
Stamford Transportation Center Parking Garage

Project No. 301-047
Stamford, CT

TRAFFIC IMPACT STUDY

March 2019

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1.0 INTRODUCTION

The Connecticut Department of Transportation (CTDOT) is proposing the construction of a new multi-level parking garage for the Stamford Transportation Center (STC) on South State Street in the City of Stamford, CT. The proposed garage will accommodate approximately 1,000 parking spaces on eight levels replacing the approximately 210 spaces currently available at the original STC parking garage on Station Place and the 93 spaces in the surface parking lot that currently occupies the proposed garage site. It is noted that the original garage was built to accommodate 727 spaces, but only 210 spaces are currently open for use. This garage will be demolished upon the completion of the South State Street parking garage. The 2004 parking garage also on Station Place will remain.

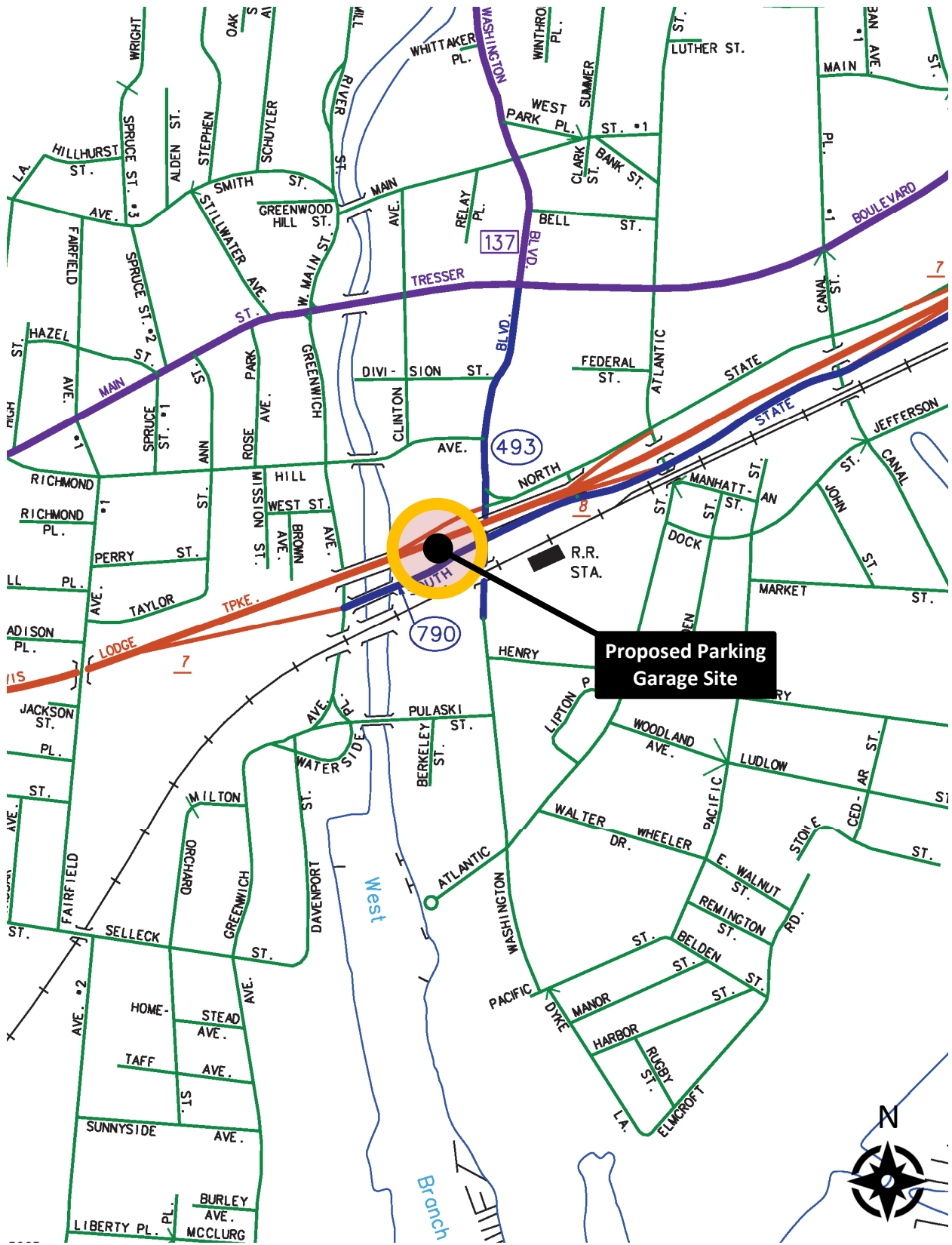
The proposed South State Street parking garage will also provide parking for a portion of STC parkers who currently use the Harbor Point Gateway Garage and who are likely to be displaced once that site is redeveloped for Charter Communications. Based on parking occupancy counts conducted at the Gateway Garage, and the assumption that 500 commuter spots will be maintained at the Gateway Garage, it is assumed that approximately 467 vehicles will relocate to the proposed South State Street Garage.

The proposed garage site is located on State of Connecticut property and is bounded on the south by Metro-North Railroad right-of-way, on the east by Washington Boulevard (SR 493), on the west by Greenwich Avenue, and on the north by I-95 (shown on Exhibit 1-1). South State Street will be maintained as a one-way (eastbound) state roadway (SR 790) through the ground floor of the proposed garage with parking levels above the roadway. A left-in/left-out vehicular access to the proposed parking garage will be provided from eastbound South State Street and a right-in vehicular access will be provided from southbound Washington Boulevard.

The proposed garage will include a ramp linking the second level to the northern station platform (Track 5); additionally, the project will include a 350-foot pedestrian bridge connecting the fourth level from the east end of the garage over Washington Boulevard to the existing pedestrian bridge on the west side of the station and providing access to stairs, escalators and elevators to the other platforms.

The purpose of this report is to evaluate the traffic impacts of the proposed parking garage on the adjacent roadway network and identify improvement measures to mitigate the impacts, if any.

Exhibit 1-1 Site Location Plan



2.0 EXISTING CONDITIONS

2.1 ADJACENT STREET NETWORK

2.1.1 Study Area Roadways

The project site is located in an urban area with a typical urban grid network of city streets and access to the Interstate. Based on the location of the project and estimated routes to and from the site, the following roadways were considered part of the project area network for this study:

- Tresser Boulevard (US Route 1)
- Richmond Hill Avenue
- North State Street
- South State Street (SR 790)
- Station Place
- Dock Street
- Henry Street
- Pulaski Street
- Greenwich Avenue
- Washington Boulevard (SR 137)
- Atlantic Street
- Canal Street

Tresser Boulevard (US Route 1) is an east-west roadway classified as a principal arterial, providing three lanes in each direction with widening at intersections to accommodate turn lanes in the study area. It is a divided roadway with a raised median separating the two directions of travel. There are sidewalks present on both sides of the roadway.

Richmond Hill Avenue is a local road, providing one lane in each direction. The roadway provides a connection between Greenwich Avenue and Washington Boulevard within the study area. Sidewalks are present on both sides of the roadway. It is a shared roadway with bicyclists, with sharrows and Share the Road signs provided.

North and South State Streets are one-way roadways that serve as frontage roads along I-95 from Washington Boulevard to Elm Street. Both roadways are classified as minor arterials and are generally three to four lanes wide. North and South State Streets have an integral function for the Stamford Transportation Center, providing for transit, bicycle, kiss-and-ride access, and circulation.

Station Place is a local road, generally with one lane in each direction. It provides access to the Stamford Transportation Center between Washington Boulevard and Atlantic Street, with access points to the original parking garage and the 2004 parking garage. There is a one-way passenger pick-up/drop-off loop on the north side (station side) of the roadway with a taxi staging area and limited on-street parking on the south side. There are several crosswalks between the parking garage and the train station.

Dock Street is classified as a collector road, providing two lanes in each direction with widening at intersections to accommodate turn lanes. It begins at Atlantic Street opposite Station Place and continues east to Canal Street. It is a divided roadway with a raised curbed median separating the two directions of travel. The outside lane in each direction is designated for use by high occupancy vehicles. Sidewalks and bicycle lanes are provided on both sides of the roadway.

Henry Street is a local road, providing one lane in each direction with sidewalks on both sides of the roadway. On-street parking is provided on the north side of the roadway. It is a shared roadway with bicyclists with sharrows provided. The limits of Henry Street are Washington Boulevard to the west and Canal Street to the east.

Pulaski Street is classified as a collector road, providing one lane in each direction, and sidewalks on both sides of the roadway. It connects Greenwich Avenue and Washington Boulevard. It is a shared roadway with bicyclists with sharrows provided.

Greenwich Avenue is a minor arterial running north-south in the study area, providing one lane in each direction. It serves as a primary corridor connecting Downtown Stamford with the industrial and residential neighborhoods to the southwest, including the town of Greenwich. In the study area, there is on-street parking on the east side of the roadway north of Richmond Hill Avenue, and on the west side of the roadway south of Richmond Hill Avenue. There are sidewalks along both sides of the roadway. It is also a shared roadway with bicyclists with sharrows and Share the Road signs provided. The limits of Greenwich Avenue are the intersection of Tresser Boulevard and West Main Street to the north and the intersection of Selleck Street to the south.

Washington Boulevard is a principal north-south arterial designated as Route 137 north of Tresser Boulevard and as State Route 493 between Tresser Boulevard and Station Place. Between Station Place and Atlantic Street, it is designated as a collector road. It generally provides two lanes in each direction, and additional turn lanes at key intersections. There are sidewalks along both sides of the roadway. A designated bicycle lane is provided southbound in the vicinity of the Harbor Point Gateway Garage

Atlantic Street is a north-south roadway classified as a minor arterial north of South State Street and as collector road south of South State Street. It provides two lanes in each direction north of Station Place and one lane in each direction until its intersection with Washington Boulevard. On-street parking is provided on the west side of the roadway. There are sidewalks along both sides of the roadway, and is a shared roadway with bicyclists with sharrows provided south of Station Place.

Canal Street is a north-south roadway designated as a collector road, providing two lanes in each direction in the study area. There are sidewalks on both sides of the roadway. It is a shared roadway with bicyclists with sharrows and Share the Road signs provided. The roadway is divided with a raised median separating the two directions of travel between Tresser Boulevard and North State Street. The limits of Canal Street are the intersection of Tresser Boulevard and Greyrock Place to the north and Ludlow Street to the south.

2.1.2 Study Area Intersections

The traffic operations of key intersections within a roadway network are typically the primary indicators of the quality of traffic operations for the system, as these locations represent the area of greatest interactions of movement between various directional traffic streams (including vehicles, pedestrians, and bicyclists). To understand the nature of traffic flow and operations that may be influenced by the new parking garage, the following key intersections within the study area were identified for evaluation. These intersections are shown in relation to the site on Exhibit 2-1.

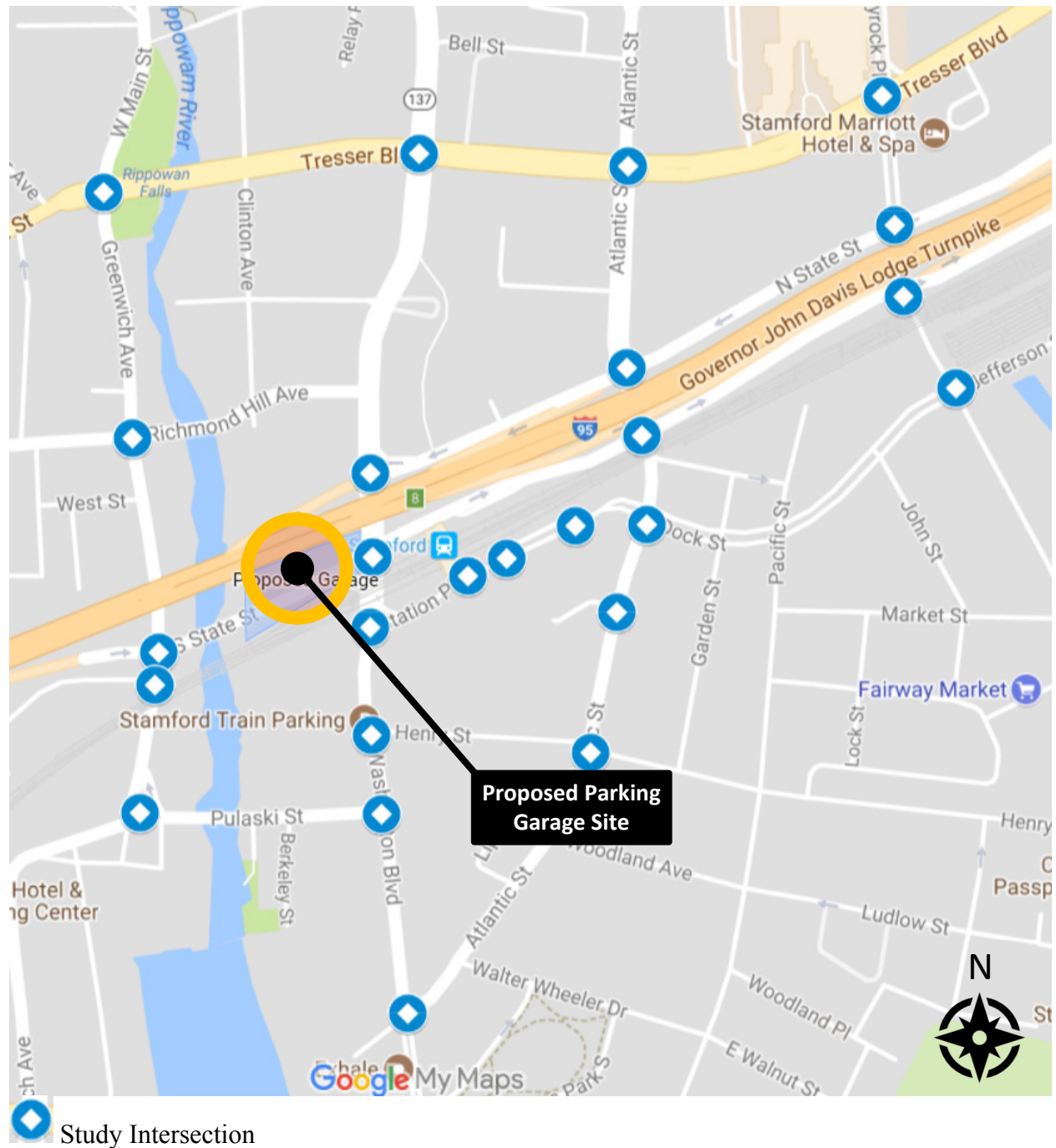
Signalized Intersections

- Tresser Boulevard & Greenwich Avenue
- Tresser Boulevard & Washington Boulevard
- Tresser Boulevard & Atlantic Street
- Tresser Boulevard & Canal Street
- Greenwich Avenue & Richmond Hill Avenue
- North State Street & Washington Boulevard
- North State Street & Atlantic Street
- North State Street & Canal Street
- South State Street & Greenwich Avenue
- South State Street & Washington Boulevard
- South State Street & Atlantic Street
- South State Street & Canal Street
- Greenwich Avenue & First Stamford Place
- Station Place & Washington Boulevard
- Station Place & Atlantic Street
- Dock Street & Canal Street
- Atlantic Street & Parking Garage
- Washington Boulevard & Henry St
- Atlantic Street & Henry Street
- Washington Street & Pulaski Street
- Atlantic Street & Washington Boulevard

Unsignalized Intersections

- Greenwich Avenue & Pulaski Street
- Station Place & Garage Access 1 (West Entrance/Exit)
- Station Place & Garage Access 2 (Middle Entrance Only)
- Station Place & Garage Access 3 (East Exit Only)

Exhibit 2-1. Study Intersection Map



2.2 PARKING AND CIRCULATION

Commuter parking for the STC is provided by both public and private parking facilities surrounding the station. The six facilities in the vicinity of the station include:

1. South State Street Surface Lot (Public / State-owned)
2. Original Garage, Station Place (Public / State-owned)
3. 2004 Garage, Station Place (Public / State-owned)
4. Harbor Point Gateway Garage (Private)
5. Metro Center Garage (Private)
6. Metro Green Garage (Private)

See Exhibit 2-2 below for a map of these locations in relation to the STC.

Exhibit 2-2. Parking Facilities



On November 9, 2017, CHA staff collected parking data for these sites (exclusive of the Metro Green Garage), including the total number of parking spaces available and the number of occupied spaces. The parking counts were collected between 10:00 am and 11:30 am, after the AM peak hour, to ensure that the majority of commuter traffic was captured in the counts. In February 2019, this data was supplemented with parking information for the Metro Green Garage provided by the City of Stamford.

Exhibit 2-3 provides a summary of the total number of spaces at these locations, the number of spaces occupied, and the occupancy percentage. As shown, approximately 73% of the available parking surrounding the STC is occupied after the morning travel peak.

Exhibit 2-3. Existing Parking Occupancy

Garage/Lot	Spaces			
	Occupied	Unoccupied	Total Supply	% Occupied
Surface Lot - South State Street	54	39	93	58%
Original & 2004 Garages - Station Place	1220	190	1410	87%
Gateway Garage	1123	484	1607	70%
Metro Center Garage	362	253	615	59%
Metro Green Garage	193	109	302	64%
TOTAL	2952	1075	4027	73%

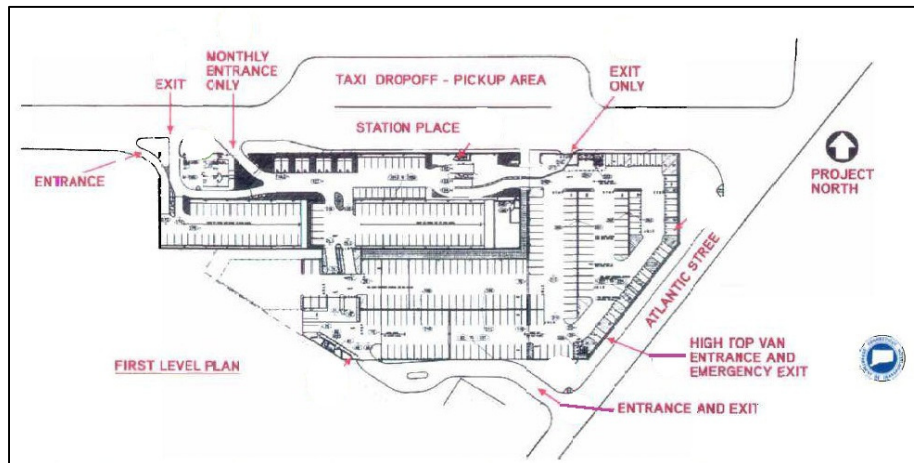
1. Existing South State Street Surface Lot

This lot will be demolished with the construction of the proposed parking garage. The existing lot currently has approximately 93 parking spaces, 54 of which were occupied during the parking counts. Access is currently provided on South State Street with a left-in/left-out and on Washington Boulevard with a right-in only. It is assumed that the vehicles utilizing this lot will use the proposed garage.

2/3. Original Garage and 2004 Garage – Station Place

The Original Garage will be demolished upon completion of the proposed South State Street parking garage. Currently two floors of the Original Garage are closed/not in service, leaving approximately 210 parking spaces available for use. The 2004 Garage will be maintained. Access to both garages is currently provided from three access points on Station Place and an access point on Atlantic Street (See Exhibit 2-4 below). With a current occupancy rate of 87% for both garages, it is assumed that most of the parkers utilizing the 210 parking spaces that will be lost with the Original Garage demolition will relocate to the proposed South State Street garage.

