0	94.7	0	96.3	0	99.0	88.9	0	98.8	100	98.7	0	0	98.7	98.7
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	0	5.3	0	3.7	0	1.0	11.1	0	1.2	0	1.3	0	0	1.3	1.3



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Site Code : 06041406
Start Date : 6/4/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Eastbound					Church St. Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	8	0	0	8	10
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	5	0	0	5	15
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	8	0	0	8	12
Total	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17	0	21	0	0	21	38
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	9	0	0	9	11
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	8	0	0	8	14
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	11	0	0	11	16
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	1	0	0	1	15
Total	0	0	0	0	0	0	0	0	0	0	0	27	0	0	27	0	29	0	0	29	56
*** BREAK ***																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
04:15 PM	0	0	0	0	0	0	0	1	0	1	0	3	1	0	4	0	1	0	0	1	6
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0	0	4	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	1	0	1	0	7	1	0	8	0	7	0	0	7	16
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	0	0	2	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	2	0	0	2	4
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
Total	0	0	0	0	0	0	0	1	0	1	0	5	1	0	6	0	7	0	0	7	14
Grand Total	0	0	0	0	0	0	0	2	0	2	0	56	2	0	58	0	64	0	0	64	124
Apprch %	0	0	0	0		0	0	100	0		0	96.6	3.4	0		0	100	0	0		
Total %	0	0	0	0	0	0	0	1.6	0	1.6	0	45.2	1.6	0	46.8	0	51.6	0	0	51.6	

Syracuse Metropolitan Transportation Council
126 N. Salina Street
Syracuse, NY, 13202
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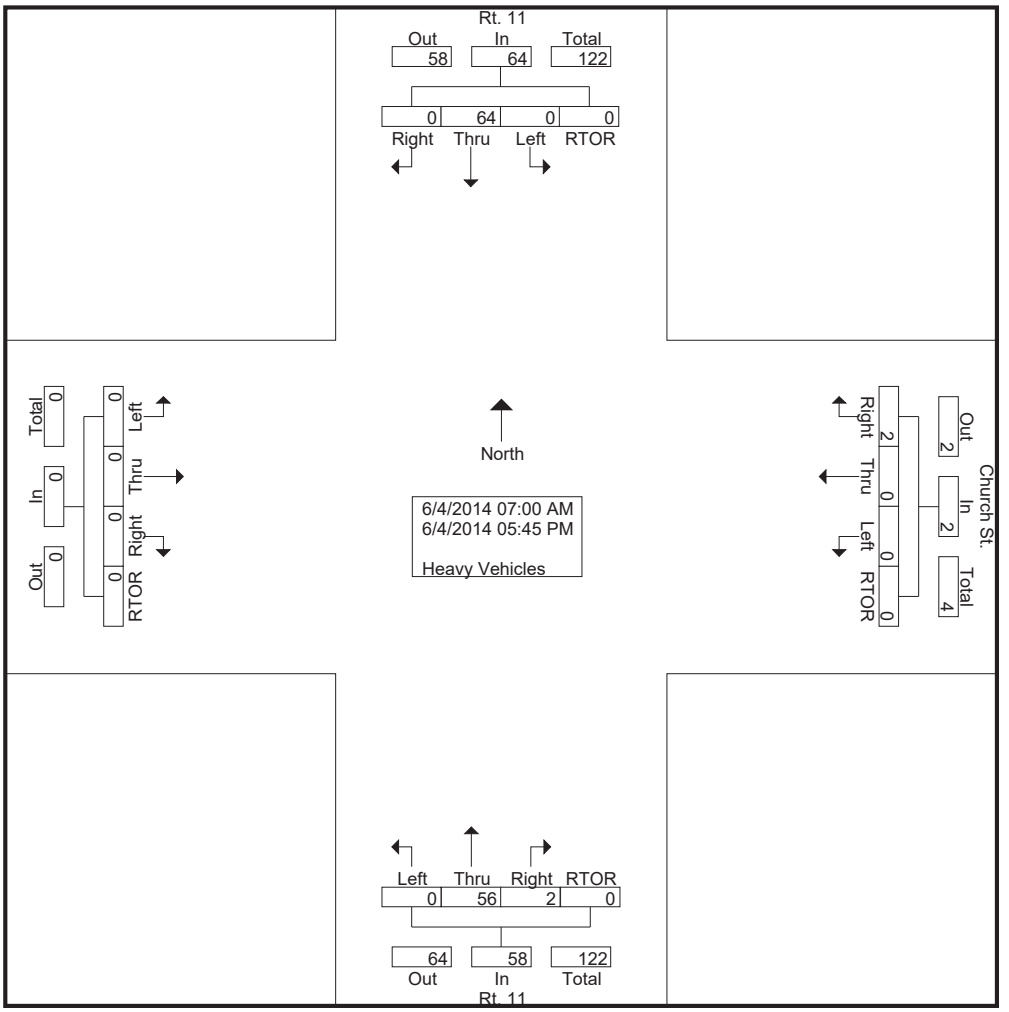
Village of North Syracuse
Rt. 11 and Church Street
AJM (a.m.) and JRD (p.m.)
Church Street Realignment

File Name : Rt 11_Church_06_04_14_Merged_AM-PM
Site Code : 06041406
Start Date : 6/4/2014



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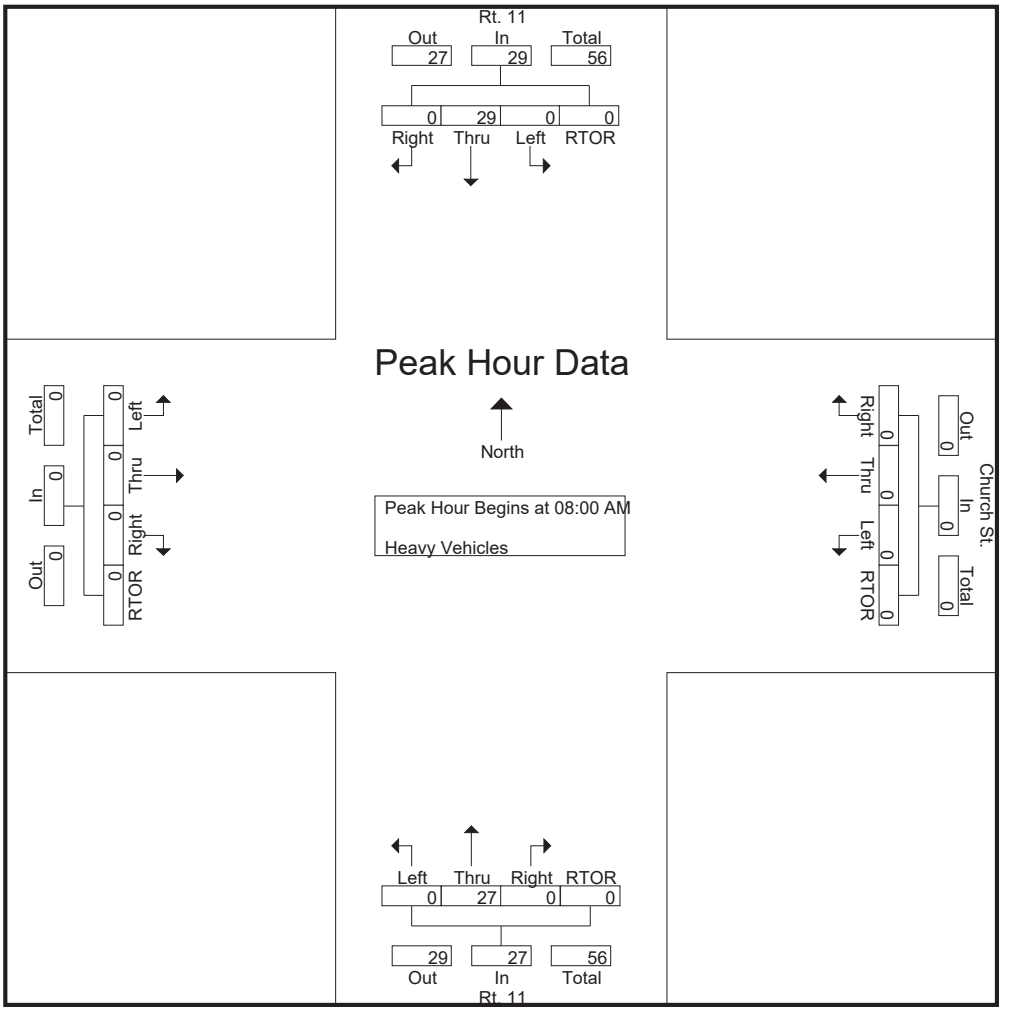
AJM (a.m.) and JRD (p.m.)
Church Street Realignment

File Name : Rt 11_Church_06_04_14_Merged_AM-PM
Site Code : 06041406
Start Date : 6/4/2014

	Eastbound					Church St. Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	9	0	0	9	11
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	8	0	0	8	14
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	**11**	0	0	**11**	**16**
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	**14**	0	0	**14**	0	1	0	0	1	15
Total Volume	0	0	0	0	0	0	0	0	0	0	0	27	0	0	27	0	29	0	0	29	56
% App. Total	0	0	0	0		0	0	0	0		0	100	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.482	.000	.000	.482	.000	.659	.000	.000	.659	.875



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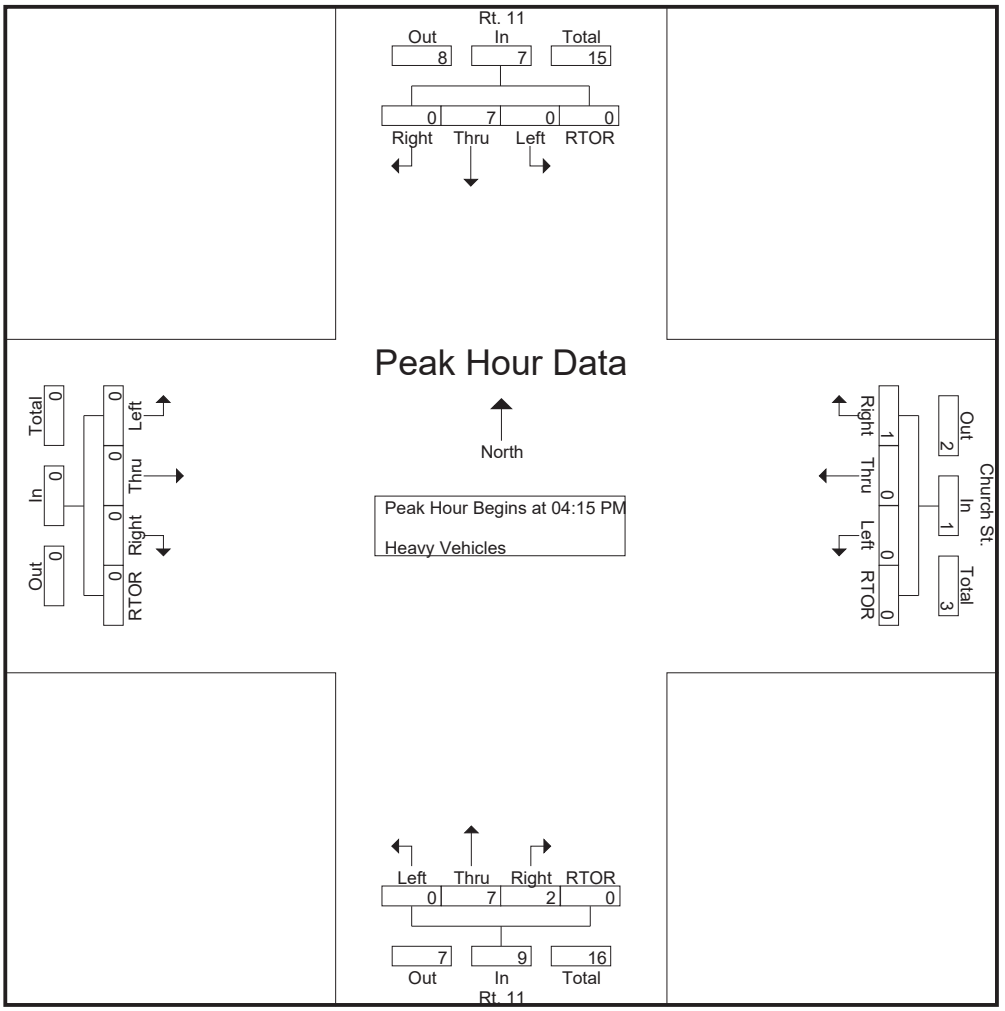
Village of North Syracuse
Rt. 11 and Church Street
AJM (a.m.) and JRD (p.m.)
Church Street Realignment

File Name : Rt 11_Church_06_04_14_Merged_AM-PM
Site Code : 06041406
Start Date : 6/4/2014

	Eastbound					Church St. Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	0	0	**1**	0	**1**	0	**3**	**1**	0	**4**	0	1	0	0	1	**6**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	**4**	0	0	**4**	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	0	0	2	4
Total Volume	0	0	0	0	0	0	0	1	0	1	0	7	2	0	9	0	7	0	0	7	17
% App. Total	0	0	0	0		0	0	100	0		0	77.8	22.2	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.583	.500	.000	.563	.000	.438	.000	.000	.438	.708



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Village of North Syracuse
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AJM (a.m.) and JRD (p.m.)
Church Street Realignment

File Name : Rt 11_Church_06_04_14_Merged_AM-PM
Site Code : 06041406
Start Date : 6/4/2014
Page No : 1

Groups Printed- Bike_Peds

	Eastbound					Church St. Westbound					Rt. 11 Northbound					Rt. 11 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	2	2	0	0	0	0	0	0	1	0	5	6	0	0	0	0	0	8
Total	0	0	0	3	3	0	0	1	1	2	0	1	0	5	6	0	2	0	0	2	13
08:00 AM	0	0	0	0	0	0	0	0	8	8	0	1	0	0	1	0	0	0	0	0	9
08:15 AM	0	0	0	5	5	0	0	0	14	14	0	0	0	0	0	0	0	0	4	4	23
08:30 AM	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	1	1	4
08:45 AM	0	0	0	1	1	0	0	0	3	3	0	0	0	2	2	0	0	0	0	0	6
Total	0	0	0	6	6	0	0	0	28	28	0	1	0	2	3	0	0	0	5	5	42
*** BREAK ***																					
04:00 PM	0	0	0	1	1	0	0	0	8	8	0	4	0	8	12	0	0	0	0	0	21
*** BREAK ***																					
04:30 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	1	1	0	0	2	5
04:45 PM	0	0	0	3	3	0	0	0	1	1	0	0	0	1	1	0	1	0	0	1	6
Total	0	0	0	4	4	0	0	0	11	11	0	4	0	10	14	1	2	0	0	3	32
05:00 PM	0	0	0	1	1	0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	3
05:15 PM	0	0	0	2	2	0	0	0	0	0	0	0	0	4	4	3	0	0	0	3	9
05:30 PM	0	0	0	1	1	0	0	0	3	3	0	0	0	1	1	0	1	0	0	1	6
05:45 PM	0	0	0	2	2	2	0	0	0	2	0	0	0	1	1	0	2	0	0	2	7
Total	0	0	0	6	6	2	0	0	4	6	0	1	0	6	7	3	3	0	0	6	25
Grand Total	0	0	0	19	19	2	0	1	44	47	0	7	0	23	30	4	7	0	5	16	112
Apprch %	0	0	0	100		4.3	0	2.1	93.6		0	23.3	0	76.7		25	43.8	0	31.2		
Total %	0	0	0	17	17	1.8	0	0.9	39.3	42	0	6.2	0	20.5	26.8	3.6	6.2	0	4.5	14.3	

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Village of North Syracuse
Rt. 11 and Church Street
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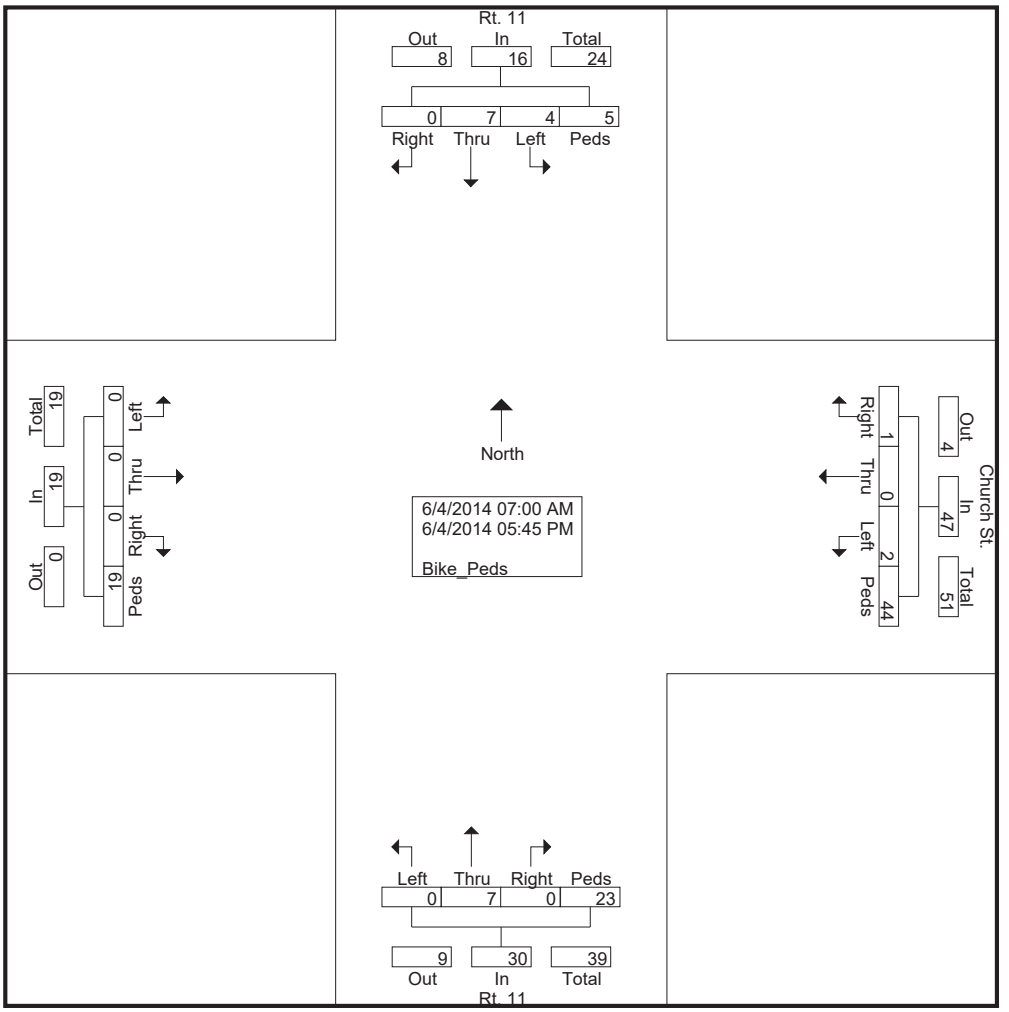
Church Street Realignment

File Name : Rt 11_Church_06_04_14_Merged_AM-PM
Site Code : 06041406
Start Date : 6/4/2014



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Village of North Syracuse
South Bay and Trolley Barn Lane
EH
Church Street Realignment

File Name : S Bay_Trolley Barn_06_04_14_Formatted
Site Code : 06041405
Start Date : 6/4/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Trolley Barn Lane Eastbound					Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	1	0	0	0	1	0	0	0	1	1	0	37	0	0	37	0	68	2	0	70	109
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	62	0	2	64	0	75	2	0	77	141
07:30 AM	1	0	2	0	3	0	0	0	0	0	2	63	0	0	65	1	107	3	0	111	179
07:45 AM	0	0	2	0	2	0	0	0	0	0	2	83	0	0	85	0	96	7	0	103	190
Total	2	0	4	0	6	0	0	0	1	1	4	245	0	2	251	1	346	14	0	361	619
08:00 AM	1	0	1	0	2	0	0	0	0	0	1	61	0	0	62	1	103	5	0	109	173
08:15 AM	3	0	1	0	4	0	0	0	0	0	1	77	0	0	78	0	87	4	0	91	173
08:30 AM	1	0	0	0	1	0	0	0	0	0	1	65	0	0	66	0	112	2	0	114	181
08:45 AM	2	0	0	0	2	0	0	0	0	0	1	73	0	0	74	0	96	3	0	99	175
Total	7	0	2	0	9	0	0	0	0	0	4	276	0	0	280	1	398	14	0	413	702
*** BREAK ***																					
04:00 PM	5	0	5	0	10	0	0	0	1	1	4	159	0	0	163	1	102	8	0	111	285
04:15 PM	3	0	2	0	5	0	0	0	0	0	3	127	1	0	131	0	85	5	0	90	226
04:30 PM	3	0	3	0	6	0	0	0	0	0	3	144	1	0	148	1	90	3	0	94	248
04:45 PM	1	0	4	0	5	0	0	0	0	0	4	152	0	0	156	0	135	5	0	140	301
Total	12	0	14	0	26	0	0	0	1	1	14	582	2	0	598	2	412	21	0	435	1060
05:00 PM	7	0	4	0	11	0	0	0	0	0	6	158	0	0	164	0	107	3	0	110	285
05:15 PM	5	0	4	1	10	0	0	0	0	0	2	168	0	0	170	0	102	8	0	110	290
05:30 PM	9	0	4	0	13	0	0	0	0	0	2	113	0	0	115	0	105	2	0	107	235
05:45 PM	4	0	1	0	5	0	0	0	0	0	1	113	0	0	114	4	100	2	0	106	225
Total	25	0	13	1	39	0	0	0	0	0	11	552	0	0	563	4	414	15	0	433	1035
Grand Total	46	0	33	1	80	0	0	0	2	2	33	1655	2	2	1692	8	1570	64	0	1642	3416
Apprch %	57.5	0	41.2	1.2		0	0	0	100		2	97.8	0.1	0.1		0.5	95.6	3.9	0		
Total %	1.3	0	1	0	2.3	0	0	0	0.1	0.1	1	48.4	0.1	0.1	49.5	0.2	46	1.9	0	48.1	
Cars	44	0	33	1	78	0	0	0	2	2	32	1610	2	2	1646	8	1503	60	0	1571	3297
% Cars	95.7	0	100	100	97.5	0	0	0	100	100	97	97.3	100	100	97.3	100	95.7	93.8	0	95.7	96.5
Heavy Vehicles	2	0	0	0	2	0	0	0	0	0	1	45	0	0	46	0	67	4	0	71	119
% Heavy Vehicles	4.3	0	0	0	2.5	0	0	0	0	0	3	2.7	0	0	2.7	0	4.3	6.2	0	4.3	3.5

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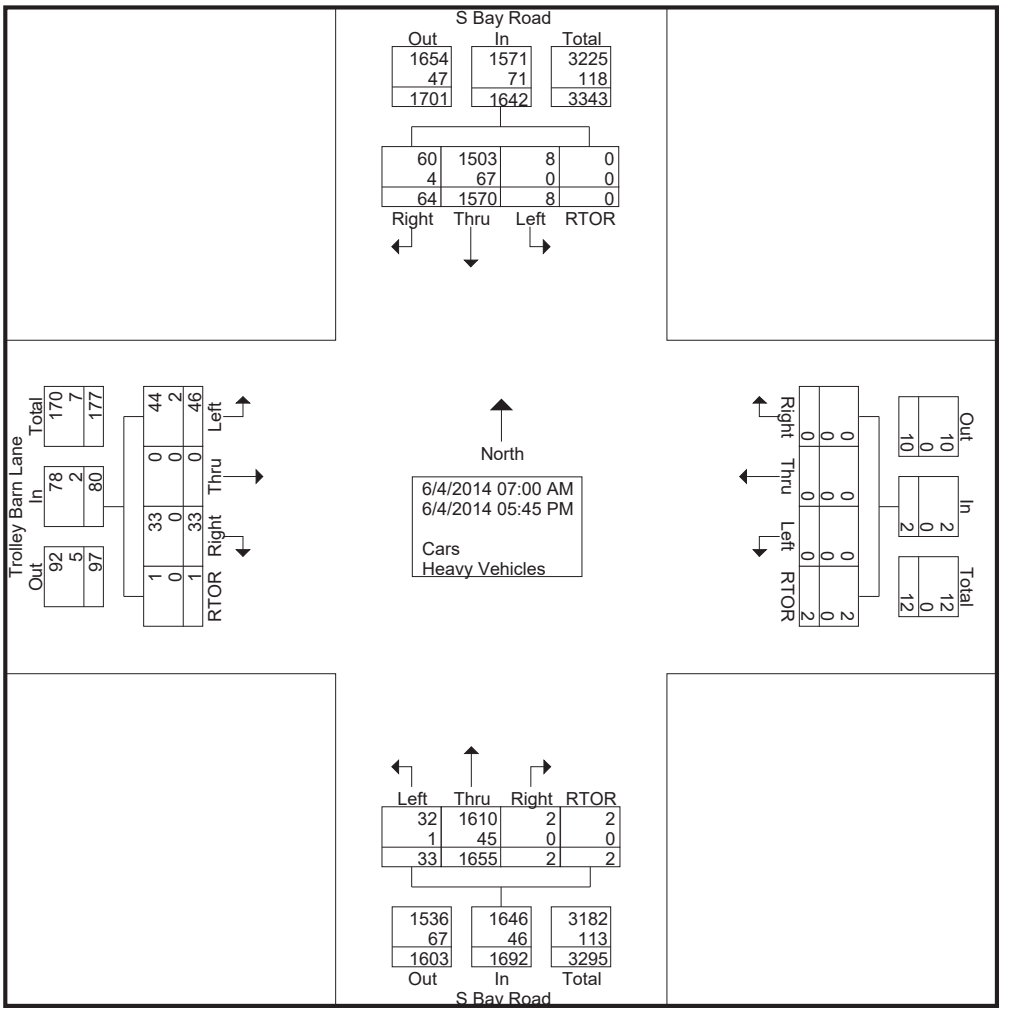
Village of North Syracuse
South Bay and Trolley Barn Lane
EH
Church Street Realignment

File Name : S Bay_Trolley Barn_06_04_14_Formatted
Site Code : 06041405
Start Date : 6/4/2014
Page No : 2



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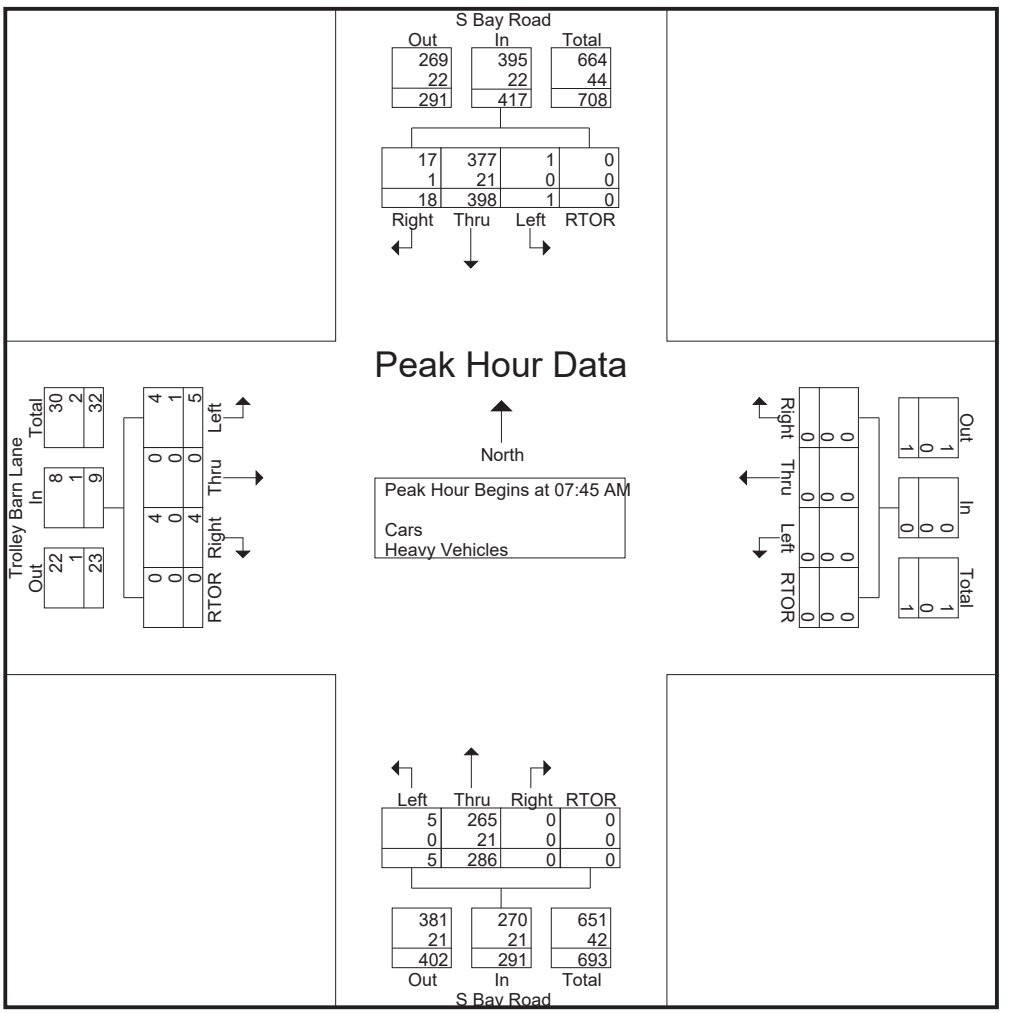
Village of North Syracuse
South Bay and Trolley Barn Lane
EH
Church Street Realignment

File Name : S Bay_Trolley Barn_06_04_14_Formatted
Site Code : 06041405
Start Date : 6/4/2014
Page No : 3

	Trolley Barn Lane Eastbound					Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	**2**	0	2	0	0	0	0	0	**2**	**83**	0	0	**85**	0	96	**7**	0	103	**190**
08:00 AM	1	0	1	0	2	0	0	0	0	0	1	61	0	0	62	**1**	103	5	0	109	173
08:15 AM	**3**	0	1	0	**4**	0	0	0	0	0	1	77	0	0	78	0	87	4	0	91	173
08:30 AM	1	0	0	0	1	0	0	0	0	0	1	65	0	0	66	0	**112**	2	0	**114**	181
Total Volume	5	0	4	0	9	0	0	0	0	0	5	286	0	0	291	1	398	18	0	417	717
% App. Total	55.6	0	44.4	0		0	0	0	0		1.7	98.3	0	0		0.2	95.4	4.3	0		
PHF	.417	.000	.500	.000	.563	.000	.000	.000	.000	.000	.625	.861	.000	.000	.856	.250	.888	.643	.000	.914	.943
Cars	4	0	4	0	8	0	0	0	0	0	5	265	0	0	270	1	377	17	0	395	673
% Cars	80.0	0	100	0	88.9	0	0	0	0	0	100	92.7	0	0	92.8	100	94.7	94.4	0	94.7	93.9
Heavy Vehicles																					
% Heavy Vehicles	20.0	0	0	0	11.1	0	0	0	0	0	0	7.3	0	0	7.2	0	5.3	5.6	0	5.3	6.1



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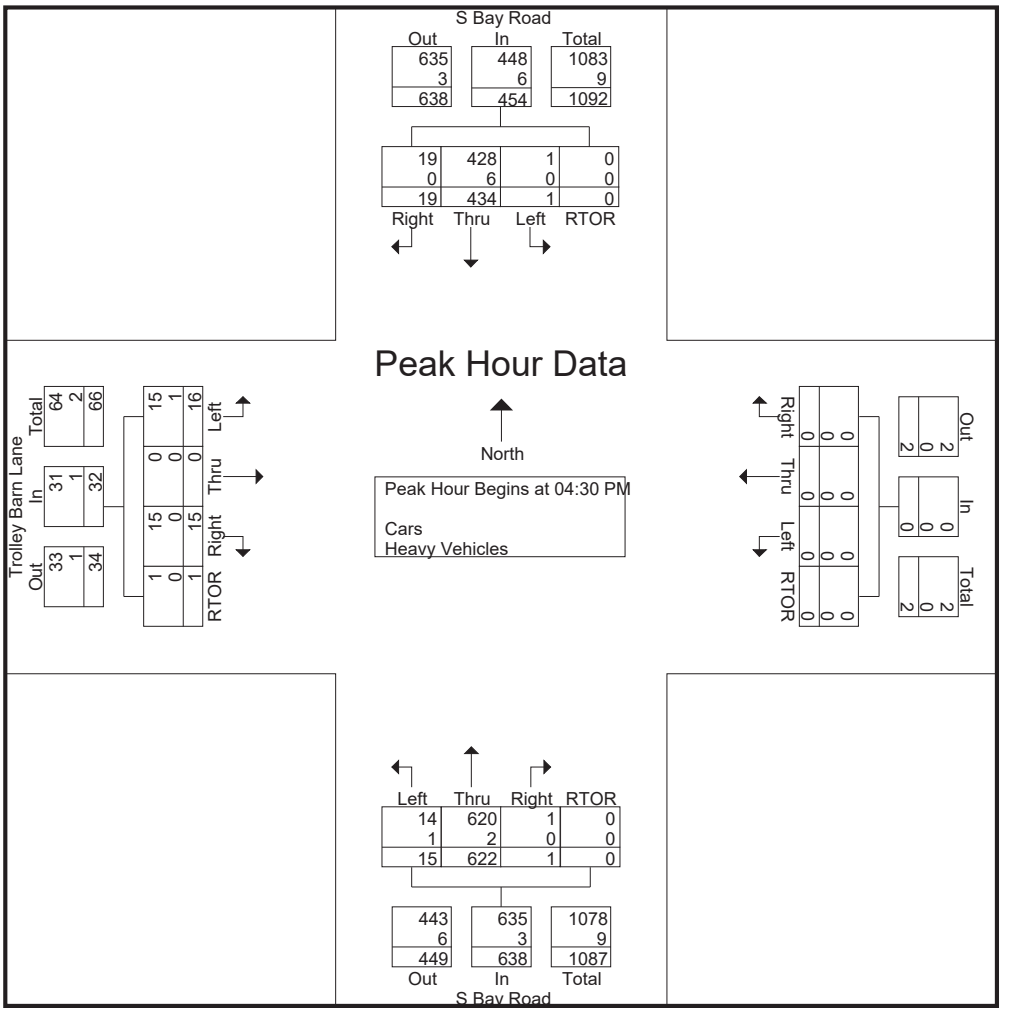
Village of North Syracuse
South Bay and Trolley Barn Lane
EH
Church Street Realignment

File Name : S Bay_Trolley Barn_06_04_14_Formatted
Site Code : 06041405
Start Date : 6/4/2014
Page No : 4

	Trolley Barn Lane Eastbound					Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	3	0	3	0	6	0	0	0	0	0	3	144	**1**	0	148	**1**	90	3	0	94	248
04:45 PM	1	0	**4**	0	5	0	0	0	0	0	4	152	0	0	156	0	**135**	5	0	**140**	**301**
05:00 PM	**7**	0	4	0	**11**	0	0	0	0	0	**6**	158	0	0	164	0	107	3	0	110	285
05:15 PM	5	0	4	**1**	10	0	0	0	0	0	2	**168**	0	0	**170**	0	102	**8**	0	110	290
Total Volume	16	0	15	1	32	0	0	0	0	0	15	622	1	0	638	1	434	19	0	454	1124
% App. Total	50	0	46.9	3.1		0	0	0	0		2.4	97.5	0.2	0		0.2	95.6	4.2	0		
PHF	.571	.000	.938	.250	.727	.000	.000	.000	.000	.000	.625	.926	.250	.000	.938	.250	.804	.594	.000	.811	.934
Cars	15	0	15	1	31	0	0	0	0	0	14	620	1	0	635	1	428	19	0	448	1114
% Cars	93.8	0	100	100	96.9	0	0	0	0	0	93.3	99.7	100	0	99.5	100	98.6	100	0	98.7	99.1
Heavy Vehicles																					
% Heavy Vehicles	6.3	0	0	0	3.1	0	0	0	0	0	6.7	0.3	0	0	0.5	0	1.4	0	0	1.3	0.9



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Village of North Syracuse
South Bay and Trolley Barn Lane
EH
Church Street Realignment

File Name : S Bay_Trolley Barn_06_04_14_Formatted
Site Code : 06041405
Start Date : 6/4/2014
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Groups Printed- Heavy Vehicles

	Trolley Barn Lane Eastbound					Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	6	0	0	6	10
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	6
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	5	0	0	5	11
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	5	0	0	5	11
Total	0	0	0	0	0	0	0	0	0	0	0	20	0	0	20	0	18	0	0	18	38
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	8	0	0	8	10
08:15 AM	1	0	0	0	1	0	0	0	0	0	0	11	0	0	11	0	3	1	0	4	16
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5	0	0	5	7
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	9	0	0	9	12
Total	1	0	0	0	1	0	0	0	0	0	0	18	0	0	18	0	25	1	0	26	45
*** BREAK ***																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	6	3	0	9	13
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	11	0	0	11	12
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	1	6	0	0	7	0	22	3	0	25	32
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
05:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
*** BREAK ***																					
Total	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	4
Grand Total	2	0	0	0	2	0	0	0	0	0	1	45	0	0	46	0	67	4	0	71	119
Apprch %	100	0	0	0		0	0	0	0		2.2	97.8	0	0		0	94.4	5.6	0		
Total %	1.7	0	0	0	1.7	0	0	0	0	0	0.8	37.8	0	0	38.7	0	56.3	3.4	0	59.7	

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Village of North Syracuse
South Bay and Trolley Barn Lane
EH
Church Street Realignment

File Name : S Bay_Trolley Barn_06_04_14_Formatted
Site Code : 06041405
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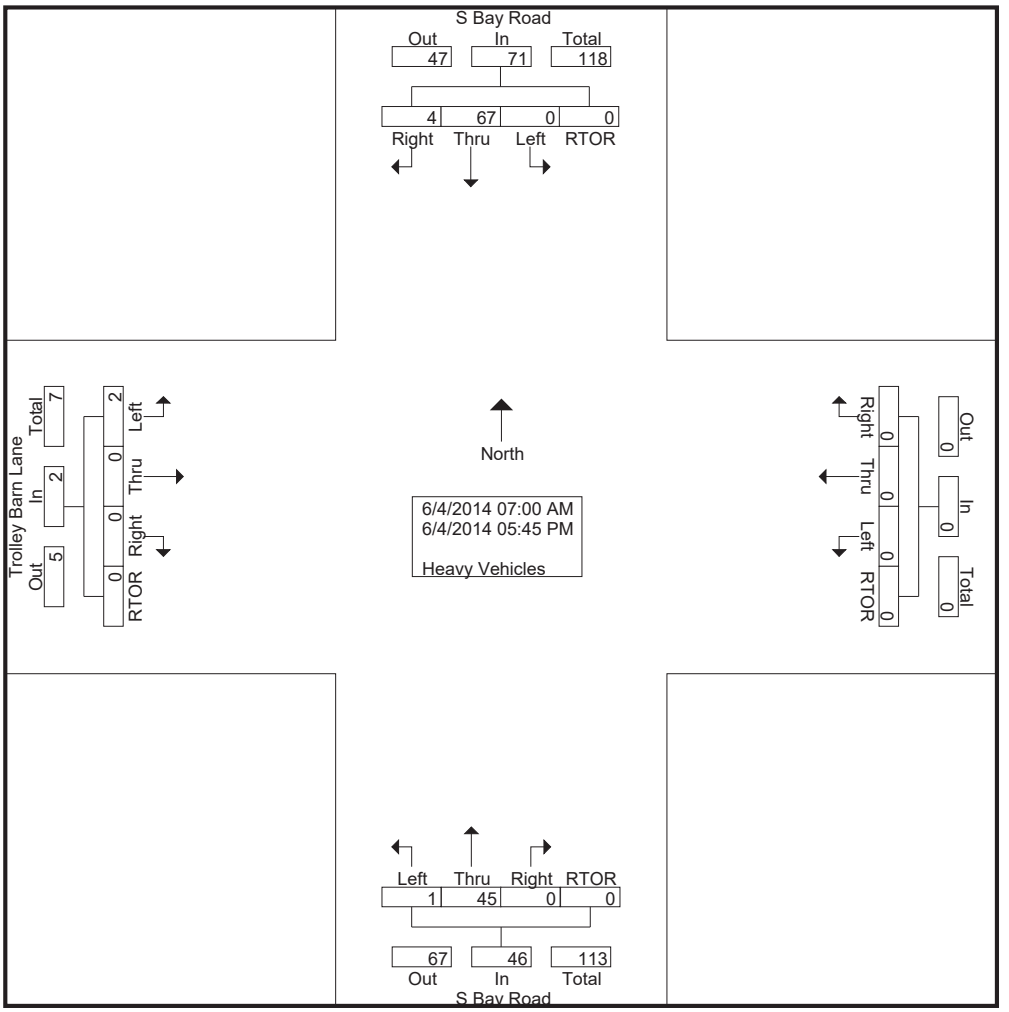

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Village of North Syracuse
South Bay and Trolley Barn Lane
EH
Church Street Realignment

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Site Code : 06041405
Start Date : 6/4/2014
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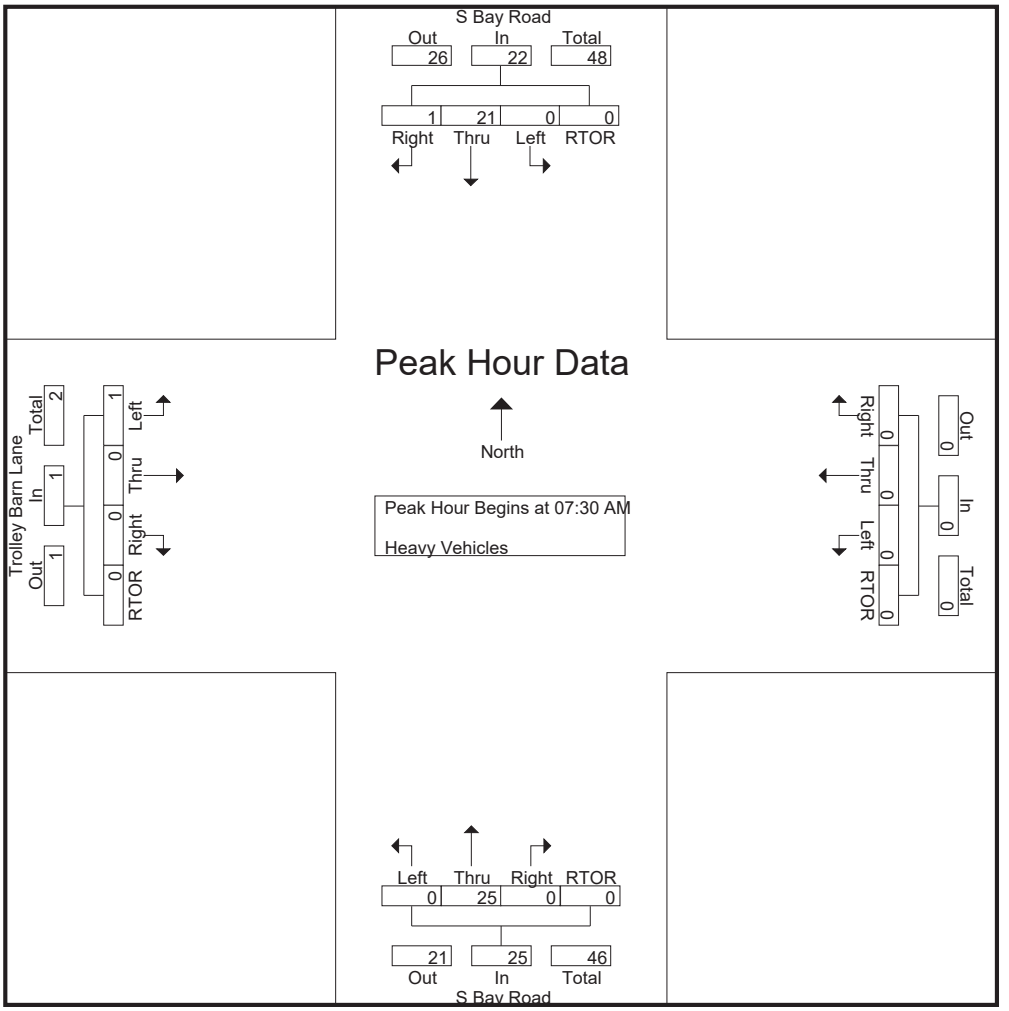
	Trolley Barn Lane Eastbound					Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	5	0	0	5	11
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	5	0	0	5	11
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	**8**	0	0	**8**	10
08:15 AM	**1**	0	0	0	**1**	0	0	0	0	0	0	**11**	0	0	**11**	0	3	**1**	0	4	**16**
Total Volume	1	0	0	0	1	0	0	0	0	0	0	25	0	0	25	0	21	1	0	22	48
% App. Total	100	0	0	0		0	0	0	0		0	100	0	0		0	95.5	4.5	0		
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.568	.000	.000	.568	.000	.656	.250	.000	.688	.750



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Village of North Syracuse
South Bay and Trolley Barn Lane
EH
Church Street Realignment

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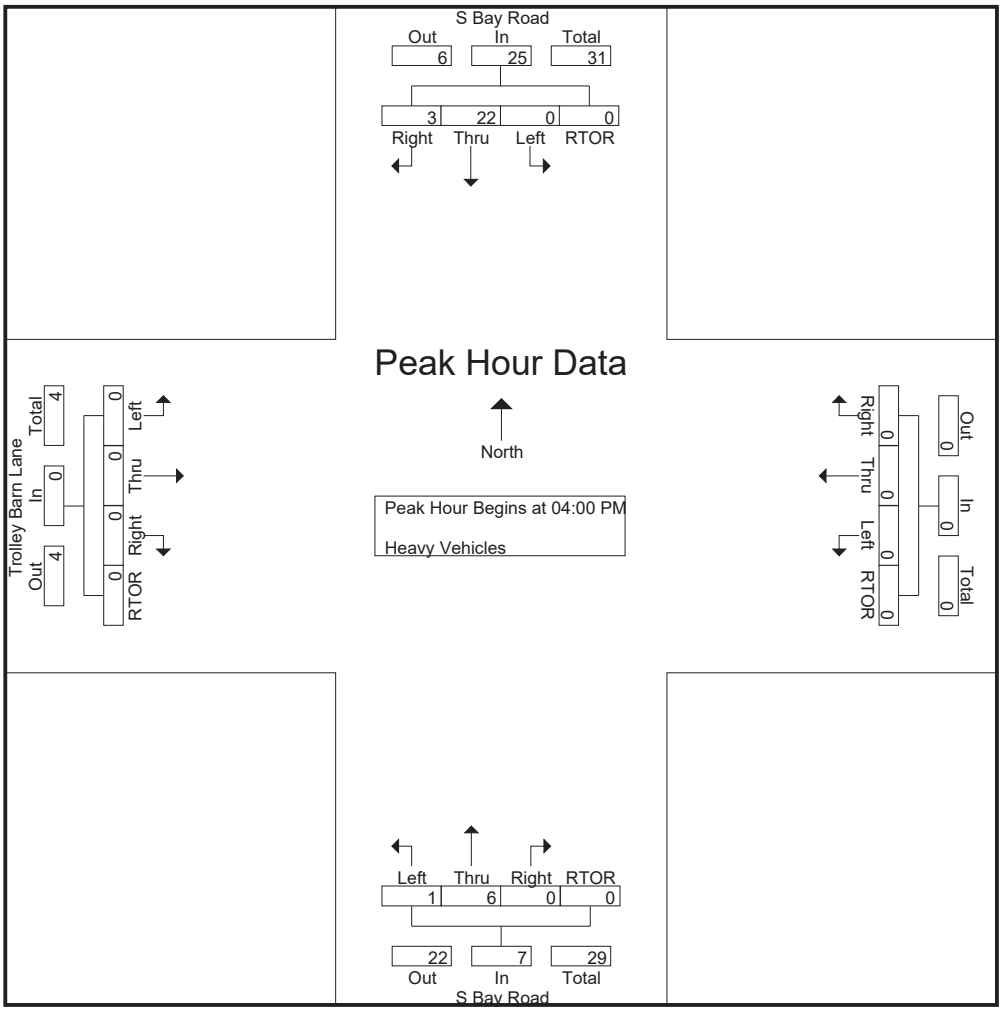
	Trolley Barn Lane Eastbound					Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	**4**	0	6	**3**	0	9	**13**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	**11**	0	0	**11**	12
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	**1**	1	0	0	2	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	0	1	6	0	0	7	0	22	3	0	25	32
% App. Total	0	0	0	0		0	0	0	0		14.3	85.7	0	0		0	88	12	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.375	.000	.000	.438	.000	.500	.250	.000	.568	.615



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Village of North Syracuse
South Bay and Trolley Barn Lane
EH
Church Street Realignment

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Groups Printed- Bike_Peds

	Trolley Barn Lane Eastbound					Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
*** BREAK ***																					
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
*** BREAK ***																					
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
*** BREAK ***																					
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
*** BREAK ***																					
04:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
04:30 PM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	1	0	0	1	2	0	0	0	0	0	0	2	0	0	2	0	1	1	0	2	6
*** BREAK ***																					
05:30 PM	0	0	2	0	2	0	0	0	3	3	0	0	0	2	2	0	1	0	0	1	8
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	2	0	2	0	0	0	3	3	0	1	0	2	3	0	1	0	0	1	9
Grand Total	1	0	2	1	4	0	0	0	3	3	0	4	0	2	6	0	2	2	0	4	17
Apprch %	25	0	50	25		0	0	0	100		0	66.7	0	33.3		0	50	50	0		
Total %	5.9	0	11.8	5.9	23.5	0	0	0	17.6	17.6	0	23.5	0	11.8	35.3	0	11.8	11.8	0	23.5	

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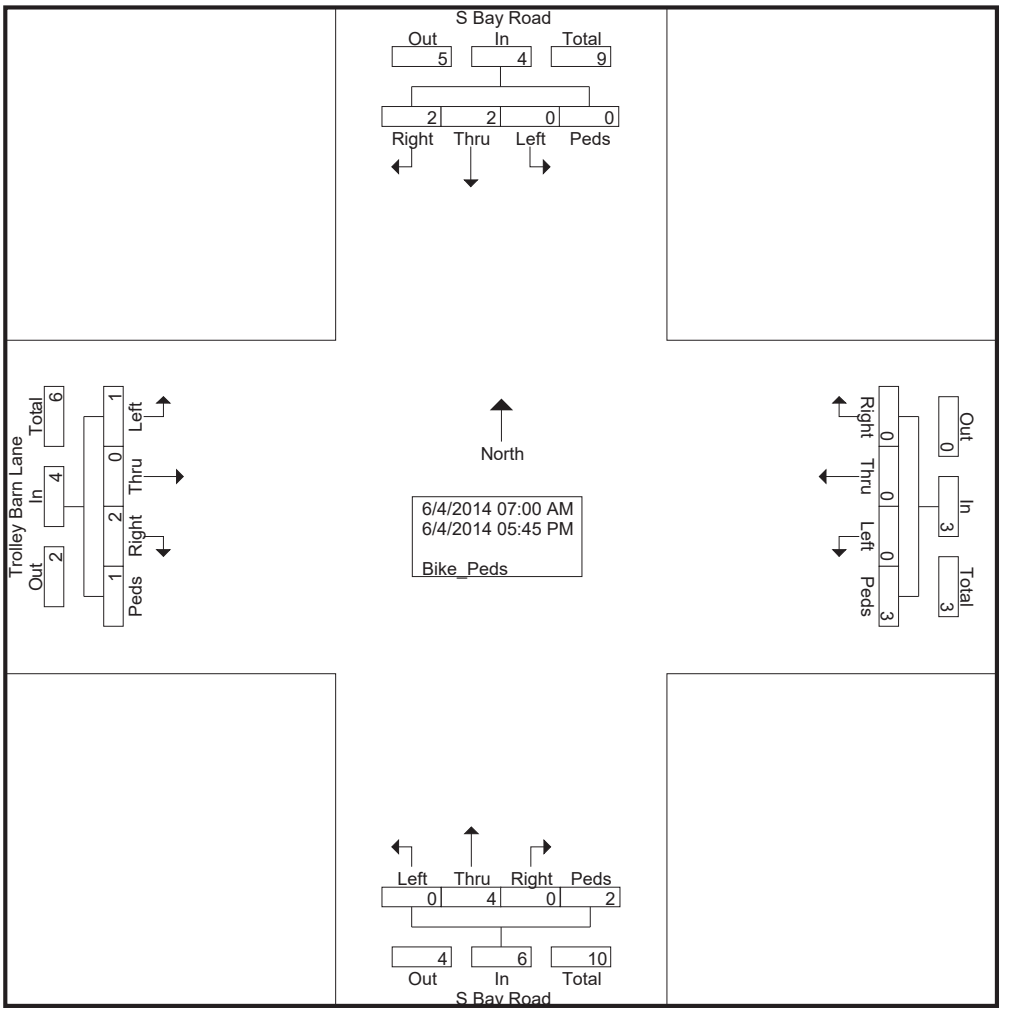

Syracuse Metropolitan Transportation Council

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Village of North Syracuse
South Bay & Centerville Place
KB
Church Street Realignment

File Name : S Bay_Centerville_06_04_14_Formatted
Site Code : 06041404
Start Date : 6/4/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Centerville Place Eastbound					Church Street Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	5	18	2	0	25	5	18	8	0	31	2	19	1	0	22	9	50	10	0	69	147
07:15 AM	14	24	2	0	40	7	11	14	1	33	3	34	5	0	42	10	57	13	0	80	195
07:30 AM	13	23	10	0	46	11	14	16	1	42	1	35	8	1	45	11	73	10	1	95	228
07:45 AM	14	30	5	0	49	16	13	13	0	42	11	50	6	0	67	22	55	19	1	97	255
Total	46	95	19	0	160	39	56	51	2	148	17	138	20	1	176	52	235	52	2	341	825
08:00 AM	15	29	8	0	52	6	18	9	0	33	9	39	2	0	50	14	70	18	1	103	238
08:15 AM	7	26	6	0	39	5	14	9	0	28	14	53	5	0	72	6	81	14	0	101	240
08:30 AM	5	15	4	0	24	9	18	9	0	36	7	44	3	0	54	17	65	28	0	110	224
08:45 AM	13	25	14	0	52	10	10	9	0	29	7	60	5	0	72	21	46	22	0	89	242
Total	40	95	32	0	167	30	60	36	0	126	37	196	15	0	248	58	262	82	1	403	944
*** BREAK ***																					
04:00 PM	26	30	7	0	63	5	31	23	3	62	18	104	4	0	126	20	64	14	0	98	349
04:15 PM	23	20	11	0	54	6	28	28	1	63	26	76	9	0	111	17	58	13	0	88	316
04:30 PM	26	24	12	0	62	5	33	22	1	61	18	105	8	0	131	21	59	12	0	92	346
04:45 PM	19	35	7	0	61	6	40	24	1	71	23	110	5	0	138	34	83	24	0	141	411
Total	94	109	37	0	240	22	132	97	6	257	85	395	26	0	506	92	264	63	0	419	1422
05:00 PM	26	32	11	0	69	7	49	32	0	88	14	116	10	0	140	28	66	20	0	114	411
05:15 PM	33	24	7	2	66	4	49	28	0	81	26	115	7	0	148	32	59	22	0	113	408
05:30 PM	18	30	8	1	57	3	30	28	2	63	13	79	9	0	101	27	68	18	0	113	334
05:45 PM	14	31	10	0	55	7	38	20	1	66	18	76	6	0	100	26	58	19	0	103	324
Total	91	117	36	3	247	21	166	108	3	298	71	386	32	0	489	113	251	79	0	443	1477
Grand Total	271	416	124	3	814	112	414	292	11	829	210	1115	93	1	1419	315	1012	276	3	1606	4668
Apprch %	33.3	51.1	15.2	0.4		13.5	49.9	35.2	1.3		14.8	78.6	6.6	0.1		19.6	63	17.2	0.2		
Total %	5.8	8.9	2.7	0.1	17.4	2.4	8.9	6.3	0.2	17.8	4.5	23.9	2	0	30.4	6.7	21.7	5.9	0.1	34.4	
Cars	269	404	121	3	797	107	406	291	10	814	206	1077	90	1	1374	306	969	270	3	1548	4533
% Cars	99.3	97.1	97.6	100	97.9	95.5	98.1	99.7	90.9	98.2	98.1	96.6	96.8	100	96.8	97.1	95.8	97.8	100	96.4	97.1
Heavy Vehicles	2	12	3	0	17	5	8	1	1	15	4	38	3	0	45	9	43	6	0	58	135
% Heavy Vehicles	0.7	2.9	2.4	0	2.1	4.5	1.9	0.3	9.1	1.8	1.9	3.4	3.2	0	3.2	2.9	4.2	2.2	0	3.6	2.9

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Village of North Syracuse
South Bay & Centerville Place
KB
Church Street Realignment

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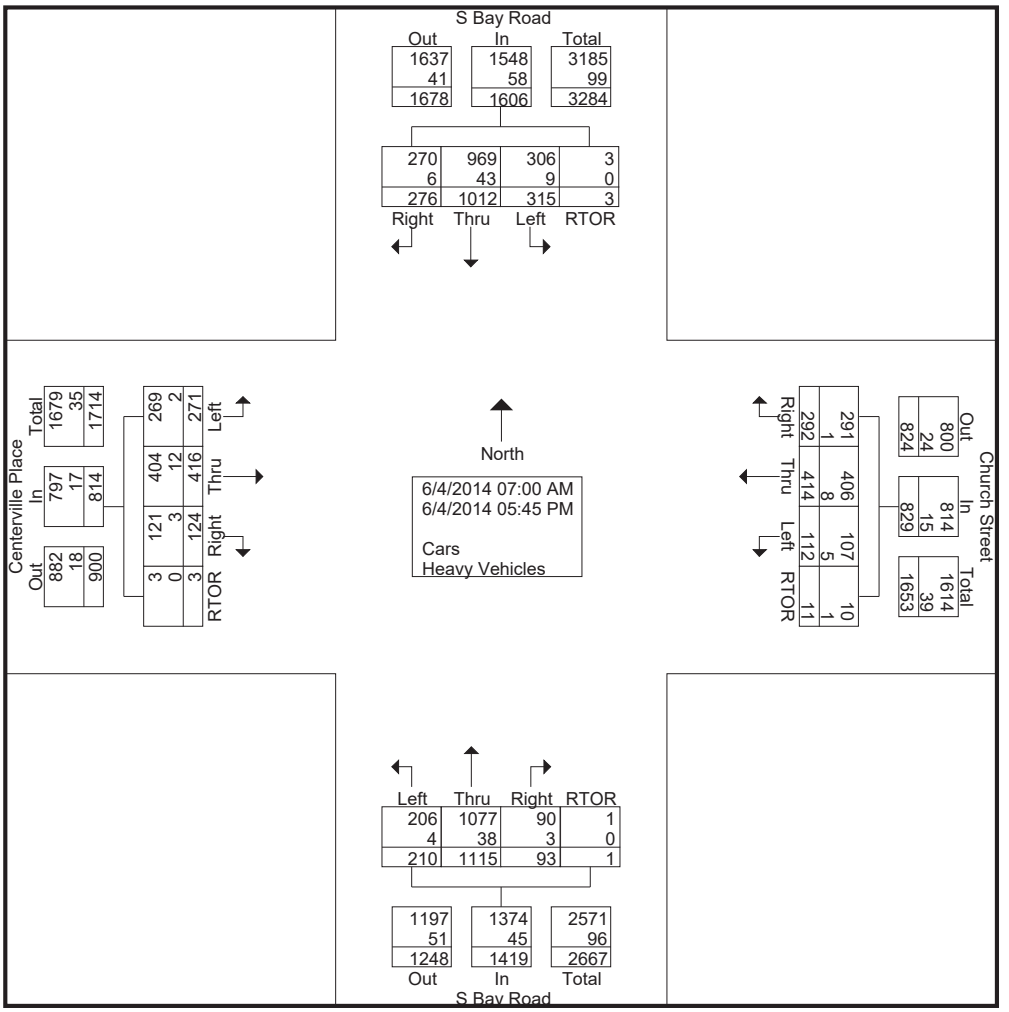

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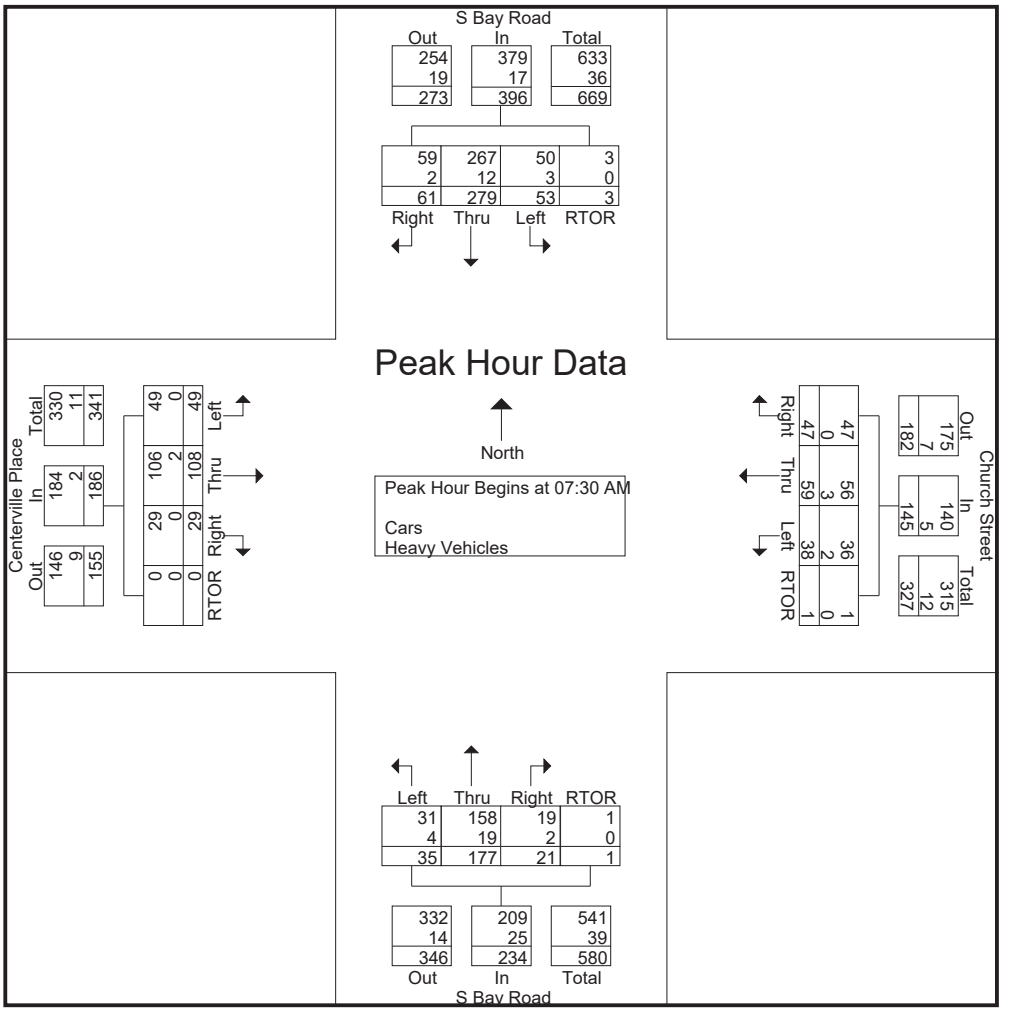
	Centerville Place Eastbound					Church Street Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	13	23	**10**	0	46	11	14	**16**	**1**	**42**	1	35	**8**	**1**	45	11	73	10	**1**	95	228
07:45 AM	14	**30**	5	0	49	**16**	13	13	0	42	11	50	6	0	67	**22**	55	**19**	1	97	**255**
08:00 AM	**15**	29	8	0	**52**	6	**18**	9	0	33	9	39	2	0	50	14	70	18	1	**103**	238
08:15 AM	7	26	6	0	39	5	14	9	0	28	**14**	**53**	5	0	**72**	6	**81**	14	0	101	240
Total Volume	49	108	29	0	186	38	59	47	1	145	35	177	21	1	234	53	279	61	3	396	961
% App. Total	26.3	58.1	15.6	0		26.2	40.7	32.4	0.7		15	75.6	9	0.4		13.4	70.5	15.4	0.8		
PHF	.817	.900	.725	.000	.894	.594	.819	.734	.250	.863	.625	.835	.656	.250	.813	.602	.861	.803	.750	.961	.942
Cars	49	106	29	0	184	36	56	47	1	140	31	158	19	1	209	50	267	59	3	379	912
% Cars	100	98.1	100	0	98.9	94.7	94.9	100	100	96.6	88.6	89.3	90.5	100	89.3	94.3	95.7	96.7	100	95.7	94.9
Heavy Vehicles																					
% Heavy Vehicles	0	1.9	0	0	1.1	5.3	5.1	0	0	3.4	11.4	10.7	9.5	0	10.7	5.7	4.3	3.3	0	4.3	5.1



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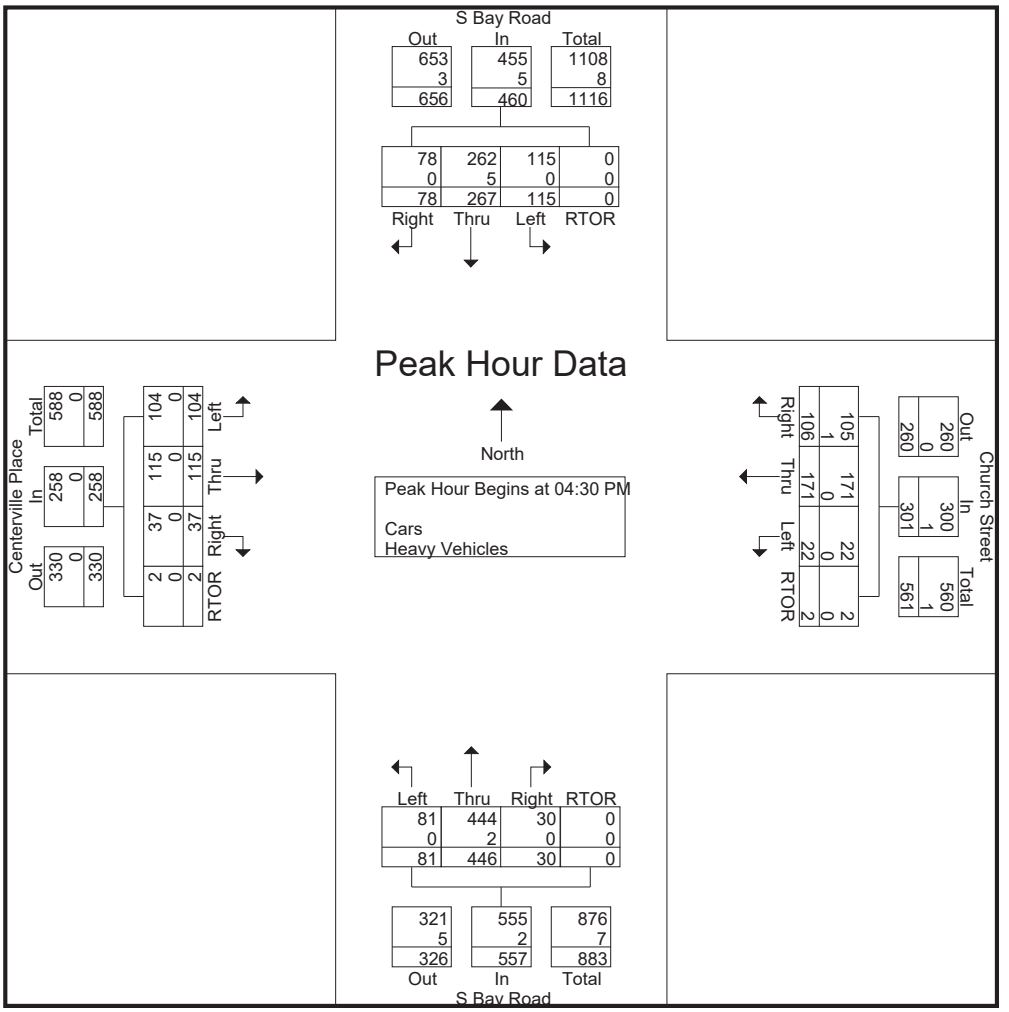
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	26	24	**12**	0	62	5	33	22	**1**	61	18	105	8	0	131	21	59	12	0	92	346
04:45 PM	19	**35**	7	0	61	6	40	24	1	71	23	110	5	0	138	**34**	**83**	**24**	0	**141**	**411**
05:00 PM	26	32	11	0	**69**	**7**	**49**	**32**	0	**88**	14	**116**	**10**	0	140	28	66	20	0	114	411
05:15 PM	**33**	24	7	**2**	66	4	49	28	0	81	**26**	115	7	0	**148**	32	59	22	0	113	408
Total Volume	104	115	37	2	258	22	171	106	2	301	81	446	30	0	557	115	267	78	0	460	1576
% App. Total	40.3	44.6	14.3	0.8		7.3	56.8	35.2	0.7		14.5	80.1	5.4	0		25	58	17	0		
PHF	.788	.821	.771	.250	.935	.786	.872	.828	.500	.855	.779	.961	.750	.000	.941	.846	.804	.813	.000	.816	.959
Cars	104	115	37	2	258	22	171	105	2	300	81	444	30	0	555	115	262	78	0	455	1568
% Cars	100	100	100	100	100	100	100	99.1	100	99.7	100	99.6	100	0	99.6	100	98.1	100	0	98.9	99.5
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	0	0.9	0	0.3	0	0.4	0	0	0.4	0	1.9	0	0	1.1	0.5



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Groups Printed- Heavy Vehicles

	Centerville Place Eastbound					Church Street Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	1	1	0	0	2	0	1	0	0	1	0	2	0	0	2	0	7	0	0	7	12
07:15 AM	0	0	0	0	0	2	0	0	0	2	0	5	0	0	5	0	2	1	0	3	10
07:30 AM	0	0	0	0	0	1	1	0	0	2	0	4	0	0	4	0	2	0	0	2	8
07:45 AM	0	1	0	0	1	1	1	0	0	2	1	5	0	0	6	1	1	1	0	3	12
Total	1	2	0	0	3	4	3	0	0	7	1	16	0	0	17	1	12	2	0	15	42
08:00 AM	0	1	0	0	1	0	0	0	0	0	1	2	1	0	4	2	7	0	0	9	14
08:15 AM	0	0	0	0	0	0	1	0	0	1	2	8	1	0	11	0	2	1	0	3	15
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	0	1	2	0	3	6
08:45 AM	0	8	2	0	10	0	1	0	0	1	0	3	0	0	3	4	2	1	0	7	21
Total	0	9	2	0	11	0	3	0	0	3	3	15	2	0	20	6	12	4	0	22	56
*** BREAK ***																					
04:00 PM	0	0	0	0	0	0	1	0	1	2	0	4	1	0	5	0	4	0	0	4	11
04:15 PM	1	0	1	0	2	1	0	0	0	1	0	1	0	0	1	1	10	0	0	11	15
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0	0	4	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	1	0	1	0	2	1	1	0	1	3	0	7	1	0	8	1	18	0	0	19	32
05:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	1	1	0	2	0	0	0	0	0	1	1	0	0	2	5
Grand Total	2	12	3	0	17	5	8	1	1	15	4	38	3	0	45	9	43	6	0	58	135
Apprch %	11.8	70.6	17.6	0		33.3	53.3	6.7	6.7		8.9	84.4	6.7	0		15.5	74.1	10.3	0		
Total %	1.5	8.9	2.2	0	12.6	3.7	5.9	0.7	0.7	11.1	3	28.1	2.2	0	33.3	6.7	31.9	4.4	0	43	

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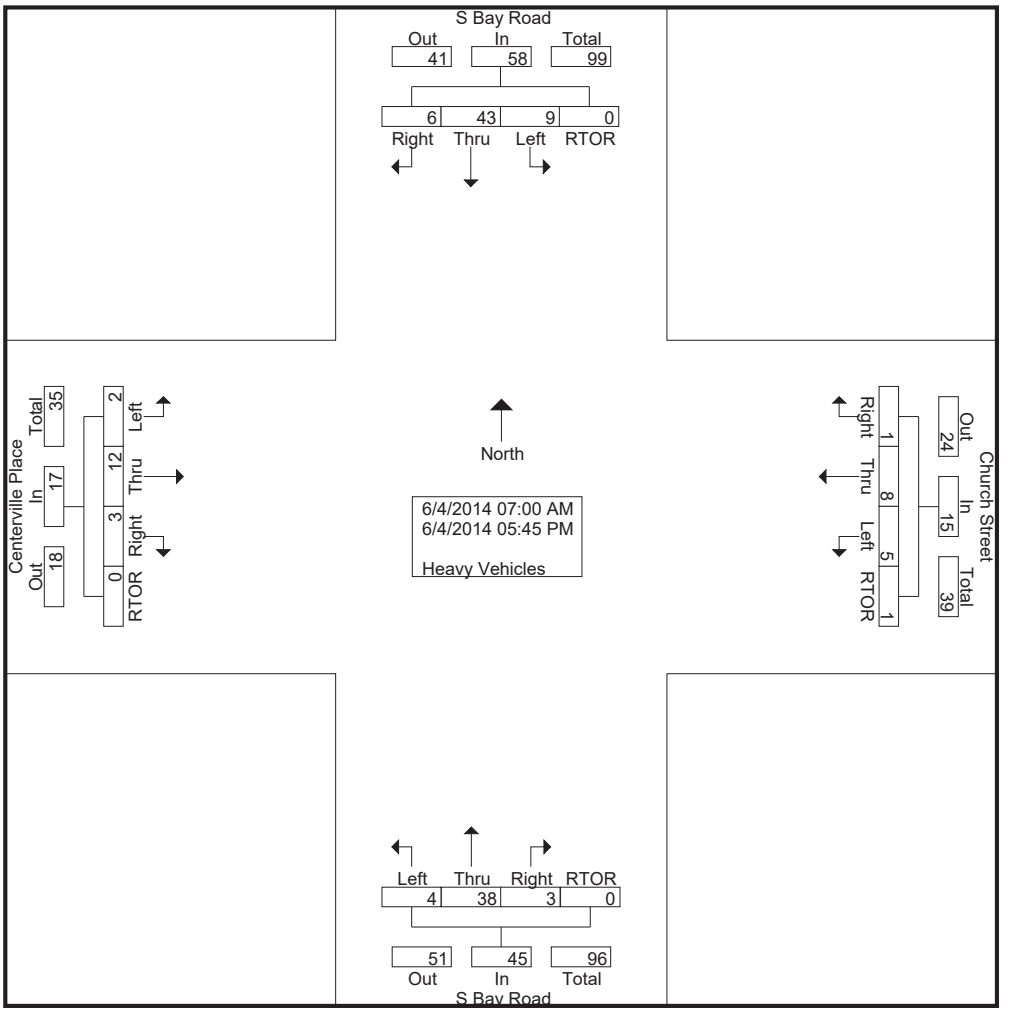
Village of North Syracuse
South Bay & Centerville Place
KB
Church Street Realignment