Exhibit 2-4. Station Place Parking Garage Access Points



4. Gateway Garage

The property owner for the Gateway Garage is currently required by the City of Stamford to maintain 500 parking spaces within the garage for STC commuters. Access to the garage is provided from Washington Boulevard and from Pulaski Street. Currently, development of the Gateway property for commercial office use is on-going, and additional commuter parking is available in the approximately 1,600 space garage; in November 2017, 1,123 parking spots were occupied in the garage during CHA's point-in-time parking counts. Based on the pedestrian counts that were conducted during the AM peak hour (330 pedestrians destined for the STC from the Gateway Garage with approximately 270 vehicles entering the garage during the peak hour), it is assumed that most of the users of this garage are destined for the STC. With the proposed development of 1,000,000 SF of office space on the Gateway Garage site, the additional parking spaces for commuter parking will not be available. Based on the November 2017 parking counts, this could mean that up to 623 vehicles would need to find a new location to park, if the 500 commuter-space requirement is maintained. If this requirement is eliminated, up to 1,123 vehicles would need to find parking elsewhere.

5. Metro Center Garage

Although Metro Center is promoted as a commuter parking facility with direct access from Station Place and proximity to the STC, only limited *commuter* parking demand for the STC was observed during the data collection period (20 vehicles in the peak hour). Since this garage was only found to be 59% occupied during the parking counts, it is assumed that existing STC commuter parkers will continue to park here with the construction of the proposed garage. Although Metro Center Garage is promoted

6. Metro Green Garage

The parking information provided by the City showed that approximately 85 of the 193 parking spaces occupied in the garage were occupied by monthly and transient parkers. The commuter parking usage is approximately 44% assuming most of these parkers are commuters. Since this garage was only 64% occupied after the morning peak, it is assumed that existing STC commuter parkers will continue to park here with the construction of the proposed garage.

STC Circulation

Passenger pick-up/drop-off areas (kiss-and-ride) are provided on both sides of the STC on Station Place and on South State Street. A taxi staging area is provided on Station Place as part of the pull-off area for the kiss-and-ride. Private shuttle bus pick-up and drop-off occurs north of South State Street below the I-95 overpass.

2.3 TRAFFIC VOLUMES

The traffic volumes for the study area intersections were provided by the CTDOT Bureau of Policy and Planning for the 2018 Existing Condition. The existing pedestrian and vehicular volumes were based on a combination of counts, including 2017 counts conducted by the City of Stamford and CHA and additional counts conducted by CHA in 2018. The count data was collected on the following dates:

- The City of Stamford counts were conducted on April 19, 2017, April 27, 2017, and May 10, 2017. These counts included all signalized intersections within the study area.
- The CHA counts were conducted on November 9, 2017 at the following locations:
 - Atlantic Street & Station Place Parking Garage
 - South State Street & South State Street Lot
 - Station Place & East Garage Access
 - Station Place & Metro Center Garage
 - Station Place & West Garage Accesses
 - Henry Street & Washington Boulevard
 - South State Street & Washington Boulevard
- Additional CHA counts were conducted on March 20, 2018 to capture volume changes due to the relocation of the I-95 Exit 8 NB off-ramp at the following locations:
 - North State Street & Atlantic Street
 - South State Street & Atlantic Street
 - North State Street & Canal Street
 - South State Street & Canal Street
 - North State Street & Elm Street
 - South State Street & Greenwich Avenue
 - South State Street & Guernsey Avenue
 - South State Street & I-95 Exit 8 NB Off-Ramp
 - North State Street & Washington Boulevard
 - South State Street & Washington Boulevard

For the study area, the AM peak hour is generally 7:45 AM to 8:45 AM and the PM peak hour is generally 5:30 PM to 6:30 PM. Volumes were adjusted to balance between intersections where appropriate.

Intersection turning movement volumes for the weekday AM and PM peak hours of adjacent street traffic are shown on Figure B-1 in Appendix B. Raw count data is also provided in Appendix C.

2.4 PEDESTRIAN AND BICYCLE ACCOMMODATIONS

Pedestrian access to the STC from the Station Place parking garages is provided via two overhead walkways as well as crosswalks on Station Place. Access from the South State Street surface lot requires crossing the intersection of South State Street and Washington Boulevard, with an exclusive pedestrian phase. Access from the Harbor Point Gateway Garage is provided via a pedestrian bridge to the station platforms or sidewalk to the STC. Access from the Metro Green garage is provided via crosswalks on Station Place. Pedestrian access to the STC is available from both Station Place and South State Street. Exhibit 2-5 shows existing pedestrian access points on Station Place.



Exhibit 2-5. Stamford Station Entrance at Station Place

Sidewalks are provided throughout the study area. Pedestrian signals are provided at all signalized intersections within the study area. All study area pedestrian crossings operate concurrently with traffic and include WALK and DON'T WALK phases with the exception of the Washington Boulevard and South State Street intersection, which provides exclusive pedestrian phasing.



Exhibit 2-6a. Bike Lane – Washington Boulevard SB

Bike lanes are provided in the study area on Washington Boulevard near the Harbor Point Gateway Garage in the southbound direction, with a bike box at the signalized intersection of Washington Boulevard and Henry Street, and on Dock Street in both directions. Sharrows are also provided on Greenwich Avenue, Atlantic Street, Canal Street, Richmond Hill Avenue, Henry Street, and Pulaski Street. Examples of bicycle facilities are shown in Exhibits 2-6a and 2-6b.



Exhibit 2-6b. Shared Roadway – Greenwich Avenue

Bicycle parking is currently available at the Stamford Transportation Center. All Connecticut Transit (CTTRANSIT) buses are equipped with bicycle racks that can accommodate up to two bicycles for riders who ride to a bus stop.

2.5 TRANSIT

The Stamford Transportation Center acts as a hub for local and regional transit connections in Downtown Stamford. The train station has Metro-North Railroad service on the New Haven Line to New York from New Haven, Waterbury, Danbury, and New Canaan, CT. Trains on the New Haven Line make approximately 100 stops in the northbound and southbound directions daily at the Stamford station.

CTDOT's Shore Line East is also served at the Stamford Transportation Center; the service provides access to and from Bridgeport and Stamford, Monday through Friday. The train station also has Amtrak service on the Acela Express, Northeast Regional and Vermonter routes, with approximately 20 northbound and 20 southbound trains daily.

The bus terminal at the Stamford Transportation Center acts as a hub to the Stamford system of CTTransit, which serves Stamford, Greenwich, Port Chester, Darien, Norwalk, and others. Approximately 15 bus routes serving these towns make a stop at the Stamford Transportation Center on their route. Buses enter and exit the terminal from North State Street; there is also an area designated for smaller shuttle buses on South State Street near Washington Boulevard.

3.0 FUTURE YEAR NO-ACTION CONDITIONS

3.1 NO-ACTION CONDITION

Background traffic volumes for the 2021 design year, the estimated time of completion (ETC) for the project, were estimated for the project study area. These volumes were developed based on historical growth and other Office of the State Traffic Administration (OSTA) approved developments in the study area. The growth rate is generally 0.5% per year for the study area. The following OSTA approved developments were included in the background traffic:

- Atlantic Station
- Davenport Landing
- Harbor Point
- URBY Stamford
- Woodland Pacific

The site trips for these developments and their locations are shown on Figures B-2 to B-6 in Appendix B. The 2021 AM and PM peak hour No-Action traffic volumes are illustrated in Figure B-7 in Appendix B.

The City of Stamford and CTDOT currently have intersection improvement projects proposed for the study area that will be completed by the 2021 design year. These projects include the following:

- Atlantic Street at Henry Street Intersection Improvements (See Figure D-1 in Appendix D)
 - Henry Street will be realigned, allowing for left-turn lanes on all approaches.
 - Permitted/Protected phasing for left-turns will be provided on the northbound, westbound, and eastbound approaches.
 - The eastbound and westbound Henry Street approaches will run concurrently rather than split phase.
- Greenwich Ave Corridor Improvements (See Figure D-2 in Appendix D)
 - A roundabout will be provided at the Greenwich Avenue and Pulaski Street Intersection.
 - At the roundabout, one lane approaches will be provided on the north/south approaches. A left-turn lane and a thru/right lane will be provided on the eastbound approach and a left/thru lane and a right-turn lane will be provided on the westbound approach.

- Atlantic Street Bridge Project (See Figure D-3 in Appendix D)
 - I-95 NB Exit 8 Off-Ramp has been relocated to South State Street between Atlantic Street and Canal Street (this has been accounted for in the Existing Condition)
 - The railroad bridge over Atlantic Street will be widened to allow for additional lanes on Atlantic Street between South State Street and Dock Street.
 - The eastbound approach of South State Street and Atlantic Street will be reconstructed with the removal of the Exit 8 NB off-ramp at the intersection.

4.0 FUTURE YEAR BUILD CONDITIONS

The proposed garage site is located on State of Connecticut property and is bounded on the south by Metro-North Railroad right-of-way, on the east by Washington Boulevard (SR 493), on the west by Greenwich Avenue, and on the north by I-95. Access to the site is proposed on South State Street with a left-in/left-out access and on Washington Boulevard with a right-in access. This is the same as the current access configuration for the South State Street surface lot. A site concept is provided in Appendix A. This study considers the traffic impacts for this access scenario.

4.1 SITE GENERATED TRAFFIC

The proposed parking garage will provide approximately 1,000 parking spaces. The traffic generated by the proposed garage will consist of new trips generated to/from the study area, and trips diverted within the study area from other parking locations. Based on parking occupancy counts at the STC South State Street Surface Lot, STC Parking Garages on Station Place, and the Gateway Garage, it was assumed that a majority but not all of the displaced parkers would relocate to the proposed garage, with the remaining finding alternate locations to park. To be conservative, the vehicles that will not relocate to the proposed garage were not removed from the volume network, as it was assumed that they will still park within the vicinity of the STC. With this assumption, it was found that an estimated 679 vehicles will relocate to the proposed South State Street Garage. The number of vehicles relocated to the proposed South State Street Garage from each location was determined to be as follows:

- 54 from South State Street Surface Lot
- 158 from Original Garage on Station Place
- 467 from Gateway Garage

This results in 321 spots remaining at the proposed garage that will generate new trips to study area. To determine the number of new trips the parking garage will generate, the number of trips-per-occupied parking space were estimated for the existing STC Parking Garages on Station Place and the Gateway Garage.

The following are the estimated trip rates for the existing parking garages based on existing peak hour traffic volumes and a parking occupancy of 2,343 spaces (1,220 spaces in the STC parking garages on Station Place and 1,123 spaces in the Gateway Garage):

- AM Peak Hour
 - In: 0.28 trips/occupied space
 - Out: 0.02 trips/occupied space
- PM Peak Hour
 - In: 0.02 trips/occupied space
 - Out: 0.28 trips/occupied space

It should be noted that the PM peak hour rates were conservatively increased to match the AM peak hour rates. It is anticipated that commuters returning to the STC will actually be more spread out than the AM peak hour arrival rate, with some returning after the PM peak hour of adjacent street traffic.

Exhibit 4-1 below summarizes the trip generation estimates for the AM and PM peak hours for new trips to the site and relocated trips from the South State Street Surface Lot, the STC Original Parking Garage on Station Place, and the Gateway Garage.

Exhibit 4-1 Trip Generation Calculations

Trip Generation Rates

AM		PM	
0.28	in	0.02	in
0.02	out	0.28	out

1,000 space garage
 -679 vehicles relocated from other garages
 321 new spots to fill

New Trips

AM		PM	
90	in	7	in
7	out	90	out

54 South State St Spots
 158 Station Place Original Garage
 467 Gateway Garage
 679 Relocated Spots

South State Street Traffic (Relocated)

AM		PM	
15	in	1	in
1	out	15	out

Station Place Original Garage (Relocated)

AM		PM	
44	in	3	in
3	out	44	out

Gateway Garage (Relocated)

AM		PM	
131	in	9	in
9	out	131	out

Total Trips Entering/Exiting New Garage during Adjacent Street Peak Hour

AM		PM	
280	in	20	in
20	out	280	out

4.2 TRIP DISTRIBUTION AND ASSIGNMENT

The new traffic generated by the project was distributed to the study area intersections, based on existing commuter travel patterns. The AM and PM peak hour distributions are illustrated on Figure B-8 in Appendix B. The site traffic relocated from the STC South State Street Surface Lot and the STC Original Parking Garage was redistributed to the proposed garage based on the trip distribution patterns presented in Figure B-8. The portion of site traffic relocated from the Gateway Garage was redistributed to the proposed garage based on the distribution patterns for the proposed Harbor Point Gateway project shown on Figure B-9. The new trips are shown on Figures B-10 and B-11, and the relocated trips are shown on Figures B-12 to B-15.

Typically, an intersection is selected to be analyzed as part of a TIS when the proposed site is estimated to generate more than 100 directional peak hour trips at that location, as this is generally the threshold for when site impacts may occur. For this study, based on the trip distributions above, the only intersections in the study area where this occurs are as follows:

AM Peak Hour

- North State Street & Washington Boulevard
- Proposed Garage Entrance/South State Street & Washington Boulevard

PM Peak Hour

- South State Street & Proposed Garage Access
- South State Street & Washington Boulevard
- South State Street & Atlantic Street

4.3 BUILD TRAFFIC VOLUMES

The site generated traffic and relocated traffic were combined with the 2021 No-Action volumes to represent the estimated future volume conditions in the study area after the proposed garage is operational. The 2021 Build volumes are shown on Figure B-16 in Appendix B.

5.0 OPERATING CONDITIONS

5.1 LEVEL OF SERVICE METHODOLOGY

The operating conditions of transportation facilities are evaluated based on the relationship of existing or projected traffic volumes to the theoretical capacity of the highway. Various factors affect highway capacity, including traffic volume, speed, roadway geometry, grade, number and width of travel lanes and intersection control. Operating conditions are typically described in terms of Level of Service (LOS). In general, LOS "A" represents the best operating conditions and LOS "F" represents the worst.

To determine existing vehicle traffic operating conditions at the study area intersections, a capacity analysis was performed using SYNCHRO 10 software. The analysis results are reported based on Synchro methodology, utilizing Synchro's Lanes, Volumes, Timings report.

The methodology for unsignalized intersections generally assumes that major street traffic is not affected by minor street flows. Left turns from the major street are assumed to be affected by opposing, or oncoming, major street flow. Minor street traffic is affected by all conflicting movements. The quality of flow at unsignalized intersections is typically described in terms of Levels of Service (LOS) based on the amount of delay that a driver experiences. This relationship differs somewhat from the criteria used for signalized intersections, primarily because drivers expect different levels of performance from the two different kinds of transportation facilities. For unsignalized intersections, LOS ranges from A, with minimal delay (ten seconds or less per vehicle), to F, with long delays (50 seconds or greater per vehicle). LOS E or better is generally considered acceptable for unsignalized movements during peak periods. For signalized intersections, LOS ranges from A, with minimal delay (ten seconds or less per vehicle), to F, with long delays (80 seconds or greater per vehicle). LOS D or better is generally considered acceptable for signalized movements during peak periods. Exhibit 5-1 summarizes the HCM LOS criteria for signalized and unsignalized intersections.

Exhibit 5-1. LOS Criteria

LOS	Control Delay per Vehicle (seconds)	
	Signalized Intersection	Unsignalized Intersections
A	10 or less	10 or less
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	greater than 80	greater than 50

5.2 CAPACITY ANALYSIS

To understand the potential impact of the traffic generated by the new parking garage on the operations of the adjacent transportation system, vehicle traffic operations of the study intersections were analyzed for the Weekday AM and PM peak hours for the following conditions:

- 2018 Existing Condition
- 2021 (ETC) No-Action Condition
- 2021 (ETC) Build Condition

Capacity analysis worksheets are provided in Appendix E.

5.2.1 2018 Existing Condition

Summaries of the LOS for the Existing condition are presented in Exhibits 5-2 and 5-3. It should be noted that construction is currently ongoing in the study area surrounding the Atlantic Street Bridge project and the Henry Street & Atlantic Street intersection. Lane closures and signal timing changes related to these projects occurred in 2017 and can be occurring throughout 2018. The lane geometry programmed in the Synchro model for the Existing Condition is the geometry observed in an April 2018 field visit to the study area. All geometric and signal timing improvements will be incorporated in the No-Action and Build Conditions to reflect these ongoing improvements.

As shown in the Existing analysis, the following study area intersections have one or more movements that experience LOS E or F during the Existing studied peak hours:

- Tresser Boulevard & Greenwich Avenue/West Main Street
 - Eastbound Thru/Right (AM and PM)
- Tresser Boulevard & Washington Boulevard
 - Eastbound Left (AM and PM)
 - Westbound Left (AM and PM)
 - Northbound Left (AM and PM)
 - Northbound Right (AM and PM)
 - Southbound Left (AM and PM)
- Tresser Boulevard & Atlantic Street
 - Eastbound Thru/Right (AM and PM)
- North State Street & Washington Boulevard
 - Southbound Thru (AM)

- North State Street & Atlantic Street
 - Southbound Right (AM and PM)
- South State Street & Washington Boulevard
 - Eastbound Left (AM and PM)
 - Southbound Left (AM and PM)
- South State Street & Atlantic Street
 - Eastbound Left/Thru/Right (PM)
- South State Street & Canal Street
 - Eastbound Left (AM and PM)
 - Eastbound Thru/Right (AM and PM)
- Dock Street & Canal Street/Jefferson Street
 - Eastbound Left (PM)
- Henry Street & Atlantic Street
 - Eastbound Left/Thru/Right (PM)
- Pulaski Street & Greenwich Avenue
 - Eastbound Left/Thru/right (PM)
 - Westbound Left/Thru/Right (AM and PM)
 - Southbound Left/Right (PM)

Queues

Another factor that can affect traffic operations is the nature of queue formation and interactions within the traffic flow. Of particular interest are locations where queues are longer than the available storage or extend to adjacent intersections, because of the additional impact on traffic flow and delay. The Existing Condition 50th percentile queues (back of queue on a typical signal cycle) and 95th percentile queues (a statistical measure indicating the theoretical maximum queue occurring within the peak hour of study) were estimated for the study area intersections. As shown in Exhibits 5-4 and 5-5, there are some instances where the queues are estimated to extend past the available storage. These locations are highlighted in red. Due to the intersection improvement projects that are currently underway, and the reduction in lanes associated with them, projected queues for the Existing Condition can be longer than expected for a typical condition at the intersections surrounding the construction activity. As a result, a more detailed summary of queues is provided in the No-Action condition summary when the construction projects will be completed.

5.2.2 2021 No-Action Condition

The study intersections were analyzed using existing geometry, with the exception of the intersections listed in Section 3.1, which have improvements programmed by the City of Stamford and CTDOT that will be completed by 2021. At these locations, the geometry was updated to reflect those improvements. In addition to the intersection improvement projects, the City of Stamford is currently conducting a citywide signal optimization project. With this project, all signals within the city will be optimized and coordinated, as needed. At the time of this report, the downtown area, which covers the South State Street Parking Garage study area, has not be optimized, but is anticipated to be completed in 2018. Since the signals within the study area will be optimized by 2021, all signals were optimized in the No-Action Condition.

Since it is not known how the City of Stamford will coordinate the signals, all signals were optimized as isolated intersections. However, since it is anticipated that a majority of the signals will be in a coordinated network, the same cycle length was used for signals that are likely to be coordinated, where possible.