File Name : S Bay_Centerville_06_04_14_Formatted
Site Code : 06041404
Start Date : 6/4/2014
Page No : 2



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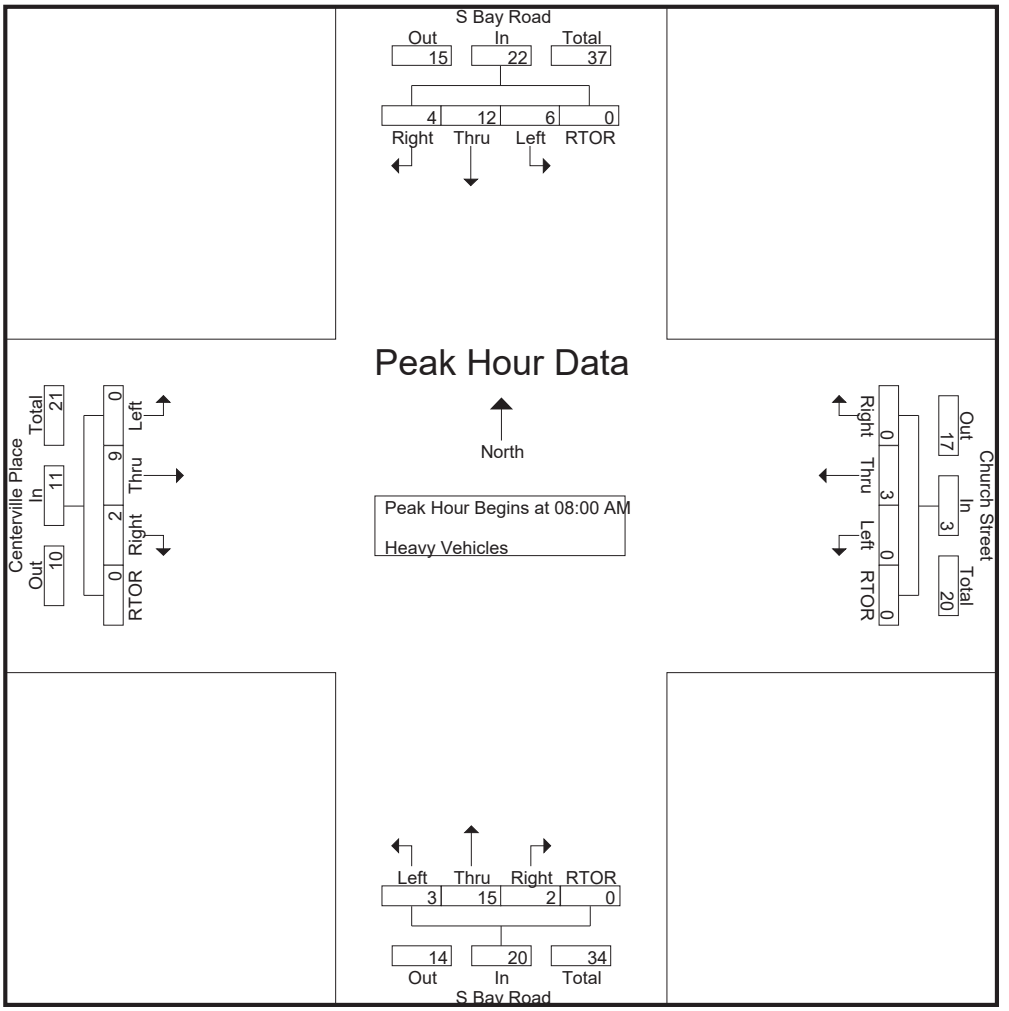
File Name : S Bay_Centerville_06_04_14_Formatted
Site Code : 06041404
Start Date : 6/4/2014

	Centerville Place Eastbound					Church Street Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	1	0	0	1	0	0	0	0	0	1	2	**1**	0	4	2	**7**	0	0	**9**	14
08:15 AM	0	0	0	0	0	0	**1**	0	0	**1**	**2**	**8**	1	0	**11**	0	2	1	0	3	15
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	0	1	**2**	0	3	6
08:45 AM	0	**8**	**2**	0	**10**	0	1	0	0	1	0	3	0	0	3	**4**	2	1	0	7	**21**
Total Volume	0	9	2	0	11	0	3	0	0	3	3	15	2	0	20	6	12	4	0	22	56
% App. Total	0	81.8	18.2	0		0	100	0	0		15	75	10	0		27.3	54.5	18.2	0		
PHF	.000	.281	.250	.000	.275	.000	.750	.000	.000	.750	.375	.469	.500	.000	.455	.375	.429	.500	.000	.611	.667



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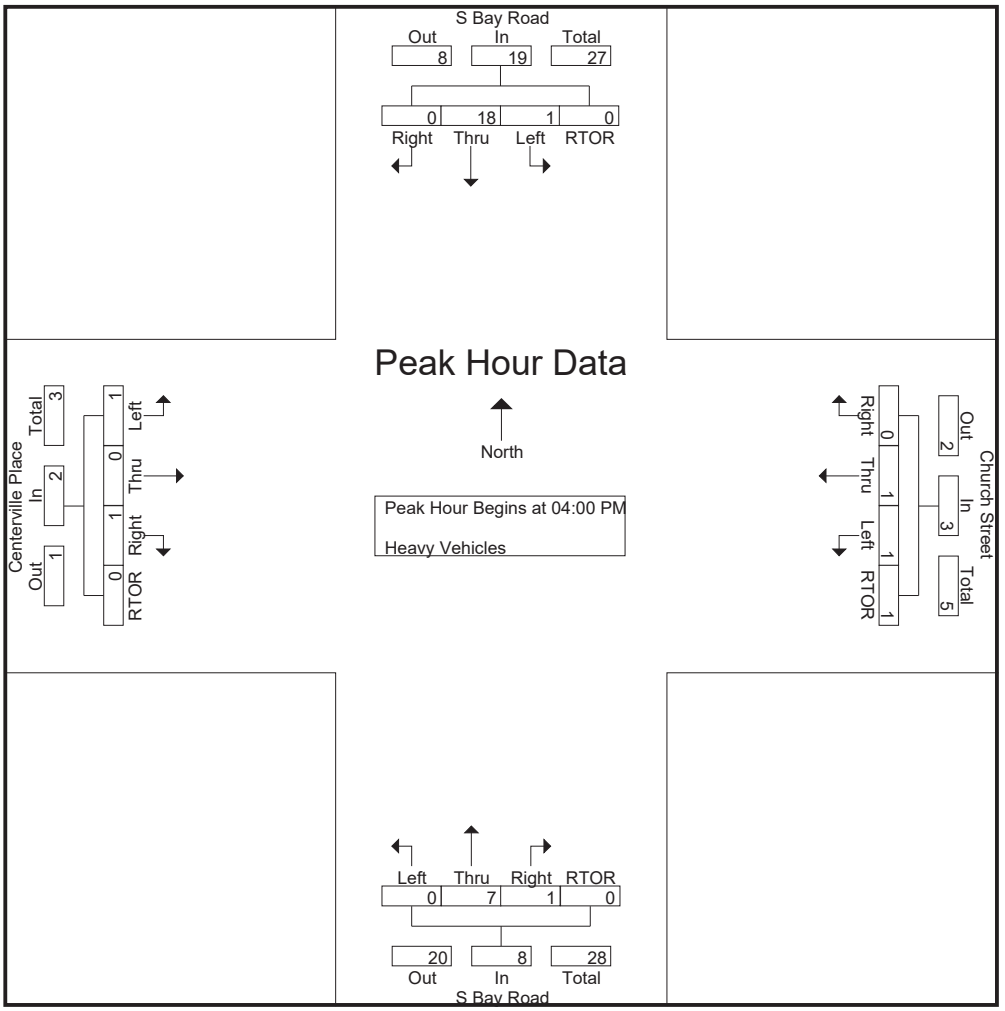
Site Code : 06041404
Start Date : 6/4/2014

	Centerville Place Eastbound					Church Street Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	**1**	0	**1**	**2**	0	**4**	**1**	0	**5**	0	4	0	0	4	11
04:15 PM	**1**	0	**1**	0	**2**	**1**	0	0	0	1	0	1	0	0	1	**1**	**10**	0	0	**11**	**15**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0	0	4	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	1	0	1	0	2	1	1	0	1	3	0	7	1	0	8	1	18	0	0	19	32
% App. Total	50	0	50	0		33.3	33.3	0	33.3		0	87.5	12.5	0		5.3	94.7	0	0		
PHF	.250	.000	.250	.000	.250	.250	.250	.000	.250	.375	.000	.438	.250	.000	.400	.250	.450	.000	.000	.432	.533



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Site Code : 06041404
Start Date : 6/4/2014

Groups Printed- Bike_Peds

	Centerville Place Eastbound					Church Street Westbound					S Bay Road Northbound					S Bay Road Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
*** BREAK ***																					
07:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	2
Total	0	0	1	0	1	0	0	0	1	1	0	1	0	1	2	0	0	0	0	0	4
*** BREAK ***																					
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
*** BREAK ***																					
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
*** BREAK ***																					
04:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***																					
04:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	4	4	6
Total	0	1	0	0	1	0	1	0	1	2	0	2	0	0	2	0	0	0	4	4	9
05:00 PM	0	0	0	2	2	0	0	0	4	4	0	0	0	1	1	0	0	0	0	0	7
05:15 PM	0	0	0	2	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	4	4	0	0	0	1	1	0	1	0	0	1	6
05:45 PM	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	1	0	0	1	3
Total	0	0	0	4	4	0	1	0	10	11	0	0	0	2	2	0	2	0	0	2	19
Grand Total	0	1	1	4	6	0	2	0	12	14	0	3	0	4	7	0	2	0	4	6	33
Apprch %	0	16.7	16.7	66.7		0	14.3	0	85.7		0	42.9	0	57.1		0	33.3	0	66.7		
Total %	0	3	3	12.1	18.2	0	6.1	0	36.4	42.4	0	9.1	0	12.1	21.2	0	6.1	0	12.1	18.2	

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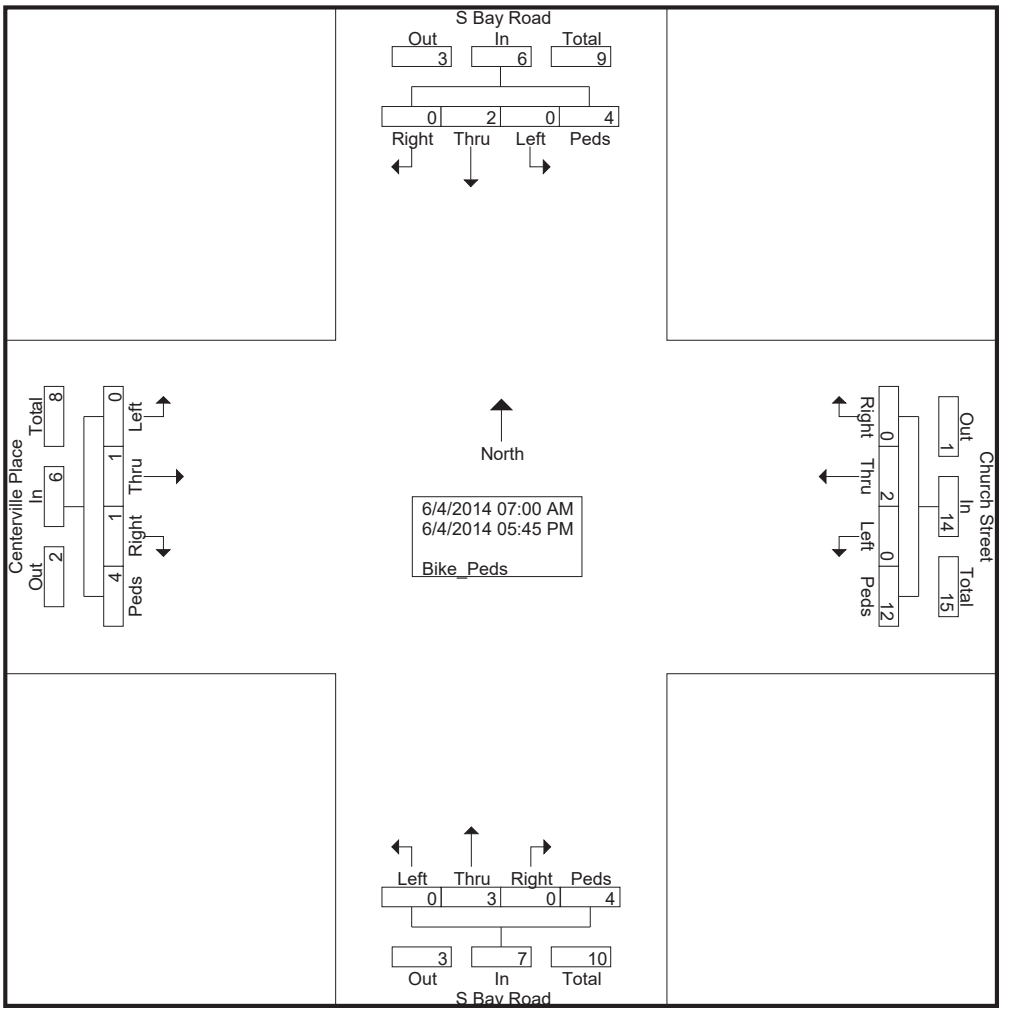
Site Code : 06041404
Start Date : 6/4/2014
Page No : 2



Appendix D

Intersection Diagrams

INTERSECTION DIAGRAM

Location

Centerville Pl and Trolley Barn Ln

Legend

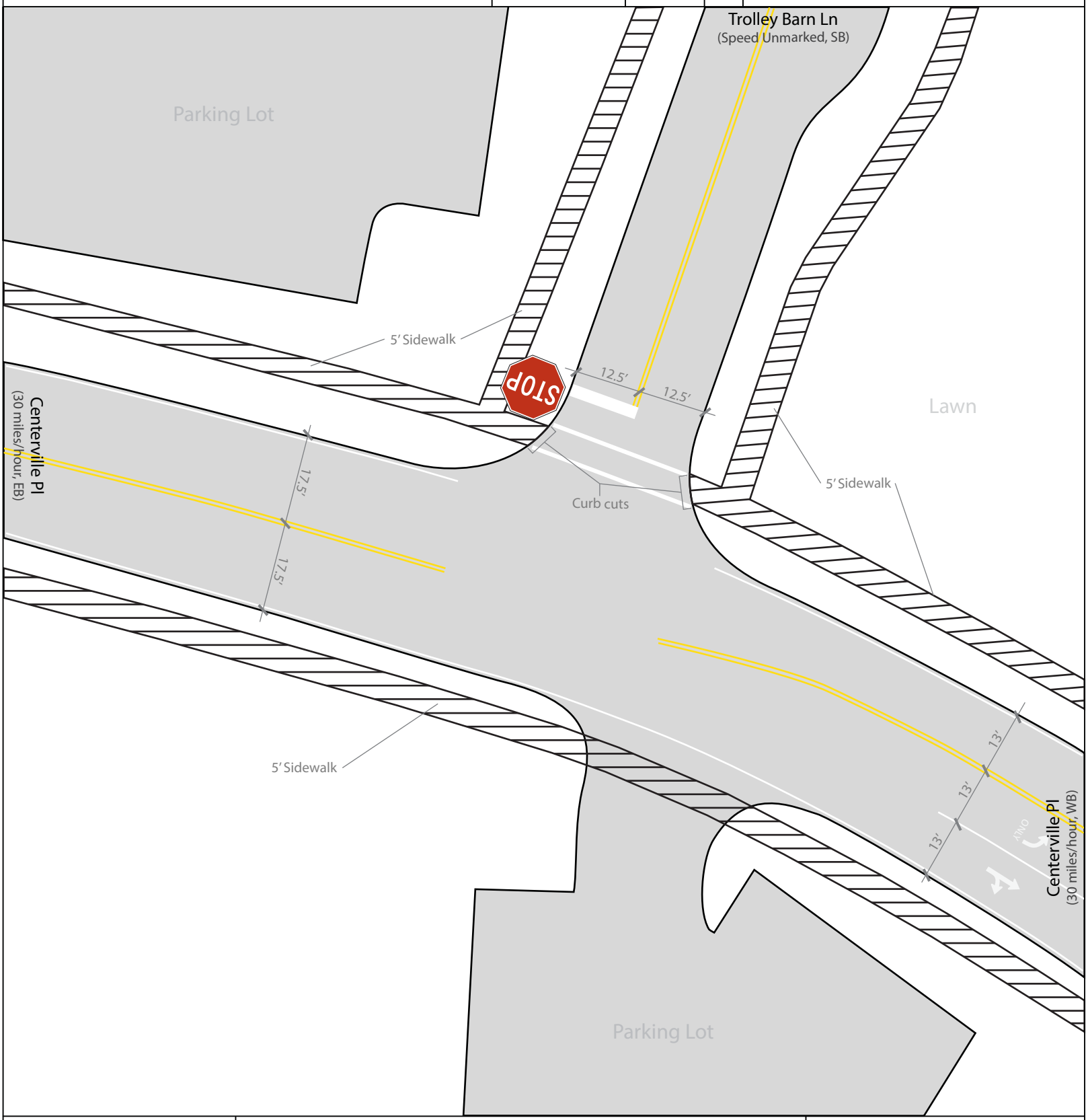
Sidewalk

12' Distances in Feet

Drawn By	DA/AF	Prepared By	SMTC
Date	June 2014		

N

Note:
-Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.
-All approaches are curbed.
-No parking on any approach.



Task

Church Street Realignment Study

Data Source: SMTC, 2014.

Diagram is for presentation purposes only.
SMTC does not guarantee the accuracy or completeness of this diagram.
Diagram is not to scale

INTERSECTION DIAGRAM

Location

South Bay Rd and Trolley Barn Ln

Legend

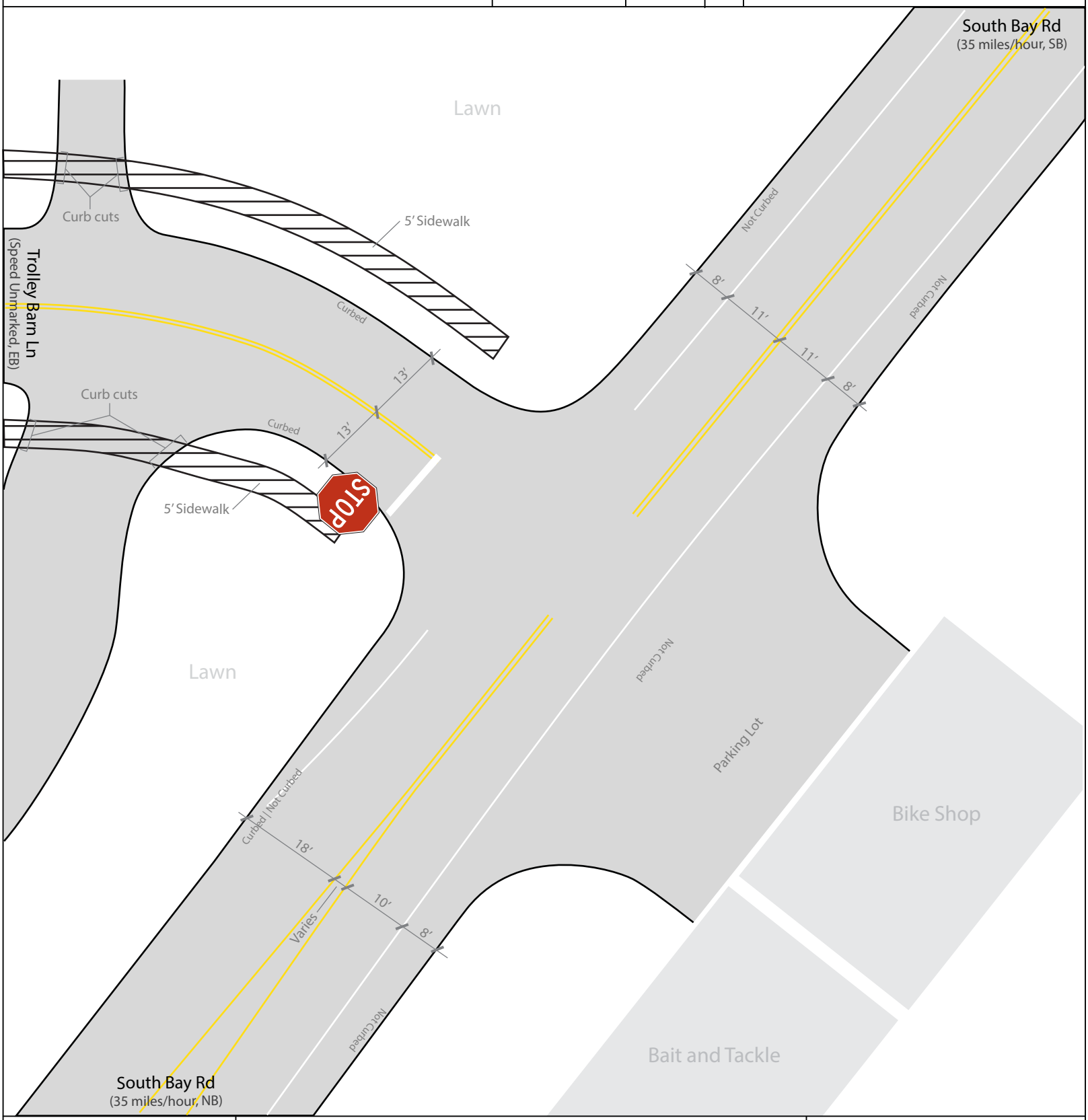
Sidewalk

12′ Distances in Feet

Drawn By	DA/AF	Prepared By	SMTC
Date	June 2014		

N

Note:
-Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.
-Curbs on Trolley Barn Ln.
-No parking on any approach.



Task

Church Street Realignment Study

Data Source: SMTC, 2014.

Diagram is for presentation purposes only.
SMTC does not guarantee the accuracy or completeness of this diagram.
Diagram is not to scale

INTERSECTION DIAGRAM

Location

South Bay Rd, Centerville Pl, and Church St

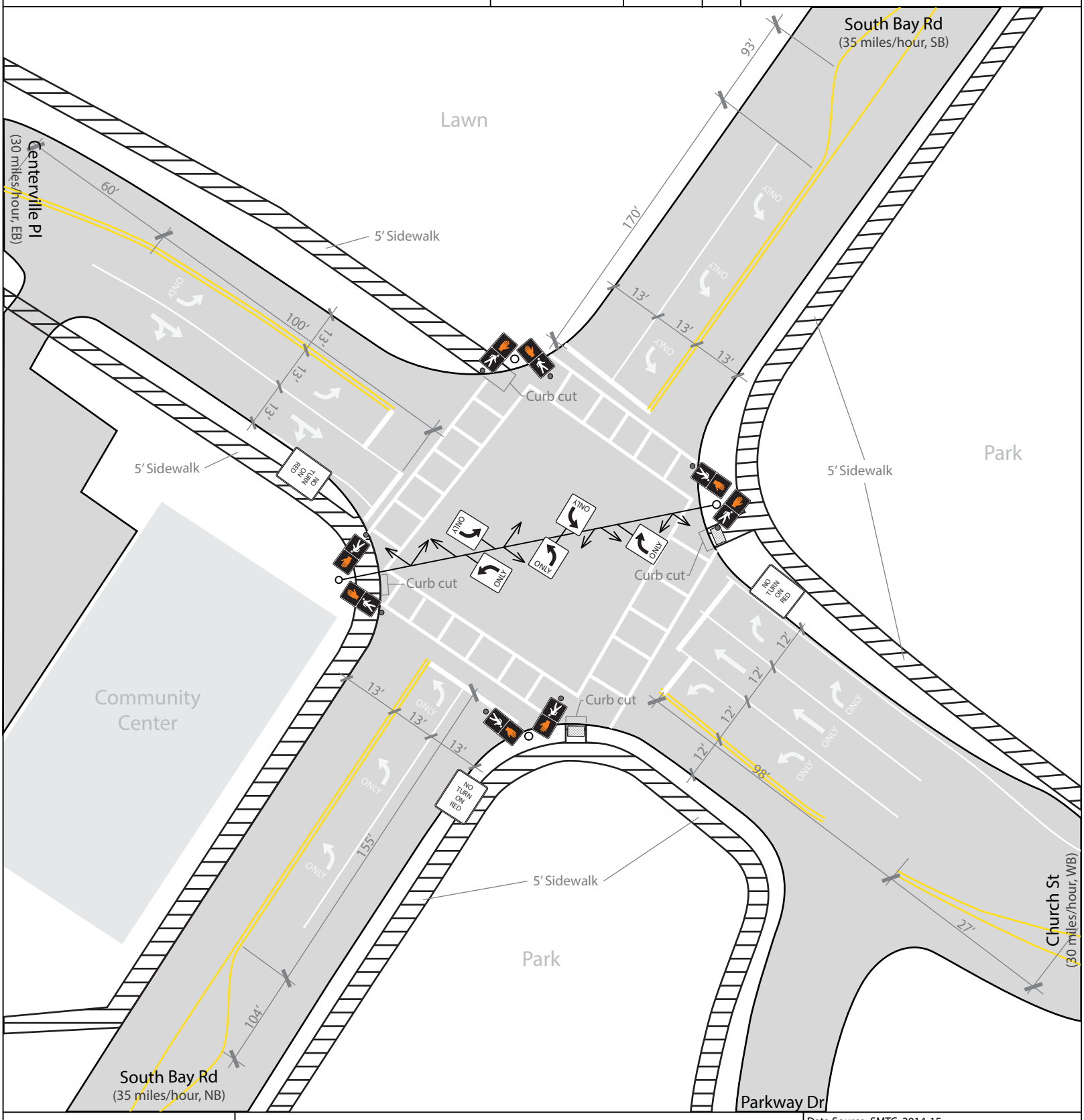
Legend

- Sidewalk and detectable warning strip
- Pedestrian Signal with Button (no countdown)
- Span Wire
- Traffic Signal
- 12′ Distances in Feet

Drawn By	DA/AF	Prepared By	SMTC
Date	Sept 2015		

N

Note:
-Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.
-All approaches are curbed.
-No on-street parking.



Task

Church Street Realignment Study

Data Source: SMTC, 2014-15.

Diagram is for presentation purposes only.
SMTC does not guarantee the accuracy or completeness of this diagram.
Diagram is not to scale

INTERSECTION DIAGRAM

Location

US-11/Main St, Centerville Pl, and Chestnut St

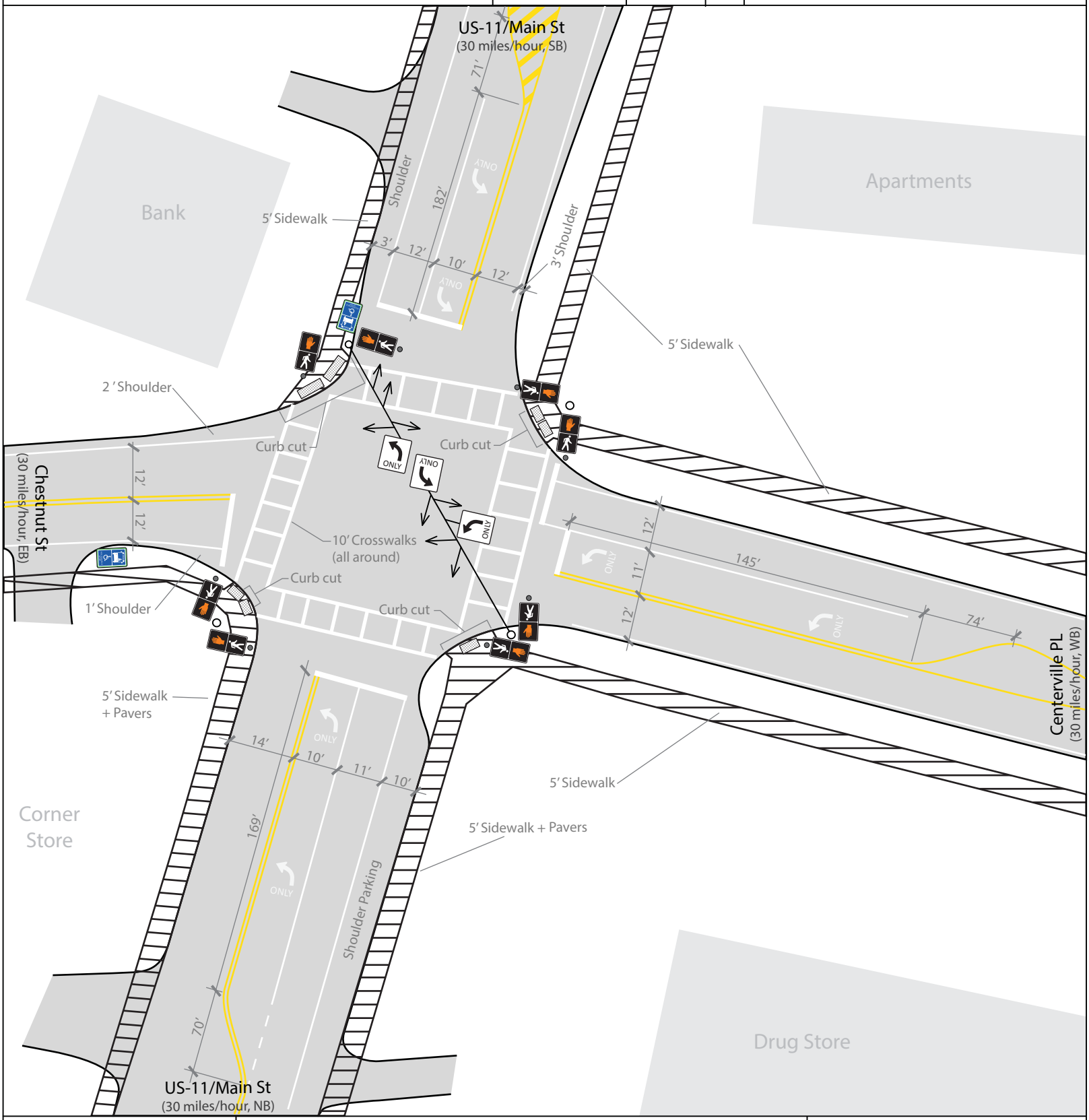
Legend

- Sidewalk and detectable warning strip
- Pedestrian Signal with Button and countdown
- Pole Mount
- Traffic Signal
- 12′ Distances in Feet

Drawn By	DA/AF	Prepared By	SMTC
Date	Sept 2015		

N

Note:
-Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.
-North, south, and westbound approaches are curbed.
-On-street parking allowed where indicated.



Task

Church Street Realignment Study

Data Source: SMTC, 2014-15.

Diagram is for presentation purposes only.
SMTC does not guarantee the accuracy or completeness of this diagram.
Diagram is not to scale

INTERSECTION DIAGRAM

Location

US-11/Main St and Church St

Legend

Sidewalk and detectable warning strip

12′ Distances in Feet

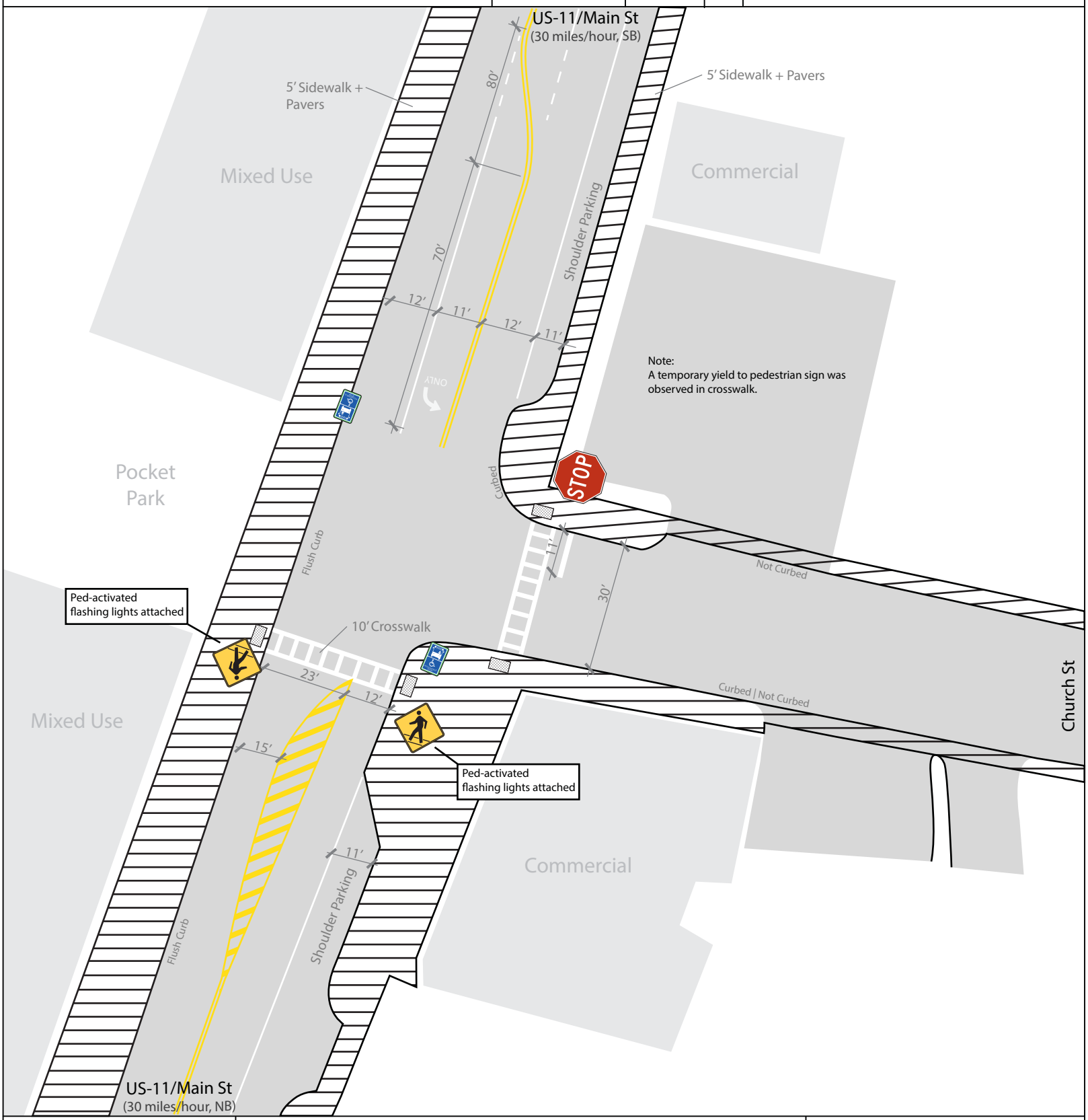
Drawn By DA/AF

Date Sept 2015

Prepared By SMTC

N

Note:
-Only actual pavement markings were drawn. An absence of arrows/striping indicates no pavement markings.
-US-11 approaches are curbed. Church St curbed where indicated.
-Parking permitted where indicated.



Task

Church Street Realignment Study

Data Source: SMTC, 2014-2015.

Diagram is for presentation purposes only.
SMTC does not guarantee the accuracy or completeness of this diagram.
Diagram is not to scale

Appendix E

Future Build Trip Generation Estimates

CHURCH STREET ESTIMATED CAPTURE AREA

Location: Village of North Syracuse, New York

Legend: Direction of Traffic

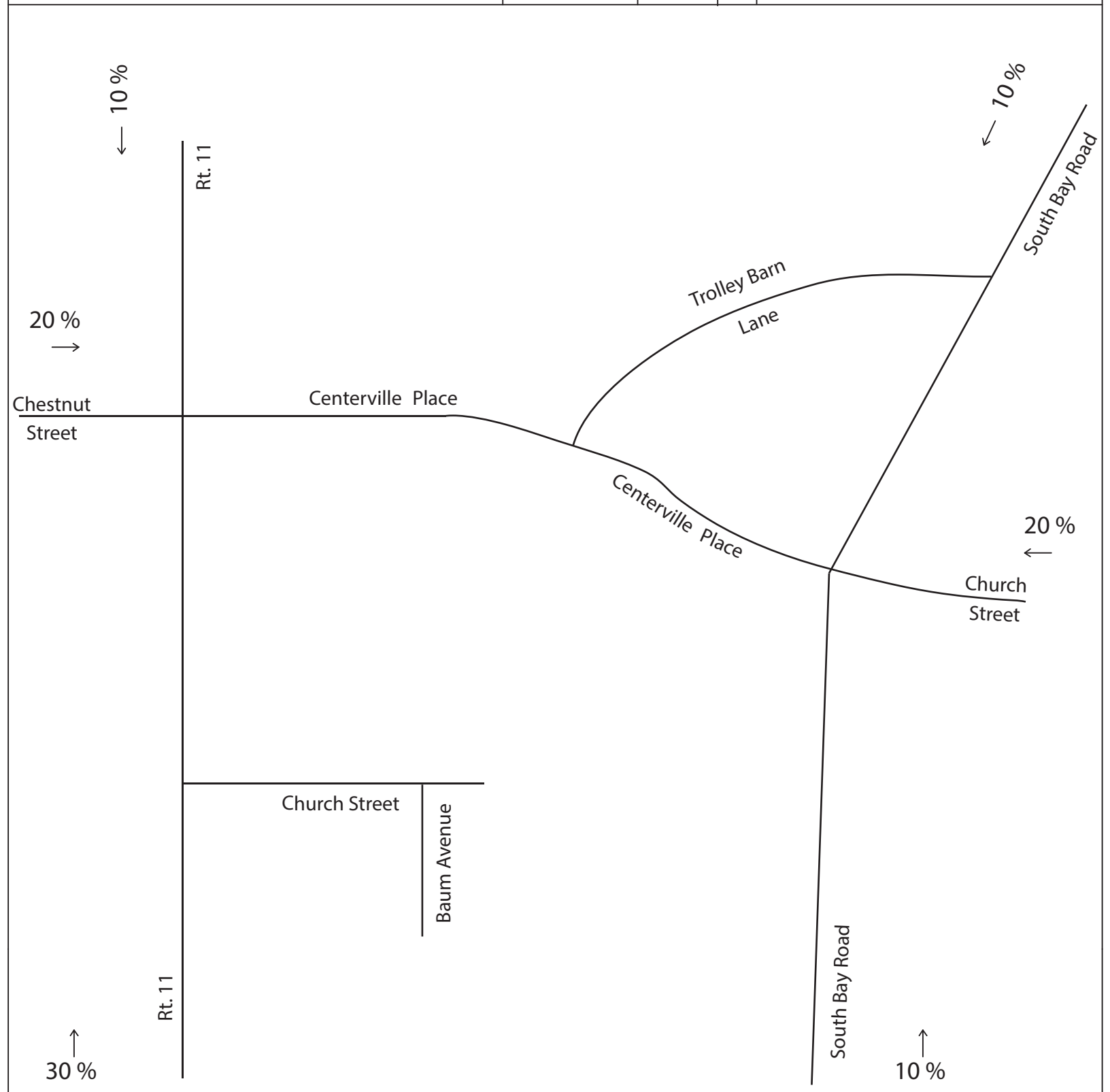
Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 1 - REDISTRIBUTE ROUTE 11 SOUTHBOUND LEFTS ON TO CHURCH ST.; CHURCH ST. WESTBOUND LEFTS ON TO ROUTE 11

Location: Village of North Syracuse, New York

Legend:
Direction of Traffic
(###)
a.m. (p.m.)
peak hr. volumes

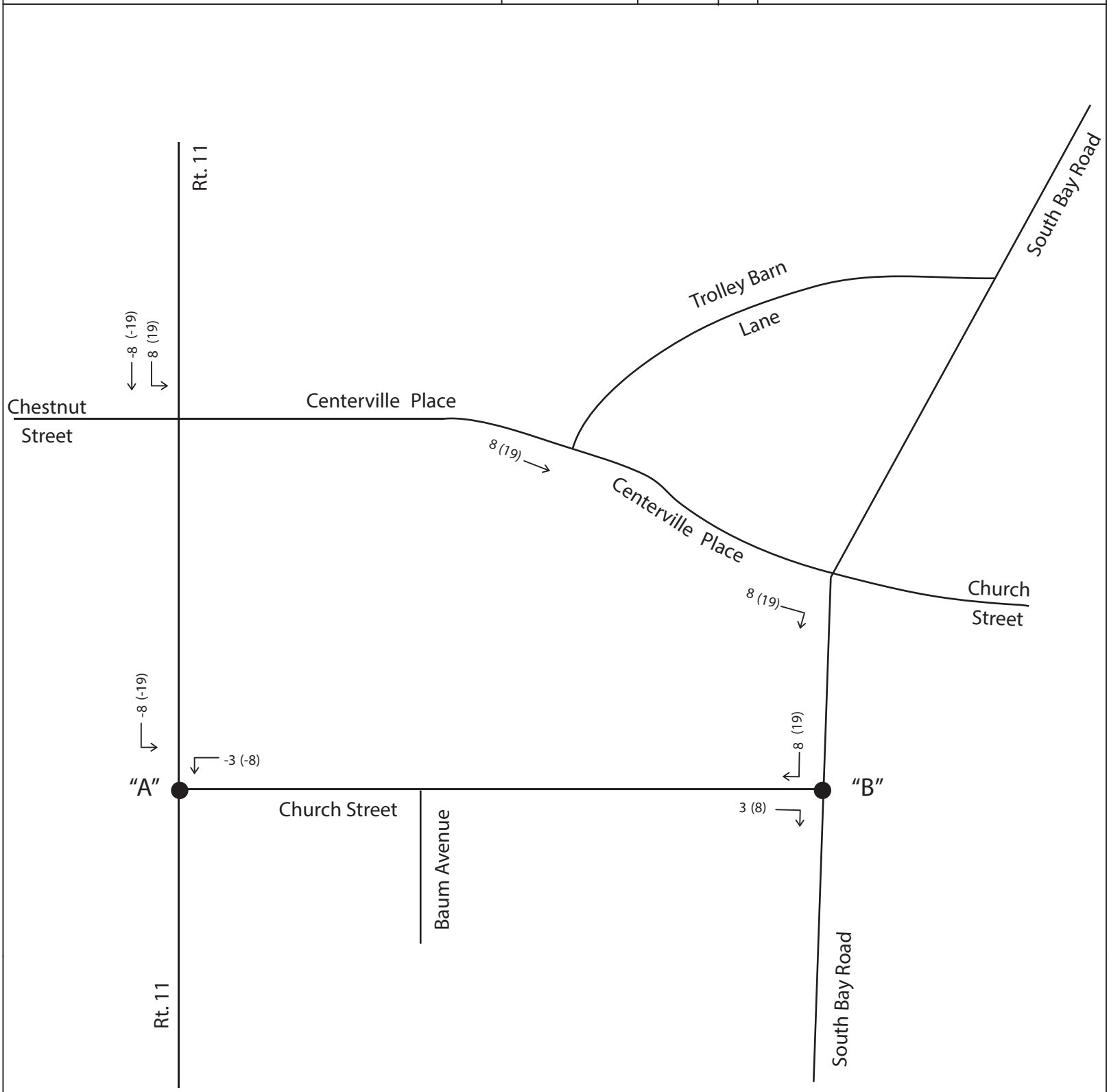
Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 1 - DISTRIBUTION OF PASSBY TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend:

Direction of Traffic

% (%)

a.m. (p.m.)

Drawn By: KK

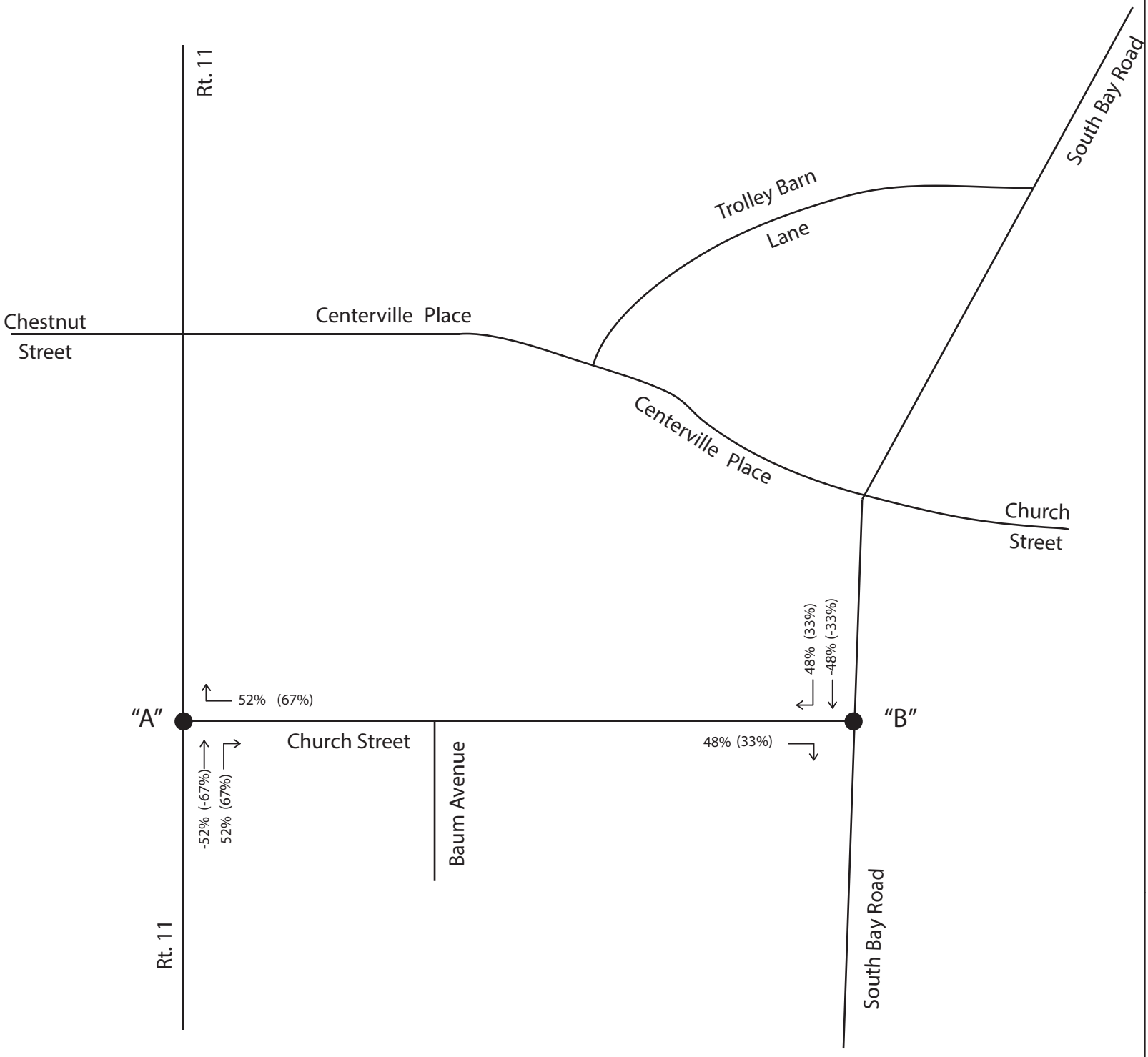
Date: July 2015

Prepared By: SMTC

N

Note:

Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 1 - ASSIGNMENT OF PASSBY TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; ### (###) a.m. (p.m.)

Drawn By: KK

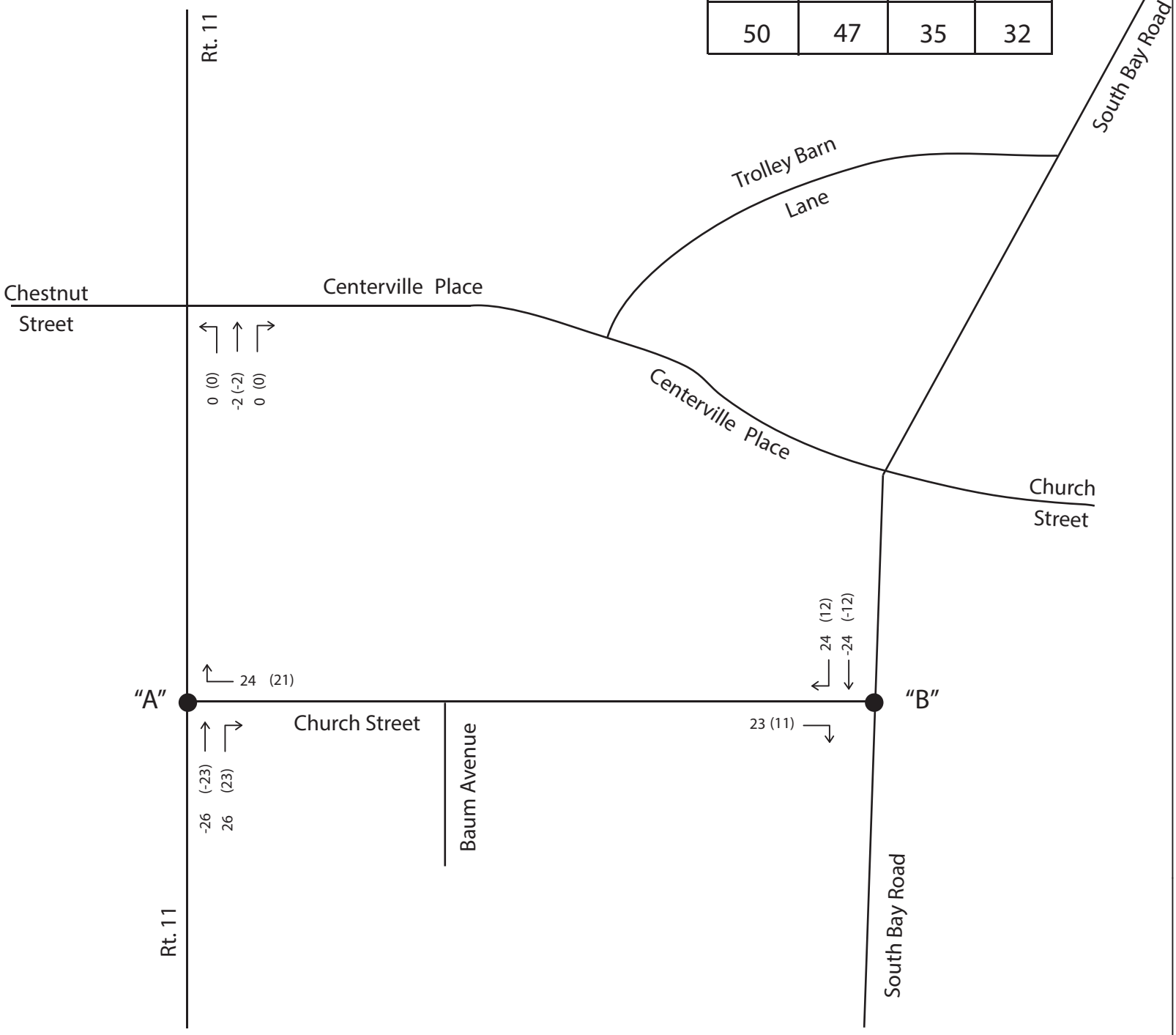
Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.

"AM"		"PM"	
IN	OUT	IN	OUT
50	47	35	32



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 1 - DISTRIBUTION OF NEW TRIPS ENTERING AND EXITING

Location: Village of North Syracuse, New York

Legend: Direction of Traffic

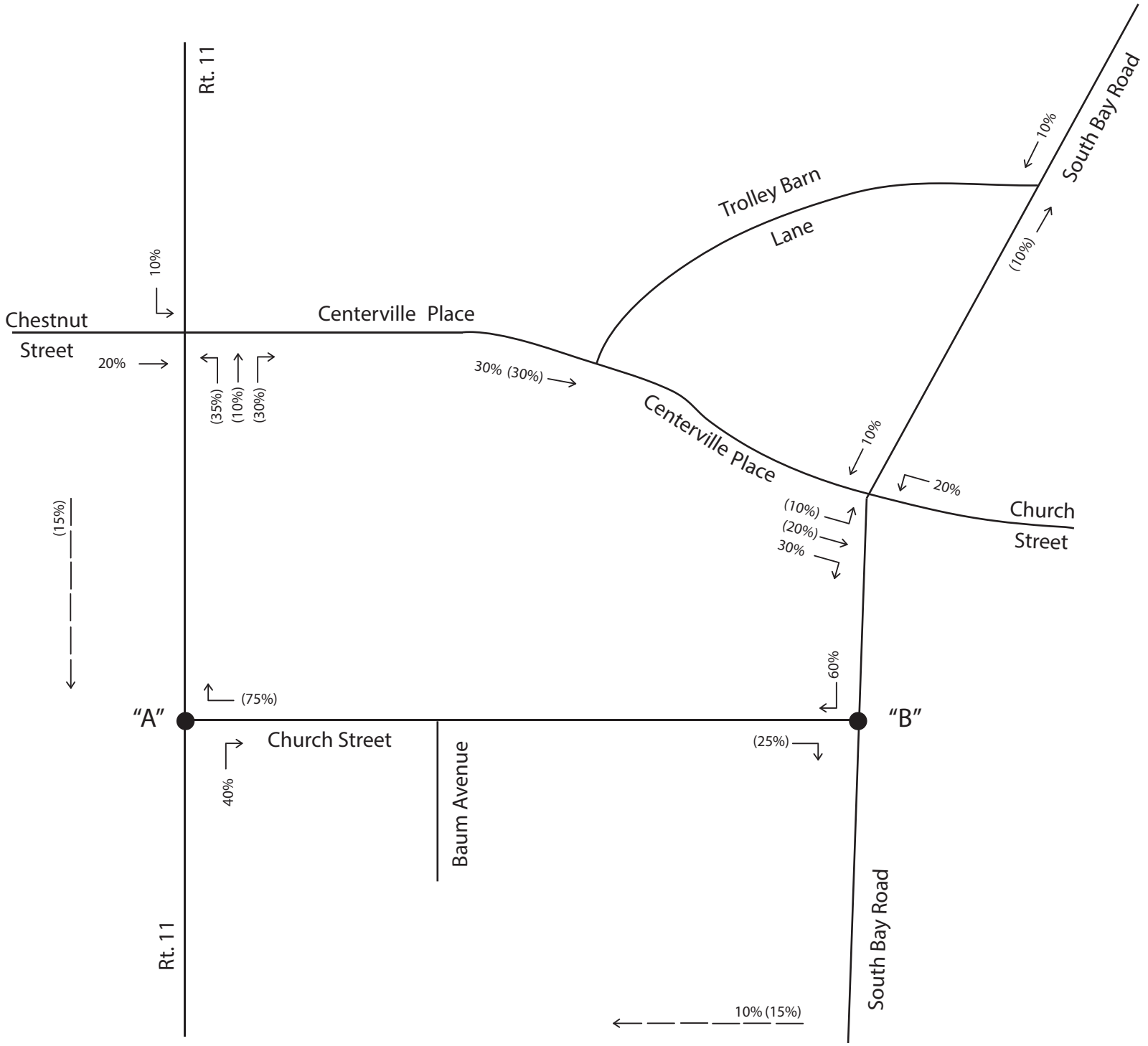
Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 1 - ASSIGNMENT OF NEW TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; ### (###) a.m. (p.m.)

Drawn By: KK

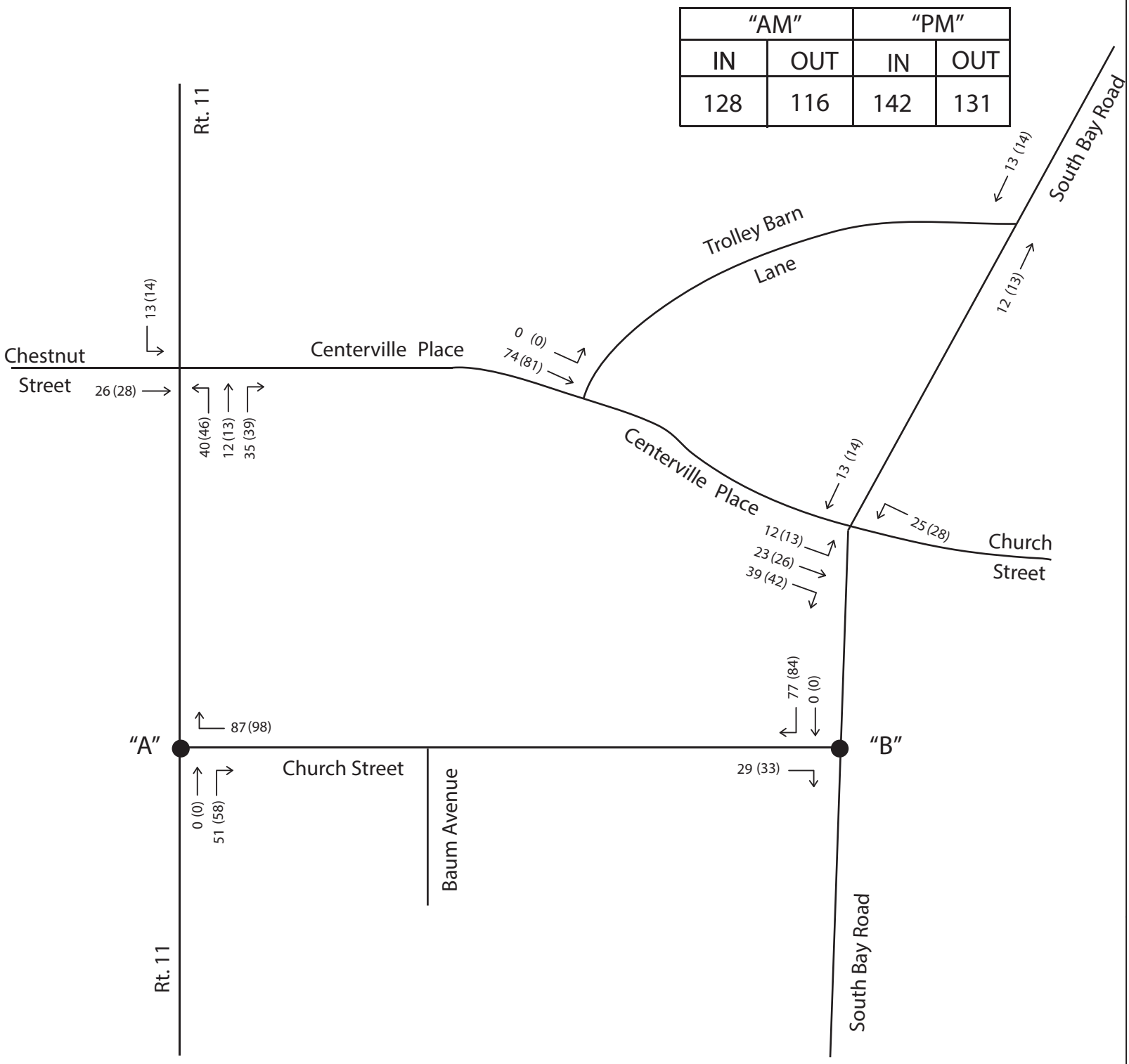
Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.

"AM"		"PM"	
IN	OUT	IN	OUT
128	116	142	131



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 1a - REDISTRIBUTE CHURCH ST. WESTBOUND LEFTS ONTO ROUTE 11

Location: Village of North Syracuse, New York

Legend:
Direction of Traffic
(###)
a.m. (p.m.)
peak hr. volumes

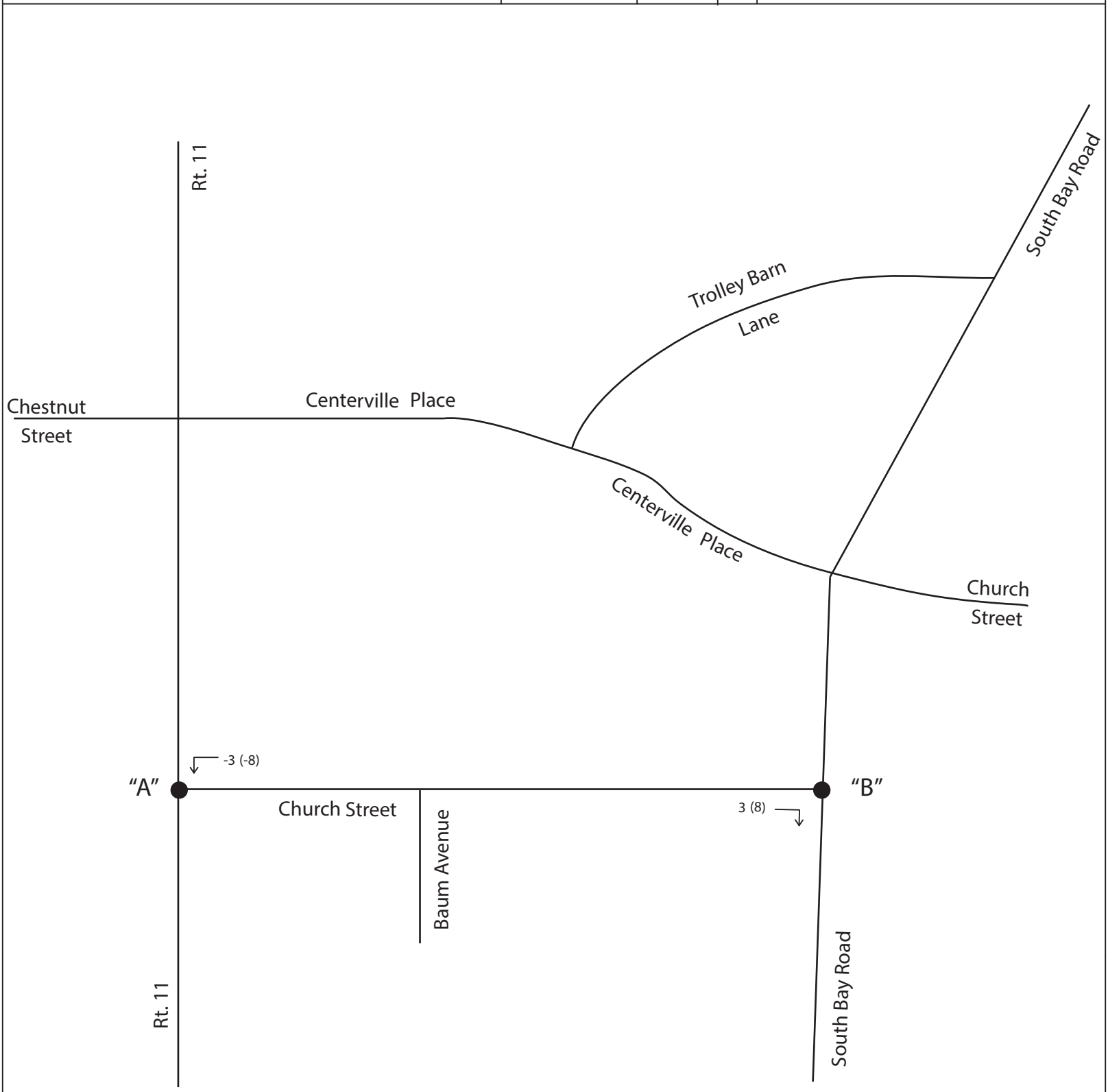
Drawn By: KK

Date: Nov. 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO1a - DISTRIBUTION OF PASSBY TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; % (%); a.m. (p.m.)

Drawn By: KK

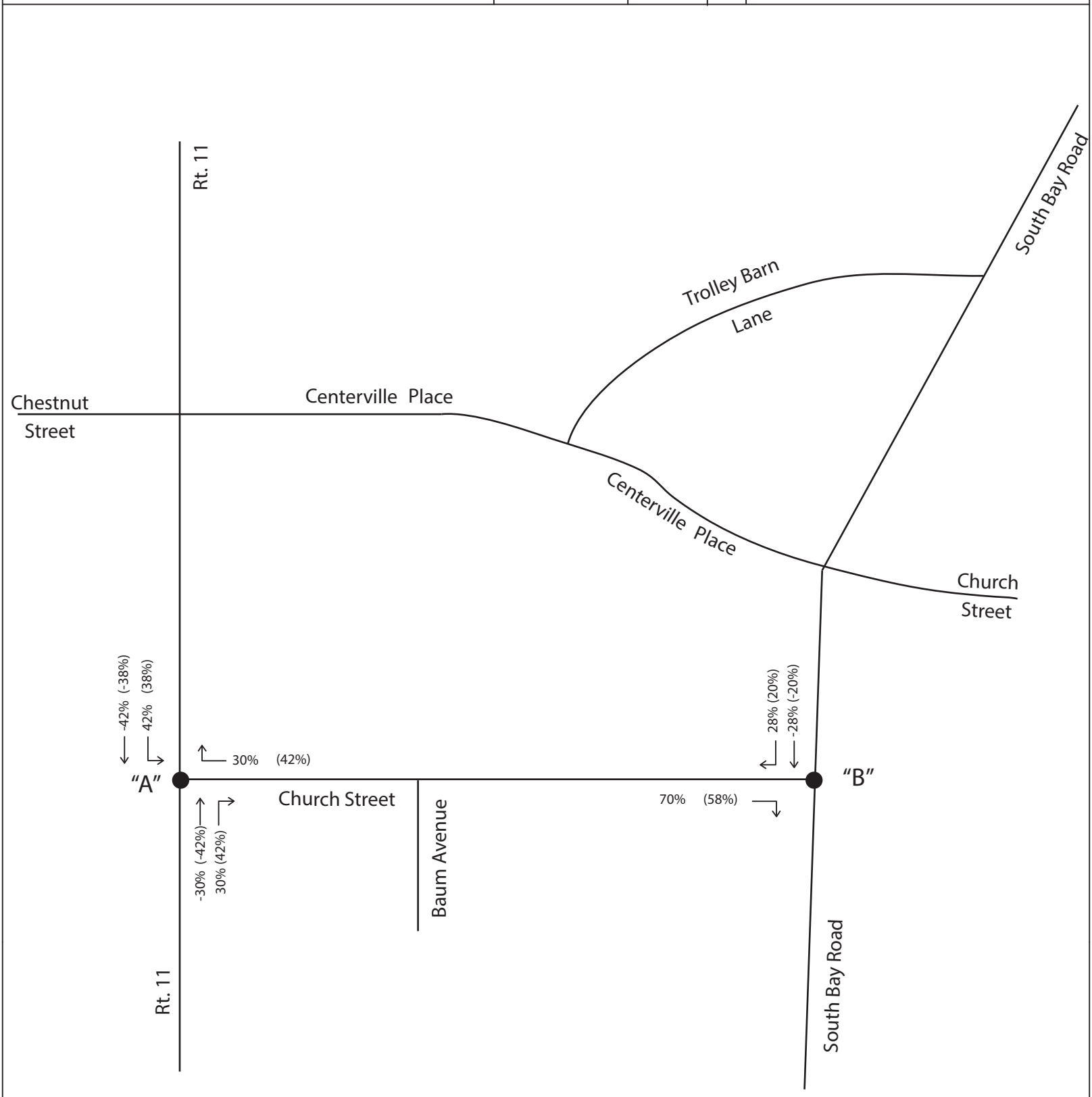
Date: Nov. 2015

Prepared By: SMTC

N

Note:

Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 1a - ASSIGNMENT OF PASSBY TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; ### (###) a.m. (p.m.)

Drawn By: KK

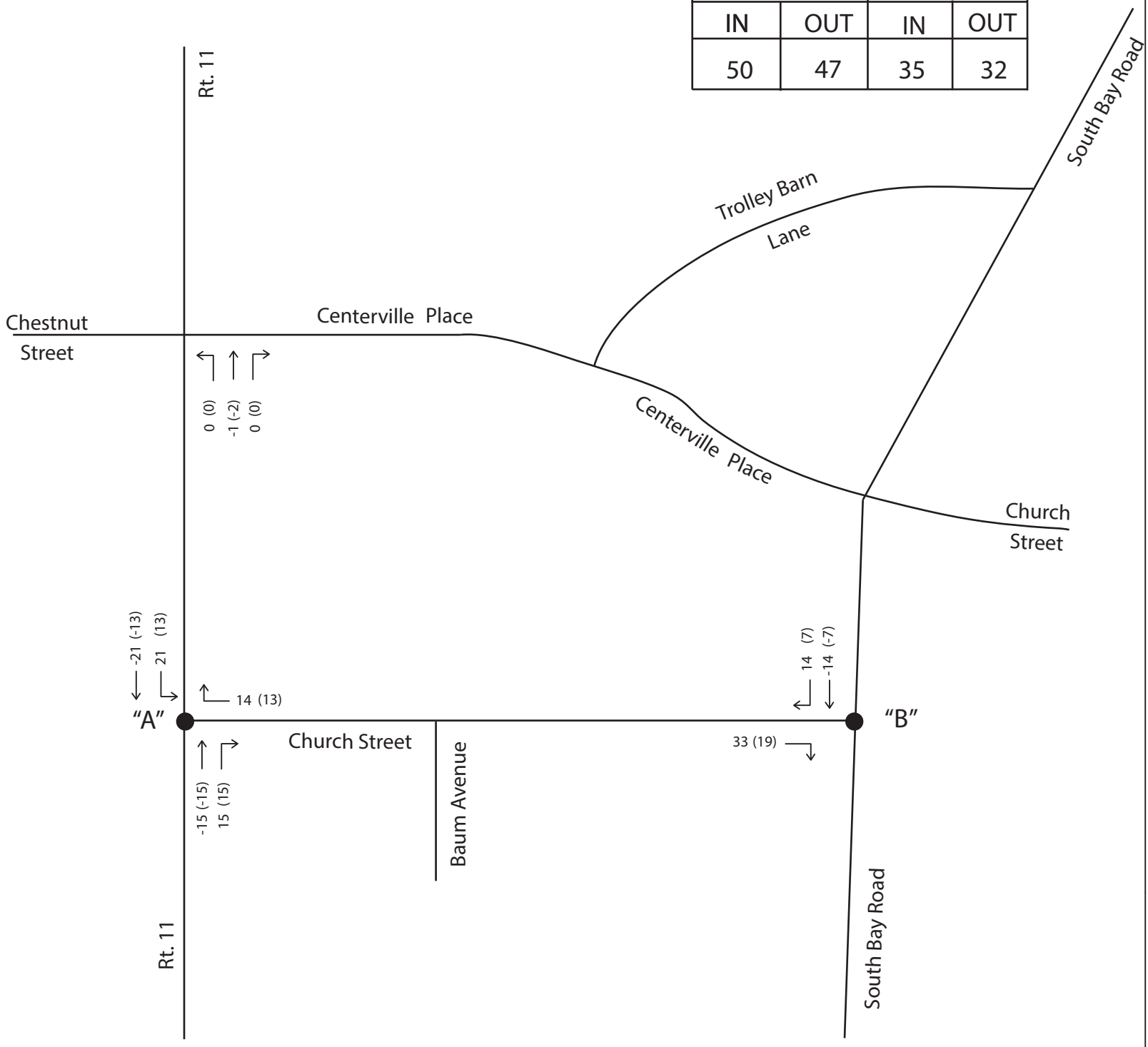
Date: Nov. 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.

"AM"		"PM"	
IN	OUT	IN	OUT
50	47	35	32



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 1a - DISTRIBUTION OF NEW TRIPS ENTERING AND EXITING

Location: Village of North Syracuse, New York

Legend: Direction of Traffic

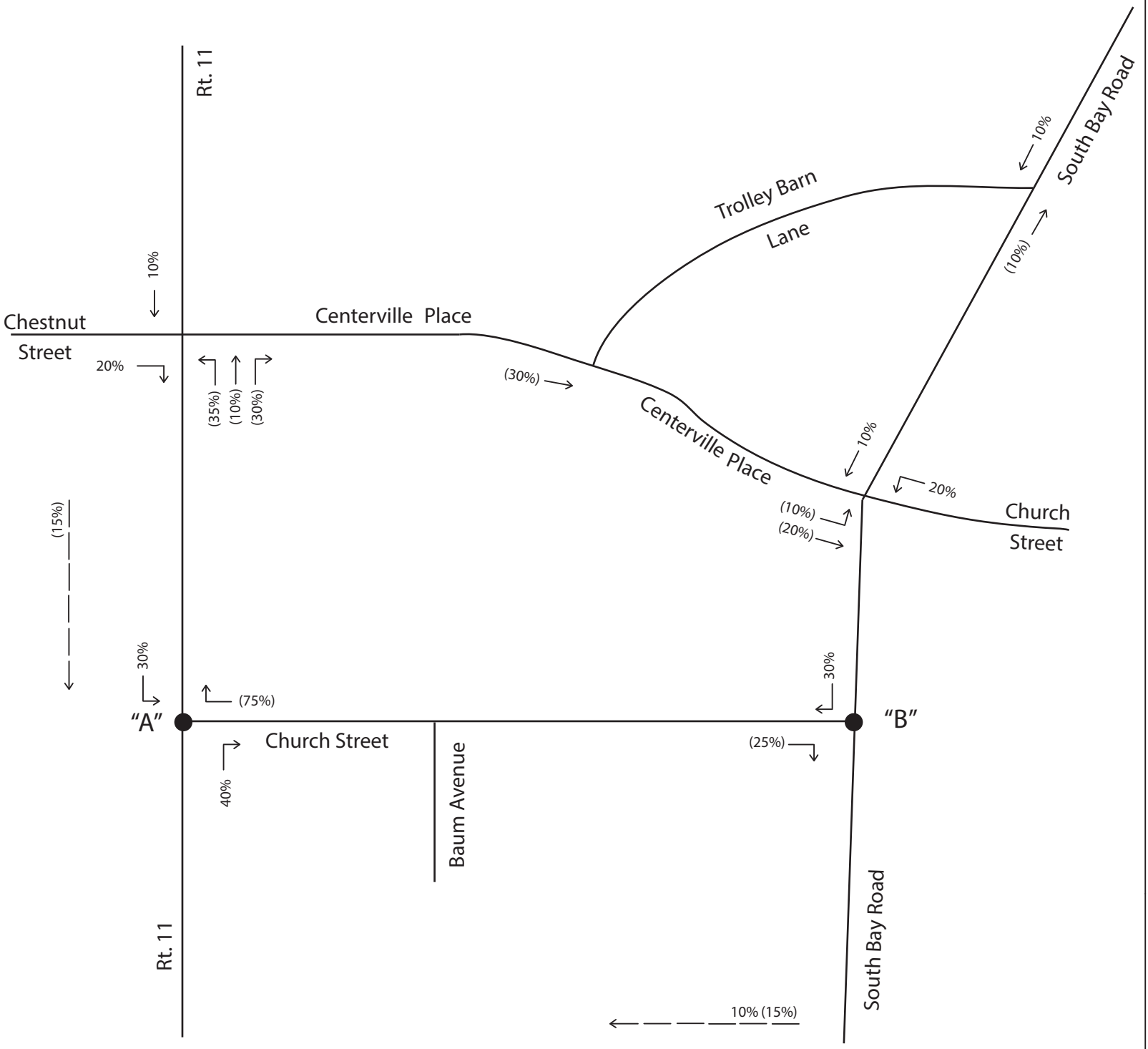
Drawn By: KK

Date: Nov. 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 1a - ASSIGNMENT OF NEW TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend:
Direction of Traffic
(###)
a.m. (p.m.)