Delay is estimated to increase through 2021 due to the background traffic growth described in Section 3.1 in the study area. As shown in Exhibits 5-2 and 5-3, the following study area intersections are projected to experience LOS E or F for one or more movements during the studied peak hours for the No-Action condition:

- Tresser Boulevard & Greenwich Avenue/West Main Street
 - Eastbound Thru/Right (AM and PM)
 - Westbound Left (PM)
- Tresser Boulevard & Washington Boulevard
 - Eastbound Left (AM and PM)
 - Eastbound Thru/Right (PM)
 - Westbound Left (AM and PM)
 - Westbound Thru/Right (PM)
 - Northbound Left (AM and PM)
 - Northbound Right (AM and PM)
 - Southbound Left (AM and PM)
- Tresser Boulevard & Atlantic Street
 - Westbound Left (PM)
- North State Street & Canal Street
 - Northbound Left (AM and PM)
- South State Street & Washington Boulevard
 - Eastbound Left (AM)
 - Northbound Thru (AM)
 - Southbound Left (AM and PM)
- South State Street & Canal Street
 - Eastbound Left (PM)
 - Southbound Left/Thru (AM and PM)
- First Stamford Place & Greenwich Avenue
 - Eastbound Left/Right (PM)
- Station Place & Washington Boulevard
 - Westbound Left (AM)
- Dock Street & Canal Street/Jefferson Street
 - Eastbound Left (AM and PM)
 - Southbound Left (AM)

Queues

As with the Existing Condition, there are some instances where queues are estimated to extend past the available storage in the No-Action Condition. With the addition of the background growth and the other site development traffic in the study area, queues are estimated to increase at some locations when compared to the Existing Condition. However, with the proposed signal timing optimization project that the City is conducting, and the completion of the intersection improvement projects, queues are estimated to be reduced at many of the study area intersections including South State Street & Atlantic Street, South State Street & Canal Street, and Henry Street & Atlantic Street.

The locations where queues extend beyond the existing storage in the No-Action Condition are highlighted in Red in Exhibits 5-4 and 5-5. The queue spillback generally occurs at turn-bays and locations where short blocks are present. Generally, “Don’t Block the Box” signing and striping are provided at these locations to help prevent drivers from blocking adjacent intersections when queues extend beyond available storage. Opportunities to address these queue conditions through adding lanes or extending turn bays is limited due to the built-up environment of the study area, and would not typically be consistent with the area’s urban form.

5.2.3 2021 Build Condition

The study intersections were analyzed using the No-Action Condition geometry and signal timings and the projected Build volumes.

As shown in Exhibits 5-2 and 5-3, the changes in traffic associated with new and diverted traffic generated by the proposed garage will reduce the LOS for some movements at the following study area intersections.

AM Peak Hour

- North State Street and Washington Boulevard
 - Northbound Thru (LOS B to C)
- North State Street and Canal Street
 - Westbound left/thru/right (LOS C to LOS D)
 - Northbound Left (5.4 sec/veh increase in LOS F Delay)
- South State Street and Washington Boulevard
 - Eastbound Left/Thru/Right (LOS C to LOS D)
- Dock Street and Canal Street/Jefferson Street
 - Eastbound Left (3.5 sec/veh increase in LOS F Delay)
- South State Street and Proposed Garage Access
 - Southbound Left (LOS A to LOS B)

PM Peak Hour

- South State Street and Washington Boulevard
 - Eastbound Left (LOS D to LOS F)
 - Eastbound Left/Thru/Right (LOS C to E)
- South State Street and Atlantic Street
 - Southbound Left (LOS A to B)

- South State Street and Canal Street
 - Eastbound Thru (LOS C to D)
- Pulaski Street and Washington Boulevard
 - Southbound Thru (LOS C to D)
- South State Street and Proposed Garage Access
 - Southbound Left (LOS A to LOS B)

Queues

As shown in Exhibits 5-4 and 5-5, approach queues are estimated to extend beyond existing storage with the addition of site traffic. However, all queues that extend beyond the existing storage in the Build condition are the same locations as the No-Action Condition and are estimated to be within 10% of the No-Action Condition queues with the exception of the following:

AM Peak Hour

- North State Street & Washington Boulevard
 - Westbound Left - 95th percentile queue, increase of 100' (4 vehicles).
- North State Street & Canal Street
 - Northbound Left - 50th and 95th percentile queues, increase of 36' (2 vehicles) and 41' (2 vehicles), respectively.

PM Peak Hour

- South State Street & Washington Boulevard
 - Eastbound Left – 50th and 95th percentile queues, increase of 106' (4 vehicles) and 121' (5 vehicles), respectively.

The proposed mitigation for these impacts is described in Section 5.3.

Exhibit 5-2
 South State Street Parking Garage
 Level of Service Comparison: AM Peak Hour

Intersection	2018 Existing						2021 No-Action						2021 Build											
	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS						
Signalized Intersections																								
Tresser Boulevard & Greenwich Avenue/West Main Street																								
West Main Street	EB L	17.8	B	EB	58.7	E	EB L	16.4	B	EB	56.7	E	EB L	16.4	B	EB	56.7	E						
	EB TR	63.8	E			EB TR	61.7	E		EB TR		61.7	E											
Tresser Boulevard	WB L	36.5	D	WB	28.9	C	WB L	46.8	D	WB	29.9	C	WB L	46.8	D	WB	29.9	C						
	WB TR	26.6	C			WB TR	24.8	C		WB TR		24.8	C											
Greenwich Avenue	NB L	21.6	C	NB	22.3	C	NB L	19.5	B	NB	17.5	B	NB L	19.5	B	NB	17.5	B						
	NB T	33.7	C				NB T	27.7	C				NB T	27.7	C									
	NB R	11.5	B				NB R	7.3	A				NB R	7.3	A									
	SB L	22.4	C				SB L	21.9	C				SB L	21.9	C									
West Main Street	SB T	33.3	C	SB	27.2	C	SB T	28.2	C	SB	23.4	C	SB T	28.2	C	SB	23.4	C						
	SB R	14.2	B				SB R	10.2	B				SB R	10.2	B									
	OVERALL							34.5	C											32.3	C			
Tresser Boulevard & Washington Boulevard																								
Tresser Boulevard	EB L	86.7	F	EB	47.1	D	EB L	95.0	F	EB	53.1	D	EB L	95.0	F	EB	53.1	D						
	EB TR	39.2	D				EB TR	45.2	D				EB TR	45.2	D									
	WB L	90.0	F	WB			51.0	D	WB L	70.6			E	WB	54.7	D			WB L	70.6	E	WB	54.7	D
	WB TR	43.9	D						WB TR	52.0			D						WB TR	52.0	D			
Washington Boulevard	NB L	79.8	E	NB	47.3	D	NB L	87.4	F	NB	51.0	D	NB L	87.4	F	NB	51.0	D						
	NB T	36.7	D				NB T	39.0	D				NB T	39.0	D									
	NB R	66.1	E				NB R	73.8	E				NB R	73.8	E									
	SB L	165.6	F				SB L	78.7	E				SB L	78.7	E									
	SB T	40.1	D				SB T	30.3	C				SB T	30.6	C									
	SB R	27.5	C				SB R	19.2	B				SB R	19.2	B									
OVERALL				51.6	D					47.6	D					47.7	D							
Tresser Boulevard & Atlantic Street																								
Tresser Boulevard	EB L	25.2	C	EB	60.7	E	EB L	22.9	C	EB	42.7	D	EB L	22.9	C	EB	42.7	D						
	EB TR	64.8	E				EB TR	45.1	D				EB TR	45.1	D									
	WB L	41.5	D	WB			34.9	C	WB L	52.5			D	WB	32.9	C			WB L	52.5	D	WB	32.9	C
	WB TR	32.9	C						WB TR	26.6			C						WB TR	26.6	C			
Atlantic Street	NB L	19.6	B	NB	37.5	D	NB L	29.5	C	NB	46.6	D	NB L	29.5	C	NB	46.6	D						
	NB TR	42.8	D				NB TR	52.6	D				NB TR	52.6	D									
	SB L	25.6	C				SB L	46.9	D				SB L	46.9	D									
	SB T	29.8	C				SB T	37.8	D				SB T	37.8	D									
	SB R	27.7	C				SB R	35.3	D				SB R	35.3	D									
	OVERALL							42.8	D											40.1	D			
Tresser Boulevard & Canal Street/Greyrock Place																								
Tresser Boulevard	EB L	19.5	B	EB	30.1	C	EB L	25.1	C	EB	42.9	D	EB L	25.5	C	EB	44.3	D						
	EB TR	31.1	C				EB TR	44.7	D				EB TR	46.3	D									
	WB L	33.2	C	WB			30.0	C	WB L	37.5			D	WB	32.7	C			WB L	39.9	D	WB	33.3	C
	WB TR	29.4	C						WB TR	31.7			C						WB TR	31.8	C			
Canal Street	NB L	38.1	D	NB	37.1	D	NB L	33.9	C	NB	35.3	D	NB L	34.8	C	NB	35.6	D						
	NB TR	36.5	D				NB TR	36.0	D				NB TR	36.0	D									
Greyrock Place	SB L	20.8	C	SB	30.2	C	SB L	24.0	C	SB	39.8	D	SB L	24.2	C	SB	40.2	D						
	SB T	32.7	C				SB T	43.9	D				SB T	44.5	D									
	SB R	31.4	C				SB R	40.9	D				SB R	40.8	D									
OVERALL				31.8	C					37.2	D					37.9	D							
Richmond Hill Avenue & Greenwich Avenue																								
Richmond Hill Avenue	EB LTR	18.7	B	EB	18.7	B	EB LTR	30.2	C	EB	30.2	C	EB LTR	30.2	C	EB	30.2	C						
	WB LTR	26.3	C	WB			26.3	C	WB LTR	48.8			D	WB	48.8	D			WB LTR	48.8	D	WB	48.8	D
Greenwich Avenue	NB LTR	29.3	C	NB	29.3	C	NB LTR	23.9	C	NB	23.9	C	NB LTR	23.9	C	NB	23.9	C						
	SB LTR	16.8	B	SB			16.8	B	SB LTR	15.0			B	SB	15.0	B			SB LTR	15.0	B	SB	15.0	B
OVERALL				23.6	C					25.7	C					25.7	C							
North State Street & Washington Boulevard																								
North State Street	WB L	19.3	B	WB	31.6	C	WB L	25.9	C	WB	42.4	D	WB L	30.7	C	WB	42.0	D						
	WB T	17.2	B				WB T	23.4	C				WB T	23.5	C									
	WB R	39.9	D				WB R	53.2	D				WB R	53.2	D									
Washington Boulevard	NB L	37.5	D	NB	26.5	C	NB L	41.9	D	NB	25.6	C	NB L	44.6	D	NB	26.7	C						
	NB T	22.6	C				NB T	19.8	B				NB T	20.3	C									
	SB T	75.5	E				SB T	36.9	D				SB T	37.7	D									
	SB R	17.2	B				SB R	19.5	B				SB R	19.6	B									
OVERALL				36.5	D					30.8	C					31.6	C							

Exhibit 5-2
South State Street Parking Garage
Level of Service Comparison: AM Peak Hour

Intersection	2018 Existing						2021 No-Action						2021 Build					
	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS
North State Street & Atlantic Street																		
North State Street	WB L	15.7	B	WB	16.4	B	WB L	36.4	D	WB	40.8	D	WB L	35.8	D	WB	46.1	D
	WB TR	17.1	B				WB TR	45.0	D				WB TR	54.8	D			
Atlantic Street	NB L	25.5	C	NB	18.6	B	NB L	49.5	D	NB	29.8	C	NB L	50.6	D	NB	30.4	C
	NB T	14.6	B				NB T	14.8	B				NB T	15.0	B			
	SB T	20.7	C				SB T	18.9	B				SB T	19.0	B			
	SB R	66.8	E	SB	45.8	D	SB R	36.4	D	SB	28.5	C	SB R	38.6	D	SB	29.8	C
OVERALL				23.2	C					35.5	D						39.0	D
North State Street & Canal Street																		
North State Street	WB LTR	36.1	D	WB	36.1	D	WB LTR	34.0	C	WB	34.0	C	WB LTR	35.6	D	WB	35.6	D
Canal Street	NB L	48.9	D	NB	26.4	C	NB L	119.9	F	NB	50.3	D	NB L	125.3	F	NB	54.0	D
	NB T	17.3	B				NB T	21.0	C				NB T	21.4	C			
	SB TR	53.0	D	SB	53.0	D	SB TR	51.1	D	SB	51.1	D	SB TR	52.6	D	SB	52.6	D
OVERALL				37.7	D					41.9	D						44.0	D
South State Street & Greenwich Avenue																		
South State Street	EB L	37.9	D	EB	25.5	C	EB L	36.7	D	EB	23.1	C	EB L	37.7	D	EB	23.9	C
	EB T	26.8	C				EB T	22.5	C				EB T	23.2	C			
	EB R	4.5	A				EB R	4.6	A				EB R	4.6	A			
Greenwich Avenue	NB T	6.9	A	NB	5.5	A	NB T	7.9	A	NB	6.2	A	NB T	7.9	A	NB	6.1	A
	NB R	2.8	A				NB R	2.6	A				NB R	2.8	A			
	SB L	26.2	C				SB L	22.3	C				SB L	22.9	C			
	SB T	24.0	C	SB	24.4	C	SB T	19.1	B	SB	19.7	B	SB T	19.0	B	SB	19.7	B
OVERALL				22.7	C					19.9	B						20.2	C
South State Street & Washington Boulevard																		
South State Street	EB L	57.7	E	EB	40.6	D	EB L	70.1	E	EB	43.7	D	EB L	69.5	E	EB	47.8	D
	EB LTR	31.8	C				EB LTR	29.9	C				EB LTR	36.5	D			
Washington Boulevard	NB T	42.9	D	NB	42.9	D	NB T	55.9	E	NB	55.9	E	NB T	55.9	E	NB	55.9	E
	SB L	56.7	E				SB L	75.5	E				SB L	75.5	E			
	SB T	31.1	C	SB	36.2	D	SB T	44.9	D	SB	50.8	D	SB T	34.3	C	SB	43.1	D
OVERALL				39.7	D					50.1	D						49.0	D
South State Street & Atlantic Street																		
South State Street	EB LTR	43.8	D	EB	43.8	D	EB LT	25.9	C	EB	25.3	C	EB LT	25.9	C	EB	25.3	C
Atlantic Street							EB R	21.8	C				EB R	21.8	C			
	NB TR	26.9	C	NB	26.9	C	NB TR	12.7	B	NB	12.6	B	NB TR	12.7	B	NB	12.6	B
							NB R	11.9	B				NB R	11.9	B			
	SB L	8.9	A	SB	11.3	B	SB L	7.8	A	SB	6.5	A	SB L	7.8	A	SB	6.5	A
OVERALL				27.6	C					14.5	B						14.6	B
South State Street & Canal Street																		
South State Street	EB L	151.8	F	EB	162.5	F	EB L	46.0	D	EB	34.7	C	EB L	46.2	D	EB	35.1	D
	EB TR	168.0	F				EB T	26.0	C				EB T	26.0	C			
Canal Street	NB TR	23.2	C	NB	23.2	C	NB TR	34.0	C	NB	34.0	C	NB TR	34.8	C	NB	34.8	C
	SB LT	14.3	B	SB	14.3	B	SB LT	73.2	E	SB	73.2	E	SB LT	71.0	E	SB	71.0	E
OVERALL				81.7	F					46.6	D						45.9	D
First Stamford Place & Greenwich Avenue																		
First Stamford Place	EB LR	46.6	D	EB	46.6	D	EB LR	30.8	C	EB	30.8	C	EB LR	31.0	C	EB	31.0	C
Greenwich Avenue	NB LT	32.5	C	NB	32.5	C	NB LT	32.5	C	NB	32.5	C	NB LT	33.7	C	NB	33.7	C
	SB T	1.3	A	SB	1.6	A	SB T	1.4	A	SB	1.6	A	SB T	1.4	A	SB	1.6	A
	SB R	1.9	A				SB R	1.7	A				SB R	1.8	A			
OVERALL				12.8	B					12.1	B						12.9	B
Station Place & Washington Boulevard																		
Station Place	WB L	37.2	D	WB	22.5	C	WB L	66.9	E	WB	33.2	C	WB L	61.4	E	WB	30.9	C
	WB R	14.5	B				WB R	14.9	B				WB R	15.6	B			
Washington Boulevard	NB TR	24.2	C	NB	24.2	C	NB TR	31.9	C	NB	31.9	C	NB TR	28.6	C	NB	28.6	C
	SB L	46.8	D				SB L	31.5	C				SB L	26.8	C			
	SB T	10.7	B	SB	27.2	C	SB T	8.1	A	SB	18.7	B	SB T	7.7	A	SB	16.8	B
OVERALL				25.4	C					25.9	C						23.7	C

Exhibit 5-2
South State Street Parking Garage
Level of Service Comparison: AM Peak Hour

Intersection	2018 Existing						2021 No-Action						2021 Build											
	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS						
Station Place & Atlantic Street/Dock Street																								
Station Place	EB L	12.8	B		25.1	C	EB L	13.4	B		21.3	C	EB L	13.3	B		21.3	C						
	EB TR	28.5	C	EB			EB TR	23.9	C	EB			EB TR	23.9	C	EB								
Dock Street	WBL	16.0	B		14.6	B	WBL	21.2	C		16.2	B	WBL	19.5	B		14.9	B						
	WBT	24.9	C	WB			WBT	26.2	C	WB			WBT	25.3	C	WB								
	WBR	3.1	A				WBR	4.2	A				WBR	3.9	A									
Atlantic Street	NBL	20.0	C		19.8	B	NBL	17.3	B		21.4	C	NBL	17.2	B		21.3	C						
	NBT	32.7	C	NB			NBT	32.1	C	NB			NBT	31.9	C	NB								
	NBR	4.2	A				NBR	5.2	A				NBR	5.2	A									
	SBL	21.8	C				SBL	19.0	B				SBL	18.9	B									
	SBT	27.4	C	SB			SBT	20.8	C	SB			SBT	20.7	C	SB								
	SBR	4.1	A				SBR	3.5	A				SBR	3.5	A									
OVERALL						17.5	B						17.6	B						17.0	B			
Dock Street & Canal Street/Jefferson Street																								
Dock Street	EB L	39.2	D	EB	32.6	C	EB L	96.7	F	EB	52.6	D	EB L	100.2	F	EB	53.9	D						
	EB TR	28.6	C				EB TR	24.6	C				EB TR	24.5	C									
Jefferson Street	WBL	17.8	B		40.9	D	WBL	17.8	B		34.2	C	WBL	17.7	B		33.7	C						
	WB TR	45.1	D	WB			WB TR	37.1	D	WB			WB TR	36.5	D	WB								
Canal Street	NB LT	36.1	D		26.5	C	NB LT	26.6	C		19.8	B	NB LT	26.7	C		19.9	B						
	NBR	5.4	A	NB			NBR	4.9	A	NB			NBR	4.9	A	NB								
	SBL	44.1	D				SBL	62.2	E				SBL	69.6	E									
	SB TR	16.2	B	SB			SB TR	12.7	B	SB			SB TR	13.9	B	SB								
OVERALL						31.8	C						35.7	D						37.4	D			
Atlantic Street & 2004 Parking Garage																								
Garage Access	EB LR	19.4	B	EB	19.4	B	EB LR	17.9	B	EB	17.9	B	EB LR	17.9	B	EB	17.9	B						
Atlantic Street	NB LT	3.3	A	NB	3.3	A	NB LT	4.1	A	NB	4.1	A	NB LT	4.1	A	NB	4.1	A						
	SB T	3.3	A		SB T	3.6	A		SB T	3.5	A													
	SBR	1.3	A	SB	2.6	A	SBR	1.4	A	SB	2.8	A	SBR	1.4	A	SB	2.7	A						
OVERALL						3.4	A						3.8	A						3.8	A			
Henry Street & Washington Boulevard																								
Garage Access	EB L	31.0	C	EB	31.0	C	EB L	31.7	C	EB	31.7	C	EB L	31.2	C	EB	31.2	C						
	EB LTR	31.0	C				EB LTR	31.7	C				EB LTR	31.3	C									
Henry Street	WBLT	41.0	D		28.3	C	WBLT	44.3	D		31.3	C	WBLT	41.6	D		27.9	C						
	WBR	6.1	A	WB			WBR	7.5	A	WB			WBR	6.4	A	WB								
Washington Boulevard	NB LTR	26.8	C	NB	26.8	C	NB LTR	28.9	C	NB	28.9	C	NB LTR	27.7	C	NB	27.7	C						
	SB LT	14.3	B		15.0	B	SB LT	15.2	B		15.6	B	SB LT	14.7	B		14.6	B						
	SBR	16.2	B	SB			SBR	16.2	B	SB			SBR	14.2	B	SB								
OVERALL						22.3	C						24.3	C						23.1	C			
Henry Street & Atlantic Street																								
Henry Street	EB LTR	31.7	C	EB	31.7	C	EB L	16.7	B	EB	15.5	B	EB L	15.8	B	EB	14.8	B						
	WB LTR	26.0	C	WB			26.0	C	EB TR	14.6			B	EB	25.1	C			EB TR	14.0	B	EB	24.3	C
							WB TR	25.1	C	WB			WB TR	24.3	C	WB								
Atlantic Street	NB LTR	50.7	D	NB	50.7	D	NB L	11.8	B	NB	32.2	C	NB L	11.9	B	NB	33.4	C						
	NB TR			NB TR			33.6	C	NB	NB TR			34.9	C	NB									
	SB LT	42.4	D				SB L	11.9	B				SB L	12.2	B									
	SBR	9.1	A	SB			24.1	C	SB TR	30.5			C	SB	29.4	C			SB TR	27.6	C	SB	26.6	C
OVERALL						31.9	C						26.2	C						25.4	C			
Pulaski Street & Washington Boulevard																								
Pulaski Street	EB L	25.7	C	EB	26.1	C	EB L	27.6	C	EB	26.8	C	EB L	27.6	C	EB	26.8	C						
	EB R	26.5	C				EB R	25.7	C				EB R	25.7	C									
Washington Boulevard	NB LT	16.1	B	NB	16.1	B	NB LT	19.4	B	NB	19.4	B	NB LT	19.4	B	NB	19.4	B						
	SB T	15.3	B				SB T	16.8	B				SB T	16.8	B									
	SBR	1.6	A	SB			6.3	A	SBR	1.6			A	SB	7.0	A			SBR	1.6	A	SB	7.0	A
OVERALL						15.5	B						17.3	B						17.3	B			
Atlantic Street & Washington Boulevard																								
Atlantic Street	EB LTR	9.6	A	EB	9.6	A	EB LTR	10.6	B	EB	10.6	B	EB LTR	10.8	B	EB	10.8	B						
	WBLT	12.8	B				WBLT	14.2	B				WBLT	14.4	B									
	WBR	4.4	A	WB			7.1	A	WBR	4.7			A	WB	8.0	A			WBR	4.8	A	WB	8.1	A
Washington Boulevard	NB LT	11.9	B		11.1	B	NB LT	14.8	B		11.5	B	NB LT	15.0	B		11.8	B						
	NBR	3.9	A	NB			NBR	3.0	A	NB			NBR	2.9	A	NB								
	SBL	13.8	B				SBL	18.4	B				SBL	18.8	B									
	SB TR	12.1	B	SB			12.7	B	SB TR	12.5			B	SB	14.4	B			SB TR	12.4	B	SB	14.4	B
OVERALL						10.6	B						11.7	B						11.8	B			