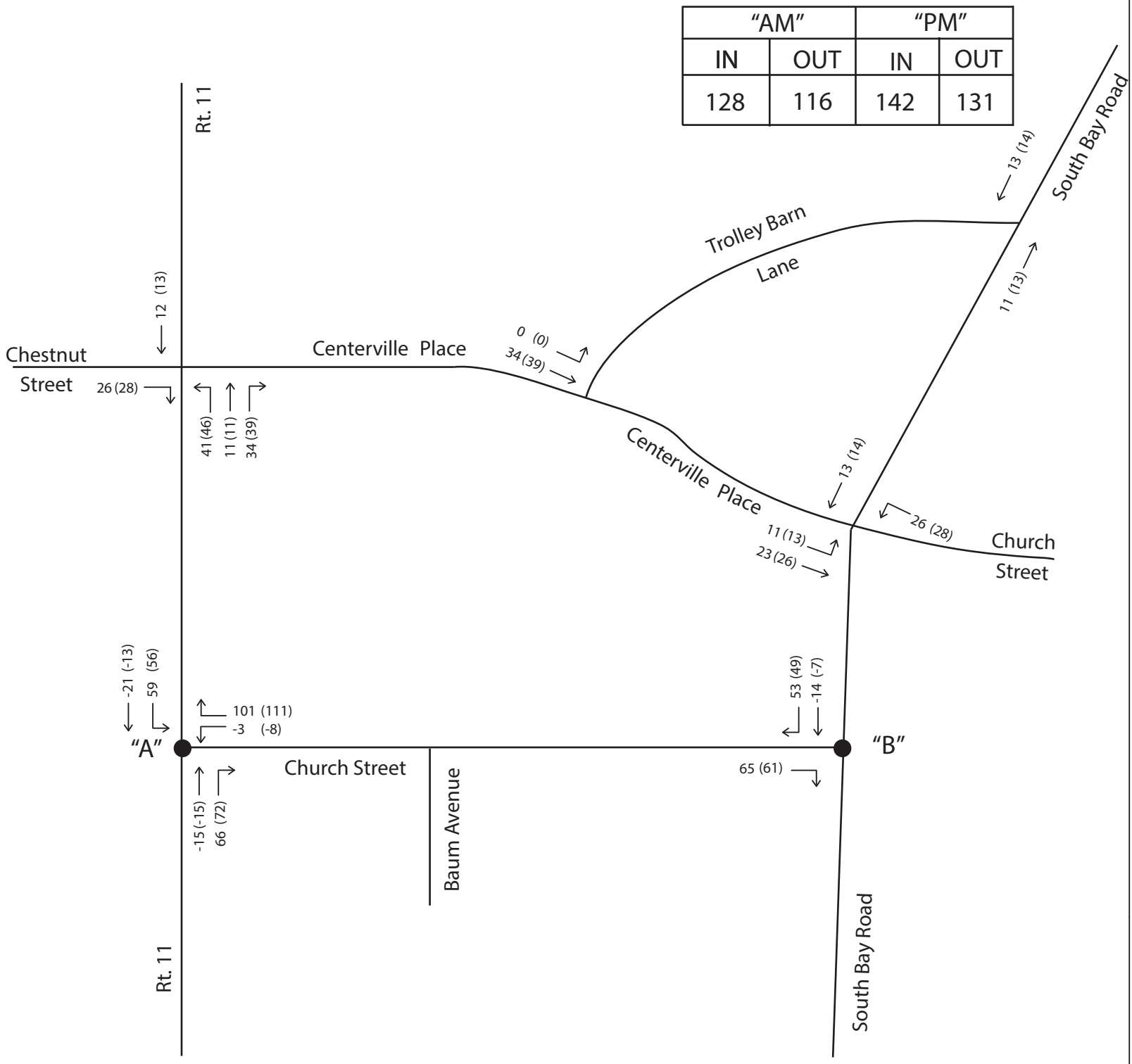
Drawn By: KK
Date: Nov. 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.

"AM"		"PM"	
IN	OUT	IN	OUT
128	116	142	131



Study: Church Street Access Study

Data Source: SMTC

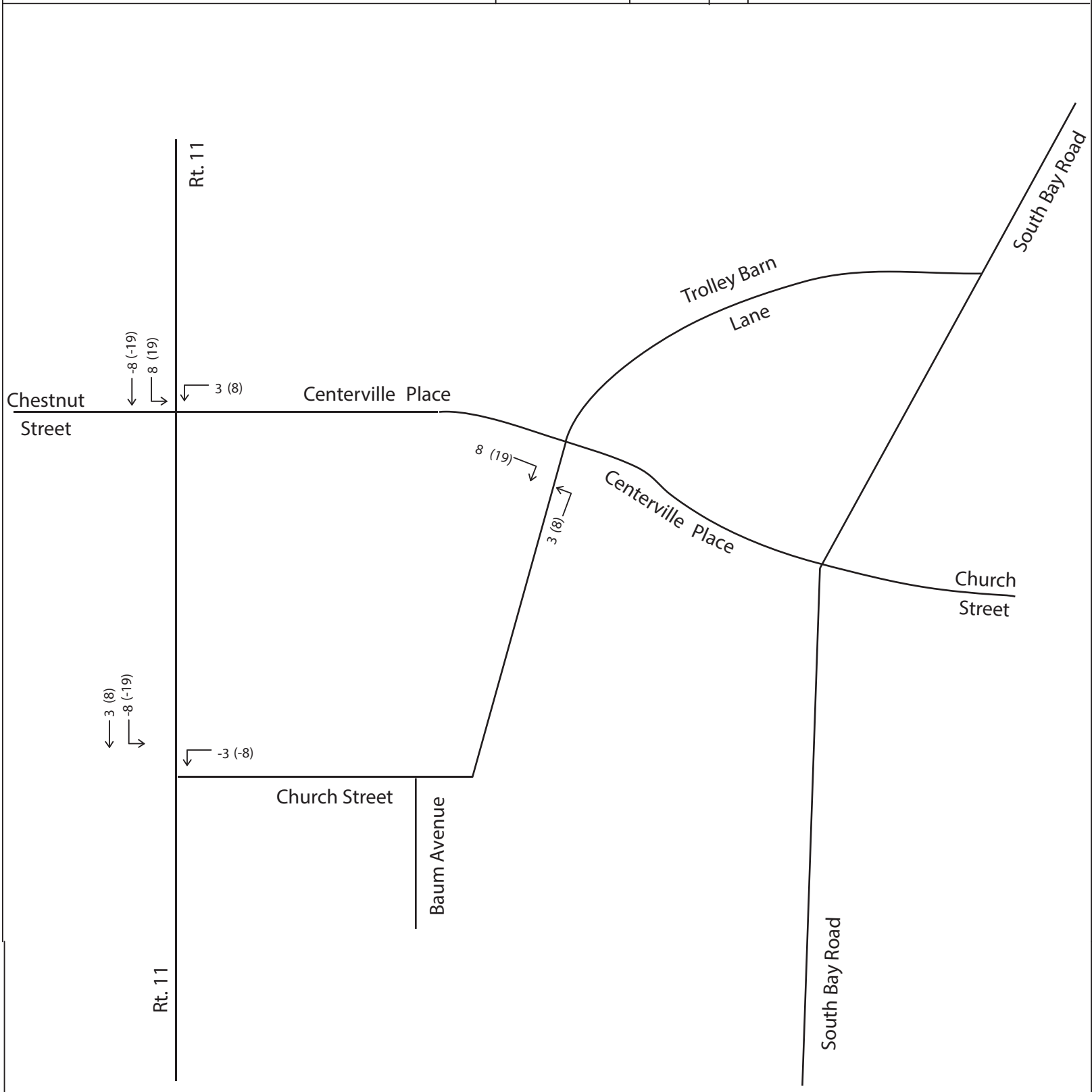
SCENARIO 2 - REDISTRIBUTE ROUTE 11 SOUTHBOUND LEFTS ON TO CHURCH STREET; WESTBOUND LEFTS ON TO ROUTE 11

Location: Village of North Syracuse, New York

Legend:
Direction of Traffic
(###)
a.m. (p.m.)
peak hr. volumes

Drawn By: KK
Date: July 2015
Prepared By: SMTC
N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 2 - DISTRIBUTION OF PASSBY TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; % (%); a.m. (p.m.)

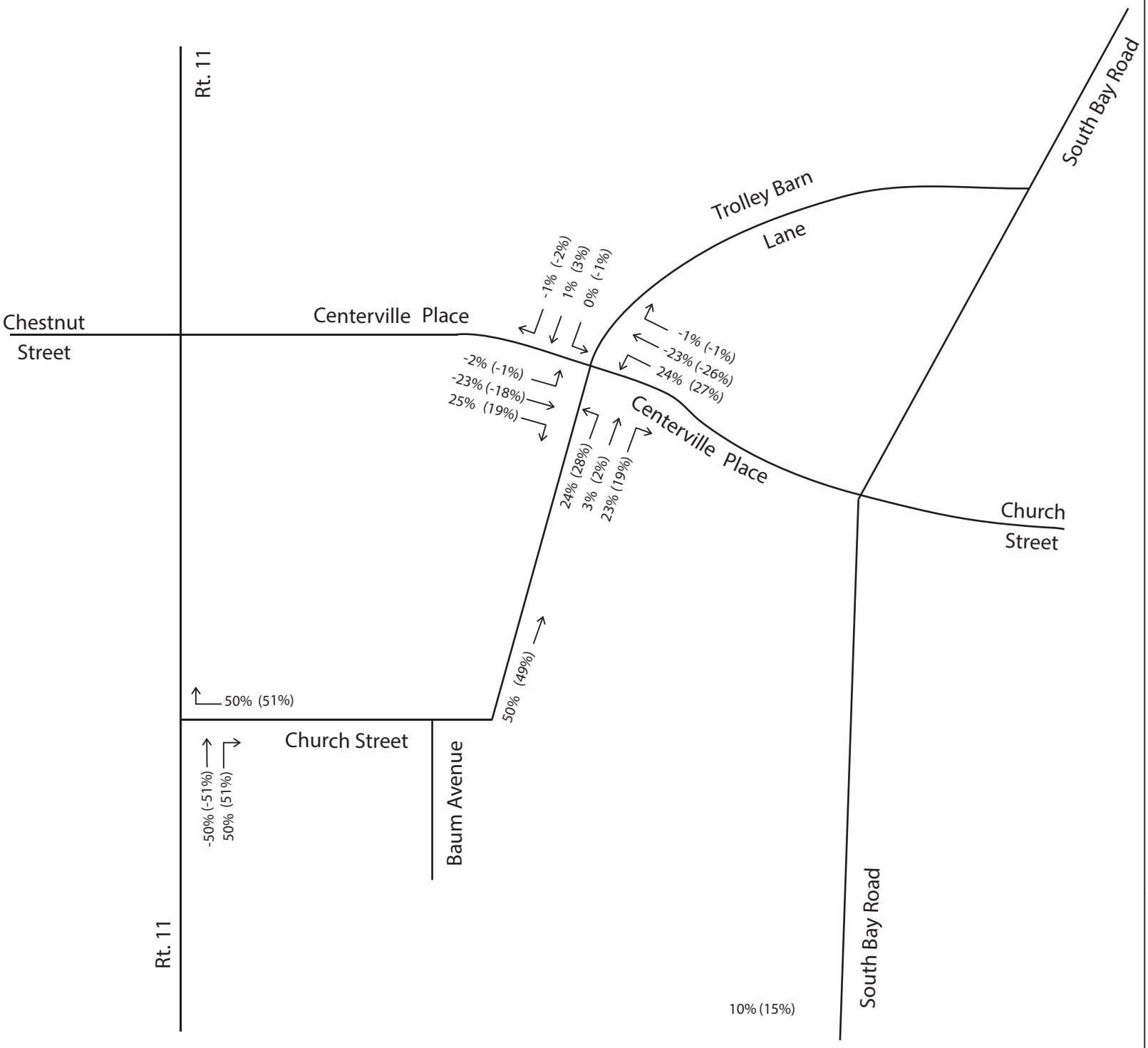
Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 2 - ASSIGNMENT OF PASSBY TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; ### (###) a.m. (p.m.)

Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
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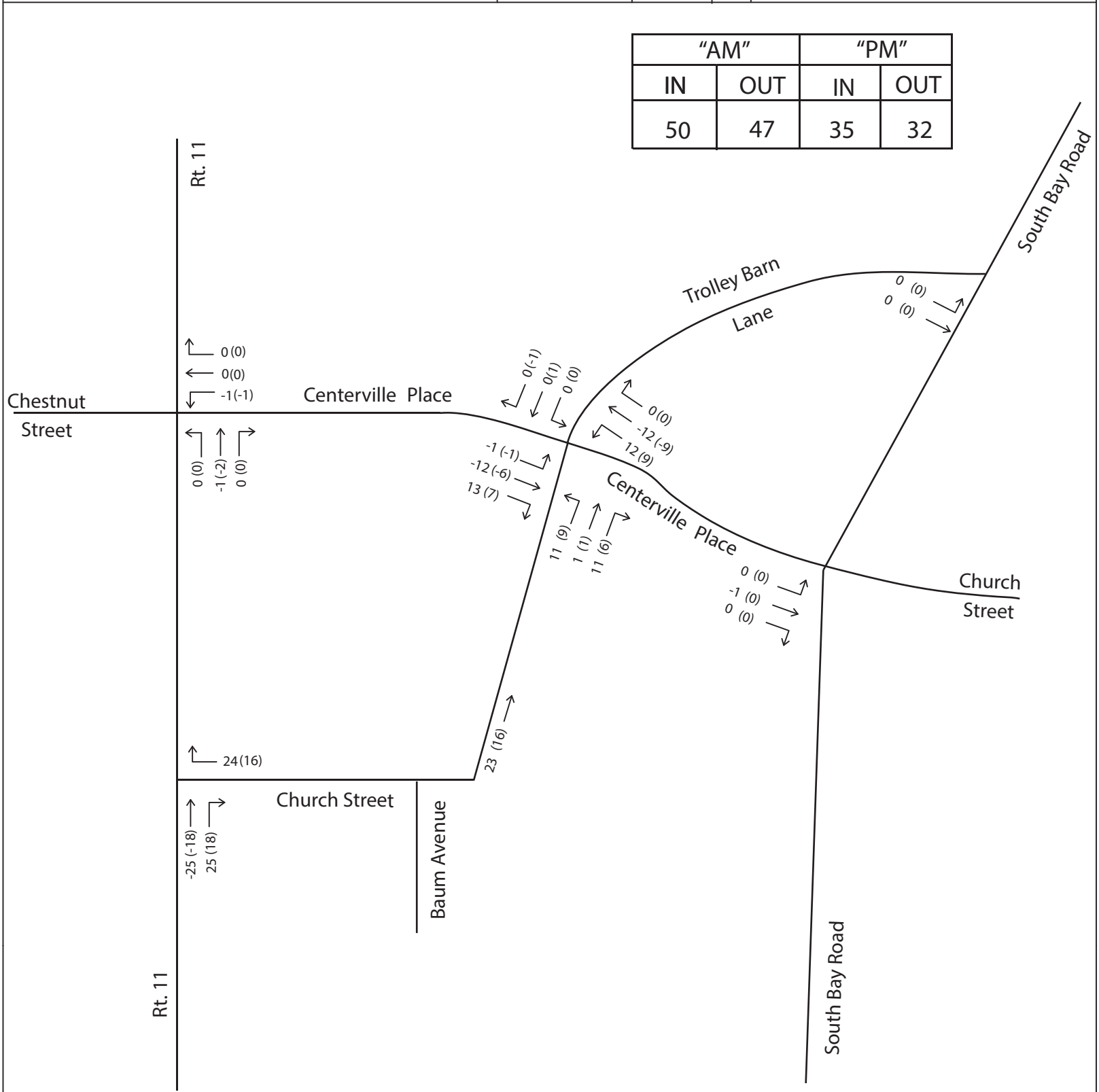
Diagram is for presentation purposes only.
Diagram is not to scale.

"AM"		"PM"	
IN	OUT	IN	OUT
50	47	35	32



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 2 - DISTRIBUTION OF NEW TRIPS ENTERING AND EXITING

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; % (%) a.m. (p.m.)

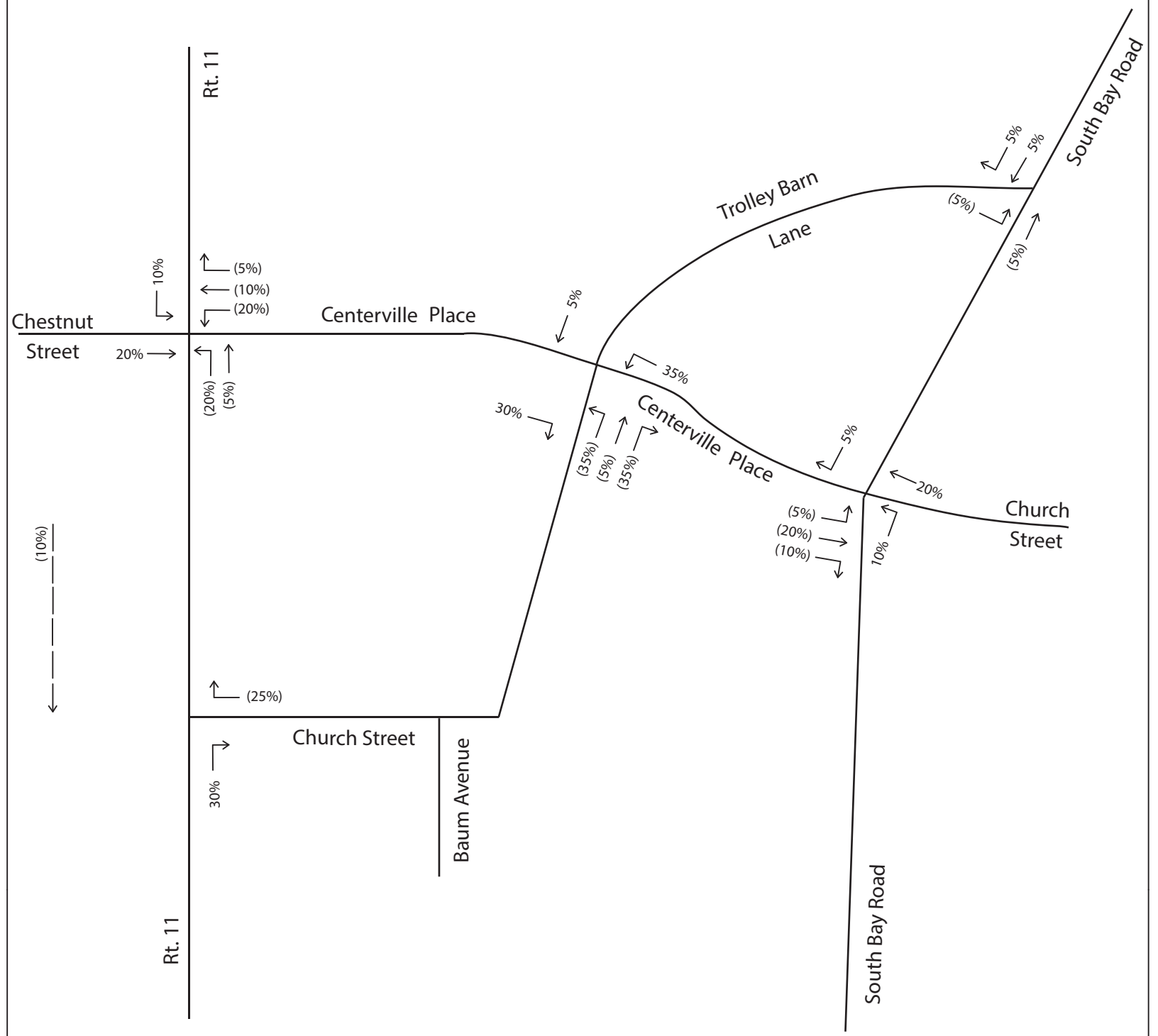
Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 2 - ASSIGNMENT OF NEW TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; ### (###) a.m. (p.m.)

Drawn By: KK

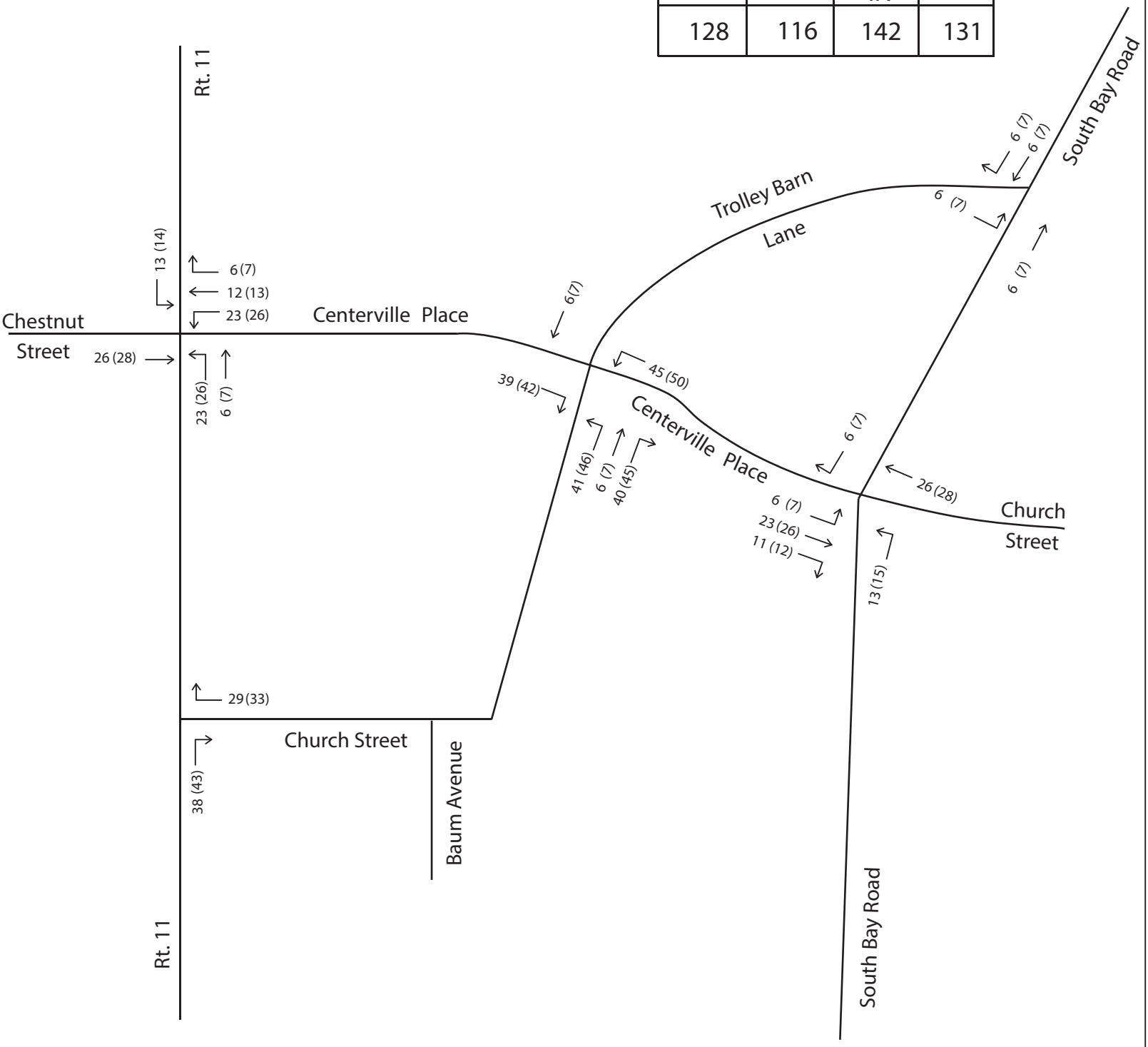
Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.

"AM"		"PM"	
IN	OUT	IN	OUT
128	116	142	131



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 2a - DISTRIBUTION OF NEW TRIPS ENTERING AND EXITING

Location: Village of North Syracuse, New York

Legend: Direction of Traffic

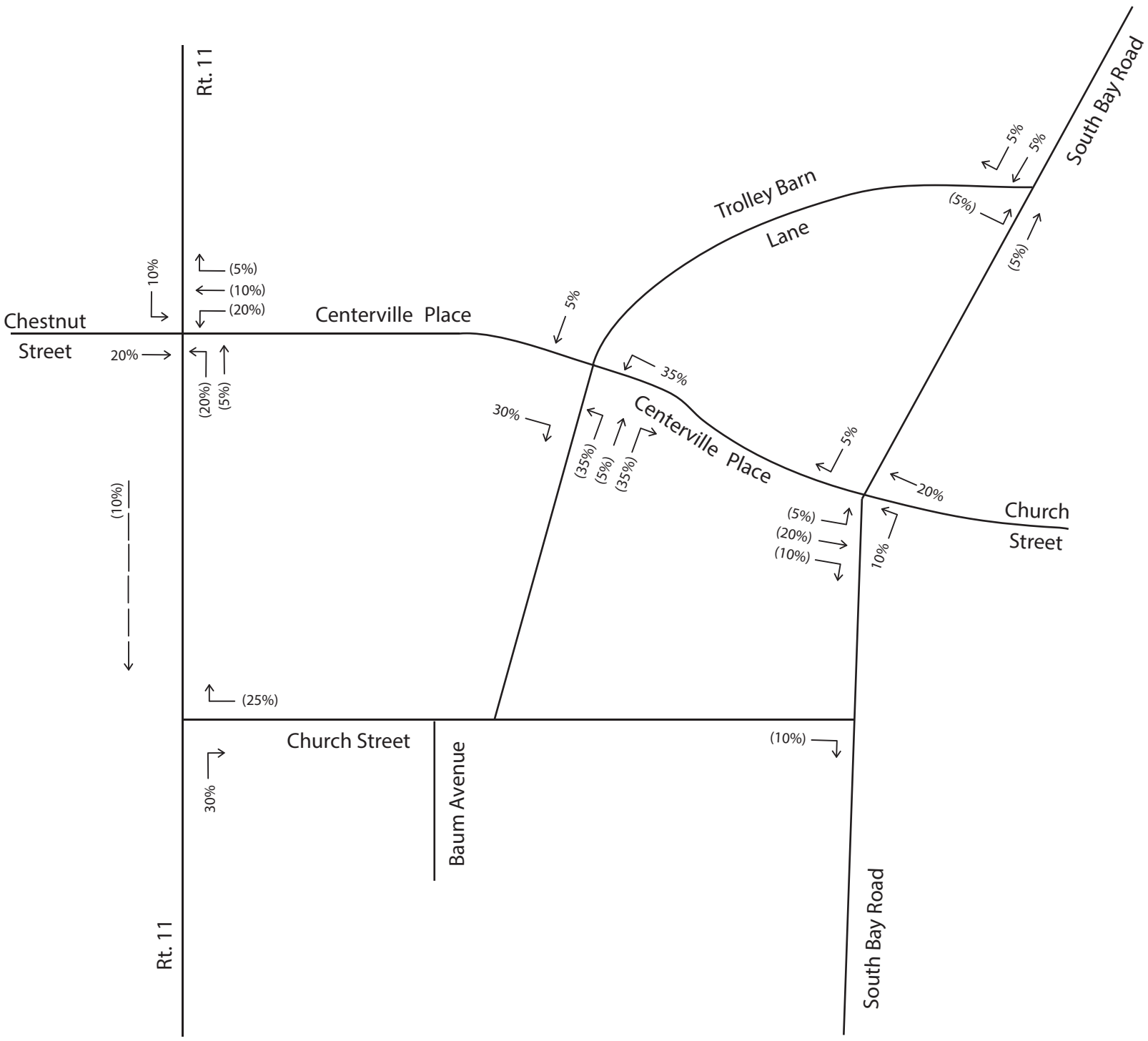
Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 2a - ASSIGNMENT OF NEW TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; ### (###) a.m. (p.m.)

Drawn By: KK

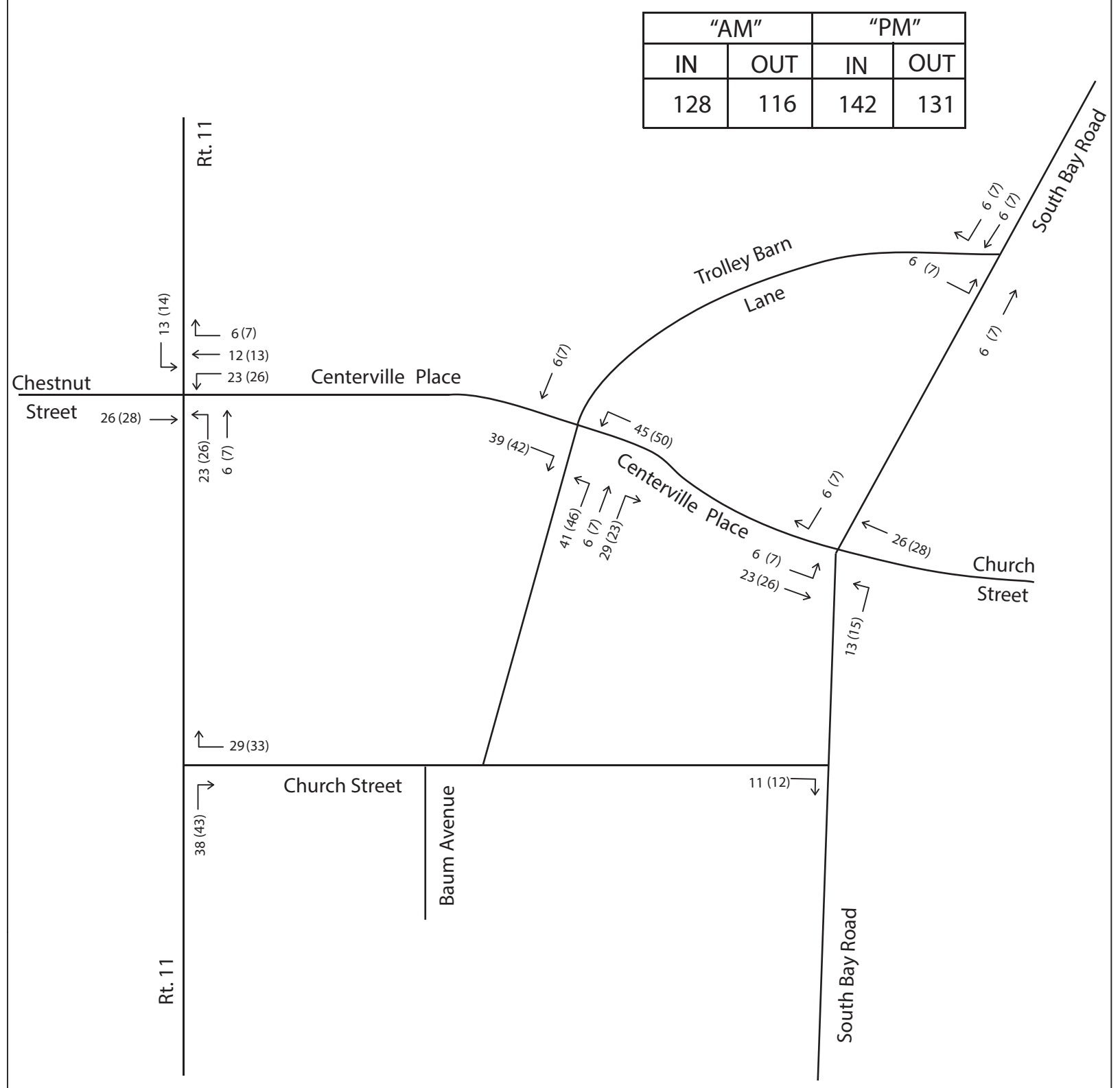
Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.

"AM"		"PM"	
IN	OUT	IN	OUT
128	116	142	131



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 3 - REDISTRIBUTE ROUTE 11 SOUTHBOUND LEFTS ON TO CHURCH STREET & CHURCH STREET WESTBOUND LEFT/RIGHT

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; ### (###) a.m. (p.m.) peak hr. volumes

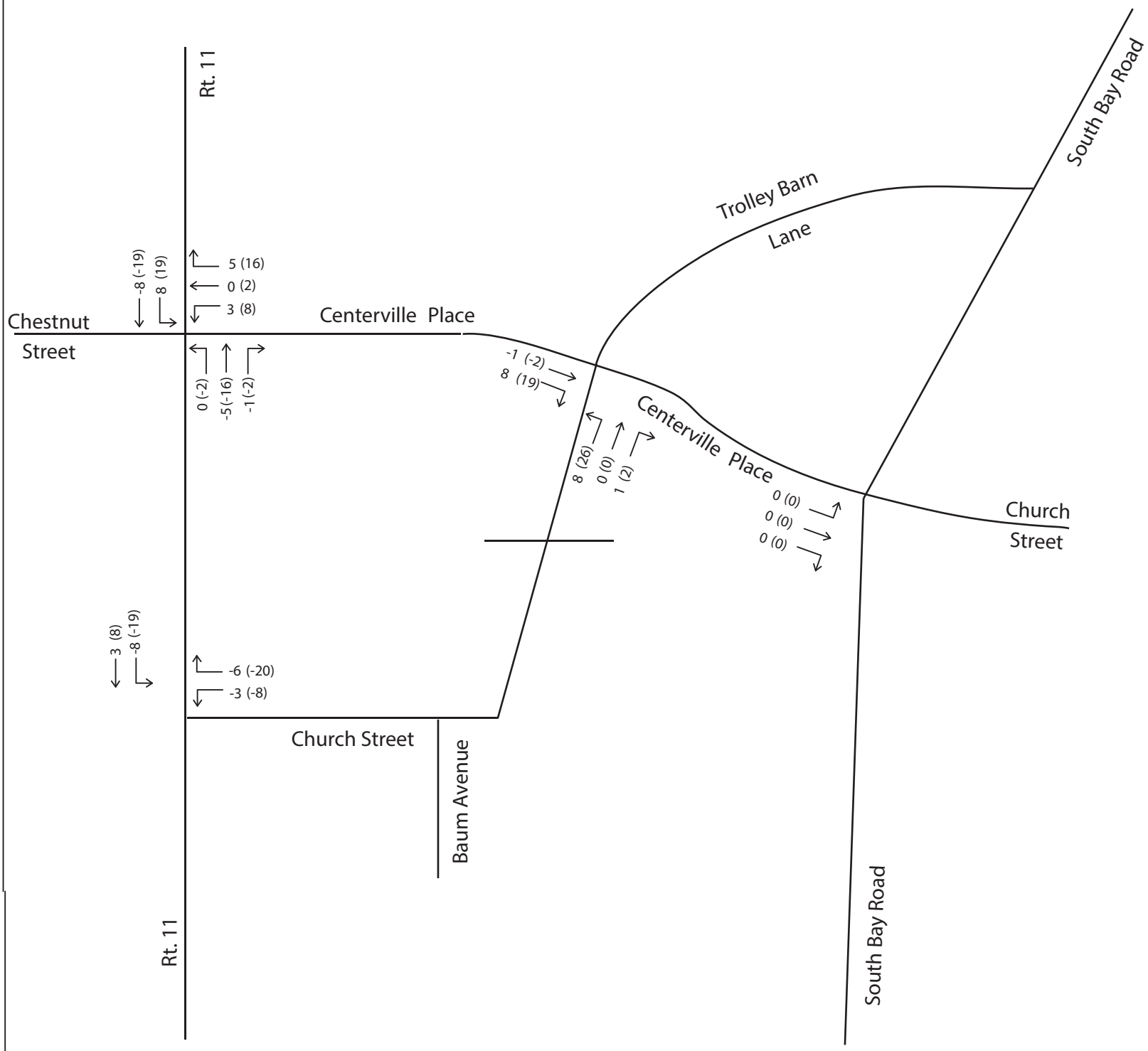
Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 3 - DISTRIBUTION OF PASSBY TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; % (%) a.m. (p.m.)