Exhibit 5-2
 South State Street Parking Garage
 Level of Service Comparison: AM Peak Hour

Intersection	2018 Existing						2021 No-Action						2021 Build								
	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS			
Unsignalized Intersections																					
South State Street & Proposed Garage Access																					
Garage Access	SB L	9.2	A				SB L	9.2	A				SB L	10.4	B						
Pulaski Street & Greenwich Avenue																					
Greenwich Avenue	EB LTR	27.9	D										EB	8.0	A				EB	7.9	A
Pulaski Street	WB LTR	32.5	D										WB	5.9	A				WB	6.0	A
Davenport Street	NB LTR	0.0	A										NB	9.2	A				NB	9.1	A
Greenwich Avenue	SB LT	14.7	B										SB	14.4	B				SB	13.6	B
	SB R	13.9	B																		
OVERALL														9.2	A					8.9	A
Station Place & Parking Garage Access 1																					
Garage Access	NB LR	16.0	C				NB LR	16.1	C				NB LR	16.1	C						
Station Place & Parking Garage Access 2																					
Station Place	WBL	0.3	A				WBL	0.3	A				WBL	0.1	A						

Exhibit 5-3
South State Street Parking Garage
Level of Service Comparison: PM Peak Hour

Intersection	2018 Existing						2021 No-Action						2021 Build					
	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS
Signalized Intersections																		
Tresser Boulevard & Greenwich Avenue/West Main Street																		
West Main Street	EB L	18.6	B	EB	84.6	F	EB L	17.6	B	EB	74.2	E	EB L	17.6	B	EB	74.2	E
	EB TR	93.1	F				EB TR	81.2	F				EB TR	81.2	F			
Tresser Boulevard	WBL	35.0	C	WB	29.0	C	WBL	82.8	F	WB	33.1	C	WBL	82.8	F	WB	33.1	C
	WB TR	28.3	C				WB TR	26.0	C				WB TR	26.0	C			
Greenwich Avenue	NBL	22.0	C	NB	22.2	C	NBL	22.3	C	NB	19.9	B	NBL	22.3	C	NB	20.6	C
	NB T	33.3	C				NB T	31.0	C				NB T	31.4	C			
	NB R	11.6	B				NB R	8.5	A				NB R	9.3	A			
West Main Street	SB L	22.3	C	SB	20.7	C	SB L	22.6	C	SB	19.9	B	SB L	22.7	C	SB	19.9	B
	SB T	30.5	C				SB T	28.1	C				SB T	28.1	C			
	SB R	10.0	A				SB R	8.8	A				SB R	8.8	A			
OVERALL					44.9	D					42.2	D					42.2	D
Tresser Boulevard & Washington Boulevard																		
Tresser Boulevard	EB L	93.6	F	EB	49.6	D	EB L	142.6	F	EB	82.7	F	EB L	142.6	F	EB	82.7	F
	EB TR	42.3	D				EB TR	73.2	E				EB TR	73.2	E			
	WBL	98.8	F	WB	53.1	D	WBL	129.7	F	WB	108.7	F	WBL	129.7	F	WB	108.7	F
	WB TR	45.4	D				WB TR	105.2	F				WB TR	105.2	F			
Washington Boulevard	NBL	86.3	F	NB	71.2	E	NBL	75.9	E	NB	57.8	E	NBL	75.9	E	NB	57.9	E
	NB T	42.5	D				NB T	35.7	D				NB T	36.0	D			
	NB R	127.1	F				NB R	99.1	F				NB R	99.1	F			
	SB L	214.9	F	SB	72.5	E	SB L	118.5	F	SB	45.3	D	SB L	118.5	F	SB	45.3	D
	SB T	38.8	D				SB T	26.4	C				SB T	26.4	C			
	SB R	28.3	C				SB R	18.6	B				SB R	18.6	B			
OVERALL					62.8	E					71.8	E					71.8	E
Tresser Boulevard & Atlantic Street																		
Tresser Boulevard	EB L	28.4	C	EB	102.1	F	EB L	23.4	C	EB	42.4	D	EB L	23.4	C	EB	42.4	D
	EB TR	110.2	F				EB TR	44.4	D				EB TR	44.4	D			
	WBL	37.7	D	WB	36.5	D	WBL	58.2	E	WB	32.8	C	WBL	58.2	E	WB	32.8	C
	WB TR	36.2	D				WB TR	26.0	C				WB TR	26.0	C			
Atlantic Street	NBL	20.1	C	NB	30.2	C	NBL	41.4	D	NB	44.6	D	NBL	41.4	D	NB	44.6	D
	NB TR	34.5	C				NB TR	46.3	D				NB TR	46.3	D			
	SB L	22.4	C	SB	27.8	C	SB L	43.6	D	SB	43.1	D	SB L	43.6	D	SB	43.1	D
	SB T	30.6	C				SB T	42.9	D				SB T	42.9	D			
	SB R	31.3	C				SB R	42.5	D				SB R	42.5	D			
OVERALL					58.3	E					39.8	D					39.8	D
Tresser Boulevard & Canal Street/Greyrock Place																		
Tresser Boulevard	EB L	25.5	C	EB	48.6	D	EB L	25.0	C	EB	41.1	D	EB L	25.1	C	EB	41.3	D
	EB TR	51.5	D				EB TR	43.2	D				EB TR	43.4	D			
	WBL	21.2	C	WB	26.4	C	WBL	40.7	D	WB	30.6	C	WBL	41.3	D	WB	30.8	C
	WB TR	27.2	C				WB TR	29.0	C				WB TR	29.1	C			
Canal Street	NBL	24.0	C	NB	35.1	D	NBL	34.2	C	NB	47.4	D	NBL	34.1	C	NB	48.2	D
	NB TR	38.1	D				NB TR	50.6	D				NB TR	51.7	D			
Greyrock Place	SB L	22.5	C	SB	31.5	C	SB L	43.9	D	SB	40.1	D	SB L	44.8	D	SB	40.2	D
	SB T	30.3	C				SB T	36.6	D				SB T	36.6	D			
	SB R	38.8	D				SB R	44.7	D				SB R	44.5	D			
OVERALL					38.5	D					40.2	D					40.5	D
Richmond Hill Avenue & Greenwich Avenue																		
Richmond Hill Avenue	EB LTR	29.1	C	EB	29.1	C	EB LTR	45.1	D	EB	45.1	D	EB LTR	45.0	D	EB	45.0	D
	WB LTR	20.9	C	WB	20.9	C	WB LTR	30.3	C	WB	30.3	C	WB LTR	31.3	C	WB	31.3	C
Greenwich Avenue	NB LTR	18.0	B	NB	18.0	B	NB LTR	17.2	B	NB	17.2	B	NB LTR	17.4	B	NB	17.4	B
	SB LTR	10.3	B	SB	10.3	B	SB LTR	11.1	B	SB	11.1	B	SB LTR	11.5	B	SB	11.5	B
OVERALL					19.6	B					24.2	C					24.7	C
North State Street & Washington Boulevard																		
North State Street	WBL	21.1	C	WB	25.7	C	WBL	32.6	C	WB	31.3	C	WBL	33.2	C	WB	32.3	C
	WB T	19.1	B				WB T	30.4	C				WB T	30.5	C			
	WB R	28.7	C				WB R	30.9	C				WB R	32.3	C			
Washington Boulevard	NBL	15.8	B	NB	14.1	B	NBL	18.4	B	NB	12.0	B	NBL	19.6	B	NB	12.4	B
	NB T	13.6	B				NB T	10.1	B				NB T	10.2	B			
	SB T	34.4	C	SB	25.8	C	SB T	18.9	B	SB	21.5	C	SB T	18.9	B	SB	21.7	C
	SB R	18.1	B				SB R	24.0	C				SB R	24.3	C			
OVERALL					21.2	C					19.4	B					19.7	B

Exhibit 5-3
South State Street Parking Garage
Level of Service Comparison: PM Peak Hour

Intersection	2018 Existing						2021 No-Action						2021 Build					
	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS
North State Street & Atlantic Street																		
North State Street	WB L	18.1	B	WB	16.6	B	WB L	44.5	D	WB	40.5	D	WB L	44.5	D	WB	40.6	D
	WB TR	14.0	B				WB TR	34.7	C				WB TR	35.0	C			
Atlantic Street	NB L	23.2	C	NB	17.3	B	NB L	39.5	D	NB	25.8	C	NB L	39.5	D	NB	25.7	C
	NB T	13.5	B				NB T	14.3	B				NB T	14.5	B			
	SB T	21.9	C	SB	55.3	E	SB T	20.7	C	SB	32.4	C	SB T	20.7	C	SB	32.4	C
	SB R	88.7	F				SB R	44.7	D				SB R	44.7	D			
OVERALL				26.9	C					35.9	D						35.9	D
North State Street & Canal Street																		
North State Street	WB LTR	25.5	C	WB	25.5	C	WB LTR	27.7	C	WB	27.7	C	WB LTR	27.7	C	WB	27.7	C
Canal Street	NB L	34.1	C	NB	22.0	C	NB L	114.6	F	NB	45.9	D	NB L	114.6	F	NB	45.8	D
	NB T	18.2	B				NB T	20.2	C				NB T	20.4	C			
	SB TR	43.9	D	SB	43.9	D	SB TR	47.2	D	SB	47.2	D	SB TR	47.2	D	SB	47.2	D
OVERALL				29.0	C					38.1	D						38.1	D
South State Street & Greenwich Avenue																		
South State Street	EB L	40.1	D	EB	37.9	D	EB L	37.0	D	EB	38.2	D	EB L	37.0	D	EB	38.5	D
	EB T	43.4	D				EB T	45.4	D				EB T	45.9	D			
	EB R	8.3	A				EB R	7.4	A				EB R	7.4	A			
Greenwich Avenue	NB T	21.6	C	NB	16.3	B	NB T	22.2	C	NB	16.3	B	NB T	21.8	C	NB	16.1	B
	NB R	10.3	B				NB R	9.3	A				NB R	9.4	A			
	SB L	33.9	C	SB	25.8	C	SB L	34.7	C	SB	25.0	C	SB L	34.0	C	SB	25.0	C
	SB T	23.4	C				SB T	22.5	C				SB T	22.7	C			
OVERALL				27.7	C					28.1	C						28.3	C
South State Street & Washington Boulevard																		
South State Street	EB L	59.6	E	EB	40.0	D	EB L	52.7	D	EB	36.9	D	EB L	89.5	F	EB	81.8	F
	EB LTR	30.3	C				EB LTR	29.8	C				EB LTR	78.3	E			
Washington Boulevard	NB T	44.3	D	NB	44.3	D	NB T	44.5	D	NB	44.5	D	NB T	40.5	D	NB	40.5	D
	SB L	57.0	E	SB	34.6	C	SB L	58.7	E	SB	34.0	C	SB L	58.1	E	SB	33.8	C
	SB T	27.5	C				SB T	27.1	C				SB T	26.9	C			
OVERALL				39.9	D					38.5	D						58.0	E
South State Street & Atlantic Street																		
South State Street	EB LTR	76.2	E	EB	76.2	E	EB LT	26.9	C	EB	26.5	C	EB LT	27.7	C	EB	26.9	C
Atlantic Street							EB R	25.5	C				EB R	23.7	C			
	NB TR	20.9	C	NB	20.9	C	NB TR	13.7	B	NB	13.7	B	NB TR	15.3	B	NB	15.3	B
							NB R	14.0	B				NB R	15.5	B			
	SB L	9.9	A	SB	11.1	B	SB L	9.2	A	SB	7.6	A	SB L	10.7	B	SB	9.0	A
OVERALL				38.7	D					16.2	B						17.9	B
South State Street & Canal Street																		
South State Street	EB L	172.2	F	EB	252.0	F	EB L	67.3	E	EB	43.6	D	EB L	76.1	E	EB	48.2	D
	EB TR	284.5	F				EB T	34.5	C				EB T	37.9	D			
Canal Street							EB R	25.3	C				EB R	26.3	C			
	NB TR	24.2	C	NB	24.2	C	NB TR	36.2	D	NB	36.2	D	NB TR	34.2	C	NB	34.2	C
OVERALL				128.3	F		SB LT	77.1	E	SB	77.1	E	SB LT	76.7	E	SB	76.7	E
First Stamford Place & Greenwich Avenue																		
First Stamford Place	EB LR	46.6	D	EB	46.6	D	EB LR	65.1	E	EB	65.1	E	EB LR	66.5	E	EB	66.5	E
Greenwich Avenue	NB LT	35.8	D	NB	35.8	D	NB LT	37.4	D	NB	37.4	D	NB LT	37.7	D	NB	37.7	D
	SB T	3.2	A	SB	2.6	A	SB T	3.6	A	SB	3.1	A	SB T	3.6	A	SB	3.2	A
	SB R	0.3	A				SB R	0.6	A				SB R	0.6	A			
OVERALL				30.6	C					37.2	D						37.8	D
Station Place & Washington Boulevard																		
Station Place	WB L	30.2	C	WB	16.9	B	WB L	49.6	D	WB	27.5	C	WB L	47.0	D	WB	26.7	C
	WB R	13.2	B				WB R	20.4	C				WB R	20.3	C			
Washington Boulevard	NB TR	18.8	B	NB	18.8	B	NB TR	20.4	C	NB	20.4	C	NB TR	19.2	B	NB	19.2	B
	SB L	15.8	B	SB	10.9	B	SB L	14.9	B	SB	11.2	B	SB L	13.8	B	SB	10.9	B
	SB T	8.2	A				SB T	9.5	A				SB T	9.6	A			
OVERALL				14.6	B					17.8	B						16.8	B

Exhibit 5-3
South State Street Parking Garage
Level of Service Comparison: PM Peak Hour

Intersection	2018 Existing						2021 No-Action						2021 Build					
	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS
Station Place & Atlantic Street/Dock Street																		
Station Place	EB L	14.5	B		35.6	D	EB L	15.6	B		30.3	C	EB L	15.2	B		29.5	C
	EB TR	43.7	D	EB		EB TR	36.3	D	EB	EB TR		35.2	D	EB				
Dock Street	WB L	18.9	B		16.8	B	WB L	39.8	D		23.5	C	WB L	37.6	D		22.7	C
	WB T	25.9	C	WB		WB T	24.0	C	WB	WB T		24.0	C	WB				
Atlantic Street	WB R	3.2	A		14.9	B	WB R	3.0	A		19.6	B	WB R	3.0	A		18.1	B
	NB L	20.7	C			NB L	18.0	B		NB L		18.0	B					
	NB T	31.8	C	NB		NB T	27.4	C	NB	NB T		27.2	C	NB				
	NB R	8.2	A			NB R	16.3	B		NB R		13.8	B					
	SB L	21.6	C			SB L	19.7	B		SB L		19.6	B					
	SB T	29.4	C	SB		SB T	23.6	C	SB	SB T		23.6	C	SB				
OVERALL	SB R	4.2	A		21.9	C	SB R	3.7	A		22.7	C	SB R	3.7	A		21.9	C
Dock Street & Canal Street/Jefferson Street																		
Dock Street	EB L	56.7	D		42.6	D	EB L	55.5	E		39.9	D	EB L	48.7	D		37.5	D
	EB TR	35.1	E	EB		EB TR	31.2	C	EB	EB TR		31.8	C	EB				
Jefferson Street	WB L	22.3	C		36.3	D	WB L	22.3	C		47.0	D	WB L	22.3	C		46.5	D
	WB TR	39.2	D	WB		WB TR	51.8	D	WB	WB TR		51.1	D	WB				
Canal Street	NB LT	36.2	D		26.6	C	NB LT	48.5	D		35.5	D	NB LT	47.7	D		35.1	D
	NB R	9.9	A	NB		NB R	12.0	B	NB	NB R		12.3	B	NB				
	SB L	32.9	C			SB L	41.2	D		SB L		43.4	D					
	SB TR	9.4	A	SB		SB TR	12.6	B	SB	SB TR		12.3	B	SB				
OVERALL				30.8	C						35.9	D					35.3	D
Atlantic Street & 2004 Parking Garage																		
Garage Access	EB LR	21.2	C		21.2	C	EB LR	19.4	B		19.4	B	EB LR	19.4	B		19.4	B
	NB LT	6.4	A	NB		NB LT	7.2	A	NB	NB LT		6.9	A	NB				
Atlantic Street	SB T	7.0	A		6.7	A	SB T	8.6	A		8.3	A	SB T	8.6	A		8.3	A
	SB R	2.7	A	SB		SB R	2.8	A	SB	SB R		2.8	A	SB				
OVERALL				8.5	A						9.1	A					9.1	A
Henry Street & Washington Boulevard																		
Garage Access	EB L	35.8	D		35.8	D	EB L	37.1	D		37.1	D	EB L	33.1	C		33.1	C
	EB LTR	35.8	D	EB		EB LTR	37.1	D	EB	EB LTR		33.1	C	EB				
Henry Street	WB LT	44.5	D		29.7	C	WB LT	49.5	D		33.7	C	WB LT	47.2	D		32.2	C
	WB R	6.1	A	WB		WB R	6.1	A	WB	WB R		6.0	A	WB				
Washington Boulevard	NB LTR	20.6	C		20.8	C	NB LTR	23.5	C		23.5	C	NB LTR	21.6	C		21.6	C
	SB LT	22.1	C	NB		SB LT	27.1	C	NB	SB LT		25.0	C	NB				
	SB R	14.6	B	SB		SB R	14.9	B	SB	SB R		15.0	B	SB				
OVERALL				24.0	C						27.5	C					25.1	C
Henry Street & Atlantic Street																		
Henry Street	EB LTR	63.9	E		63.9	E	EB L	25.1	C		22.7	C	EB L	22.7	C		21.5	C
	WB LTR	25.9	C	EB		EB TR	20.5	C	EB	EB TR		20.5	C	EB				
				WB		WB L	28.9	C	WB	WB L		28.9	C	WB				
Atlantic Street							WB TR	32.4	C				WB TR	32.2	C			
	NB LTR	51.1	D		51.1	D	NB L	11.4	B		18.1	B	NB L	11.4	B		18.1	B
				NB		NB TR	18.9	B	NB	NB TR		18.9	B	NB				
	SB LT	36.7	D			SB L	10.7	B		SB L		10.7	B					
			SB	SB TR		44.6	D	SB	SB TR	44.6		D	SB					
OVERALL				43.7	D						29.7	C					29.5	C
Pulaski Street & Washington Boulevard																		
Pulaski Street	EB L	25.5	C		30.0	C	EB L	28.8	C		33.5	C	EB L	27.9	C		33.0	C
	EB R	34.8	C	EB		EB R	38.6	D	EB	EB R		38.5	D	EB				
Parking Lot	WB LTR	23.0	C		23.0	C	WB LTR	26.2	C		26.2	C	WB LTR	26.2	C		26.2	C
	NB LT	20.9	C	WB		NB LT	26.0	C	WB	NB LT		26.2	C	WB				
Washington Boulevard	SB T	24.3	C		12.2	B	SB T	34.0	C		17.5	B	SB T	35.2	D		18.0	B
	SB R	1.6	A	SB		SB R	1.8	A	SB	SB R		1.8	A	SB				
	OVERALL					21.3	C							25.5	C			
Atlantic Street & Washington Boulevard																		
Atlantic Street	EB LTR	15.2	B		15.2	B	EB LTR	16.7	B		16.7	B	EB LTR	16.7	B		16.7	B
	WB LT	15.2	B			WB LT	20.4	C		WB LT		20.4	C					
	WB R	4.9	A	WB		WB R	5.3	A	WB	WB R		5.3	A	WB				
Washington Boulevard	NB LT	8.8	A		7.6	A	NB LT	9.9	A		7.9	A	NB LT	9.9	A		7.9	A
	NB R	2.9	A	NB		NB R	2.7	A	NB	NB R		2.7	A	NB				
	SB L	12.8	B			SB L	16.3	B		SB L		16.3	B					
	SB TR	10.1	B	SB		SB TR	14.0	B	SB	SB TR		14.3	B	SB				
OVERALL				10.7	B						13.3	B					13.4	B

Exhibit 5-3
 South State Street Parking Garage
 Level of Service Comparison: PM Peak Hour

Intersection	2018 Existing						2021 No-Action						2021 Build								
	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS			
Unsignalized Intersections																					
South State Street & Proposed Garage Access																					
Garage Access	SB L	9.4	A				SB L	9.5	A				SB L	11.9	B						
Pulaski Street & Greenwich Avenue																					
Greenwich Avenue	EB LTR	130.9	F										EB	8.4	A				EB	8.4	A
Pulaski Street	WB LTR	33.5	D										WB	6.1	A				WB	6.2	A
Davenport Street	NB LTR	0.0	A										NB	10.6	B				NB	10.6	B
Greenwich Avenue	SB LT	21.7	C										SB	15.6	C				SB	15.6	C
	SB R	11.5	B																		
OVERALL														9.8	A					9.8	A
Station Place & Parking Garage Access 1																					
Garage Access	NB LR	26.9	D				NB LR	29.8	D				NB LR	24.9	C						
Station Place & Parking Garage Access 2																					
Station Place	WB L	0.2	A	WB	1.0	A	WB L	0.2	A	WB	1.0	A	WB L	0.2	A	WB	1.0	A			

Exhibit 5-4
Queue Summary
2018 Existing - 2021 No-Action - Build - Mitigation AM

Intersection	Approach	Lane Group	Available Storage (ft)	Existing		No-Action		Build		Mitigation	
				50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)
Signalized Intersections											
Tresser Boulevard & Greenwich Avenue/West Main Street											
West Main Street	Eastbound	L	120	25	52	23	46	23	46	23	46
		TR	790	368	597	339	547	339	547	339	547
Tresser Blvd	Westbound	L	175	76	139	74	166	74	166	74	166
		TR	435	172	245	168	225	168	225	168	225
Greenwich Ave	Northbound	L	90	19	45	17	40	17	40	17	40
		T	830	127	220	125	197	125	197	125	197
		R	120	29	105	15	76	15	76	15	76
West Main Street	Southbound	L	100	49	94	45	83	45	83	45	83
		T	550	175	292	167	255	167	255	167	255
		R	65	19	65	13	50	13	50	13	50
Tresser Boulevard & Washington Boulevard											
Tresser Blvd	Eastbound	L	330	96	216	88	201	88	201	88	201
		TR	540	156	195	165	213	165	213	165	213
	Westbound	L	210	121	273	107	209	107	209	107	209
		TR	655	227	276	233	321	233	321	233	321
Washington Blvd	Northbound	L	220	56	110	51	125	51	125	51	125
		T	470	229	331	243	318	243	318	243	318
		R	360	182	374	182	343	182	343	182	343
	Southbound	L	350	197	382	149	283	149	283	149	283
		T	590	390	629	336	426	341	432	341	432
		R	265	57	120	47	85	47	85	47	85
Tresser Boulevard & Atlantic Street											
Tresser Blvd	Eastbound	L	110	39	87	43	77	43	77	43	77
		TR	655	243	397	261	339	261	339	261	339
	Westbound	L	180	109	265	153	300	153	300	153	300
		TR	365	171	277	177	228	177	228	177	228
Atlantic Street	Northbound	L	310	56	100	96	156	96	156	96	156
		TR	370	153	234	197	285	197	285	197	285
	Southbound	L	120	73	126	96	181	96	181	96	181
		T	740	67	112	89	132	89	132	89	132
		R	75	14	39	17	44	17	44	17	44
Tresser Boulevard & Canal Street/Greyrock Place											
Tresser Blvd	Eastbound	L	230	24	56	33	70	34	70	34	70
		TR	440	138	199	193	268	199	268	199	268
	Westbound	L	315	63	175	93	214	103	235	103	235
		TR	1000	178	264	225	308	228	308	228	308
Canal Street	Northbound	L	200	109	236	123	241	126	244	126	244
		TR	380	162	249	187	272	192	272	192	272
Greyrock Place	Southbound	L	180	44	87	50	95	51	95	51	95
		T	420	114	172	152	221	160	226	160	226
		R	170	62	120	83	152	85	152	85	152
Richmond Hill Avenue & Greenwich Avenue											
Richmond Hill Ave	Eastbound	LTR	320	57	106	98	167	98	167	98	167
	Westbound	LTR	375	78	145	137	263	137	263	137	263
Greenwich Ave	Northbound	LTR	700	180	481	312	570	312	570	312	570
	Southbound	LTR	840	115	329	190	298	190	298	190	298
North State Street & Washington Boulevard											
North State Street	Westbound	L	210	72	119	87	153	157	253	157	253
		T	435	41	74	50	95	51	95	51	95
		R	425	216	358	258	488	261	488	261	488
Washington Blvd	Northbound	L	175	107	299	124	287	127	297	127	297
		T	175	157	292	201	256	201	256	201	256
	Southbound	T	245	233	440	222	291	231	301	231	301
		R	245	24	263	88	305	90	311	90	311
North State Street & Atlantic Street											
North State Street	Westbound	L	1040	114	163	255	329	250	324	250	324
		TR	1050	125	180	287	403	333	471	333	471
Atlantic Street	Northbound	L	140	59	107	107	164	107	164	107	164
		T	140	53	82	67	94	67	94	67	94
	Southbound	T	240	47	78	70	101	70	101	70	101
		R	240	138	293	216	359	226	395	226	395

**Exhibit 5-4
Queue Summary
2018 Existing - 2021 No-Action - Build - Mitigation AM**

Intersection	Approach	Lane Group	Available Storage (ft)	Existing		No-Action		Build		Mitigation	
				50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)
North State Street & Canal Street											
North State Street	Westbound	LTR	1440	340	576	363	516	379	525	379	525
Canal Street	Northbound	L	150	109	210	150	334	186	375	186	375
		T	150	126	163	140	182	140	182	140	182
	Southbound	TR	380	278	388	304	389	317	405	317	405
South State Street & Greenwich Avenue											
South State Street	Eastbound	L	270	302	453	229	403	229	403	229	403
		T	430	195	261	154	212	161	220	161	220
		R	270	0	56	0	52	0	51	0	51
Greenwich Ave	Northbound	T	400	38	62	30	61	29	56	29	56
		R	65	0	0	0	0	0	0	0	0
	Southbound	L	220	50	101	37	80	42	88	42	88
		T	725	125	180	97	139	97	139	97	139
South State Street & Washington Blvd											
South State Street	Eastbound	L	140	209	409	212	387	204	386	204	386
		LTR	760	142	232	123	219	144	251	144	251
Washington Blvd	Northbound	TR	180	183	232	198	282	198	282	198	282
	Southbound	L	165	61	106	53	117	53	117	53	117
		T	165	223	290	203	296	176	242	176	242
South State Street & Atlantic Street											
South State Street	Eastbound	LTR	525	192	372	76	121	76	121	76	121
		R	-	-	-	23	55	23	55	23	55
Atlantic Street	Northbound	TR	225	193	314	76	145	76	145	76	145
		R	-	-	-	17	50	17	50	17	50
	Southbound	L	125	12	28	14	39	14	39	14	39
		T	125	83	135	27	58	26	57	26	57
South State Street & Canal Street											
South State Street	Eastbound	L	1020	391	589	247	425	247	425	247	425
		TR	1020	417	544	153	210	153	210	153	210
		R	-	-	-	164	269	172	301	172	301
Canal Street	Northbound	TR	310	176	262	199	271	206	280	206	280
	Southbound	LT	145	148	187	187	276	176	242	176	242
First Stamford Place & Greenwich Avenue											
First Stamford Place	Eastbound	LR	110	27	56	18	41	18	41	18	41
Greenwich Ave	Northbound	LT	460	164	274	150	281	162	305	162	305
	Southbound	T	40	12	15	13	14	12	14	12	14
		R	40	22	38	12	26	13	27	13	27
Station Place & Washington Boulevard											
Station Place	Westbound	L	210	43	122	58	192	53	174	53	174
		R	210	27	80	31	85	31	85	31	85
Washington Blvd	Northbound	TR	260	75	222	135	315	133	308	133	308
	Southbound	L	175	53	387	95	383	72	336	72	336
		T	160	31	133	32	115	27	98	27	98
Station Place & Atlantic Street/Dock Street											
Station Place	Eastbound	L	100	13	39	16	43	16	43	16	43
		TR	200	81	169	71	144	71	144	71	144
Dock Street	Westbound	L	220	60	137	66	138	59	126	59	126
		T	390	114	240	116	221	106	204	106	204
		R	220	0	40	9	52	6	48	6	48
Atlantic Street	Northbound	L	100	12	31	10	27	10	27	10	27
		T	270	47	80	73	115	70	111	70	111
		R	140	0	35	0	43	0	41	0	41
	Southbound	L	80	33	65	36	69	36	69	36	69
		T	200	40	67	33	67	31	64	31	64
		R	120	0	38	0	34	0	34	0	34

Exhibit 5-4
Queue Summary
2018 Existing - 2021 No-Action - Build - Mitigation AM

Intersection	Approach	Lane Group	Available Storage (ft)	Existing		No-Action		Build		Mitigation	
				50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)
Dock Street & Canal Street/Jefferson Street											
Dock Street	Eastbound	L	450	85	249	96	296	99	300	99	300
		TR	770	95	166	86	153	86	153	86	153
Jefferson Street	Westbound	L	175	39	84	31	75	31	75	31	75
		TR	475	178	277	138	238	137	238	137	238
Canal Street	Northbound	LT	830	55	101	41	79	42	79	42	79
		R	130	0	32	0	29	0	29	0	29
	Southbound	L	310	151	359	119	328	129	352	129	352
		TR	310	103	185	74	144	80	148	80	148
Atlantic Street & 2004 Parking Garage											
Garage Access	Eastbound	LR	200	6	20	6	19	6	19	6	19
		LT	475	0	123	0	197	0	197	0	197
Atlantic Street	Southbound	T	280	0	94	0	108	0	95	0	95
		R	280	0	21	0	22	0	22	0	22
Henry Street & Washington Boulevard											
Garage Access	Eastbound	L	120	3	18	4	18	3	18	3	18
		LTR	120	4	22	4	22	4	22	4	22
Henry Street	Westbound	LT	730	73	254	93	272	75	222	75	222
		R	110	1	41	3	47	0	41	0	41
Washington Blvd	Northbound	LTR	230	91	266	124	368	111	359	111	359
		LT	265	38	139	43	146	38	146	38	146
	Southbound	R	180	48	198	51	198	28	129	28	129
Henry Street & Atlantic Street											
Henry Street	Eastbound	LTR	725	122	222	23	96	21	85	21	85
		L	-	-	-	27	112	27	106	27	106
	Westbound	LTR	600	65	130	3	19	3	18	3	18
		L	-	-	-	40	135	39	130	39	130
Atlantic Street	Northbound	LTR	900	95	171	6	17	6	17	6	17
		L	-	-	-	106	225	106	227	106	227
	Southbound	LT	460	76	138	-	-	-	-	-	-
		R	325	0	53	-	-	-	-	-	-
		L	-	-	-	6	17	6	17	6	17
		TR	-	-	-	87	213	78	191	78	191
Pulaski Street & Washington Boulevard											
Pulaski Street	Eastbound	L	140	53	204	69	272	69	272	69	272
		R	770	45	182	51	196	51	196	51	196
Parking Lot	Westbound	LTR	35	0	0	0	0	0	0	0	0
Washington Blvd	Northbound	LT	645	50	175	76	227	76	227	76	227
		T	220	32	134	42	150	42	150	42	150
	Southbound	R	220	0	25	0	25	0	25	0	25
Atlantic Street & Washington Boulevard											
Atlantic Street	Eastbound	LTR	200	6	23	6	26	6	27	6	27
		L	150	17	44	19	56	19	56	19	56
	TR	1140	0	30	0	33	0	33	0	33	
Washington Blvd	Northbound	LT	270	53	115	80	165	82	170	82	170
		R	225	0	11	0	22	0	22	0	22
	Southbound	L	320	25	70	27	78	27	79	27	79
		TR	675	51	113	56	120	56	120	56	120

Legend

- Queue > Storage
- Queue > Storage; but equals or is less than No-Build Queue
- Queue > Storage; but within 5% of No-Build Queue
- Queue > Storage; but within 10% of No-Build Queue
- Queue > Storage; and not within 10% of No-Build Queue

Exhibit 5-5
Queue Summary
2018 Existing - 2021 No-Action - Build - Mitigation PM

Intersection	Approach	Lane Group	Available Storage (ft)	Existing		No-Action		Build		Mitigation	
				50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)
Signalized Intersections											
Tresser Boulevard & Greenwich Avenue/West Main Street											
West Main Street	Eastbound	L	120	35	67	33	62	33	62	33	62
		TR	790	624	949	625	865	625	865	625	865
Tresser Blvd	Westbound	L	175	35	83	41	159	41	159	41	159
		TR	435	230	324	231	298	231	298	231	298
Greenwich Ave	Northbound	L	90	33	67	33	64	33	64	33	64
		T	830	126	217	128	200	135	211	135	211
		R	120	30	106	19	84	24	90	24	90
West Main Street	Southbound	L	100	28	60	28	57	28	57	28	57
		T	550	62	119	71	121	71	121	71	121
		R	60	9	56	8	51	8	51	8	51
Tresser Boulevard & Washington Boulevard											
Tresser Blvd	Eastbound	L	330	109	241	110	239	110	239	110	239
		TR	540	213	259	235	328	235	328	235	328
	Westbound	L	210	127	283	133	272	133	272	133	272
		TR	655	253	305	316	408	316	408	316	408
Washington Blvd	Northbound	L	220	67	128	61	111	61	111	61	111
		T	470	325	456	298	380	303	386	303	386
		R	360	397	659	363	563	363	563	363	563
	Southbound	L	350	240	440	223	391	223	391	223	391
		T	590	321	498	286	387	284	387	284	387
		R	265	38	84	30	63	30	63	30	63
Tresser Boulevard & Atlantic Street											
Tresser Blvd	Eastbound	L	110	47	99	48	83	48	83	48	83
		TR	655	328	487	334	423	334	423	334	423
	Westbound	L	180	86	186	150	298	150	298	150	298
		TR	365	194	315	204	257	204	257	204	257
Atlantic Street	Northbound	L	310	62	116	125	209	125	209	125	209
		TR	370	110	182	157	215	157	215	157	215
	Southbound	L	120	70	129	106	189	106	189	106	189
		T	740	72	126	109	156	109	156	109	156
		R	75	28	71	39	81	39	81	39	81
Tresser Boulevard & Canal Street/Greyrock Place											
Tresser Blvd	Eastbound	L	230	67	128	83	131	83	131	83	131
		TR	440	363	513	400	509	400	509	400	509
	Westbound	L	315	33	67	47	139	47	140	47	140
		TR	1000	126	176	164	223	164	223	164	223
Canal Street	Northbound	L	200	73	130	102	164	102	164	102	164
		TR	380	210	343	297	406	303	416	303	416
Greyrock Place	Southbound	L	180	36	72	50	107	50	109	50	109
		T	420	88	135	125	174	125	174	125	174
		R	170	95	172	130	213	130	213	130	213
Richmond Hill Avenue & Greenwich Avenue											
Richmond Hill Ave	Eastbound	LTR	320	102	186	155	285	156	283	156	283
	Westbound	LTR	375	73	135	111	189	122	204	122	204
Greenwich Ave	Northbound	LTR	700	143	345	210	367	207	377	207	377
	Southbound	LTR	840	53	114	85	152	86	160	86	160
North State Street & Washington Boulevard											
North State Street	Westbound	L	210	41	85	52	126	58	137	58	137
		T	435	20	47	25	70	25	70	25	70
		R	425	104	209	92	277	97	284	97	284
Washington Blvd	Northbound	L	175	53	139	56	110	58	115	58	115
		T	175	106	227	114	187	118	193	118	193
	Southbound	T	245	123	279	124	193	125	193	125	193
		R	245	16	267	108	375	111	384	111	384
North State Street & Atlantic Street											
North State Street	Westbound	L	1040	158	222	350	478	350	478	350	478
		TR	1050	82	121	225	299	230	305	230	305
Atlantic Street	Northbound	L	140	46	87	83	132	83	132	83	132
		T	140	36	59	48	71	50	74	50	74
	Southbound	T	240	65	102	103	142	103	142	103	142
		R	240	176	328	256	444	256	444	256	444