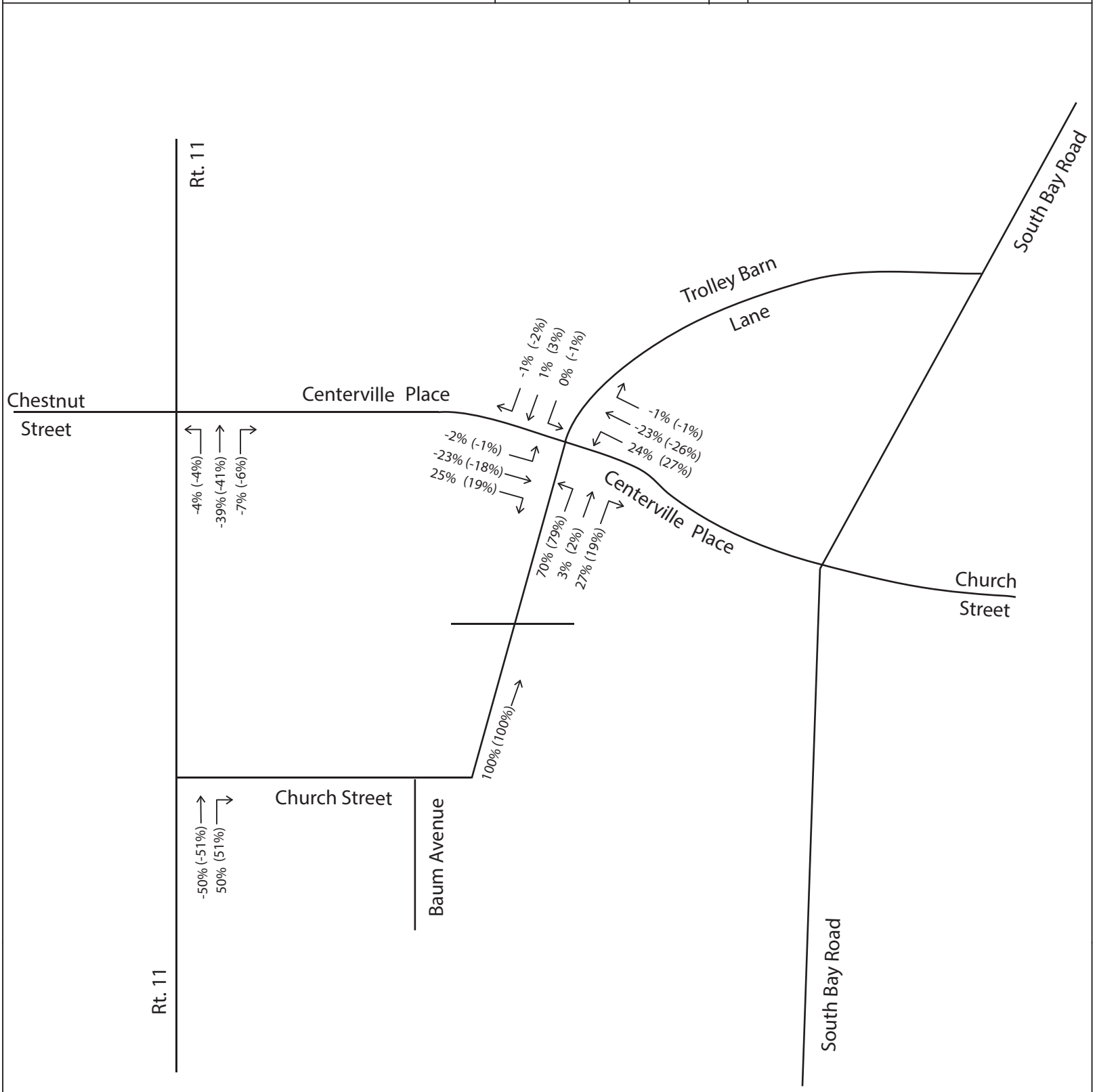
Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 3 - ASSIGNMENT OF PASSBY TRIPS IN (OUT)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; ### (###) a.m. (p.m.)

Drawn By: KK

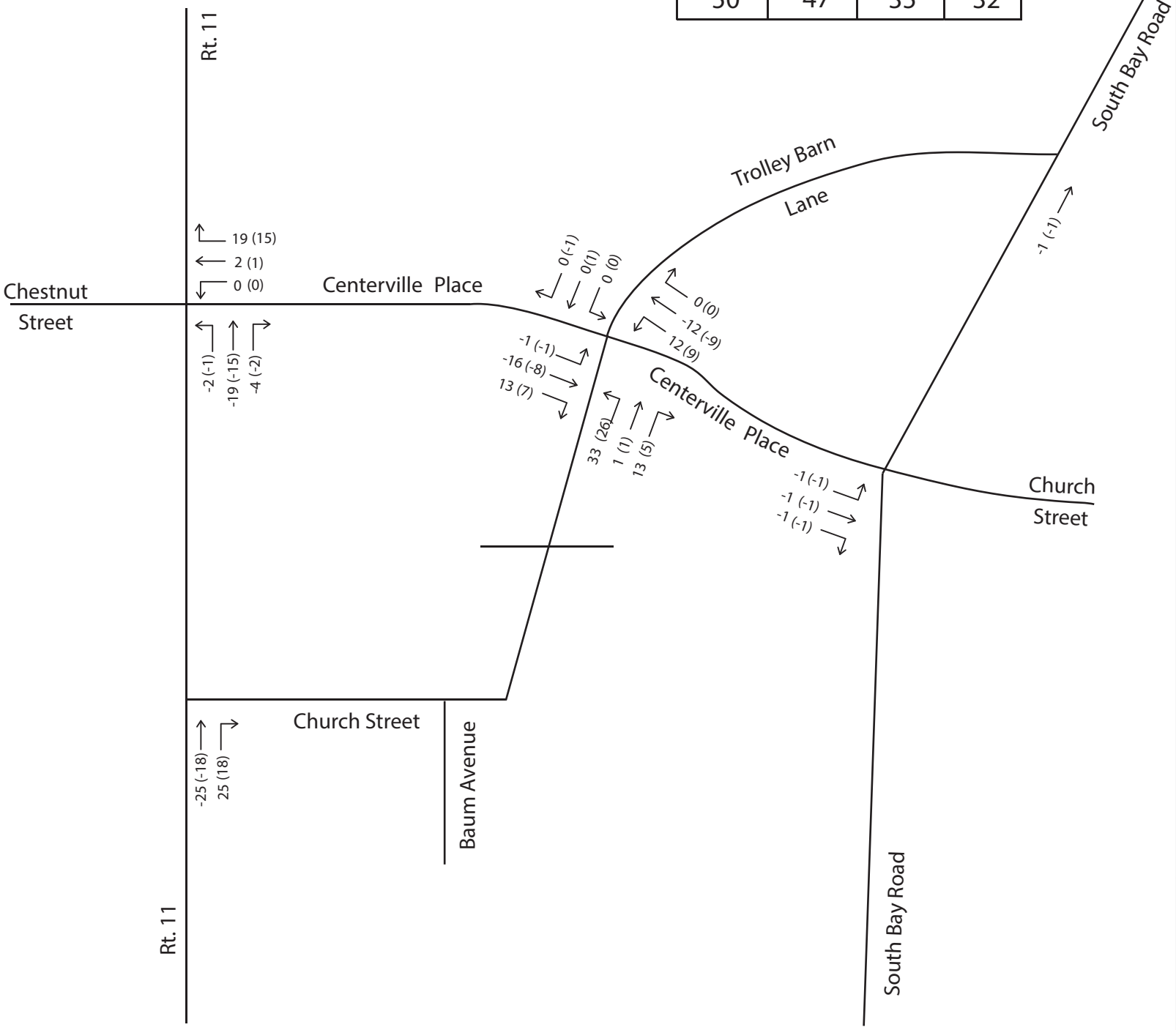
Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.

"AM"		"PM"	
IN	OUT	IN	OUT
50	47	35	32



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 3 - DISTRIBUTION OF NEW TRIPS ENTERING AND EXITING

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; % (%); a.m. (p.m.)

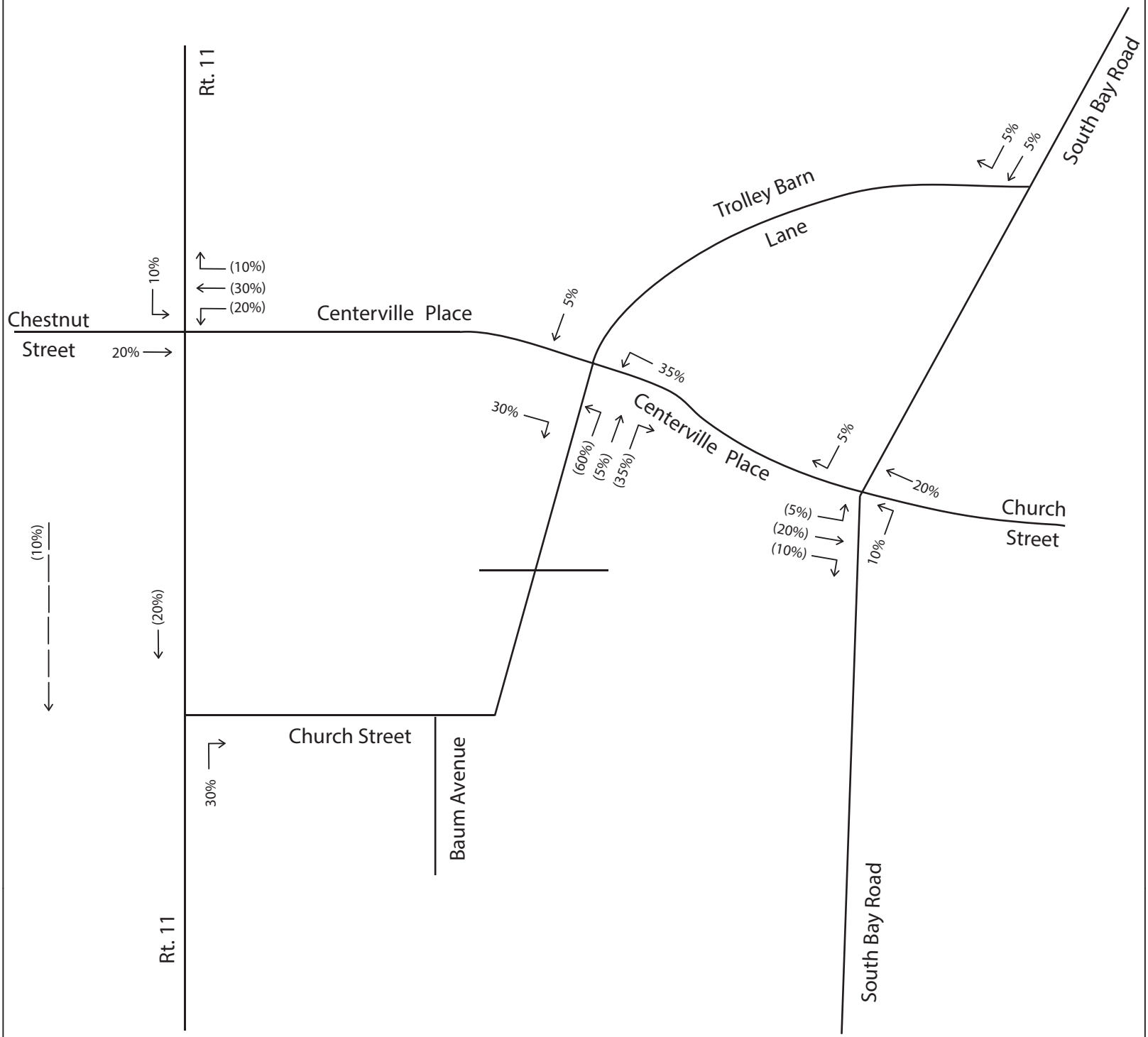
Drawn By: KK

Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.



Study: Church Street Access Study

Data Source: SMTC

SCENARIO 3 - ASSIGNMENT OF NEW TRIPS AM (PM)

Location: Village of North Syracuse, New York

Legend: Direction of Traffic; ### (###) a.m. (p.m.)

Drawn By: KK

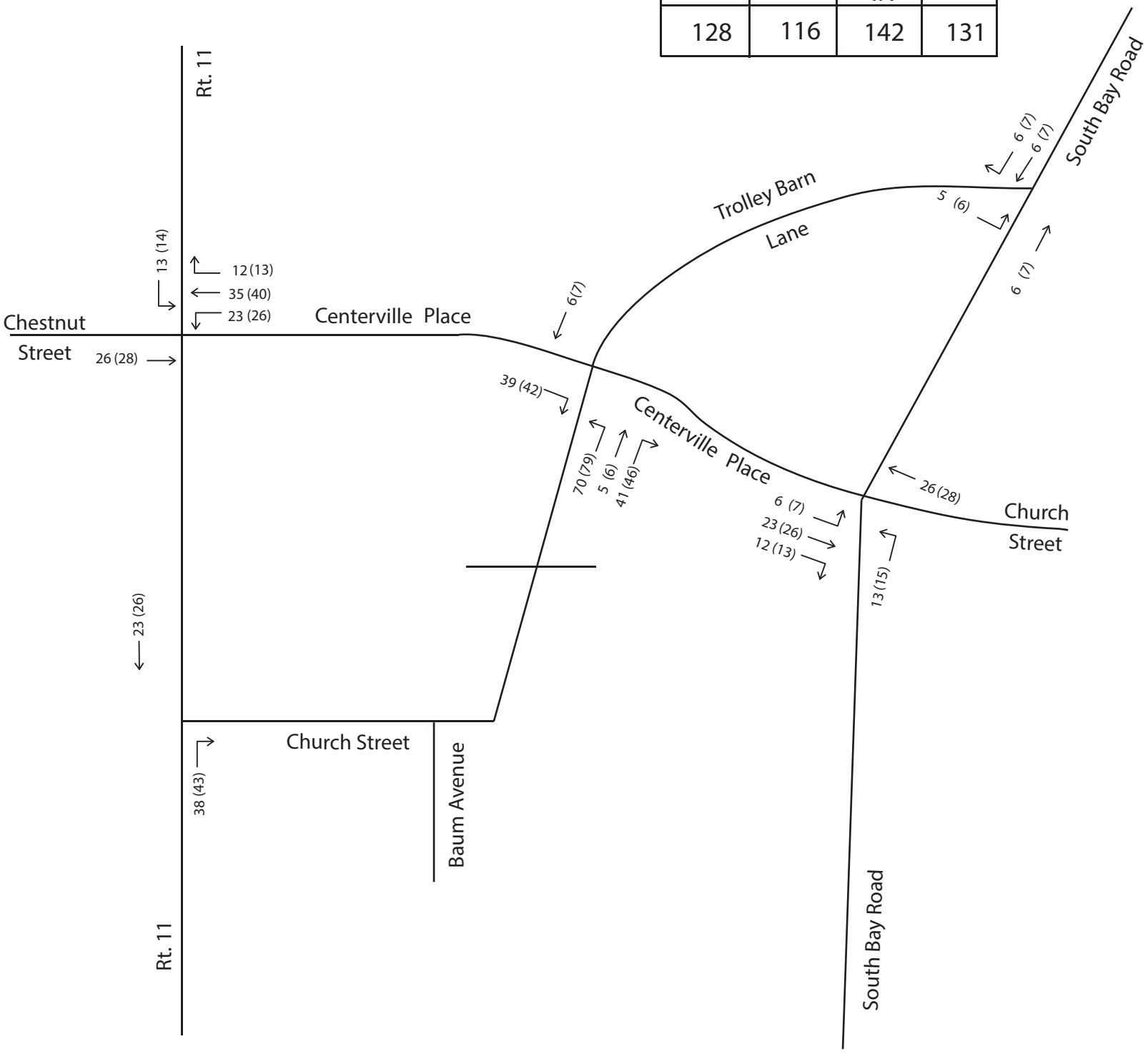
Date: July 2015

Prepared By: SMTC

N

Note:
Traffic counts were taken in June of 2014 prior to end of school year.
Diagram is for presentation purposes only.
Diagram is not to scale.

"AM"		"PM"	
IN	OUT	IN	OUT
128	116	142	131



Study: Church Street Access Study

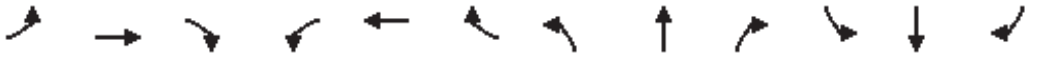
Data Source: SMTC

Appendix F

Synchro Report Summary Files (AM and PM)

- 2014 Existing Conditions
- 2034 No-Build*
- Future Scenario 1*
- Future Scenario 1A* (Village's Preferred Scenario)
- Future Scenario 2*
- Future Scenario 2A*
- Future Scenario 3*

*Both signalized intersections optimized (splits only) for AM. Only Route 11/Chestnut/Centerville optimized (splits only) for PM.

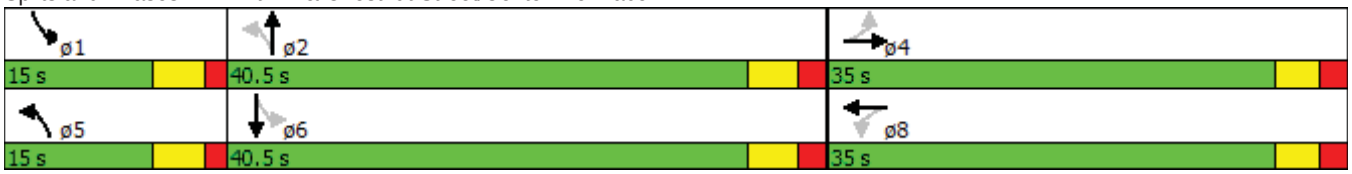


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	92	70	97	57	40	35	303	54	40	360	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00			1.00	1.00		1.00	1.00	
Frt		0.958			0.938			0.977			0.989	
Flt Protected		0.986		0.950			0.950			0.950		
Satd. Flow (prot)	0	1710	0	1646	1575	0	1546	1507	0	1560	1805	0
Flt Permitted		0.872		0.529			0.359			0.361		
Satd. Flow (perm)	0	1512	0	916	1575	0	583	1507	0	592	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			42			12			5	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)			1	1			3		4	4		3
Peak Hour Factor	0.81	0.81	0.81	0.86	0.86	0.86	0.74	0.74	0.74	0.81	0.81	0.81
Heavy Vehicles (%)	3%	3%	7%	6%	19%	5%	9%	4%	22%	8%	4%	3%
Parking (#/hr)								0				
Adj. Flow (vph)	77	114	86	113	66	47	47	409	73	49	444	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	277	0	113	113	0	47	482	0	49	480	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	40.5		15.0	40.5	
Total Split (%)	38.7%	38.7%		38.7%	38.7%		16.6%	44.8%		16.6%	44.8%	
Maximum Green (s)	30.0	30.0		30.0	30.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		14.6		14.6	14.6		27.0	24.0		26.9	24.0	
Actuated g/C Ratio		0.26		0.26	0.26		0.49	0.43		0.48	0.43	
v/c Ratio		0.67		0.47	0.25		0.13	0.73		0.13	0.61	
Control Delay		27.7		28.3	15.2		7.5	22.5		7.6	17.8	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		27.7		28.3	15.2		7.5	22.5		7.6	17.8	
LOS		C		C	B		A	C		A	B	
Approach Delay		27.7			21.7			21.2			16.9	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 55.6			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 20.9		Intersection LOS: C	
Intersection Capacity Utilization 56.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

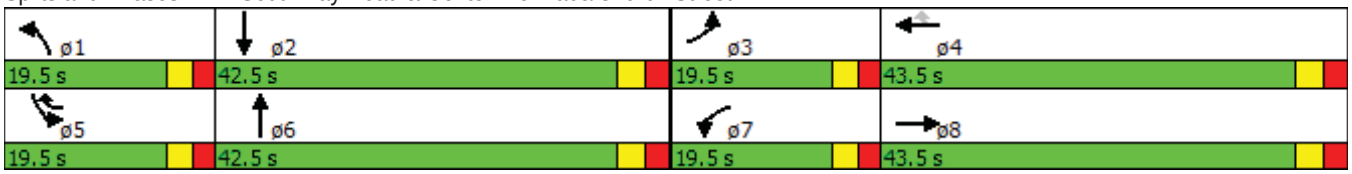


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	100	27	38	63	47	37	196	21	53	279	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		1.00				1.00		1.00		
Frt		0.968				0.850		0.985			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1862	0	1719	1810	1615	1680	1740	0	1760	1828	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1865	1862	0	1715	1810	1615	1680	1740	0	1756	1828	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											12	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			1097			550	
Travel Time (s)		5.7			18.7			21.4			10.7	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.81	0.81	0.81	0.96	0.96	0.96
Heavy Vehicles (%)	0%	2%	0%	5%	5%	0%	11%	11%	10%	6%	4%	3%
Adj. Flow (vph)	54	112	30	44	73	55	46	242	26	55	291	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	142	0	44	73	55	46	268	0	55	376	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	19.5	43.5		19.5	43.5	19.5	19.5	42.5		19.5	42.5	
Total Split (%)	15.6%	34.8%		15.6%	34.8%	15.6%	15.6%	34.0%		15.6%	34.0%	
Maximum Green (s)	15.0	38.5		15.0	38.5	15.0	15.0	37.5		15.0	37.5	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	6.3	11.4		6.1	11.3	23.3	6.4	19.0		6.7	21.9	
Actuated g/C Ratio	0.11	0.20		0.11	0.20	0.42	0.11	0.34		0.12	0.39	
v/c Ratio	0.26	0.37		0.23	0.20	0.08	0.24	0.45		0.26	0.52	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	30.6	26.3		30.9	24.5	13.9	30.5	20.5		30.0	19.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	30.6	26.3		30.9	24.5	13.9	30.5	20.5		30.0	19.5	
LOS	C	C		C	C	B	C	C		C	B	
Approach Delay		27.5			22.7			21.9			20.8	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 55.8			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 22.6		Intersection LOS: C	
Intersection Capacity Utilization 52.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	6	378	7	8	519
Conflicting Peds, #/hr	2	5	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	95	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	68	68	78	78
Heavy Vehicles, %	0	0	7	0	0	6
Mvmt Flow	5	11	556	10	10	665

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1252	578	0	0	571	0
Stage 1	566	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	192	519	-	-	1012	-
Stage 1	572	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	187	512	-	-	1002	-
Mov Cap-2 Maneuver	187	-	-	-	-	-
Stage 1	570	-	-	-	-	-
Stage 2	494	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	324	1002	-
HCM Lane V/C Ratio	-	-	0.05	0.01	-
HCM Control Delay (s)	-	-	16.7	8.6	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	16	174	176	8	1	8
Conflicting Peds, #/hr	1	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	73	73	80	80	100	100
Heavy Vehicles, %	31	9	7	0	0	13
Mvmt Flow	22	238	220	10	1	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	231	0	-	0	508	227
Stage 1	-	-	-	-	226	-
Stage 2	-	-	-	-	282	-
Critical Hdwy	4.41	-	-	-	6.4	6.33
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.479	-	-	-	3.5	3.417
Pot Cap-1 Maneuver	1184	-	-	-	528	786
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1183	-	-	-	516	784
Mov Cap-2 Maneuver	-	-	-	-	516	-
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	753	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1183	-	-	-	741
HCM Lane V/C Ratio	0.019	-	-	-	0.012
HCM Control Delay (s)	8.1	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	6	5	286	408	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	86	86	91	91
Heavy Vehicles, %	20	0	0	7	5	6
Mvmt Flow	12	11	6	333	448	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	802	458	468	0	-	0
Stage 1	458	-	-	-	-	-
Stage 2	344	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	329	607	1104	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	679	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	327	607	1104	-	-	-
Mov Cap-2 Maneuver	327	-	-	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	674	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1104	-	415	-	-
HCM Lane V/C Ratio	0.005	-	0.056	-	-
HCM Control Delay (s)	8.3	0	14.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	98	74	103	61	42	37	322	57	42	382	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00			1.00	1.00		1.00	1.00	
Frt		0.958			0.939			0.977			0.989	
Flt Protected		0.986		0.950			0.950			0.950		
Satd. Flow (prot)	0	1710	0	1646	1575	0	1546	1508	0	1560	1805	0
Flt Permitted		0.869		0.505			0.341			0.339		
Satd. Flow (perm)	0	1507	0	874	1575	0	554	1508	0	556	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			38			14			7	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)			1	1			3		4	4		3
Peak Hour Factor	0.81	0.81	0.81	0.86	0.86	0.86	0.74	0.74	0.74	0.81	0.81	0.81
Heavy Vehicles (%)	3%	3%	7%	6%	19%	5%	9%	4%	22%	8%	4%	3%
Parking (#/hr)								0				
Adj. Flow (vph)	81	121	91	120	71	49	50	435	77	52	472	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	0	120	120	0	50	512	0	52	510	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	30.0	30.0		30.0	30.0		9.0	51.5		9.0	51.5	
Total Split (%)	33.1%	33.1%		33.1%	33.1%		9.9%	56.9%		9.9%	56.9%	
Maximum Green (s)	25.0	25.0		25.0	25.0		4.0	46.0		4.0	46.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		15.1		15.1	15.1		28.6	26.1		28.6	26.1	
Actuated g/C Ratio		0.26		0.26	0.26		0.49	0.45		0.49	0.45	
v/c Ratio		0.71		0.53	0.27		0.14	0.75		0.15	0.63	
Control Delay		31.8		32.7	17.6		7.5	21.8		7.5	17.0	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		31.8		32.7	17.6		7.5	21.8		7.5	17.0	
LOS		C		C	B		A	C		A	B	
Approach Delay		31.8			25.1			20.6			16.1	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 58			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 21.7		Intersection LOS: C	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

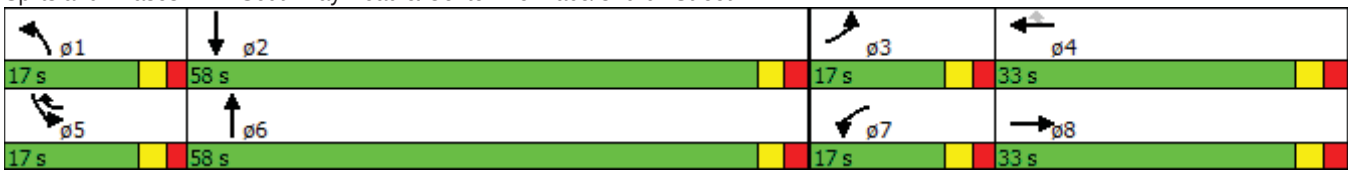
Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	106	29	40	67	50	39	208	22	56	296	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		1.00				1.00		1.00		
Frt		0.967				0.850		0.986			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1860	0	1719	1810	1615	1680	1742	0	1760	1828	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1865	1860	0	1715	1810	1615	1680	1742	0	1757	1828	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											15	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			1097			550	
Travel Time (s)		5.7			18.7			21.4			10.7	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.81	0.81	0.81	0.96	0.96	0.96
Heavy Vehicles (%)	0%	2%	0%	5%	5%	0%	11%	11%	10%	6%	4%	3%
Adj. Flow (vph)	57	119	33	47	78	58	48	257	27	58	308	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	152	0	47	78	58	48	284	0	58	399	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	17.0	33.0		17.0	33.0	17.0	17.0	58.0		17.0	58.0	
Total Split (%)	13.6%	26.4%		13.6%	26.4%	13.6%	13.6%	46.4%		13.6%	46.4%	
Maximum Green (s)	12.5	28.0		12.5	28.0	12.5	12.5	53.0		12.5	53.0	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	6.7	12.3		6.6	12.2	19.3	6.8	24.3		7.1	27.2	
Actuated g/C Ratio	0.12	0.23		0.12	0.22	0.35	0.12	0.45		0.13	0.50	
v/c Ratio	0.25	0.36		0.23	0.19	0.10	0.23	0.37		0.25	0.43	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	31.4	27.1		31.7	25.5	14.9	31.2	18.9		30.8	17.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	31.4	27.1		31.7	25.5	14.9	31.2	18.9		30.8	17.8	
LOS	C	C		C	C	B	C	B		C	B	
Approach Delay		28.3			23.7			20.7			19.5	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 54.5			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.43			
Intersection Signal Delay: 22.0		Intersection LOS: C	
Intersection Capacity Utilization 53.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	6	401	7	8	551
Conflicting Peds, #/hr	2	5	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	95	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	68	68	78	78
Heavy Vehicles, %	0	0	7	0	0	6
Mvmt Flow	5	11	590	10	10	706

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1327	612	0	0	605	0
Stage 1	600	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	173	497	-	-	983	-
Stage 1	552	-	-	-	-	-
Stage 2	482	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	169	490	-	-	973	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	550	-	-	-	-	-
Stage 2	472	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.7	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	300	973	-
HCM Lane V/C Ratio	-	-	0.054	0.011	-
HCM Control Delay (s)	-	-	17.7	8.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	17	185	187	8	1	8
Conflicting Peds, #/hr	1	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	73	73	80	80	100	100
Heavy Vehicles, %	31	9	7	0	0	13
Mvmt Flow	23	253	234	10	1	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	245	0	-	0	540	241
Stage 1	-	-	-	-	240	-
Stage 2	-	-	-	-	300	-
Critical Hdwy	4.41	-	-	-	6.4	6.33
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.479	-	-	-	3.5	3.417
Pot Cap-1 Maneuver	1169	-	-	-	506	772
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1168	-	-	-	493	770
Mov Cap-2 Maneuver	-	-	-	-	493	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	738	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1168	-	-	-	725
HCM Lane V/C Ratio	0.02	-	-	-	0.012
HCM Control Delay (s)	8.1	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	6	5	304	433	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	86	86	91	91
Heavy Vehicles, %	20	0	0	7	5	6
Mvmt Flow	12	11	6	353	476	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	851	486	497	0	-	0
Stage 1	486	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	308	585	1077	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	306	585	1077	-	-	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	659	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	0.1	0
HCM LOS	B		

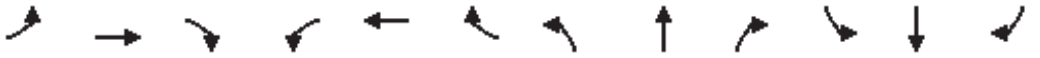
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1077	-	392	-	-
HCM Lane V/C Ratio	0.005	-	0.059	-	-
HCM Control Delay (s)	8.4	0	14.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	124	74	103	61	42	77	332	92	63	374	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00			1.00	0.99		1.00	1.00	
Frt		0.962			0.939			0.968			0.989	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1724	0	1646	1575	0	1546	1475	0	1560	1805	0
Flt Permitted		0.883		0.450			0.325			0.296		
Satd. Flow (perm)	0	1541	0	779	1575	0	528	1475	0	485	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			38			22			6	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)			1	1			3		4	4		3
Peak Hour Factor	0.81	0.81	0.81	0.86	0.86	0.86	0.74	0.74	0.74	0.81	0.81	0.81
Heavy Vehicles (%)	3%	3%	7%	6%	19%	5%	9%	4%	22%	8%	4%	3%
Parking (#/hr)								0				
Adj. Flow (vph)	81	153	91	120	71	49	104	449	124	78	462	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	325	0	120	120	0	104	573	0	78	500	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	30.0	30.0		30.0	30.0		11.0	51.5		9.0	49.5	
Total Split (%)	33.1%	33.1%		33.1%	33.1%		12.2%	56.9%		9.9%	54.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0		6.0	46.0		4.0	44.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		17.9		17.9	17.9		35.9	31.3		33.6	30.1	
Actuated g/C Ratio		0.26		0.26	0.26		0.53	0.46		0.50	0.44	
v/c Ratio		0.77		0.59	0.27		0.28	0.83		0.25	0.62	
Control Delay		38.1		38.9	18.8		9.1	27.9		9.2	19.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		38.1		38.9	18.8		9.1	27.9		9.2	19.2	
LOS		D		D	B		A	C		A	B	
Approach Delay		38.1			28.8			25.0			17.9	
Approach LOS		D			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 67.8			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 25.6		Intersection LOS: C	
Intersection Capacity Utilization 61.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	63	129	76	65	67	50	39	208	22	56	309	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00				1.00		1.00		
Frt		0.945				0.850		0.986			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1817	0	1719	1810	1615	1680	1742	0	1760	1829	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1865	1817	0	1716	1810	1615	1680	1742	0	1757	1829	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											14	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			242			550	
Travel Time (s)		5.7			18.7			4.7			10.7	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.81	0.81	0.81	0.96	0.96	0.96
Heavy Vehicles (%)	0%	2%	0%	5%	5%	0%	11%	11%	10%	6%	4%	3%
Adj. Flow (vph)	71	145	85	76	78	58	48	257	27	58	322	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	230	0	76	78	58	48	284	0	58	413	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	17.0	34.0		19.0	36.0	16.0	16.0	56.0		16.0	56.0	
Total Split (%)	13.6%	27.2%		15.2%	28.8%	12.8%	12.8%	44.8%		12.8%	44.8%	
Maximum Green (s)	12.5	29.0		14.5	31.0	11.5	11.5	51.0		11.5	51.0	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	7.5	15.0		7.9	15.3	28.7	7.2	19.7		7.6	22.4	
Actuated g/C Ratio	0.12	0.23		0.12	0.24	0.45	0.11	0.31		0.12	0.35	
v/c Ratio	0.33	0.54		0.36	0.18	0.08	0.25	0.53		0.28	0.64	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	37.8	32.4		38.1	26.5	15.9	37.8	25.2		37.3	25.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	37.8	32.4		38.1	26.5	15.9	37.8	25.2		37.3	25.1	
LOS	D	C		D	C	B	D	C		D	C	
Approach Delay		33.6			27.8			27.0			26.6	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 64.2			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 28.5		Intersection LOS: C	
Intersection Capacity Utilization 57.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	117	375	84	0	551
Conflicting Peds, #/hr	2	5	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	68	68	78	78
Heavy Vehicles, %	0	0	7	0	0	6
Mvmt Flow	0	209	551	124	0	706

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1324	630	0	0	680	0
Stage 1	618	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	174	485	-	-	922	-
Stage 1	542	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	172	478	-	-	913	-
Mov Cap-2 Maneuver	172	-	-	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	488	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	478	913	-
HCM Lane V/C Ratio	-	-	0.437	-	-
HCM Control Delay (s)	-	-	18.3	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.2	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	17	267	187	8	1	8
Conflicting Peds, #/hr	1	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	73	73	80	80	100	100
Heavy Vehicles, %	31	9	7	0	0	13
Mvmt Flow	23	366	234	10	1	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	245	0	-	0	652	241
Stage 1	-	-	-	-	240	-
Stage 2	-	-	-	-	412	-
Critical Hdwy	4.41	-	-	-	6.4	6.33
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.479	-	-	-	3.5	3.417
Pot Cap-1 Maneuver	1169	-	-	-	436	772
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	673	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1168	-	-	-	424	770
Mov Cap-2 Maneuver	-	-	-	-	424	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	656	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1168	-	-	-	706
HCM Lane V/C Ratio	0.02	-	-	-	0.013
HCM Control Delay (s)	8.1	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	6	5	316	446	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	86	86	91	91
Heavy Vehicles, %	20	0	0	7	5	6
Mvmt Flow	12	11	6	367	490	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	880	501	511	0	-	0
Stage 1	501	-	-	-	-	-
Stage 2	379	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	296	574	1065	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	294	574	1065	-	-	-
Mov Cap-2 Maneuver	294	-	-	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	649	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.1	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1065	-	379	-	-
HCM Lane V/C Ratio	0.005	-	0.061	-	-
HCM Control Delay (s)	8.4	0	15.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

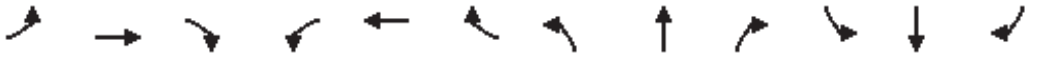
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	55	0	0	450	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	0	0	489	92

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	535	535	582	0	-	0
Stage 1	535	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	506	545	992	-	-	-
Stage 1	587	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	506	545	992	-	-	-
Mov Cap-2 Maneuver	506	-	-	-	-	-
Stage 1	587	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	992	-	545	-	-
HCM Lane V/C Ratio	-	-	0.11	-	-
HCM Control Delay (s)	0	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	98	100	103	61	42	78	333	91	42	394	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		1.00			1.00	0.99		1.00	1.00	
Frt		0.949			0.939			0.968			0.989	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1696	0	1646	1575	0	1546	1476	0	1560	1805	0
Flt Permitted		0.882		0.446			0.295			0.322		
Satd. Flow (perm)	0	1514	0	772	1575	0	479	1476	0	528	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			38			22			6	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)			1	1			3		4	4		3
Peak Hour Factor	0.81	0.81	0.81	0.86	0.86	0.86	0.74	0.74	0.74	0.81	0.81	0.81
Heavy Vehicles (%)	3%	3%	7%	6%	19%	5%	9%	4%	22%	8%	4%	3%
Parking (#/hr)								0				
Adj. Flow (vph)	81	121	123	120	71	49	105	450	123	52	486	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	325	0	120	120	0	105	573	0	52	524	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	30.0	30.0		30.0	30.0		11.0	51.5		9.0	49.5	
Total Split (%)	33.1%	33.1%		33.1%	33.1%		12.2%	56.9%		9.9%	54.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0		6.0	46.0		4.0	44.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		17.4		17.4	17.4		35.7	32.3		32.3	28.7	
Actuated g/C Ratio		0.26		0.26	0.26		0.54	0.49		0.49	0.43	
v/c Ratio		0.77		0.59	0.27		0.30	0.78		0.16	0.67	
Control Delay		36.7		39.1	18.7		9.2	24.0		8.2	20.5	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		36.7		39.1	18.7		9.2	24.0		8.2	20.5	
LOS		D		D	B		A	C		A	C	
Approach Delay		36.7			28.9			21.8			19.3	
Approach LOS		D			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 66.2			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 24.6		Intersection LOS: C	
Intersection Capacity Utilization 61.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	129	29	66	67	50	39	208	22	56	309	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		1.00				1.00		1.00		
Frt		0.972				0.850		0.986			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1870	0	1719	1810	1615	1680	1742	0	1760	1829	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1865	1870	0	1716	1810	1615	1680	1742	0	1757	1829	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											14	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			242			550	
Travel Time (s)		5.7			18.7			4.7			10.7	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.81	0.81	0.81	0.96	0.96	0.96
Heavy Vehicles (%)	0%	2%	0%	5%	5%	0%	11%	11%	10%	6%	4%	3%
Adj. Flow (vph)	70	145	33	77	78	58	48	257	27	58	322	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	178	0	77	78	58	48	284	0	58	413	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	17.0	33.0		20.0	36.0	17.0	16.0	55.0		17.0	56.0	
Total Split (%)	13.6%	26.4%		16.0%	28.8%	13.6%	12.8%	44.0%		13.6%	44.8%	
Maximum Green (s)	12.5	28.0		15.5	31.0	12.5	11.5	50.0		12.5	51.0	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	7.9	14.4		8.3	14.8	20.7	7.7	25.9		8.0	28.4	
Actuated g/C Ratio	0.13	0.24		0.14	0.25	0.35	0.13	0.44		0.14	0.48	
v/c Ratio	0.28	0.39		0.32	0.17	0.10	0.22	0.37		0.24	0.46	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	34.2	29.5		34.2	26.5	16.0	34.2	21.0		33.8	20.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	34.2	29.5		34.2	26.5	16.0	34.2	21.0		33.8	20.1	
LOS	C	C		C	C	B	C	C		C	C	
Approach Delay		30.8			26.4			22.9			21.8	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 58.9			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 24.6		Intersection LOS: C	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	107	386	73	67	530
Conflicting Peds, #/hr	2	5	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	68	68	78	78
Heavy Vehicles, %	0	0	7	0	0	6
Mvmt Flow	0	191	568	107	86	679