**Exhibit 5-5
Queue Summary
2018 Existing - 2021 No-Action - Build - Mitigation PM**

Intersection	Approach	Lane Group	Available Storage (ft)	Existing		No-Action		Build		Mitigation	
				50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)
North State Street & Canal Street											
North State Street	Westbound	LTR	1440	182	320	238	347	238	347	238	347
Canal Street	Northbound	L	150	88	176	146	324	146	324	146	324
		T	150	164	207	180	227	183	231	183	231
		TR	380	250	357	278	357	278	357	278	357
South State Street & Greenwich Avenue											
South State Street	Eastbound	L	270	115	223	117	202	117	202	117	202
		T	430	196	314	244	343	251	349	251	349
		R	270	0	49	0	51	0	51	0	51
Greenwich Ave	Northbound	T	400	198	378	226	351	221	340	221	340
		R	65	88	165	88	160	89	160	89	160
		L	220	34	99	37	90	38	89	38	89
	Southbound	T	725	57	114	72	112	73	112	73	112
South State Street & Washington Blvd											
South State Street	Eastbound	L	140	241	465	235	419	341	540	325	547
		LTR	760	159	256	170	299	336	465	348	485
Washington Blvd	Northbound	TR	180	204	256	201	285	165	252	205	292
		L	165	59	102	51	111	51	111	62	116
	Southbound	T	165	156	208	162	224	159	220	195	260
South State Street & Atlantic Street											
South State Street	Eastbound	LTR	525	273	471	91	144	120	183	120	183
		R	-	-	-	51	104	51	103	51	103
Atlantic Street	Northbound	TR	225	130	222	52	108	56	105	56	105
		R	-	-	-	21	62	22	58	22	58
	Southbound	L	125	23	45	27	70	33	74	33	74
T		125	82	134	34	73	42	77	42	77	
South State Street & Canal Street											
South State Street	Eastbound	L	1020	421	624	319	538	365	566	365	566
		TR	1020	613	746	270	363	292	416	292	416
		R	-	-	-	99	168	110	184	110	184
Canal Street	Northbound	TR	310	220	318	242	330	229	306	229	306
		Southbound	LT	145	143	182	196	303	193	295	193
First Stamford Place & Greenwich Avenue											
First Stamford Place	Eastbound	LR	110	168	279	180	283	183	283	183	283
		LT	460	215	431	255	405	259	405	259	405
Greenwich Ave	Southbound	T	40	19	51	26	62	26	62	26	62
		R	40	0	0	0	0	0	0	0	0
Station Place & Washington Boulevard											
Station Place	Westbound	L	210	31	94	50	151	45	136	45	136
		R	210	42	115	68	126	64	120	64	120
Washington Blvd	Northbound	TR	260	70	193	78	225	66	193	66	193
		L	175	33	233	40	154	40	154	40	154
	Southbound	T	160	34	148	48	155	50	160	50	160
Station Place & Atlantic Street/Dock Street											
Station Place	Eastbound	L	100	37	91	40	90	37	84	37	84
		TR	200	179	385	154	298	148	281	148	281
Dock Street	Westbound	L	220	54	125	67	199	67	194	67	194
		T	390	76	173	71	146	71	146	71	146
		R	220	0	34	0	34	0	34	0	34
Atlantic Street	Northbound	L	100	25	53	21	46	21	46	21	46
		T	270	30	57	40	67	37	63	37	63
		R	140	31	100	77	162	60	135	60	135
	Southbound	L	80	47	87	61	106	61	106	61	106
		T	200	55	91	64	98	64	98	64	98
		R	120	0	29	0	29	0	29	0	29

**Exhibit 5-5
Queue Summary
2018 Existing - 2021 No-Action - Build - Mitigation PM**

Intersection	Approach	Lane Group	Available Storage (ft)	Existing		No-Action		Build		Mitigation	
				50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)	50th %ile Queue (ft)	95th %ile Queue (ft)
Dock Street & Canal Street/Jefferson Street											
Dock Street	Eastbound	L	450	118	323	174	337	146	277	146	277
		TR	770	145	230	173	229	168	224	168	224
Jefferson Street	Westbound	L	175	50	100	57	96	57	96	57	96
		TR	475	160	248	241	320	235	326	235	326
Canal Street	Northbound	LT	830	109	177	148	213	143	213	143	213
		R	130	33	90	35	101	35	104	35	104
	Southbound	L	310	112	238	152	259	159	297	159	297
		TR	310	51	106	80	136	75	136	75	136
Atlantic Street & 2004 Parking Garage											
Garage Access	Eastbound	LR	200	33	72	30	67	30	67	30	67
	Northbound	LT	475	50	143	59	176	53	158	53	158
Atlantic Street	Southbound	T	280	50	150	69	214	69	214	69	214
		R	280	0	10	0	10	0	10	0	10
Henry Street & Washington Boulevard											
Garage Access	Eastbound	L	120	35	80	36	80	8	27	8	27
		LTR	120	35	81	36	81	7	25	7	25
Henry Street	Westbound	LT	730	94	189	105	222	105	222	105	222
		R	110	0	38	0	38	0	38	0	38
Washington Blvd	Northbound	LTR	230	94	202	122	264	122	264	122	264
	Southbound	LT	265	108	246	137	345	145	375	145	375
		R	180	5	22	5	22	3	14	3	14
Henry Street & Atlantic Street											
Henry Street	Eastbound	LTR	725	268	497	99	169	80	141	80	141
		L	-	-	-	111	186	111	186	111	186
	Westbound	LTR	600	62	121	4	18	4	18	4	18
L		-	-	-	71	136	71	136	71	136	
Atlantic Street	Northbound	LTR	900	117	207	8	21	8	21	8	21
		L	-	-	-	75	159	75	159	75	159
	Southbound	LT	460	69	127	-	-	-	-	-	-
		R	325	0	57	-	-	-	-	-	-
		L	-	-	-	5	16	5	16	5	16
		TR	-	-	-	200	389	200	389	200	389
Pulaski Street & Washington Boulevard											
Pulaski Street	Eastbound	L	140	86	332	157	342	151	327	151	327
		R	770	88	364	148	355	149	355	149	355
Parking Lot	Westbound	LTR	35	6	32	9	33	9	33	9	33
Washington Blvd	Northbound	LT	645	51	133	88	165	88	165	88	165
	Southbound	T	220	79	222	161	357	166	371	166	371
		R	220	0	24	0	25	0	26	0	26
Atlantic Street & Washington Boulevard											
Atlantic Street	Eastbound	LTR	200	25	77	25	89	25	89	25	89
	Westbound	L	150	18	59	34	117	34	117	34	117
		TR	1140	0	29	0	32	0	32	0	32
Washington Blvd	Northbound	LT	270	34	80	40	98	40	98	40	98
		R	225	0	14	0	19	0	19	0	19
	Southbound	L	320	45	118	46	128	46	128	46	128
		TR	675	57	129	81	190	83	196	83	196

Legend

	Queue > Storage
	Queue > Storage; but equals or is less than No-Build Queue
	Queue > Storage; but within 5% of No-Build Queue
	Queue > Storage; but within 10% of No-Build Queue
	Queue > Storage; and not within 10% of No-Build Queue

5.3 MITIGATION

As discussed in Section 5.2.3, the addition of the new project generated traffic and the relocated site trips does reduce the LOS for movements at some of the study area intersections. Where there are only minor changes in delay and LOS D or better is maintained, no additional mitigation is recommended. During the AM peak hour, there is an estimated increase in LOS F delay for the northbound left-turn movement at North State Street & Canal Street and for the eastbound left-turn movement at Dock Street & Canal Street. However, the increase in delay is estimated to be minimal with a maximum increase of 5.4 seconds/vehicle. As a result, no additional mitigation is recommended for these intersections.

Where movements are estimated to operate at LOS F with the addition of site traffic, the following mitigation is proposed:

- South State Street & Washington Boulevard
 - Optimize signal timing splits – PM peak hour

As shown in Exhibit 5-6, this optimization will reduce vehicle delays for the Build PM peak hour condition, but not to the extent that they will be the same as in the No-Build condition. However, all movements and approaches are estimated to operate at LOS E or better with this optimization, and the overall intersection is estimated to operate at LOS D. The resulting 50th and 95th percentile queues are still estimated to be similar to the Build Condition, with the average queue for the eastbound left and left/thru/right lanes extending back approximately 350' and the 95th percentile queue extending back approximately 550'. The 95th percentile queue, which is a statistical measure indicating the theoretical maximum queue occurring within the peak hour of study, has the potential to extend back to the Garage site driveway, which is located approximately 400' from the eastbound stop bar. In the instances where this queue is reached, drivers exiting the garage will need to rely on eastbound traffic to provide a courtesy gap to allow them to access South State Street. Or, they will need to wait for the queue to dissipate from the South State Street & Washington Boulevard eastbound approach to exit the garage. The signal at South State Street & Greenwich Avenue will help meter the traffic on South State Street, which will also provide more gaps for traffic to exit the garage.

Exhibit 5-6. South State Street & Washington Boulevard - PM Peak Hour

Street	2021 No-Action						2021 Build with Mitigation						
	Mvmt	Delay	LOS	App	Delay	LOS	Mvmt	Delay	LOS	App	Delay	LOS	
South State Street	EB L	52.7	D	EB	36.9	D	EB L	54.8	D	EB	49.2	D	
	EB LTR	29.8	C				EB LTR	46.7	D				
Washington Boulevard	NB T	44.5	D	NB	44.5	D	NB T	61.3	E	NB	61.3	E	
	SB L	58.7	E	SB	34.0	C	SB L	68.4	E	SB	47.6	D	
	SB T	27.1	C				SB T	41.7	D				
Overall					38.5	D						52.1	D

In addition, as noted in Section 4.1, a conservative estimate was taken to calculate the PM peak hour trips for the proposed garage. It is anticipated that commuters returning to the STC will actually be more spread out than the AM peak hour arrival patterns, with more commuters returning to the garage after the PM peak hour of adjacent street traffic. This will result in fewer trips exiting the garage during the PM peak hour, which will help reduce the impact on the eastbound approach of South State Street & Washington Boulevard.

6.0 TRAFFIC SAFETY ANALYSIS

Accident data was obtained from UConn's Connecticut Crash Data Repository for the three-year period of January 1, 2015 to December 31, 2017.

Summaries of this data are included in Appendix E. The accident data showed a total of 681 accidents reported to have occurred within the study area over the three-year period. Inspection of the accident data showed that 535 of the crashes occurred at the study area intersections and 146 occurred on the links between the study intersections. The predominate accident types are shown in Exhibits 6-1 and 6-2.

Exhibit 6-1. Intersection Collision Summary

Type of Collision	Number	Percentage
Rear End	173	32
Angle	170	32
Sideswipe	147	27

The majority of the accidents at the intersections were property damage only (407 crashes). There were 127 non-fatal injury crashes and one fatality in the study area during the analysis period. As shown, there is a pattern of rear end accidents, angle accidents, and sideswipe accidents at the signalized intersections. The highest frequency of accidents occurred at the following five intersections:

- North State Street & Canal Street
- North State Street & Atlantic Street
- Tresser Boulevard & Canal Street
- Tresser Boulevard & Atlantic Street
- Tresser Boulevard & Washington Boulevard

Crashes at these five locations comprised 54% of all crashes in the study area. Due to the high volumes at these intersections, drivers experience congestion, are in stop-and-go traffic, and are frequently reaching the end of forming queues. In addition, the congestion may entice vehicles to enter an intersection during the yellow and red clearance phases, resulting in angle crashes. The proposed site is not estimated to generate more than 100 directional trips at any of these five intersections. As a result, since traffic associated with the project will not significantly change volume patterns or operations at these locations, it will not have an impact on the safety conditions. However, it should be noted that with the city-wide optimization project that is currently on-going, operations and progression through the study area should improve when the improvements are implemented, which will help in the reduction of accidents in the study area.

Exhibit 6-2. Link Collision Summary

Type of Collision	Number	Percentage
Rear End	52	36
Sideswipe	49	34
Angle	25	17

The majority of the accidents on the links were property damage only (119 crashes). There were 26 non-fatal injury crashes, and one fatality in the study area during the analysis period. As shown, there is a pattern of rear end and sideswipe accidents in the study area. The segments with the highest incidences of rear end and sideswipe accidents were Tresser Boulevard between Atlantic Street and Canal Street and Atlantic Street between Tresser Boulevard and North State Street. Rear end accidents typically occur when a vehicle slows to make a maneuver and driver inattention. There are a number of driveways and side streets between the major intersections on these links, so many of the rear end accidents could be attributed to drivers not anticipating other drivers slowing to turn, or other access management issues. Sideswipes typically occur on multilane roadways where drivers may be switching lanes, or where drivers drift into adjacent lanes. Both links described above are multilane roadways in the study area, with vehicles changing lanes as they approach the next intersection. Additional signage could be considered so drivers can better anticipate which lane to be in to make their desired movements.

7.0 CONCLUSION & RECOMMENDATIONS

The Connecticut Department of Transportation (CTDOT) is proposing the construction of a new multi-level parking garage for the Stamford Transportation Center (STC) on South State Street in the City of Stamford, CT. The proposed garage will accommodate approximately 1,000 parking spaces on eight levels replacing the approximately 210 spaces currently available at the original STC parking garage on Station Place and the 93 spaces in the surface parking lot that currently occupies the proposed garage site. It is noted that the original garage was built to accommodate 727 spaces, but only 210 spaces are currently open for use. This garage will be demolished upon the completion of the South State Street parking garage. The 2004 parking garage also on Station Place will remain.

The proposed South State Street parking garage will also provide parking for a portion of STC parkers who currently use the Harbor Point Gateway Garage and who are likely to be displaced once that site is redeveloped for Charter Communications. Based on parking occupancy counts conducted at the Gateway Garage, and the assumption that 500 commuter spots will be maintained at the Gateway Garage, it is assumed that approximately 467 vehicles will relocate to the proposed South State Street Garage. If the 500 commuter spots are not maintained, up to 1,123 vehicles would need to find parking elsewhere.

The traffic generated by the proposed garage will consist of new trips generated to/from the study area, and trips diverted within the study area from other parking locations. To determine the number of new trips the parking garage will generate, the number of trips-per-occupied parking space were estimated for the existing STC Parking Garages on Station Place and the Gateway Garage.

The number of vehicles relocated to the proposed South State Street Garage from surrounding parking facilities was determined to be as follows:

- 54 from South State Street Surface Lot
- 158 from Original Garage on Station Place
- 467 from Gateway Garage

It is estimated that the project will generate 300 new and relocated trips (280 in, 20 out) during the AM peak hour and 300 new and relocated trips (20 in, 280 out) during the PM peak hour. It should be noted that the PM peak hour rates were conservatively increased to match the AM peak hour rates. It is anticipated that commuters returning to the STC will actually be more spread out than the AM peak hour arrival rate, with some returning after the PM peak hour of adjacent street traffic.

Traffic Operations Impacts & Mitigation

Capacity analyses of the study area intersections were conducted to estimate the operations of the adjacent roadway system with and without the new project generated traffic. The addition of the new project generated traffic does reduce the LOS for some of the movements at the study area intersections. As a result, traffic control improvements have been identified to mitigate these impacts.

Where movements are estimated to operate at LOS F with the addition of site traffic, the following mitigation is proposed:

- South State Street & Washington Boulevard
 - Optimize signal timing splits – PM peak hour

This optimization will reduce vehicle delays for the Build PM peak hour condition, but not to the extent that they will be the same as in the No-Build condition. However, all movements and approaches are estimated to operate at LOS E or better with this optimization, and the overall intersection is estimated to operate at LOS D. The resulting 50th and 95th percentile queues are still estimated to be similar to the Build Condition, with the average queue for the eastbound left and left/thru/right lanes extending back approximately 350' and the 95th percentile queue extending back approximately 550'. The 95th percentile queue, which is a statistical measure indicating the theoretical maximum queue occurring within the peak hour of study, has the potential to extend back to the Garage site driveway, which is located approximately 400' from the eastbound stop bar. In the instances where this queue is reached, drivers exiting the garage will need to rely on eastbound traffic to provide a courtesy gap to allow them to access South State Street. Or, they will need to wait for the queue to dissipate from the South State Street & Washington Boulevard eastbound approach to exit the garage. The signal at South State Street & Greenwich Avenue will help meter the traffic on South State Street, which will also provide more gaps for traffic to exit the garage.

In addition, as noted in Section 4.1, a conservative estimate was taken to calculate the PM peak hour trips for the proposed garage. It is anticipated that commuters returning to the STC will actually be more spread out than the AM peak hour arrival patterns, with more commuters returning to the garage after the PM peak hour of adjacent street traffic. This will result in fewer trips exiting the garage during the PM peak hour, which will help reduce the impact on the eastbound approach of South State Street & Washington Boulevard.

Traffic Safety Impacts & Mitigation

The accident data showed a total of 681 accidents reported to have occurred within the study area over the three-year period. Inspection of the accident data showed that 535 of the crashes occurred at the study area intersections and 146 occurred on the links between the study intersections. The majority of the accidents at the intersections were property damage only (407 crashes). There were 127 non-fatal injury crashes and one fatality in the study area during the analysis period. There is a pattern of rear end accidents, angle accidents, and sideswipe accidents at the signalized intersections. The highest frequency of accidents occurred at the following five intersections:

- North State Street & Canal Street
- North State Street & Atlantic Street
- Tresser Boulevard & Canal Street
- Tresser Boulevard & Atlantic Street
- Tresser Boulevard & Washington Boulevard

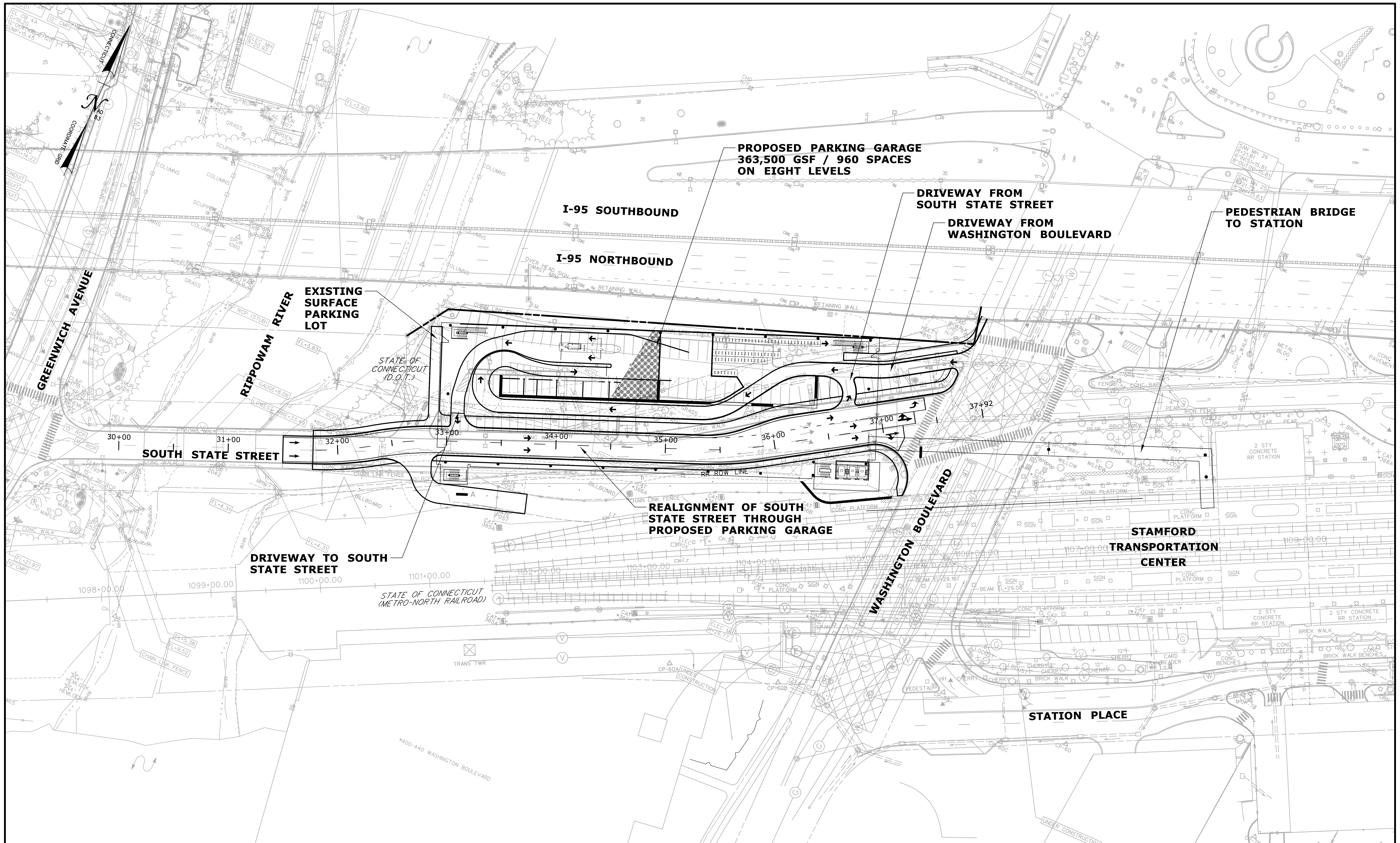
Crashes at these five locations comprised 54% of all crashes in the study area. The proposed site is not estimated to generate more than 100 directional trips at any of these five intersections. As a result, since traffic associated with the project will not significantly change volume patterns or operations at these locations, it will not have an impact on the safety conditions.