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1477	638	0	0	680	0
Stage 1	626	-	-	-	-	-
Stage 2	851	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	140	480	-	-	922	-
Stage 1	537	-	-	-	-	-
Stage 2	422	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	125	473	-	-	913	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	535	-	-	-	-	-
Stage 2	378	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.7	0	1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	473	913	-
HCM Lane V/C Ratio	-	-	0.404	0.094	-
HCM Control Delay (s)	-	-	17.7	9.4	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.9	0.3	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	17	219	187	8	1	8
Conflicting Peds, #/hr	1	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	73	73	80	80	100	100
Heavy Vehicles, %	31	9	7	0	0	13
Mvmt Flow	23	300	234	10	1	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	245	0	-	0	587	241
Stage 1	-	-	-	-	240	-
Stage 2	-	-	-	-	347	-
Critical Hdwy	4.41	-	-	-	6.4	6.33
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.479	-	-	-	3.5	3.417
Pot Cap-1 Maneuver	1169	-	-	-	475	772
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	720	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1168	-	-	-	463	770
Mov Cap-2 Maneuver	-	-	-	-	463	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	702	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1168	-	-	-	717
HCM Lane V/C Ratio	0.02	-	-	-	0.013
HCM Control Delay (s)	8.1	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	6	5	315	446	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	86	86	91	91
Heavy Vehicles, %	20	0	0	7	5	6
Mvmt Flow	12	11	6	366	490	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	879	501	511	0	-	0
Stage 1	501	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	296	574	1065	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	655	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	294	574	1065	-	-	-
Mov Cap-2 Maneuver	294	-	-	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	650	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.1	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1065	-	379	-	-
HCM Lane V/C Ratio	0.005	-	0.061	-	-
HCM Control Delay (s)	8.4	0	15.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

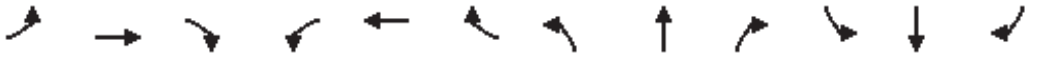
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	65	0	0	390	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	0	0	424	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	453	453	482	0	-	0
Stage 1	453	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	565	607	1081	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	565	607	1081	-	-	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1081	-	607	-	-
HCM Lane V/C Ratio	-	-	0.116	-	-
HCM Control Delay (s)	0	-	11.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	124	74	128	73	48	60	327	57	63	374	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00			1.00	1.00		1.00	1.00	
Frt		0.962			0.940			0.978			0.989	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1724	0	1646	1574	0	1546	1510	0	1560	1805	0
Flt Permitted		0.877		0.467			0.310			0.329		
Satd. Flow (perm)	0	1530	0	809	1574	0	504	1510	0	539	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			38			13			6	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)			1	1			3		4	4		3
Peak Hour Factor	0.81	0.81	0.81	0.86	0.86	0.86	0.74	0.74	0.74	0.81	0.81	0.81
Heavy Vehicles (%)	3%	3%	7%	6%	19%	5%	9%	4%	22%	8%	4%	3%
Parking (#/hr)								0				
Adj. Flow (vph)	81	153	91	149	85	56	81	442	77	78	462	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	325	0	149	141	0	81	519	0	78	500	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	33.0	33.0		33.0	33.0		11.0	48.5		9.0	46.5	
Total Split (%)	36.5%	36.5%		36.5%	36.5%		12.2%	53.6%		9.9%	51.4%	
Maximum Green (s)	28.0	28.0		28.0	28.0		6.0	43.0		4.0	41.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		17.3		17.3	17.3		31.5	27.1		29.7	26.1	
Actuated g/C Ratio		0.27		0.27	0.27		0.50	0.43		0.47	0.41	
v/c Ratio		0.75		0.67	0.31		0.24	0.79		0.24	0.67	
Control Delay		33.7		40.7	18.3		9.2	26.5		9.5	21.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		33.7		40.7	18.3		9.2	26.5		9.5	21.1	
LOS		C		D	B		A	C		A	C	
Approach Delay		33.7			29.8			24.1			19.6	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 63.1			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 63.8%		ICU Level of Service B	
Analysis Period (min) 15			

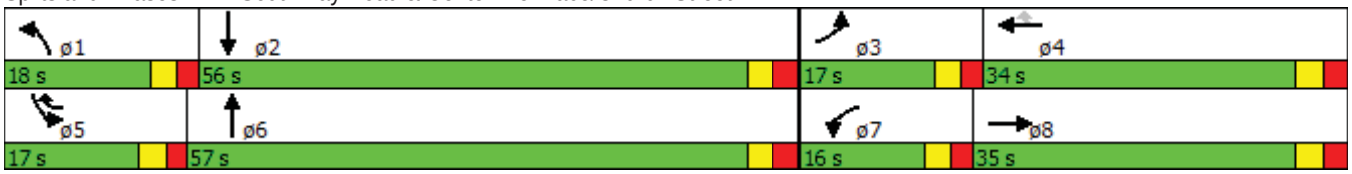
Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	128	40	40	93	50	52	208	22	56	296	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00				1.00		1.00		
Frt		0.964				0.850		0.986			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1854	0	1719	1810	1615	1680	1742	0	1760	1824	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1865	1854	0	1716	1810	1615	1680	1742	0	1757	1824	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											15	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			272			550	
Travel Time (s)		5.7			18.7			5.3			10.7	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.81	0.81	0.81	0.96	0.96	0.96
Heavy Vehicles (%)	0%	2%	0%	5%	5%	0%	11%	11%	10%	6%	4%	3%
Adj. Flow (vph)	64	144	45	47	108	58	64	257	27	58	308	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	189	0	47	108	58	64	284	0	58	405	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	17.0	35.0		16.0	34.0	17.0	18.0	57.0		17.0	56.0	
Total Split (%)	13.6%	28.0%		12.8%	27.2%	13.6%	14.4%	45.6%		13.6%	44.8%	
Maximum Green (s)	12.5	30.0		11.5	29.0	12.5	13.5	52.0		12.5	51.0	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	7.0	13.3		6.7	13.0	26.2	7.6	18.7		7.3	21.3	
Actuated g/C Ratio	0.12	0.23		0.12	0.22	0.45	0.13	0.32		0.13	0.37	
v/c Ratio	0.28	0.44		0.24	0.27	0.08	0.29	0.51		0.26	0.60	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	34.1	28.9		34.6	27.4	15.8	33.7	21.7		33.5	21.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	34.1	28.9		34.6	27.4	15.8	33.7	21.7		33.5	21.9	
LOS	C	C		C	C	B	C	C		C	C	
Approach Delay		30.2			25.8			23.9			23.3	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 58.1			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 55.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	59	376	70	0	576
Conflicting Peds, #/hr	2	5	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	68	68	78	78
Heavy Vehicles, %	0	0	7	0	0	6
Mvmt Flow	0	105	553	103	0	738

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1347	621	0	0	661	0
Stage 1	609	-	-	-	-	-
Stage 2	738	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	168	491	-	-	937	-
Stage 1	547	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	166	484	-	-	928	-
Mov Cap-2 Maneuver	166	-	-	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	484	928	-
HCM Lane V/C Ratio	-	-	0.218	-	-
HCM Control Delay (s)	-	-	14.5	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	173	60	57	175	8	55	7	51	1	6	8
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	92	92	80	80	92	92	92	100	92	100
Heavy Vehicles, %	31	9	2	2	7	0	2	2	2	0	2	13
Mvmt Flow	22	237	65	62	219	10	60	8	55	1	7	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	230	0	0	302	0	0	669	667	271	694	695	226
Stage 1	-	-	-	-	-	-	313	313	-	349	349	-
Stage 2	-	-	-	-	-	-	356	354	-	345	346	-
Critical Hdwy	4.41	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.479	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.417
Pot Cap-1 Maneuver	1185	-	-	1259	-	-	371	380	768	360	366	787
Stage 1	-	-	-	-	-	-	698	657	-	671	633	-
Stage 2	-	-	-	-	-	-	661	630	-	675	635	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1184	-	-	1258	-	-	340	350	767	308	337	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	350	-	308	337	-
Stage 1	-	-	-	-	-	-	682	642	-	655	596	-
Stage 2	-	-	-	-	-	-	610	594	-	604	620	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	1.7	15.8	12.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	455	1184	-	-	1258	-	-	473
HCM Lane V/C Ratio	0.27	0.019	-	-	0.049	-	-	0.033
HCM Control Delay (s)	15.8	8.1	0	-	8	0	-	12.9
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	13	6	5	310	439	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	86	86	91	91
Heavy Vehicles, %	20	0	0	7	5	6
Mvmt Flow	23	11	6	360	482	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	868	496	510	0	-	0
Stage 1	496	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	301	578	1065	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	299	578	1065	-	-	-
Mov Cap-2 Maneuver	299	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	654	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1065	-	353	-	-
HCM Lane V/C Ratio	0.005	-	0.096	-	-
HCM Control Delay (s)	8.4	0	16.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	124	74	128	73	48	60	327	57	63	374	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00			1.00	1.00		1.00	1.00	
Frt		0.962			0.940			0.978			0.989	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1724	0	1646	1574	0	1546	1510	0	1560	1805	0
Flt Permitted		0.877		0.467			0.310			0.329		
Satd. Flow (perm)	0	1530	0	809	1574	0	504	1510	0	539	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			38			13			6	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)			1	1			3		4	4		3
Peak Hour Factor	0.81	0.81	0.81	0.86	0.86	0.86	0.74	0.74	0.74	0.81	0.81	0.81
Heavy Vehicles (%)	3%	3%	7%	6%	19%	5%	9%	4%	22%	8%	4%	3%
Parking (#/hr)								0				
Adj. Flow (vph)	81	153	91	149	85	56	81	442	77	78	462	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	325	0	149	141	0	81	519	0	78	500	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	33.0	33.0		33.0	33.0		11.0	48.5		9.0	46.5	
Total Split (%)	36.5%	36.5%		36.5%	36.5%		12.2%	53.6%		9.9%	51.4%	
Maximum Green (s)	28.0	28.0		28.0	28.0		6.0	43.0		4.0	41.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		17.3		17.3	17.3		31.5	27.1		29.7	26.1	
Actuated g/C Ratio		0.27		0.27	0.27		0.50	0.43		0.47	0.41	
v/c Ratio		0.75		0.67	0.31		0.24	0.79		0.24	0.67	
Control Delay		33.7		40.7	18.3		9.2	26.5		9.5	21.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		33.7		40.7	18.3		9.2	26.5		9.5	21.1	
LOS		C		D	B		A	C		A	C	
Approach Delay		33.7			29.8			24.1			19.6	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 63.1			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 63.8%		ICU Level of Service B	
Analysis Period (min) 15			

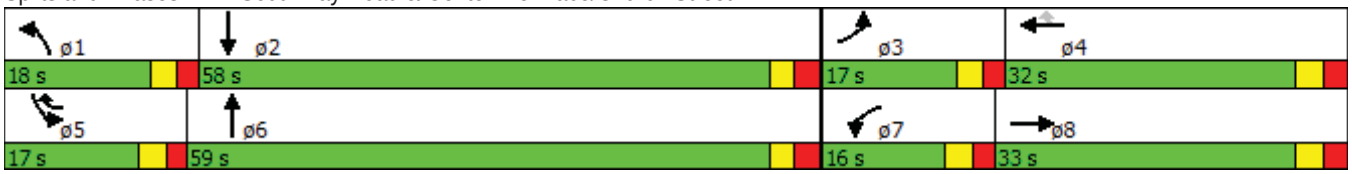
Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	128	29	40	93	50	52	208	22	56	296	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		1.00				1.00		1.00		
Frt		0.972				0.850		0.986			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1870	0	1719	1810	1615	1680	1742	0	1760	1824	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1865	1870	0	1716	1810	1615	1680	1742	0	1757	1824	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											16	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			272			550	
Travel Time (s)		5.7			18.7			5.3			10.7	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.81	0.81	0.81	0.96	0.96	0.96
Heavy Vehicles (%)	0%	2%	0%	5%	5%	0%	11%	11%	10%	6%	4%	3%
Adj. Flow (vph)	64	144	33	47	108	58	64	257	27	58	308	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	177	0	47	108	58	64	284	0	58	405	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	17.0	33.0		16.0	32.0	17.0	18.0	59.0		17.0	58.0	
Total Split (%)	13.6%	26.4%		12.8%	25.6%	13.6%	14.4%	47.2%		13.6%	46.4%	
Maximum Green (s)	12.5	28.0		11.5	27.0	12.5	13.5	54.0		12.5	53.0	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	7.7	14.4		7.4	14.0	20.1	8.2	25.2		7.9	27.7	
Actuated g/C Ratio	0.14	0.26		0.13	0.25	0.36	0.15	0.46		0.14	0.50	
v/c Ratio	0.25	0.36		0.21	0.24	0.10	0.26	0.36		0.23	0.44	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	32.6	27.6		33.2	27.1	16.0	32.3	19.0		32.2	18.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	32.6	27.6		33.2	27.1	16.0	32.3	19.0		32.2	18.6	
LOS	C	C		C	C	B	C	B		C	B	
Approach Delay		28.9			25.4			21.4			20.3	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 55.3			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 23.1		Intersection LOS: C	
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	59	376	70	0	576
Conflicting Peds, #/hr	2	5	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	68	68	78	78
Heavy Vehicles, %	0	0	7	0	0	6
Mvmt Flow	0	105	553	103	0	738

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1347	621	0	0	661	0
Stage 1	609	-	-	-	-	-
Stage 2	738	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	168	491	-	-	937	-
Stage 1	547	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	166	484	-	-	928	-
Mov Cap-2 Maneuver	166	-	-	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	484	928	-
HCM Lane V/C Ratio	-	-	0.218	-	-
HCM Control Delay (s)	-	-	14.5	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	173	60	57	175	8	55	7	40	1	6	8
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	92	92	80	80	92	92	92	100	92	100
Heavy Vehicles, %	31	9	2	2	7	0	2	2	2	0	2	13
Mvmt Flow	22	237	65	62	219	10	60	8	43	1	7	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	230	0	0	302	0	0	669	667	271	688	695	226
Stage 1	-	-	-	-	-	-	313	313	-	349	349	-
Stage 2	-	-	-	-	-	-	356	354	-	339	346	-
Critical Hdwy	4.41	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.479	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.417
Pot Cap-1 Maneuver	1185	-	-	1259	-	-	371	380	768	363	366	787
Stage 1	-	-	-	-	-	-	698	657	-	671	633	-
Stage 2	-	-	-	-	-	-	661	630	-	680	635	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1184	-	-	1258	-	-	340	350	767	316	337	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	340	350	-	316	337	-
Stage 1	-	-	-	-	-	-	682	642	-	655	596	-
Stage 2	-	-	-	-	-	-	610	594	-	619	620	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	1.7	16	12.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	436	1184	-	-	1258	-	-	475
HCM Lane V/C Ratio	0.254	0.019	-	-	0.049	-	-	0.033
HCM Control Delay (s)	16	8.1	0	-	8	0	-	12.8
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1	0.1	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	13	6	5	310	439	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	86	86	91	91
Heavy Vehicles, %	20	0	0	7	5	6
Mvmt Flow	23	11	6	360	482	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	868	496	510	0	-	0
Stage 1	496	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	301	578	1065	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	299	578	1065	-	-	-
Mov Cap-2 Maneuver	299	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	654	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1065	-	353	-	-
HCM Lane V/C Ratio	0.005	-	0.096	-	-
HCM Control Delay (s)	8.4	0	16.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	11	0	282	365	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	12	0	307	397	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	704	397	397	0	-	0
Stage 1	397	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	403	652	1162	-	-	-
Stage 1	679	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	403	652	1162	-	-	-
Mov Cap-2 Maneuver	403	-	-	-	-	-
Stage 1	679	-	-	-	-	-
Stage 2	746	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1162	-	652	-	-
HCM Lane V/C Ratio	-	-	0.018	-	-
HCM Control Delay (s)	0	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	124	74	129	98	78	35	298	52	63	374	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00			1.00	1.00		1.00	1.00	
Frt		0.962			0.933			0.978			0.989	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	1724	0	1646	1572	0	1546	1510	0	1560	1805	0
Flt Permitted		0.859		0.472			0.355			0.343		
Satd. Flow (perm)	0	1499	0	817	1572	0	577	1510	0	562	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			47			13			6	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)			1	1			3		4	4		3
Peak Hour Factor	0.81	0.81	0.81	0.86	0.86	0.86	0.74	0.74	0.74	0.81	0.81	0.81
Heavy Vehicles (%)	3%	3%	7%	6%	19%	5%	9%	4%	22%	8%	4%	3%
Parking (#/hr)								0				
Adj. Flow (vph)	81	153	91	150	114	91	47	403	70	78	462	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	325	0	150	205	0	47	473	0	78	500	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	34.0	34.0		34.0	34.0		9.0	47.5		9.0	47.5	
Total Split (%)	37.6%	37.6%		37.6%	37.6%		9.9%	52.5%		9.9%	52.5%	
Maximum Green (s)	29.0	29.0		29.0	29.0		4.0	42.0		4.0	42.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		17.2		17.2	17.2		28.6	25.0		29.8	27.2	
Actuated g/C Ratio		0.28		0.28	0.28		0.47	0.41		0.49	0.45	
v/c Ratio		0.74		0.66	0.43		0.14	0.76		0.22	0.62	
Control Delay		32.1		37.6	19.1		8.7	25.0		9.4	18.5	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		32.1		37.6	19.1		8.7	25.0		9.4	18.5	
LOS		C		D	B		A	C		A	B	
Approach Delay		32.1			26.9			23.5			17.2	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 61.1			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 66.6%		ICU Level of Service C	
Analysis Period (min) 15			

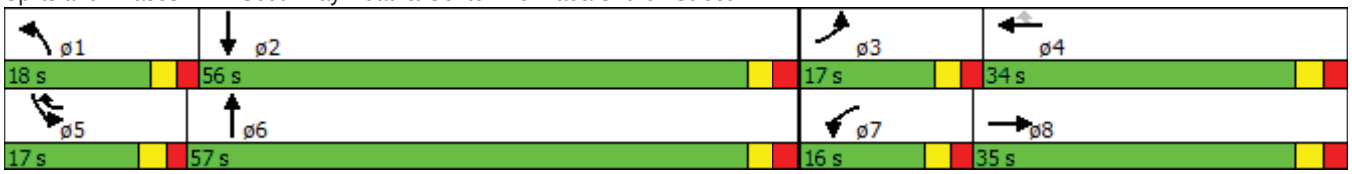
Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	128	40	40	93	50	52	208	22	56	296	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00				1.00		1.00		
Frt		0.964				0.850		0.986			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1854	0	1719	1810	1615	1680	1742	0	1760	1824	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1865	1854	0	1716	1810	1615	1680	1742	0	1757	1824	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											15	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			272			550	
Travel Time (s)		5.7			18.7			5.3			10.7	
Confl. Peds. (#/hr)			1	1					1	1		
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.81	0.81	0.81	0.96	0.96	0.96
Heavy Vehicles (%)	0%	2%	0%	5%	5%	0%	11%	11%	10%	6%	4%	3%
Adj. Flow (vph)	63	144	45	47	108	58	64	257	27	58	308	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	189	0	47	108	58	64	284	0	58	405	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	17.0	35.0		16.0	34.0	17.0	18.0	57.0		17.0	56.0	
Total Split (%)	13.6%	28.0%		12.8%	27.2%	13.6%	14.4%	45.6%		13.6%	44.8%	
Maximum Green (s)	12.5	30.0		11.5	29.0	12.5	13.5	52.0		12.5	51.0	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	7.0	13.3		6.7	13.0	26.2	7.6	18.7		7.3	21.3	
Actuated g/C Ratio	0.12	0.23		0.12	0.22	0.45	0.13	0.32		0.13	0.37	
v/c Ratio	0.28	0.44		0.24	0.27	0.08	0.29	0.51		0.26	0.60	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	34.1	28.9		34.6	27.3	15.8	33.7	21.7		33.5	21.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	34.1	28.9		34.6	27.3	15.8	33.7	21.7		33.5	21.9	
LOS	C	C		C	C	B	C	C		C	C	
Approach Delay		30.2			25.8			23.9			23.3	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 58.1			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 25.3		Intersection LOS: C	
Intersection Capacity Utilization 55.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	168	60	57	175	8	111	6	55	1	6	8
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	92	92	80	80	92	92	92	100	92	100
Heavy Vehicles, %	31	9	2	2	7	0	2	2	2	0	2	13
Mvmt Flow	22	230	65	62	219	10	121	7	60	1	7	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	230	0	0	295	0	0	663	661	264	689	688	226
Stage 1	-	-	-	-	-	-	307	307	-	349	349	-
Stage 2	-	-	-	-	-	-	356	354	-	340	339	-
Critical Hdwy	4.41	-	-	4.12	-	-	7.12	6.52	6.22	7.1	6.52	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.52	-
Follow-up Hdwy	2.479	-	-	2.218	-	-	3.518	4.018	3.318	3.5	4.018	3.417
Pot Cap-1 Maneuver	1185	-	-	1266	-	-	375	383	775	363	369	787
Stage 1	-	-	-	-	-	-	703	661	-	671	633	-
Stage 2	-	-	-	-	-	-	661	630	-	679	640	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1184	-	-	1265	-	-	344	353	774	310	340	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	344	353	-	310	340	-
Stage 1	-	-	-	-	-	-	688	646	-	656	597	-
Stage 2	-	-	-	-	-	-	610	594	-	606	626	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1.7	17.3	12.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	344	693	1184	-	-	1265	-	-	476
HCM Lane V/C Ratio	0.351	0.096	0.019	-	-	0.049	-	-	0.033
HCM Control Delay (s)	21	10.7	8.1	0	-	8	0	-	12.8
HCM Lane LOS	C	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.5	0.3	0.1	-	-	0.2	-	-	0.1

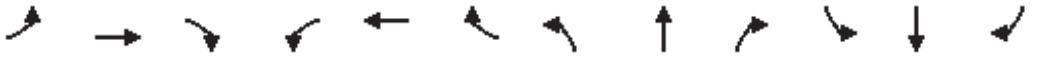
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	12	6	5	309	439	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	86	86	91	91
Heavy Vehicles, %	20	0	0	7	5	6
Mvmt Flow	21	11	6	359	482	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	867	496	510	0	-	0
Stage 1	496	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Critical Hdwy	6.6	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	301	578	1065	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	299	578	1065	-	-	-
Mov Cap-2 Maneuver	299	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	655	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.1	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1065	-	356	-	-
HCM Lane V/C Ratio	0.005	-	0.09	-	-
HCM Control Delay (s)	8.4	0	16.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

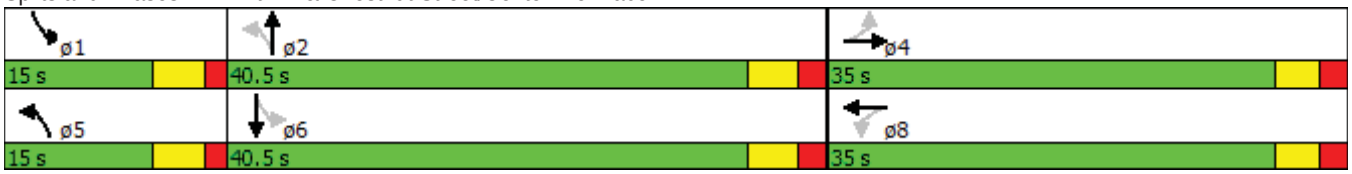


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	103	50	93	167	98	56	541	70	65	473	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00	0.99		1.00	0.99		0.99	1.00	
Frt		0.972			0.945			0.983			0.980	
Flt Protected		0.983		0.950			0.950			0.950		
Satd. Flow (prot)	0	1765	0	1745	1774	0	1685	1599	0	1685	1838	0
Flt Permitted		0.566		0.511			0.285			0.208		
Satd. Flow (perm)	0	1014	0	938	1774	0	504	1599	0	367	1838	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			35			8			10	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)	8		1	1		8	11		20	20		11
Peak Hour Factor	0.82	0.82	0.82	0.89	0.89	0.89	0.94	0.94	0.94	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	1%	2%	0%	1%	0%
Parking (#/hr)								0				
Adj. Flow (vph)	102	126	61	104	188	110	60	576	74	70	509	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	289	0	104	298	0	60	650	0	70	587	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	40.5		15.0	40.5	
Total Split (%)	38.7%	38.7%		38.7%	38.7%		16.6%	44.8%		16.6%	44.8%	
Maximum Green (s)	30.0	30.0		30.0	30.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		22.2		22.2	22.2		40.2	35.8		41.6	37.9	
Actuated g/C Ratio		0.29		0.29	0.29		0.52	0.47		0.54	0.49	
v/c Ratio		0.95		0.38	0.55		0.18	0.86		0.24	0.64	
Control Delay		66.9		26.5	24.3		10.2	36.1		11.1	21.8	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		66.9		26.5	24.3		10.2	36.1		11.1	21.8	
LOS		E		C	C		B	D		B	C	
Approach Delay		66.9			24.9			33.9			20.6	
Approach LOS		E			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 76.6			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 32.5		Intersection LOS: C	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

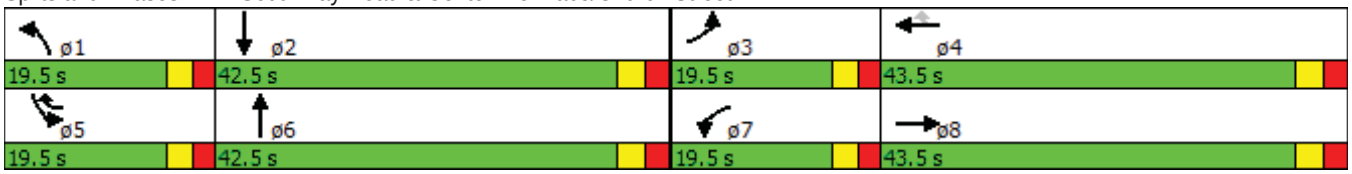


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	104	115	37	22	187	106	85	446	30	115	267	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		1.00		0.97	1.00	1.00		0.99	0.99	
Frt		0.964				0.850		0.991			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1882	0	1805	1900	1599	1865	1942	0	1865	1852	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1851	1882	0	1801	1900	1551	1857	1942	0	1853	1852	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											13	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			1097			550	
Travel Time (s)		5.7			18.7			21.4			10.7	
Confl. Peds. (#/hr)	4		1	1		4	3		5	5		3
Peak Hour Factor	0.94	0.94	0.94	0.86	0.86	0.86	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	111	122	39	26	217	123	90	474	32	140	326	102
Shared Lane Traffic (%)												
Lane Group Flow (vph)	111	161	0	26	217	123	90	506	0	140	428	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	19.5	43.5		19.5	43.5	19.5	19.5	42.5		19.5	42.5	
Total Split (%)	15.6%	34.8%		15.6%	34.8%	15.6%	15.6%	34.0%		15.6%	34.0%	
Maximum Green (s)	15.0	38.5		15.0	38.5	15.0	15.0	37.5		15.0	37.5	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.1	25.0		5.8	14.7	25.9	8.5	26.9		10.7	31.8	
Actuated g/C Ratio	0.11	0.31		0.07	0.18	0.32	0.10	0.33		0.13	0.39	
v/c Ratio	0.54	0.28		0.20	0.63	0.25	0.46	0.79		0.57	0.58	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	48.3	27.4		46.9	42.7	21.0	47.1	35.8		46.9	25.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	48.3	27.4		46.9	42.7	21.0	47.1	35.8		46.9	25.2	
LOS	D	C		D	D	C	D	D		D	C	
Approach Delay		35.9			35.7			37.5			30.6	
Approach LOS		D			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 81.4			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 34.7		Intersection LOS: C	
Intersection Capacity Utilization 64.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	8	19	667	9	18	597
Conflicting Peds, #/hr	10	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	95	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	95	95	92	92
Heavy Vehicles, %	0	5	1	11	0	1
Mvmt Flow	12	28	702	9	20	649

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1405	721	0	0	722	0
Stage 1	717	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Critical Hdwy	6.4	6.25	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.2	-
Pot Cap-1 Maneuver	155	422	-	-	889	-
Stage 1	487	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	150	417	-	-	886	-
Mov Cap-2 Maneuver	150	-	-	-	-	-
Stage 1	483	-	-	-	-	-
Stage 2	490	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.4	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	273	886	-
HCM Lane V/C Ratio	-	-	0.145	0.022	-
HCM Control Delay (s)	-	-	20.4	9.2	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	16	239	342	14	14	21
Conflicting Peds, #/hr	8	0	0	8	5	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	90	90	71	71
Heavy Vehicles, %	6	0	0	0	0	0
Mvmt Flow	18	263	380	16	20	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	401	0	-	0	691	401
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	298	-
Critical Hdwy	4.16	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1136	-	-	-	413	653
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	758	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1126	-	-	-	402	644
Mov Cap-2 Maneuver	-	-	-	-	402	-
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	740	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1126	-	-	-	519
HCM Lane V/C Ratio	0.016	-	-	-	0.095
HCM Control Delay (s)	8.2	0	-	-	12.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	16	16	16	640	449	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	94	94	81	81
Heavy Vehicles, %	6	0	7	0	1	0
Mvmt Flow	22	22	17	681	554	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1281	566	578	0	-	0
Stage 1	566	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Critical Hdwy	6.46	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	179	528	971	-	-	-
Stage 1	560	-	-	-	-	-
Stage 2	477	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	174	528	971	-	-	-
Mov Cap-2 Maneuver	174	-	-	-	-	-
Stage 1	560	-	-	-	-	-
Stage 2	464	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.5	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	971	-	262	-	-
HCM Lane V/C Ratio	0.018	-	0.167	-	-
HCM Control Delay (s)	8.8	0	21.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	109	53	99	177	104	59	574	74	69	502	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00	0.99		1.00	1.00		0.99	1.00	
Frt		0.971			0.944			0.983			0.980	
Flt Protected		0.983		0.950			0.950			0.950		
Satd. Flow (prot)	0	1763	0	1745	1772	0	1685	1599	0	1685	1838	0
Flt Permitted		0.582		0.512			0.223			0.166		
Satd. Flow (perm)	0	1041	0	940	1772	0	394	1599	0	293	1838	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			34			10			12	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)	8		1	1		8	11		20	20		11
Peak Hour Factor	0.82	0.82	0.82	0.89	0.89	0.89	0.94	0.94	0.94	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	1%	2%	0%	1%	0%
Parking (#/hr)								0				
Adj. Flow (vph)	109	133	65	111	199	117	63	611	79	74	540	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	307	0	111	316	0	63	690	0	74	624	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	34.0	34.0		34.0	34.0		9.0	47.5		9.0	47.5	
Total Split (%)	37.6%	37.6%		37.6%	37.6%		9.9%	52.5%		9.9%	52.5%	
Maximum Green (s)	29.0	29.0		29.0	29.0		4.0	42.0		4.0	42.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		26.8		26.8	26.8		42.0	38.5		42.0	38.5	
Actuated g/C Ratio		0.32		0.32	0.32		0.51	0.46		0.51	0.46	
v/c Ratio		0.88		0.37	0.53		0.24	0.92		0.34	0.73	
Control Delay		56.0		28.2	25.6		11.2	41.8		13.3	24.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		56.0		28.2	25.6		11.2	41.8		13.3	24.4	
LOS		E		C	C		B	D		B	C	
Approach Delay		56.0			26.3			39.3			23.3	
Approach LOS		E			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 82.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 34.0		Intersection LOS: C	
Intersection Capacity Utilization 85.7%		ICU Level of Service E	
Analysis Period (min) 15			

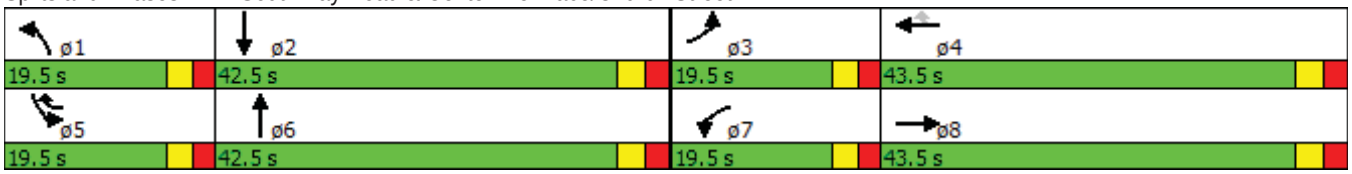
Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	122	39	23	199	113	90	474	32	122	283	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		1.00		0.97	1.00	1.00		0.99	0.99	
Frt		0.964				0.850		0.991			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1882	0	1805	1900	1599	1865	1942	0	1865	1852	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1851	1882	0	1801	1900	1551	1857	1942	0	1854	1852	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											13	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			1097			550	
Travel Time (s)		5.7			18.7			21.4			10.7	
Confl. Peds. (#/hr)	4		1	1		4	3		5	5		3
Peak Hour Factor	0.94	0.94	0.94	0.86	0.86	0.86	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	117	130	41	27	231	131	96	504	34	149	345	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	117	171	0	27	231	131	96	538	0	149	454	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	19.5	43.5		19.5	43.5	19.5	19.5	42.5		19.5	42.5	
Total Split (%)	15.6%	34.8%		15.6%	34.8%	15.6%	15.6%	34.0%		15.6%	34.0%	
Maximum Green (s)	15.0	38.5		15.0	38.5	15.0	15.0	37.5		15.0	37.5	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.5	24.2		5.8	15.5	27.4	8.9	30.2		11.3	35.5	
Actuated g/C Ratio	0.11	0.28		0.07	0.18	0.32	0.10	0.35		0.13	0.41	
v/c Ratio	0.57	0.33		0.22	0.68	0.26	0.50	0.79		0.61	0.59	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	51.8	30.7		49.6	46.4	22.2	50.6	36.6		50.4	25.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	51.8	30.7		49.6	46.4	22.2	50.6	36.6		50.4	25.9	
LOS	D	C		D	D	C	D	D		D	C	
Approach Delay		39.3			38.5			38.7			32.0	
Approach LOS		D			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 86.5			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 36.6		Intersection LOS: D	
Intersection Capacity Utilization 67.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	8	20	708	10	19	634
Conflicting Peds, #/hr	10	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	95	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	95	95	92	92
Heavy Vehicles, %	0	5	1	11	0	1
Mvmt Flow	12	29	745	11	21	689

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1491	765	0	0	766	0
Stage 1	761	-	-	-	-	-
Stage 2	730	-	-	-	-	-
Critical Hdwy	6.4	6.25	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.2	-
Pot Cap-1 Maneuver	138	398	-	-	856	-
Stage 1	465	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	133	394	-	-	853	-
Mov Cap-2 Maneuver	133	-	-	-	-	-
Stage 1	461	-	-	-	-	-
Stage 2	468	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.1	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	252	853	-
HCM Lane V/C Ratio	-	-	0.163	0.024	-
HCM Control Delay (s)	-	-	22.1	9.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	17	254	363	15	15	22
Conflicting Peds, #/hr	8	0	0	8	5	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	90	90	71	71
Heavy Vehicles, %	6	0	0	0	0	0
Mvmt Flow	19	279	403	17	21	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	425	0	-	0	733	425
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	316	-
Critical Hdwy	4.16	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1113	-	-	-	391	634
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	744	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1103	-	-	-	380	626
Mov Cap-2 Maneuver	-	-	-	-	380	-
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	726	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1103	-	-	-	496
HCM Lane V/C Ratio	0.017	-	-	-	0.105
HCM Control Delay (s)	8.3	0	-	-	13.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

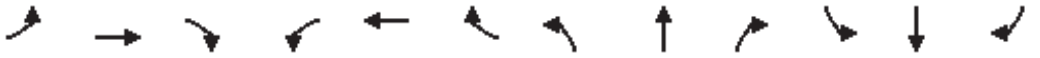
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	17	17	17	680	477	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	94	94	81	81
Heavy Vehicles, %	6	0	7	0	1	0
Mvmt Flow	23	23	18	723	589	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1361	601	614	0	-	0
Stage 1	601	-	-	-	-	-
Stage 2	760	-	-	-	-	-
Critical Hdwy	6.46	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	160	504	942	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	155	504	942	-	-	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	440	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.9	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	942	-	237	-	-
HCM Lane V/C Ratio	0.019	-	0.197	-	-
HCM Control Delay (s)	8.9	0	23.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

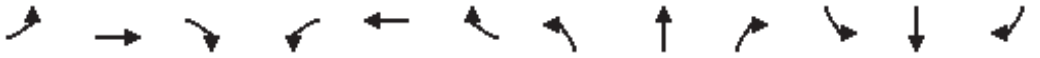


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	137	53	99	177	104	105	585	113	102	483	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00	0.99		1.00	0.99		1.00	1.00	
Frt		0.974			0.944			0.976			0.979	
Flt Protected		0.984		0.950			0.950			0.950		
Satd. Flow (prot)	0	1775	0	1745	1772	0	1685	1584	0	1685	1836	0
Flt Permitted		0.581		0.473			0.249			0.134		
Satd. Flow (perm)	0	1046	0	868	1772	0	440	1584	0	236	1836	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			34			15			12	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)	8		1	1		8	11		20	20		11
Peak Hour Factor	0.82	0.82	0.82	0.89	0.89	0.89	0.94	0.94	0.94	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	1%	2%	0%	1%	0%
Parking (#/hr)								0				
Adj. Flow (vph)	109	167	65	111	199	117	112	622	120	110	519	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	341	0	111	316	0	112	742	0	110	603	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	33.0	33.0		33.0	33.0		9.0	48.5		9.0	48.5	
Total Split (%)	36.5%	36.5%		36.5%	36.5%		9.9%	53.6%		9.9%	53.6%	
Maximum Green (s)	28.0	28.0		28.0	28.0		4.0	43.0		4.0	43.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		28.1		28.1	28.1		45.5	41.9		45.5	41.9	
Actuated g/C Ratio		0.32		0.32	0.32		0.52	0.48		0.52	0.48	
v/c Ratio		0.99		0.40	0.53		0.39	0.97		0.59	0.68	
Control Delay		77.8		29.9	26.5		13.4	49.9		23.3	22.5	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		77.8		29.9	26.5		13.4	49.9		23.3	22.5	
LOS		E		C	C		B	D		C	C	
Approach Delay		77.8			27.4			45.1			22.7	
Approach LOS		E			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 87.6			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 39.8		Intersection LOS: D	
Intersection Capacity Utilization 92.0%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

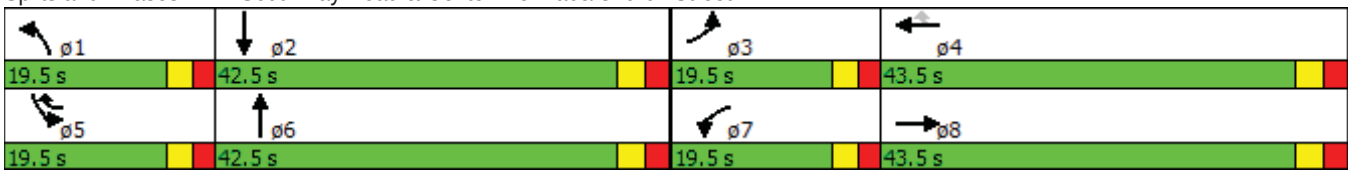


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	148	100	51	199	113	90	474	32	122	297	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		1.00		0.97	1.00	1.00		0.99	0.99	
Frt		0.940				0.850		0.991			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1829	0	1805	1900	1599	1865	1942	0	1865	1854	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1851	1829	0	1802	1900	1551	1858	1942	0	1854	1854	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											12	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			242			550	
Travel Time (s)		5.7			18.7			4.7			10.7	
Confl. Peds. (#/hr)	4		1	1		4	3		5	5		3
Peak Hour Factor	0.94	0.94	0.94	0.86	0.86	0.86	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	131	157	106	59	231	131	96	504	34	149	362	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	131	263	0	59	231	131	96	538	0	149	471	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	19.5	43.5		19.5	43.5	19.5	19.5	42.5		19.5	42.5	
Total Split (%)	15.6%	34.8%		15.6%	34.8%	15.6%	15.6%	34.0%		15.6%	34.0%	
Maximum Green (s)	15.0	38.5		15.0	38.5	15.0	15.0	37.5		15.0	37.5	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	10.1	21.3		7.1	15.6	27.5	8.9	30.4		11.4	35.7	
Actuated g/C Ratio	0.12	0.24		0.08	0.18	0.31	0.10	0.35		0.13	0.41	
v/c Ratio	0.61	0.59		0.40	0.68	0.27	0.51	0.80		0.62	0.62	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	52.8	38.7		51.8	47.0	22.6	51.2	37.2		51.1	27.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	52.8	38.7		51.8	47.0	22.6	51.2	37.2		51.1	27.0	
LOS	D	D		D	D	C	D	D		D	C	
Approach Delay		43.4			40.1			39.3			32.8	
Approach LOS		D			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 87.4			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 38.3		Intersection LOS: D	
Intersection Capacity Utilization 68.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	139	685	91	0	635
Conflicting Peds, #/hr	10	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	95	95	92	92
Heavy Vehicles, %	0	5	1	11	0	1
Mvmt Flow	0	204	721	96	0	690

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1469	783	0	0	827	0
Stage 1	779	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Critical Hdwy	6.4	6.25	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.2	-
Pot Cap-1 Maneuver	142	389	-	-	813	-
Stage 1	456	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	140	385	-	-	810	-
Mov Cap-2 Maneuver	140	-	-	-	-	-
Stage 1	453	-	-	-	-	-
Stage 2	500	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	385	810	-
HCM Lane V/C Ratio	-	-	0.531	-	-
HCM Control Delay (s)	-	-	24.5	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	3	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	17	354	363	15	15	22
Conflicting Peds, #/hr	8	0	0	8	5	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	90	90	71	71
Heavy Vehicles, %	6	0	0	0	0	0
Mvmt Flow	19	389	403	17	21	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	425	0	-	0	843	425
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	426	-
Critical Hdwy	4.16	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1113	-	-	-	337	634
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1103	-	-	-	327	626
Mov Cap-2 Maneuver	-	-	-	-	327	-
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	645	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1103	-	-	-	457
HCM Lane V/C Ratio	0.017	-	-	-	0.114
HCM Control Delay (s)	8.3	0	-	-	13.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	17	17	17	693	491	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	94	94	81	81
Heavy Vehicles, %	6	0	7	0	1	0
Mvmt Flow	23	23	18	737	606	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1392	619	631	0	-	0
Stage 1	619	-	-	-	-	-
Stage 2	773	-	-	-	-	-
Critical Hdwy	6.46	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	153	492	928	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	148	492	928	-	-	-
Mov Cap-2 Maneuver	148	-	-	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	433	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.8	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	928	-	228	-	-
HCM Lane V/C Ratio	0.019	-	0.204	-	-
HCM Control Delay (s)	9	0	24.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	52	0	0	448	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	57	0	0	487	112

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	543	543	599	0	-	0
Stage 1	543	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	501	540	978	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	501	540	978	-	-	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	978	-	540	-	-
HCM Lane V/C Ratio	-	-	0.105	-	-
HCM Control Delay (s)	0	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	109	81	99	177	104	105	585	113	69	515	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00	0.99		1.00	0.99		1.00	1.00	
Frt		0.961			0.944			0.976			0.980	
Flt Protected		0.984		0.950			0.950			0.950		
Satd. Flow (prot)	0	1738	0	1745	1772	0	1685	1584	0	1685	1838	0
Flt Permitted		0.581		0.473			0.219			0.134		
Satd. Flow (perm)	0	1024	0	868	1772	0	387	1584	0	236	1838	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			34			15			11	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)	8		1	1		8	11		20	20		11
Peak Hour Factor	0.82	0.82	0.82	0.89	0.89	0.89	0.94	0.94	0.94	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	1%	2%	0%	1%	0%
Parking (#/hr)								0				
Adj. Flow (vph)	109	133	99	111	199	117	112	622	120	74	554	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	341	0	111	316	0	112	742	0	74	638	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	33.0	33.0		33.0	33.0		9.0	48.5		9.0	48.5	
Total Split (%)	36.5%	36.5%		36.5%	36.5%		9.9%	53.6%		9.9%	53.6%	
Maximum Green (s)	28.0	28.0		28.0	28.0		4.0	43.0		4.0	43.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		28.1		28.1	28.1		45.5	41.9		45.5	41.9	
Actuated g/C Ratio		0.32		0.32	0.32		0.52	0.48		0.52	0.48	
v/c Ratio		0.99		0.40	0.53		0.43	0.97		0.39	0.72	
Control Delay		77.2		29.9	26.5		14.6	49.9		14.8	24.0	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		77.2		29.9	26.5		14.6	49.9		14.8	24.0	
LOS		E		C	C		B	D		B	C	
Approach Delay		77.2			27.4			45.2			23.0	
Approach LOS		E			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 87.6			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 39.9		Intersection LOS: D	
Intersection Capacity Utilization 90.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

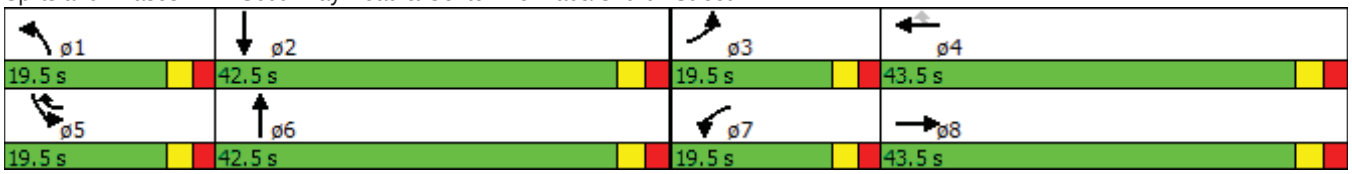
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	148	39	51	199	113	90	474	32	122	297	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		1.00		0.97	1.00	1.00		0.99	0.99	
Frt		0.969				0.850		0.991			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1894	0	1805	1900	1599	1865	1942	0	1865	1854	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1851	1894	0	1801	1900	1551	1858	1942	0	1854	1854	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											12	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			242			550	
Travel Time (s)		5.7			18.7			4.7			10.7	
Confl. Peds. (#/hr)	4		1	1		4	3		5	5		3
Peak Hour Factor	0.94	0.94	0.94	0.86	0.86	0.86	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	131	157	41	59	231	131	96	504	34	149	362	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	131	198	0	59	231	131	96	538	0	149	471	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	19.5	43.5		19.5	43.5	19.5	19.5	42.5		19.5	42.5	
Total Split (%)	15.6%	34.8%		15.6%	34.8%	15.6%	15.6%	34.0%		15.6%	34.0%	
Maximum Green (s)	15.0	38.5		15.0	38.5	15.0	15.0	37.5		15.0	37.5	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	10.1	21.3		7.1	15.6	27.5	8.9	30.4		11.4	35.7	
Actuated g/C Ratio	0.12	0.24		0.08	0.18	0.31	0.10	0.35		0.13	0.41	
v/c Ratio	0.61	0.43		0.40	0.68	0.27	0.51	0.80		0.62	0.62	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	52.8	34.8		51.8	47.0	22.6	51.2	37.2		51.1	27.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	52.8	34.8		51.8	47.0	22.6	51.2	37.2		51.1	27.0	
LOS	D	C		D	D	C	D	D		D	C	
Approach Delay		42.0			40.1			39.3			32.8	
Approach LOS		D			D			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 87.4
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 37.9 Intersection LOS: D
Intersection Capacity Utilization 68.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	131	693	82	75	621
Conflicting Peds, #/hr	10	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	95	95	92	92
Heavy Vehicles, %	0	5	1	11	0	1
Mvmt Flow	0	193	729	86	82	675

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1621	787	0	0	826	0
Stage 1	783	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Critical Hdwy	6.4	6.25	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.2	-
Pot Cap-1 Maneuver	115	387	-	-	813	-
Stage 1	454	-	-	-	-	-
Stage 2	428	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	102	383	-	-	810	-
Mov Cap-2 Maneuver	102	-	-	-	-	-
Stage 1	451	-	-	-	-	-
Stage 2	383	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.5	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	383	810	-
HCM Lane V/C Ratio	-	-	0.503	0.101	-
HCM Control Delay (s)	-	-	23.5	9.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.7	0.3	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	17	293	363	15	15	22
Conflicting Peds, #/hr	8	0	0	8	5	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	90	90	71	71
Heavy Vehicles, %	6	0	0	0	0	0
Mvmt Flow	19	322	403	17	21	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	425	0	-	0	776	425
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	359	-
Critical Hdwy	4.16	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1113	-	-	-	369	634
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	711	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1103	-	-	-	358	626
Mov Cap-2 Maneuver	-	-	-	-	358	-
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	693	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1103	-	-	-	480
HCM Lane V/C Ratio	0.017	-	-	-	0.109
HCM Control Delay (s)	8.3	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	17	17	17	693	491	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	94	94	81	81
Heavy Vehicles, %	6	0	7	0	1	0
Mvmt Flow	23	23	18	737	606	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1392	619	631	0	-	0
Stage 1	619	-	-	-	-	-
Stage 2	773	-	-	-	-	-
Critical Hdwy	6.46	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	153	492	928	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	148	492	928	-	-	-
Mov Cap-2 Maneuver	148	-	-	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	433	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.8	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	928	-	228	-	-
HCM Lane V/C Ratio	0.019	-	0.204	-	-
HCM Control Delay (s)	9	0	24.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	61	0	0	380	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	66	0	0	413	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	440	440	466	0	-	0
Stage 1	440	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	574	617	1095	-	-	-
Stage 1	649	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	574	617	1095	-	-	-
Mov Cap-2 Maneuver	574	-	-	-	-	-
Stage 1	649	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0	0
HCM LOS	B		

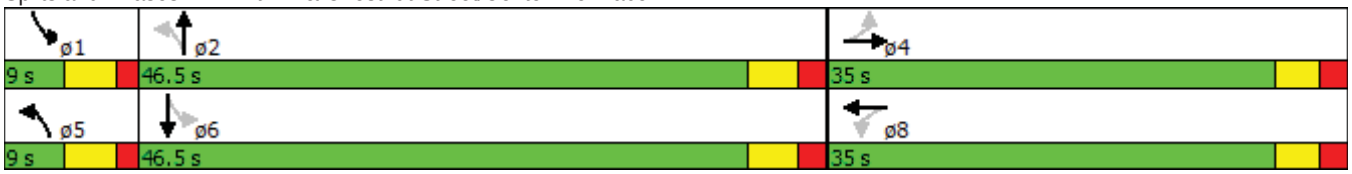
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1095	-	617	-	-
HCM Lane V/C Ratio	-	-	0.107	-	-
HCM Control Delay (s)	0	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	137	53	132	190	111	85	579	74	102	483	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00	0.99		1.00	1.00		0.99	1.00	
Frt		0.974			0.945			0.983			0.979	
Flt Protected		0.984		0.950			0.950			0.950		
Satd. Flow (prot)	0	1775	0	1745	1774	0	1685	1599	0	1685	1836	0
Flt Permitted		0.587		0.485			0.226			0.146		
Satd. Flow (perm)	0	1057	0	890	1774	0	399	1599	0	257	1836	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			35			9			12	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)	8		1	1		8	11		20	20		11
Peak Hour Factor	0.82	0.82	0.82	0.89	0.89	0.89	0.94	0.94	0.94	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	1%	2%	0%	1%	0%
Parking (#/hr)								0				
Adj. Flow (vph)	109	167	65	148	213	125	90	616	79	110	519	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	341	0	148	338	0	90	695	0	110	603	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	35.0	35.0		35.0	35.0		9.0	46.5		9.0	46.5	
Total Split (%)	38.7%	38.7%		38.7%	38.7%		9.9%	51.4%		9.9%	51.4%	
Maximum Green (s)	30.0	30.0		30.0	30.0		4.0	41.0		4.0	41.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		29.7		29.7	29.7		42.7	39.1		42.7	39.1	
Actuated g/C Ratio		0.34		0.34	0.34		0.49	0.45		0.49	0.45	
v/c Ratio		0.92		0.48	0.53		0.35	0.95		0.57	0.72	
Control Delay		59.6		30.5	25.1		13.6	48.3		23.0	25.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		59.6		30.5	25.1		13.6	48.3		23.0	25.1	
LOS		E		C	C		B	D		C	C	
Approach Delay		59.6			26.8			44.4			24.8	
Approach LOS		E			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 86.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 36.9		Intersection LOS: D	
Intersection Capacity Utilization 90.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

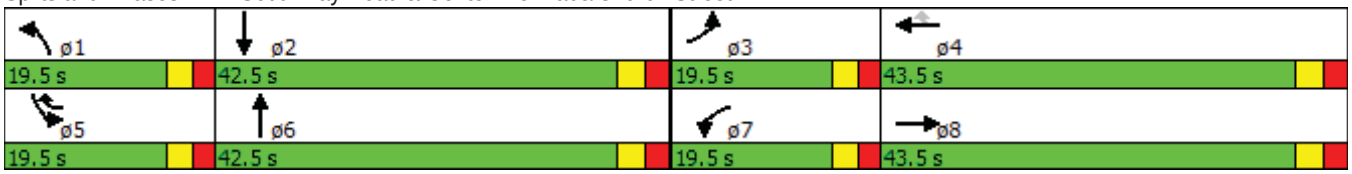


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	117	148	51	23	227	113	105	474	32	122	283	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		1.00		0.97	1.00	1.00		0.99	0.99	
Frt		0.962				0.850		0.991			0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1878	0	1805	1900	1599	1865	1942	0	1865	1848	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1852	1878	0	1801	1900	1551	1857	1942	0	1854	1848	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											14	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			272			550	
Travel Time (s)		5.7			18.7			5.3			10.7	
Confl. Peds. (#/hr)	4		1	1		4	3		5	5		3
Peak Hour Factor	0.94	0.94	0.94	0.86	0.86	0.86	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	124	157	54	27	264	131	112	504	34	149	345	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	211	0	27	264	131	112	538	0	149	462	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	19.5	43.5		19.5	43.5	19.5	19.5	42.5		19.5	42.5	
Total Split (%)	15.6%	34.8%		15.6%	34.8%	15.6%	15.6%	34.0%		15.6%	34.0%	
Maximum Green (s)	15.0	38.5		15.0	38.5	15.0	15.0	37.5		15.0	37.5	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.9	26.2		5.8	17.2	29.1	9.8	30.7		11.5	32.3	
Actuated g/C Ratio	0.11	0.29		0.07	0.19	0.33	0.11	0.34		0.13	0.36	
v/c Ratio	0.60	0.38		0.23	0.72	0.26	0.55	0.81		0.62	0.68	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	54.1	30.9		51.4	48.0	22.0	52.1	38.8		52.8	31.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	54.1	30.9		51.4	48.0	22.0	52.1	38.8		52.8	31.1	
LOS	D	C		D	D	C	D	D		D	C	
Approach Delay		39.5			40.2			41.1			36.4	
Approach LOS		D			D			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 89.2			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 39.2		Intersection LOS: D	
Intersection Capacity Utilization 68.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	69	690	71	0	668
Conflicting Peds, #/hr	10	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	95	95	92	92
Heavy Vehicles, %	0	5	1	11	0	1
Mvmt Flow	0	101	726	75	0	726

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1500	778	0	0	811	0
Stage 1	774	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Critical Hdwy	6.4	6.25	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.2	-
Pot Cap-1 Maneuver	136	392	-	-	824	-
Stage 1	458	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	135	388	-	-	821	-
Mov Cap-2 Maneuver	135	-	-	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	481	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	388	821	-
HCM Lane V/C Ratio	-	-	0.262	-	-
HCM Control Delay (s)	-	-	17.5	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1	0	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	248	68	59	354	15	63	8	51	15	8	21
Conflicting Peds, #/hr	8	0	0	0	0	8	0	0	0	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	90	90	90	71	71	71	71	71	71
Heavy Vehicles, %	6	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	273	75	66	393	17	89	11	72	21	11	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	415	0	0	347	0	0	903	891	318	925	920	415
Stage 1	-	-	-	-	-	-	345	345	-	538	538	-
Stage 2	-	-	-	-	-	-	558	546	-	387	382	-
Critical Hdwy	4.16	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1123	-	-	1223	-	-	260	284	727	252	273	642
Stage 1	-	-	-	-	-	-	675	640	-	531	526	-
Stage 2	-	-	-	-	-	-	518	521	-	641	616	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1113	-	-	1212	-	-	221	257	721	202	248	634
Mov Cap-2 Maneuver	-	-	-	-	-	-	221	257	-	202	248	-
Stage 1	-	-	-	-	-	-	662	627	-	518	487	-
Stage 2	-	-	-	-	-	-	444	482	-	550	604	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1.1	29.3	19.2
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	315	1113	-	-	1212	-	-	315
HCM Lane V/C Ratio	0.545	0.016	-	-	0.054	-	-	0.197
HCM Control Delay (s)	29.3	8.3	0	-	8.1	0	-	19.2
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	3.1	0	-	-	0.2	-	-	0.7

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	24	17	17	689	484	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	94	94	81	81
Heavy Vehicles, %	6	0	7	0	1	0
Mvmt Flow	33	23	18	733	598	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1383	614	631	0	-	0
Stage 1	614	-	-	-	-	-
Stage 2	769	-	-	-	-	-
Critical Hdwy	6.46	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	155	496	928	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	450	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	150	496	928	-	-	-
Mov Cap-2 Maneuver	150	-	-	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	435	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.1	0.2	0
HCM LOS	D		

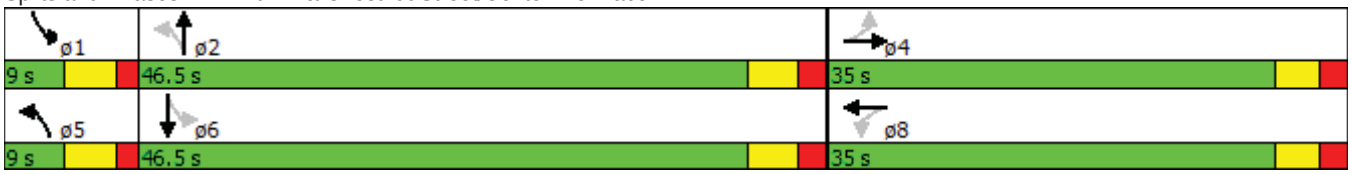
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	928	-	211	-	-
HCM Lane V/C Ratio	0.019	-	0.266	-	-
HCM Control Delay (s)	9	0	28.1	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	137	53	132	190	111	85	579	74	102	483	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00	0.99		1.00	1.00		0.99	1.00	
Frt		0.974			0.945			0.983			0.979	
Flt Protected		0.984		0.950			0.950			0.950		
Satd. Flow (prot)	0	1775	0	1745	1774	0	1685	1599	0	1685	1836	0
Flt Permitted		0.587		0.485			0.226			0.146		
Satd. Flow (perm)	0	1057	0	890	1774	0	399	1599	0	257	1836	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			35			9			12	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)	8		1	1		8	11		20	20		11
Peak Hour Factor	0.82	0.82	0.82	0.89	0.89	0.89	0.94	0.94	0.94	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	1%	2%	0%	1%	0%
Parking (#/hr)								0				
Adj. Flow (vph)	109	167	65	148	213	125	90	616	79	110	519	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	341	0	148	338	0	90	695	0	110	603	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	35.0	35.0		35.0	35.0		9.0	46.5		9.0	46.5	
Total Split (%)	38.7%	38.7%		38.7%	38.7%		9.9%	51.4%		9.9%	51.4%	
Maximum Green (s)	30.0	30.0		30.0	30.0		4.0	41.0		4.0	41.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		29.7		29.7	29.7		42.7	39.1		42.7	39.1	
Actuated g/C Ratio		0.34		0.34	0.34		0.49	0.45		0.49	0.45	
v/c Ratio		0.92		0.48	0.53		0.35	0.95		0.57	0.72	
Control Delay		59.6		30.5	25.1		13.6	48.3		23.0	25.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		59.6		30.5	25.1		13.6	48.3		23.0	25.1	
LOS		E		C	C		B	D		C	C	
Approach Delay		59.6			26.8			44.4			24.8	
Approach LOS		E			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 86.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 36.9		Intersection LOS: D	
Intersection Capacity Utilization 90.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

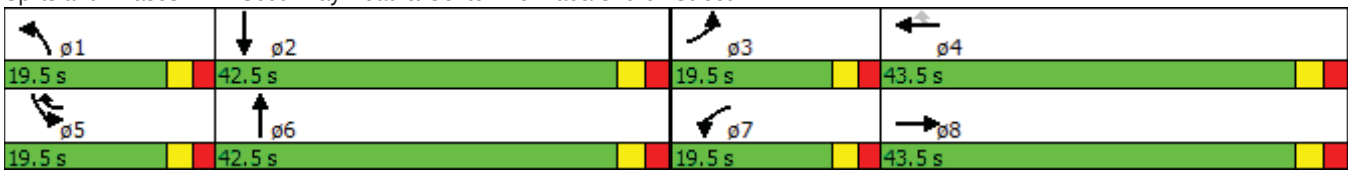


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	117	148	39	23	227	113	105	474	32	122	283	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		1.00		0.97	1.00	1.00		0.99	0.99	
Frt		0.969				0.850		0.991			0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1894	0	1805	1900	1599	1865	1942	0	1865	1848	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1852	1894	0	1801	1900	1551	1857	1942	0	1854	1848	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											14	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			272			550	
Travel Time (s)		5.7			18.7			5.3			10.7	
Confl. Peds. (#/hr)	4		1	1		4	3		5	5		3
Peak Hour Factor	0.94	0.94	0.94	0.86	0.86	0.86	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	124	157	41	27	264	131	112	504	34	149	345	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	198	0	27	264	131	112	538	0	149	462	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	19.5	43.5		19.5	43.5	19.5	19.5	42.5		19.5	42.5	
Total Split (%)	15.6%	34.8%		15.6%	34.8%	15.6%	15.6%	34.0%		15.6%	34.0%	
Maximum Green (s)	15.0	38.5		15.0	38.5	15.0	15.0	37.5		15.0	37.5	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.9	26.2		5.8	17.2	29.1	9.8	30.7		11.5	32.3	
Actuated g/C Ratio	0.11	0.29		0.07	0.19	0.33	0.11	0.34		0.13	0.36	
v/c Ratio	0.60	0.36		0.23	0.72	0.26	0.55	0.81		0.62	0.68	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	54.1	30.4		51.4	48.0	22.0	52.1	38.8		52.8	31.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	54.1	30.4		51.4	48.0	22.0	52.1	38.8		52.8	31.1	
LOS	D	C		D	D	C	D	D		D	C	
Approach Delay		39.6			40.2			41.1			36.4	
Approach LOS		D			D			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 89.2			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 39.2		Intersection LOS: D	
Intersection Capacity Utilization 68.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	69	690	71	0	668
Conflicting Peds, #/hr	10	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	95	95	92	92
Heavy Vehicles, %	0	5	1	11	0	1
Mvmt Flow	0	101	726	75	0	726

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1500	778	0	0	811	0
Stage 1	774	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Critical Hdwy	6.4	6.25	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.2	-
Pot Cap-1 Maneuver	136	392	-	-	824	-
Stage 1	458	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	135	388	-	-	821	-
Mov Cap-2 Maneuver	135	-	-	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	481	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	388	821	-
HCM Lane V/C Ratio	-	-	0.262	-	-
HCM Control Delay (s)	-	-	17.5	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1	0	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	248	68	59	354	15	63	8	39	15	8	21
Conflicting Peds, #/hr	8	0	0	0	0	8	0	0	0	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	90	90	90	71	71	71	71	71	71
Heavy Vehicles, %	6	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	273	75	66	393	17	89	11	55	21	11	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	415	0	0	347	0	0	903	891	318	916	920	415
Stage 1	-	-	-	-	-	-	345	345	-	538	538	-
Stage 2	-	-	-	-	-	-	558	546	-	378	382	-
Critical Hdwy	4.16	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1123	-	-	1223	-	-	260	284	727	255	273	642
Stage 1	-	-	-	-	-	-	675	640	-	531	526	-
Stage 2	-	-	-	-	-	-	518	521	-	648	616	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1113	-	-	1212	-	-	221	257	721	209	248	634
Mov Cap-2 Maneuver	-	-	-	-	-	-	221	257	-	209	248	-
Stage 1	-	-	-	-	-	-	662	627	-	518	487	-
Stage 2	-	-	-	-	-	-	444	482	-	571	604	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1.1	29.6	18.9
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	297	1113	-	-	1212	-	-	321
HCM Lane V/C Ratio	0.522	0.016	-	-	0.054	-	-	0.193
HCM Control Delay (s)	29.6	8.3	0	-	8.1	0	-	18.9
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.8	0	-	-	0.2	-	-	0.7

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	24	17	17	687	484	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	94	94	81	81
Heavy Vehicles, %	6	0	7	0	1	0
Mvmt Flow	33	23	18	731	598	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1381	614	631	0	-	0
Stage 1	614	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Critical Hdwy	6.46	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	156	496	928	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	451	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	151	496	928	-	-	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	436	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	928	-	212	-	-
HCM Lane V/C Ratio	0.019	-	0.265	-	-
HCM Control Delay (s)	9	0	28	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	12	0	611	345	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	0	664	375	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1039	375	375	0	-	0
Stage 1	375	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	255	671	1183	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	512	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	255	671	1183	-	-	-
Mov Cap-2 Maneuver	255	-	-	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	512	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1183	-	671	-	-
HCM Lane V/C Ratio	-	-	0.019	-	-
HCM Control Delay (s)	0	-	10.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	137	53	133	220	148	56	543	70	102	483	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	10	11	11	10	12	12
Storage Length (ft)	0		0	170		0	194		0	207		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99		1.00	0.99		1.00	1.00		0.99	1.00	
Frt		0.974			0.940			0.983			0.979	
Flt Protected		0.984		0.950			0.950			0.950		
Satd. Flow (prot)	0	1775	0	1745	1764	0	1685	1599	0	1685	1836	0
Flt Permitted		0.532		0.499			0.193			0.147		
Satd. Flow (perm)	0	958	0	916	1764	0	341	1599	0	259	1836	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			42			9			11	
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		964			815			401			693	
Travel Time (s)		21.9			18.5			9.1			13.5	
Confl. Peds. (#/hr)	8		1	1		8	11		20	20		11
Peak Hour Factor	0.82	0.82	0.82	0.89	0.89	0.89	0.94	0.94	0.94	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	8%	0%	0%	0%	0%	1%	2%	0%	1%	0%
Parking (#/hr)								0				
Adj. Flow (vph)	109	167	65	149	247	166	60	578	74	110	519	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	341	0	149	413	0	60	652	0	110	603	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	6.0		4.0	6.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		9.0	11.5		9.0	11.5	
Total Split (s)	38.0	38.0		38.0	38.0		9.0	43.5		9.0	43.5	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		9.9%	48.1%		9.9%	48.1%	
Maximum Green (s)	33.0	33.0		33.0	33.0		4.0	38.0		4.0	38.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0		5.0	5.0		5.0	5.5		5.0	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.0	3.0		1.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		32.9		32.9	32.9		40.3	36.7		40.3	36.7	
Actuated g/C Ratio		0.38		0.38	0.38		0.46	0.42		0.46	0.42	
v/c Ratio		0.92		0.43	0.60		0.27	0.96		0.59	0.77	
Control Delay		59.3		26.4	24.7		14.0	52.6		26.9	29.9	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		59.3		26.4	24.7		14.0	52.6		26.9	29.9	
LOS		E		C	C		B	D		C	C	
Approach Delay		59.3			25.2			49.4			29.4	
Approach LOS		E			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90.5			
Actuated Cycle Length: 87.1			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 38.9		Intersection LOS: D	
Intersection Capacity Utilization 92.1%		ICU Level of Service F	
Analysis Period (min) 15			

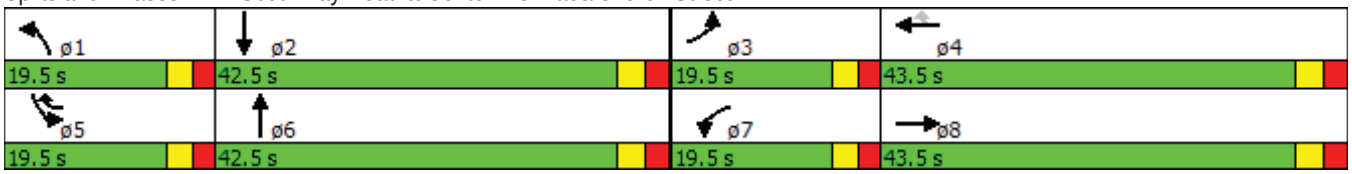
Splits and Phases: 1: Rt. 11 & Chestnut Street/Centerville Place

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	147	51	23	227	113	105	474	32	122	283	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	13	13	13	13	13	13
Storage Length (ft)	125		0	98		130	200		0	195		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		1.00		0.97	1.00	1.00		0.99	0.99	
Frt		0.961				0.850		0.991			0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1865	1876	0	1805	1900	1599	1865	1942	0	1865	1848	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1852	1876	0	1801	1900	1551	1857	1942	0	1854	1848	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											14	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		249			821			272			550	
Travel Time (s)		5.7			18.7			5.3			10.7	
Confl. Peds. (#/hr)	4		1	1		4	3		5	5		3
Peak Hour Factor	0.94	0.94	0.94	0.86	0.86	0.86	0.94	0.94	0.94	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	123	156	54	27	264	131	112	504	34	149	345	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	123	210	0	27	264	131	112	538	0	149	462	0
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4	5	1	6		5	2	
Permitted Phases						4						
Detector Phase	3	8		7	4	5	1	6		5	2	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	5.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	9.5	29.0		9.5	29.0	9.5	9.5	29.0		9.5	29.0	
Total Split (s)	19.5	43.5		19.5	43.5	19.5	19.5	42.5		19.5	42.5	
Total Split (%)	15.6%	34.8%		15.6%	34.8%	15.6%	15.6%	34.0%		15.6%	34.0%	
Maximum Green (s)	15.0	38.5		15.0	38.5	15.0	15.0	37.5		15.0	37.5	
Yellow Time (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	
All-Red Time (s)	2.0	2.5		2.0	2.5	2.0	2.0	2.5		2.0	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0	4.5	4.5	5.0		4.5	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.5	1.5	1.5		1.5	1.5	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		17.0			17.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.9	26.2		5.9	17.2	29.2	9.8	30.7		11.5	32.3	
Actuated g/C Ratio	0.11	0.29		0.07	0.19	0.33	0.11	0.34		0.13	0.36	
v/c Ratio	0.59	0.38		0.23	0.72	0.26	0.55	0.81		0.62	0.68	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	54.0	30.8		51.4	48.0	21.9	52.0	38.8		52.7	31.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	54.0	30.8		51.4	48.0	21.9	52.0	38.8		52.7	31.1	
LOS	D	C		D	D	C	D	D		D	C	
Approach Delay		39.4			40.1			41.1			36.3	
Approach LOS		D			D			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 89.2			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 39.2		Intersection LOS: D	
Intersection Capacity Utilization 68.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: South Bay Road & Centerville Place/Church Street



Intersection	
Int Delay, s/veh	13.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	244	68	59	354	15	131	7	53	15	8	21
Conflicting Peds, #/hr	8	0	0	0	0	8	0	0	0	5	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	90	90	90	71	71	71	71	71	71
Heavy Vehicles, %	6	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	268	75	66	393	17	185	10	75	21	11	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	415	0	0	343	0	0	899	887	313	921	916	415
Stage 1	-	-	-	-	-	-	341	341	-	538	538	-
Stage 2	-	-	-	-	-	-	558	546	-	383	378	-
Critical Hdwy	4.16	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1123	-	-	1227	-	-	262	285	732	253	274	642
Stage 1	-	-	-	-	-	-	678	642	-	531	526	-
Stage 2	-	-	-	-	-	-	518	521	-	644	619	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1113	-	-	1216	-	-	223	259	725	203	249	634
Mov Cap-2 Maneuver	-	-	-	-	-	-	223	259	-	203	249	-
Stage 1	-	-	-	-	-	-	664	629	-	518	487	-
Stage 2	-	-	-	-	-	-	445	483	-	552	607	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1.1	51.1	19.2
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	223	599	1113	-	-	1216	-	-	316
HCM Lane V/C Ratio	0.827	0.141	0.016	-	-	0.054	-	-	0.196
HCM Control Delay (s)	69	12	8.3	0	-	8.1	0	-	19.2
HCM Lane LOS	F	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	6.3	0.5	0	-	-	0.2	-	-	0.7

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	23	17	17	686	484	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	94	94	81	81
Heavy Vehicles, %	6	0	7	0	1	0
Mvmt Flow	32	23	18	730	598	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1380	614	631	0	-	0
Stage 1	614	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Critical Hdwy	6.46	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	156	496	928	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	151	496	928	-	-	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	437	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	27.5	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	928	-	214	-	-
HCM Lane V/C Ratio	0.019	-	0.256	-	-
HCM Control Delay (s)	9	0	27.5	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-