The majority of the accidents on the links were property damage only (119 crashes). There were 26 non-fatal injury crashes, and one fatality in the study area during the analysis period. There is a pattern of rear end and sideswipe accidents on the study area links.

It should be noted that with the city-wide optimization project that is currently on-going, operations and progression through the study area should improve when the improvements are implemented, which will help in the reduction of congestion related accidents in the study area.

APPENDIX A

Site Plan



REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-


THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 3/8/2019

DESIGNER/DRAFTER:
JSP

CHECKED BY:
CS

SCALE IN FEET
0 40 80
SCALE 1"=40'



**STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION**

Filename: ...FD_MSH_0301_0047_OverallSitePlan.dgn

SIGNATURE/
BLOCK:

PROJECT TITLE:
**STAMFORD STATION
PARKING GARAGE**

TOWN:
STAMFORD

DRAWING TITLE:
**OVERALL
SITE PLAN**

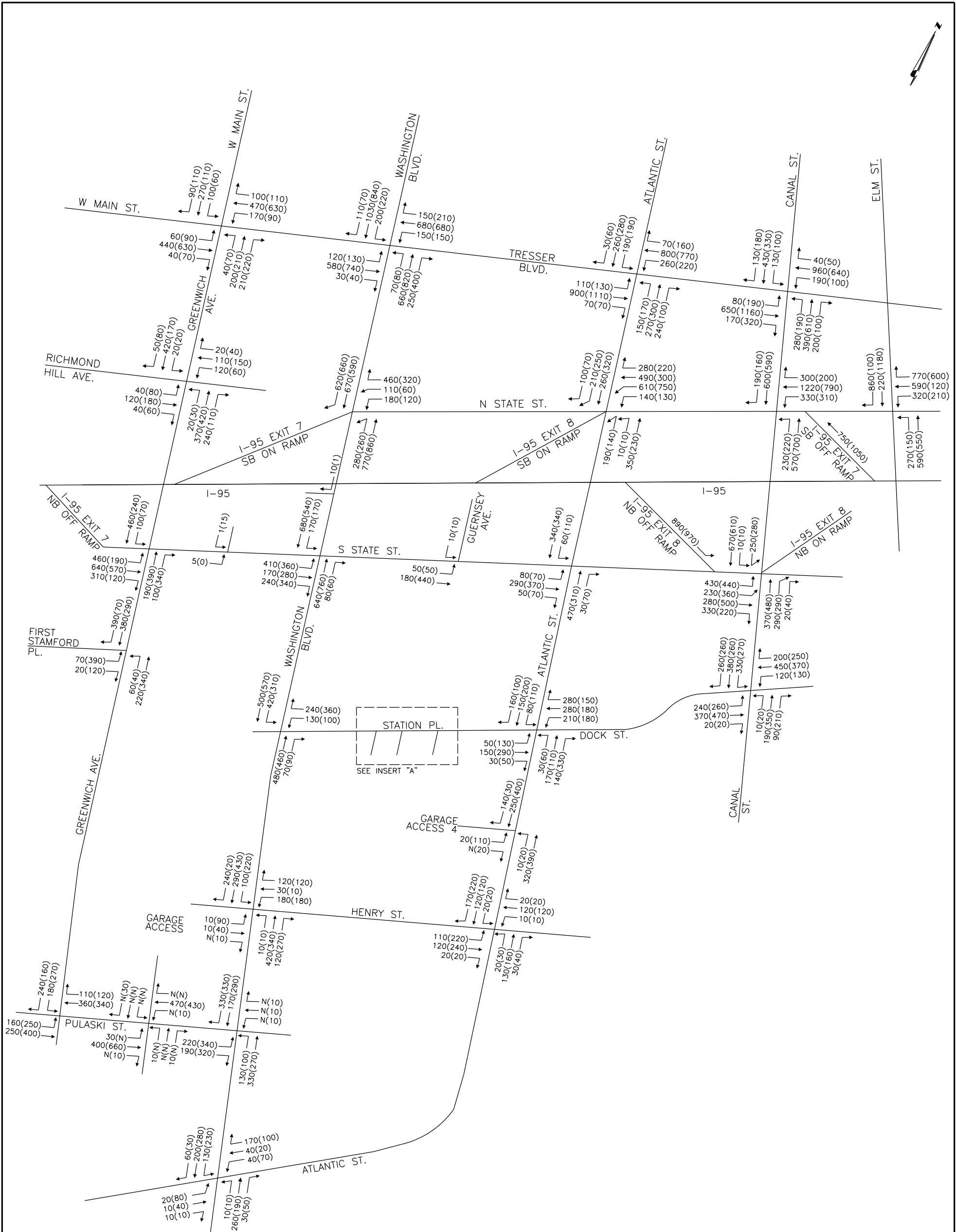
PROJECT NO.
301-0047

DRAWING NO.
-

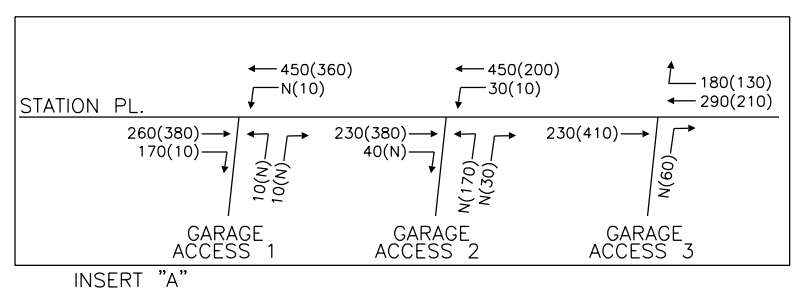
SHEET NO.
FIGURE 2

APPENDIX B

Figures



LEGEND:
AM (PM)



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STAMFORD
2018 EXISTING VOLUMES

STAMFORD
PARKING GARAGE

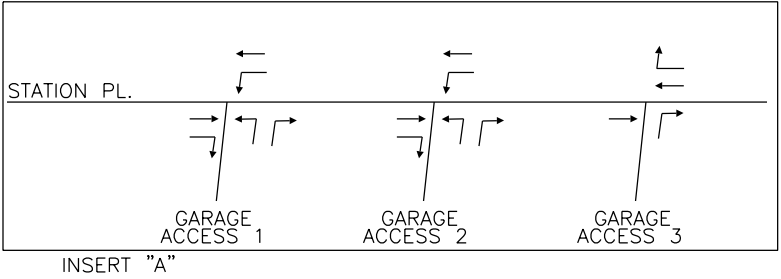
FIGURE
B-1

DATE: 4/18



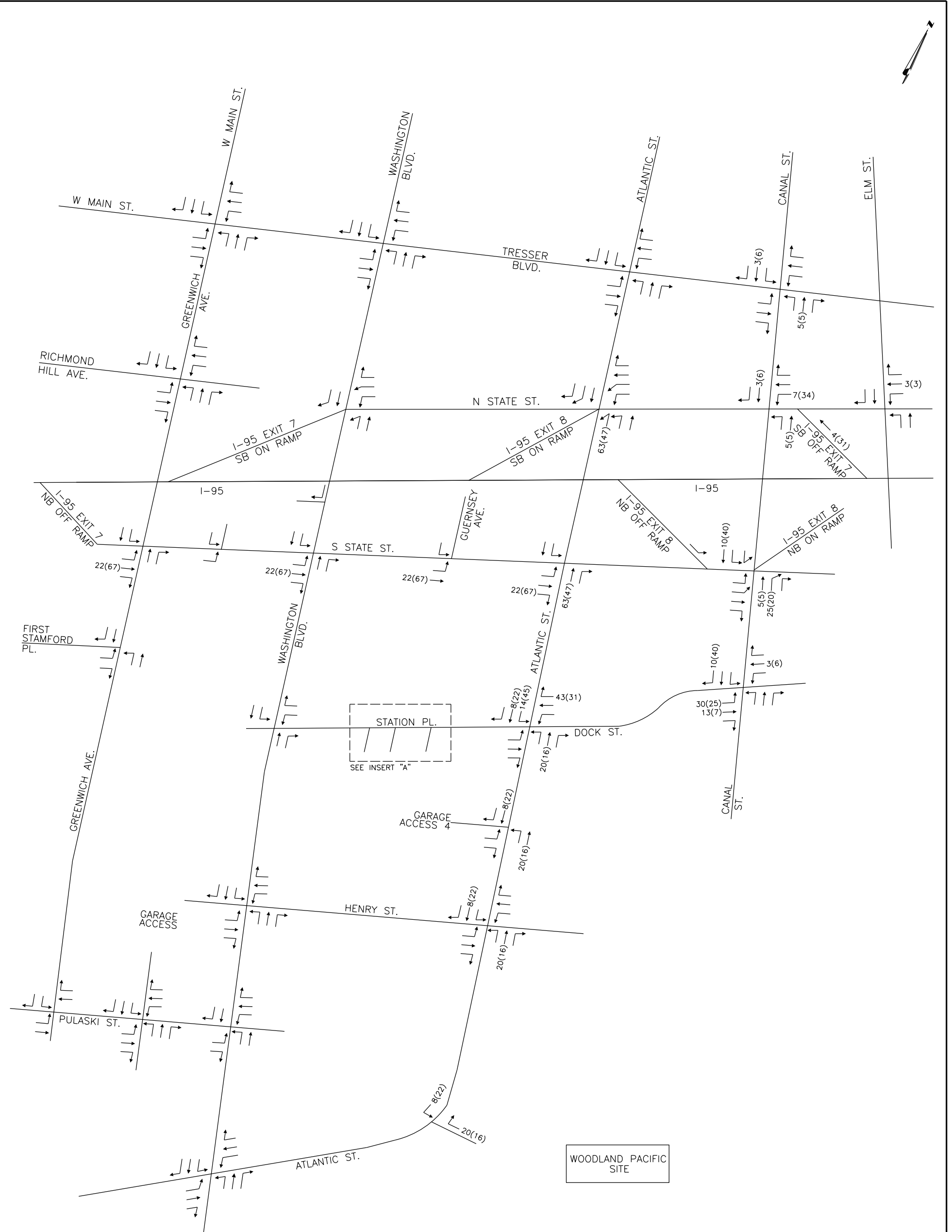
HARBOR POINT SITE

LEGEND:
 AM (PM)

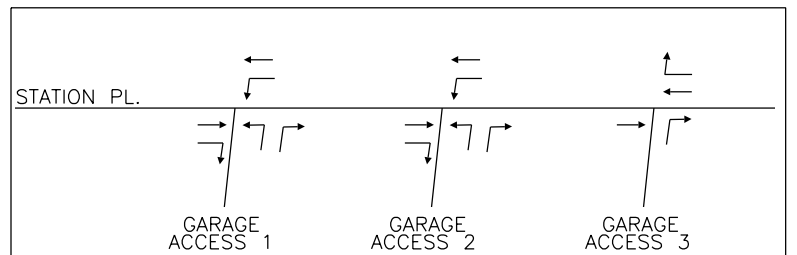


STAMFORD HARBOR POINT SITE TRIPS
 STAMFORD PARKING GARAGE

FIGURE
B-2
 DATE: 4/18



LEGEND:
 AM (PM)



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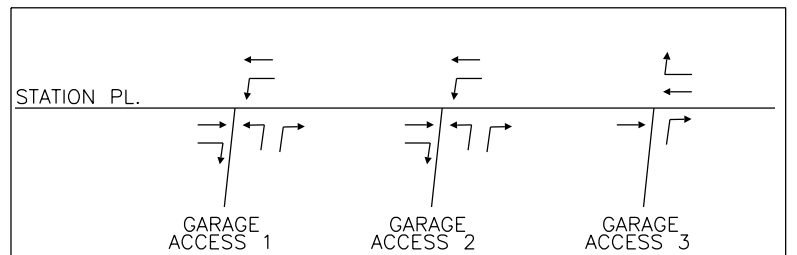
STAMFORD
 WOODLAND PACIFIC
 SITE TRIPS

STAMFORD
 PARKING GARAGE

FIGURE
B-3
 DATE: 4/18



LEGEND:
 AM (PM)



INSERT "A"

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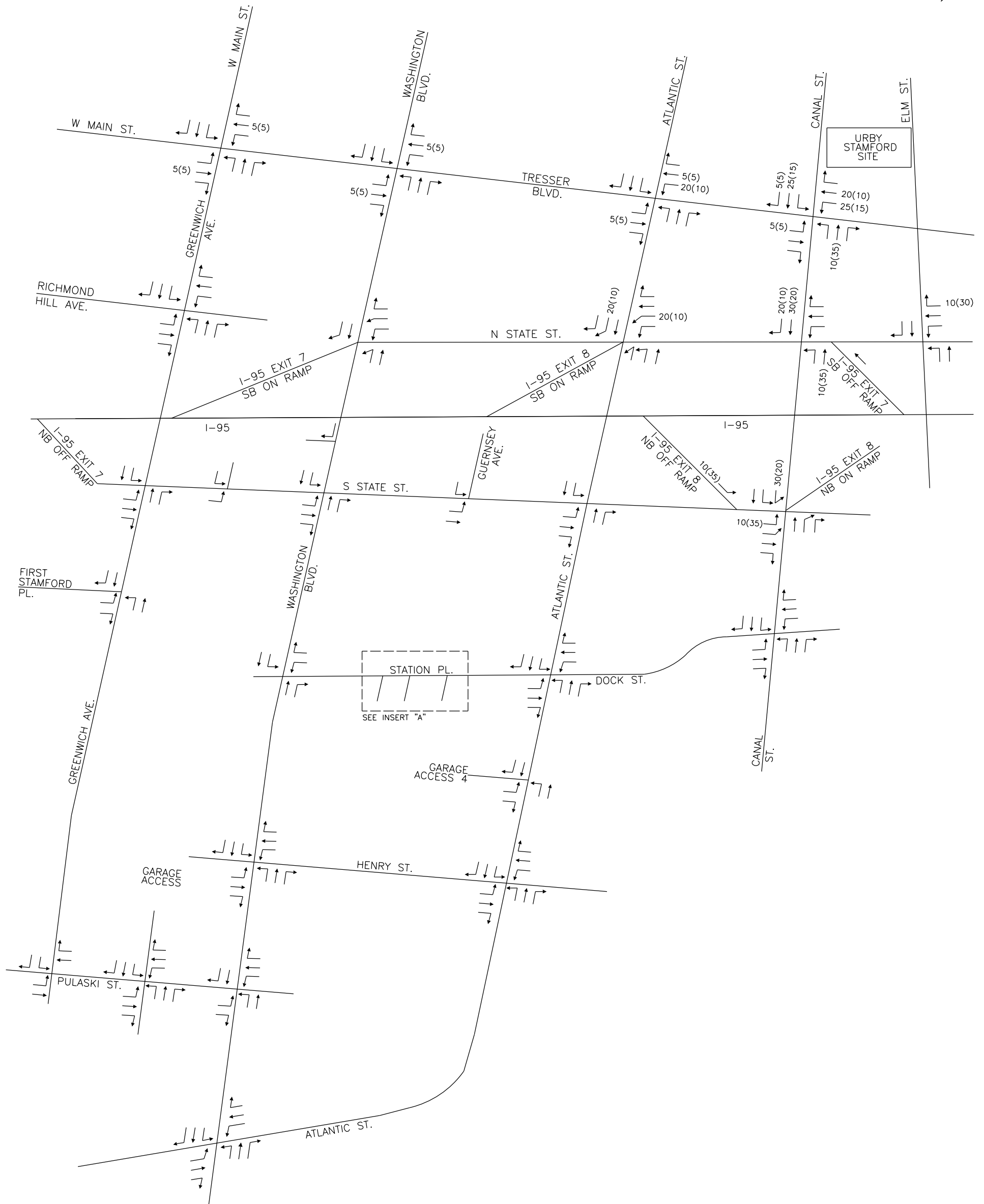
STAMFORD
 ATLANTIC STATION
 SITE TRIPS

STAMFORD
 PARKING GARAGE

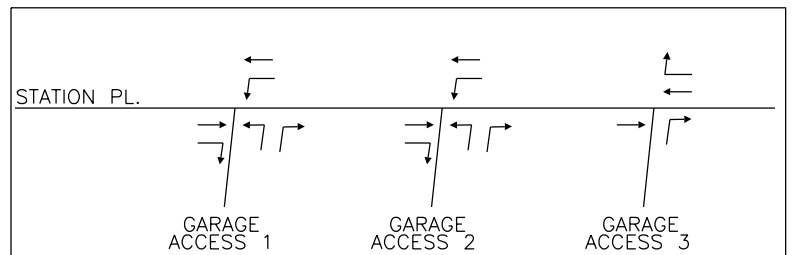
FIGURE

B-4

DATE: 4/18



LEGEND:
 AM (PM)



INSERT "A"

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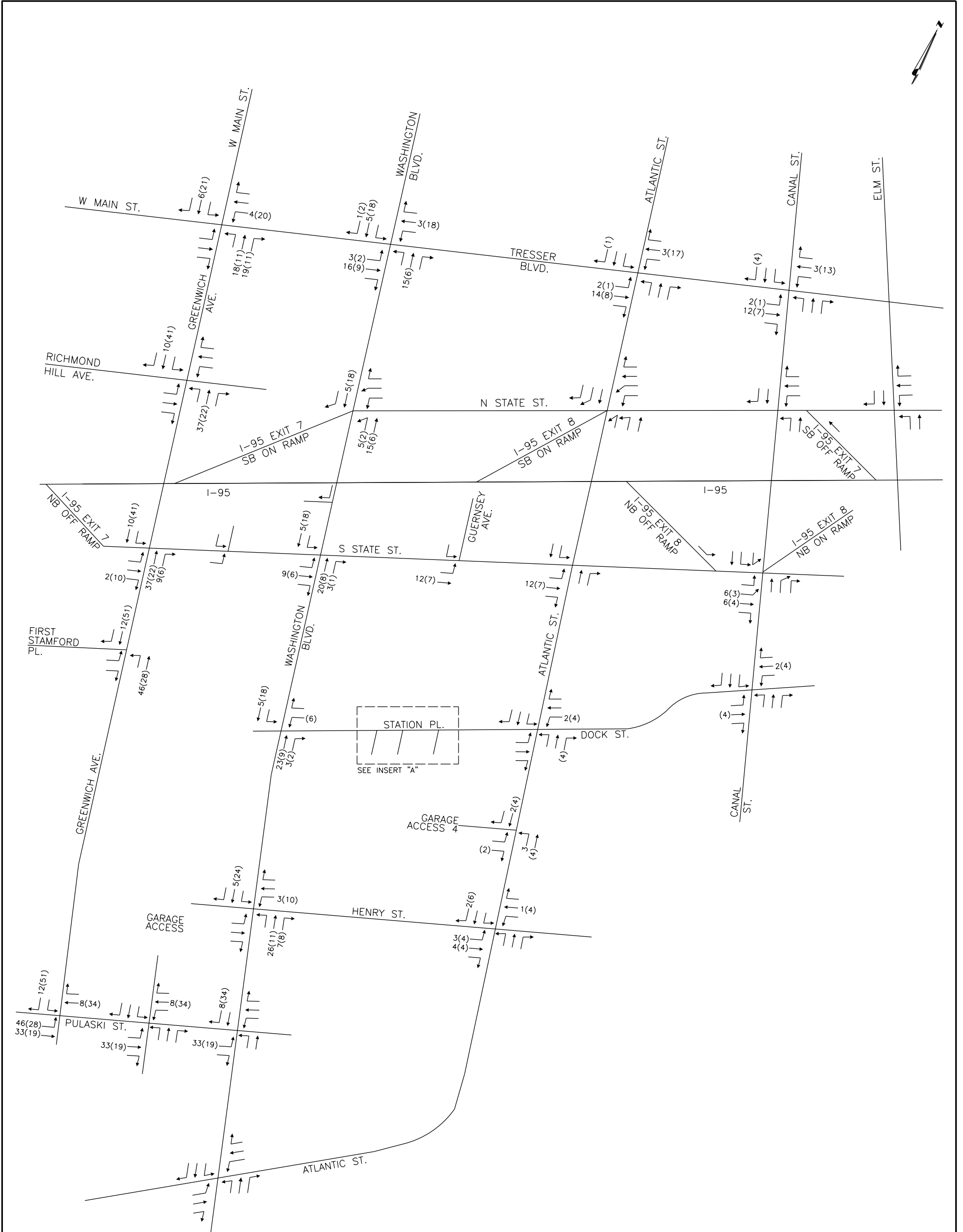
STAMFORD
 URBY STAMFORD
 SITE TRIPS

STAMFORD
 PARKING GARAGE

FIGURE

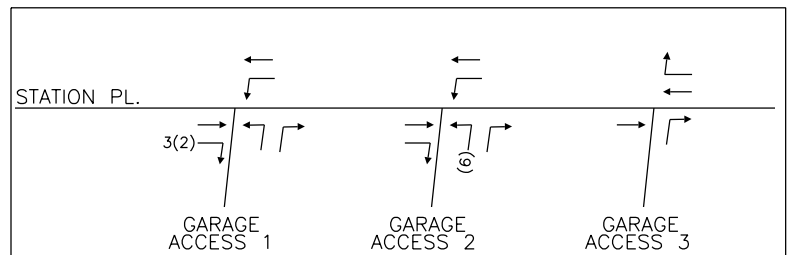
B-5

DATE: 4/18



DAVENPORT LANDING SITE

LEGEND:
AM (PM)



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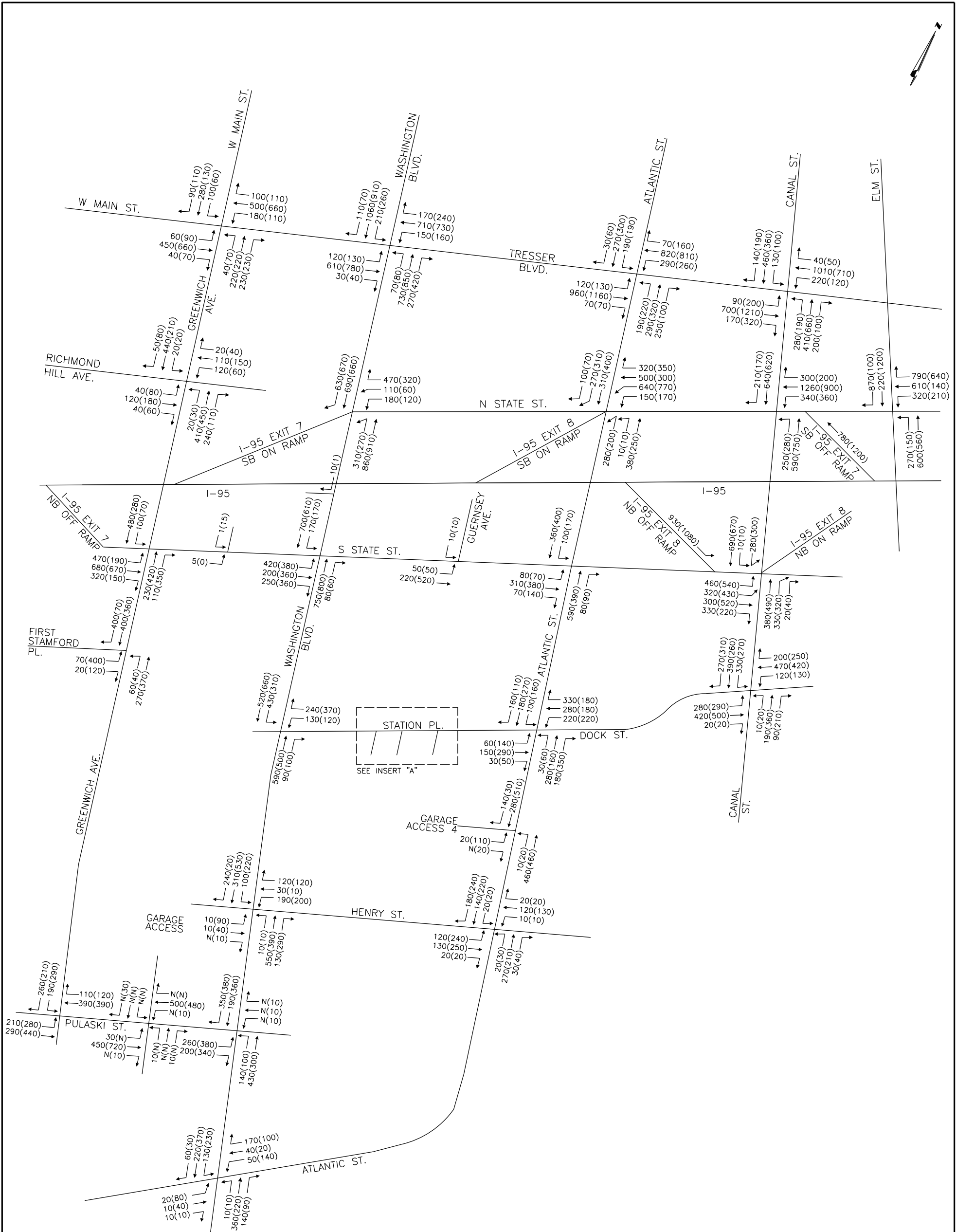
STAMFORD
 DAVENPORT LANDING
 SITE TRIPS

STAMFORD
 PARKING GARAGE

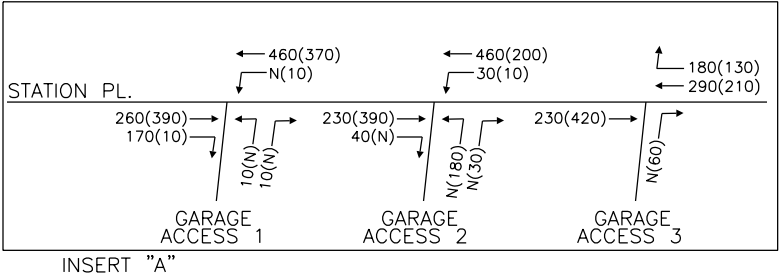
FIGURE

B-6

DATE: 4/18

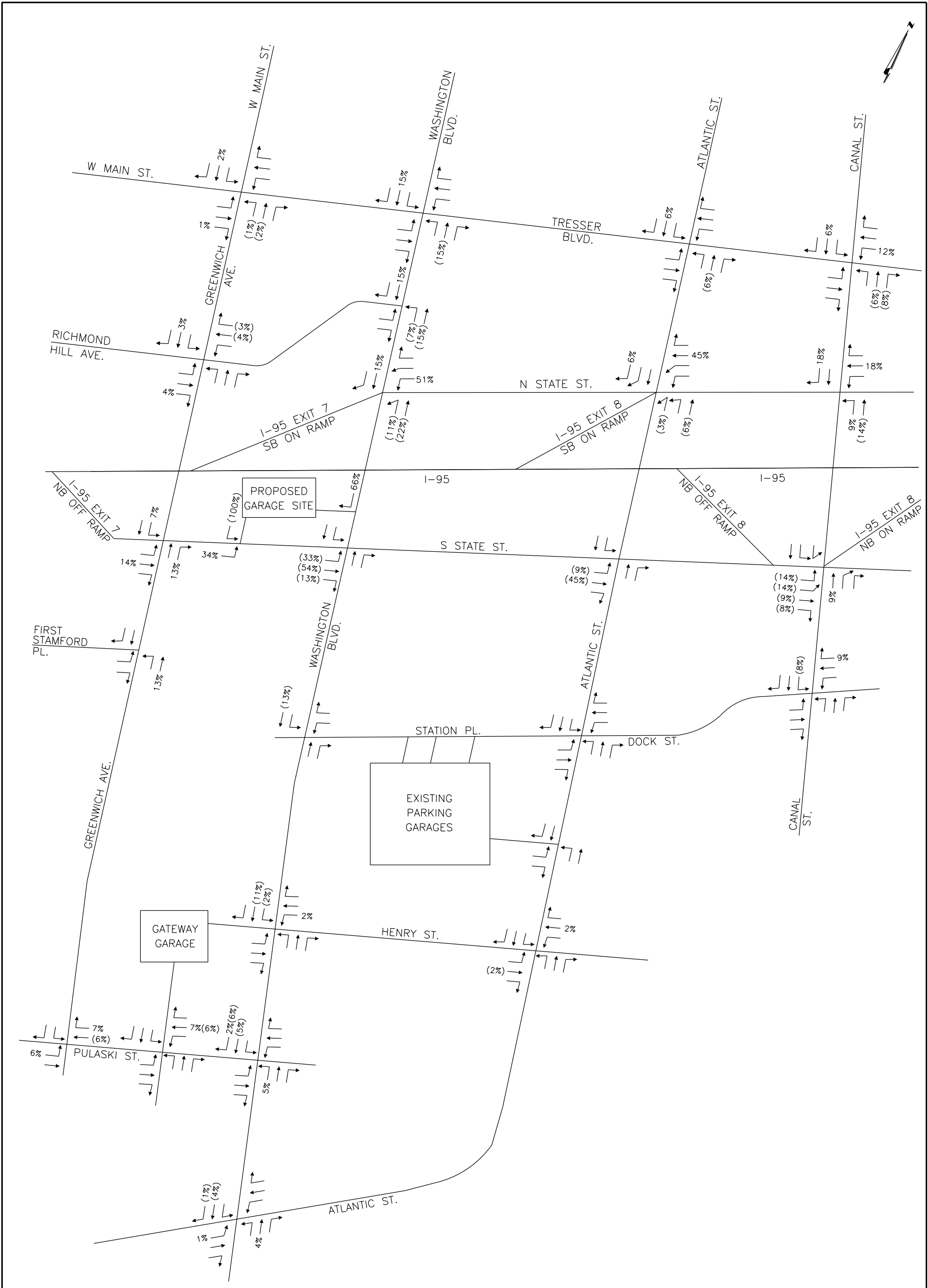


LEGEND:
AM (PM)



STAMFORD
2021 NO-ACTION VOLUMES
STAMFORD
PARKING GARAGE

FIGURE
B-7
DATE: 4/18



LEGEND:
ENTERING (EXITING)

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CHA

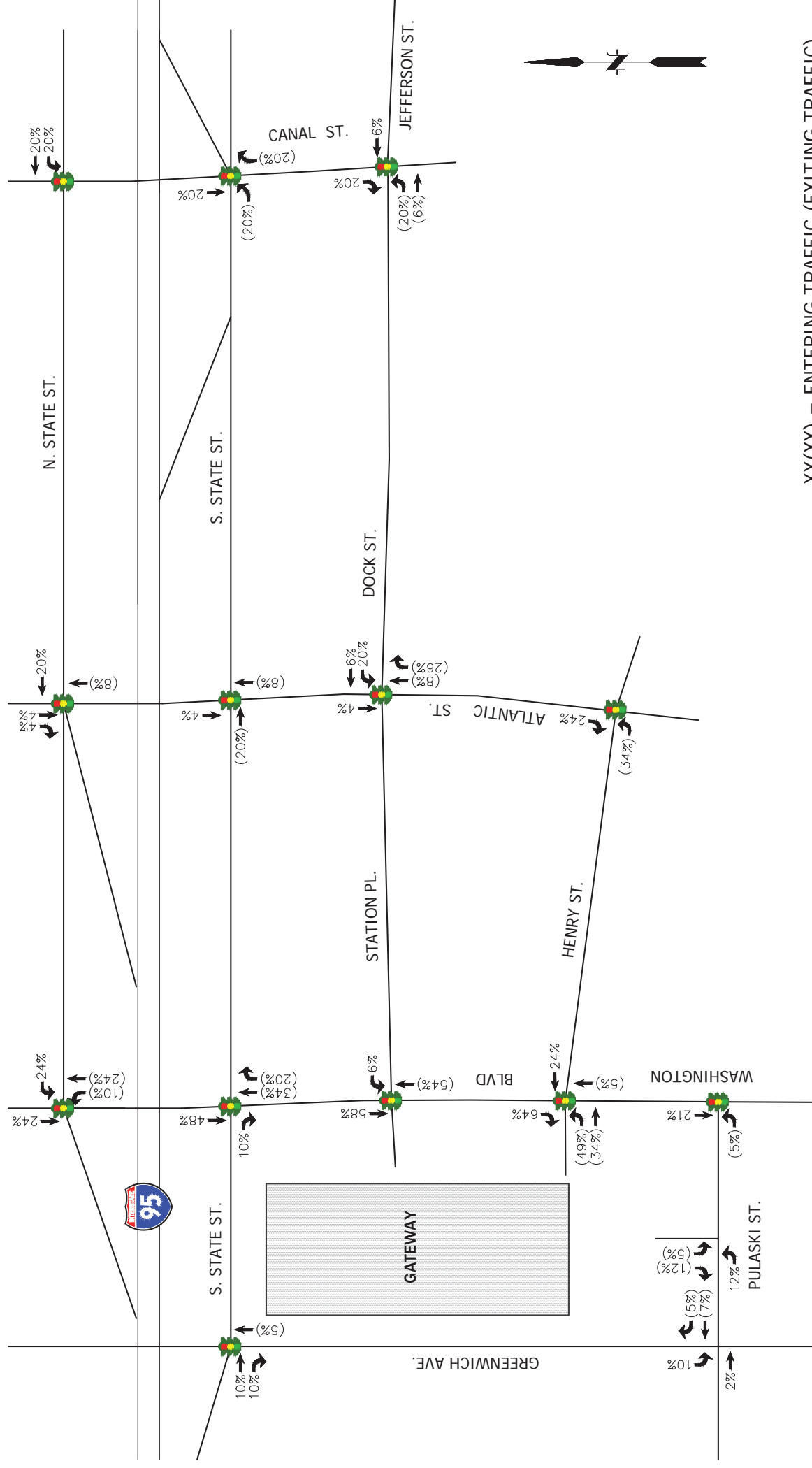
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STAMFORD
TRIP DISTRIBUTION

STAMFORD
PARKING GARAGE

FIGURE
B-8

DATE: 4/18

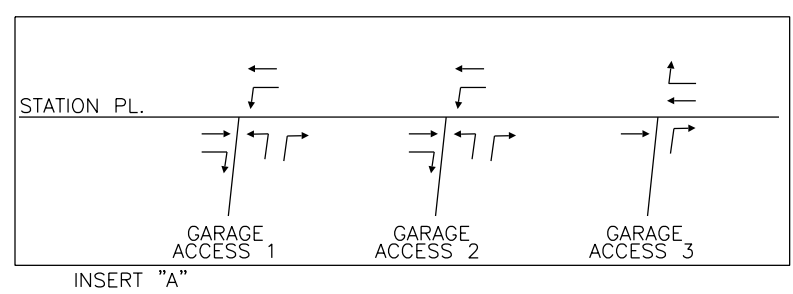


XX(XX) = ENTERING TRAFFIC (EXITING TRAFFIC)

Figure 9 - Stamford Parking Garage



LEGEND:
90 IN (7 OUT)

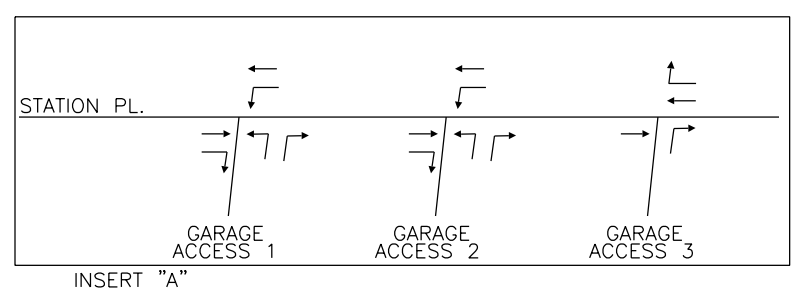


STAMFORD
NEW TRIPS FOR PROPOSED
STATE STREET GARAGE AM
STAMFORD
PARKING GARAGE

FIGURE
B-10
DATE: 4/18



LEGEND:
7 IN (90 OUT)

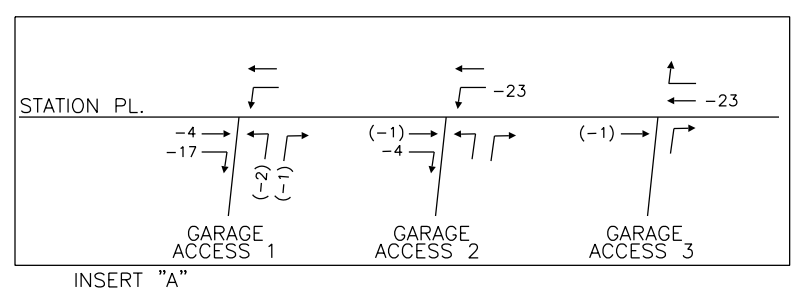


STAMFORD
NEW TRIPS FOR PROPOSED
STATE STREET GARAGE PM
STAMFORD
PARKING GARAGE

FIGURE
B-11
DATE: 4/18



LEGEND:
44 IN (3 OUT)



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STAMFORD
STATION PLACE ORIGINAL GARAGE
RELOCATED TRIPS AM

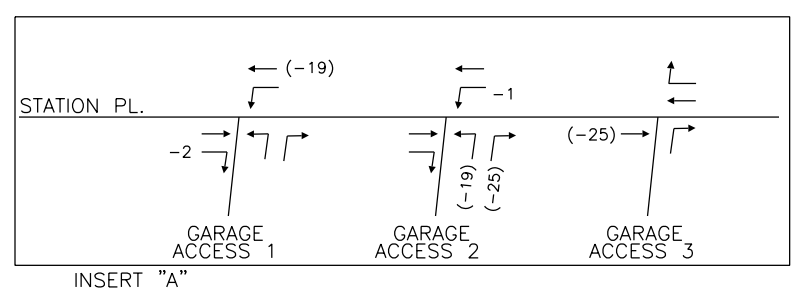
STAMFORD
PARKING GARAGE

FIGURE
B-12

DATE: 4/18



LEGEND:
3 IN (44 OUT)



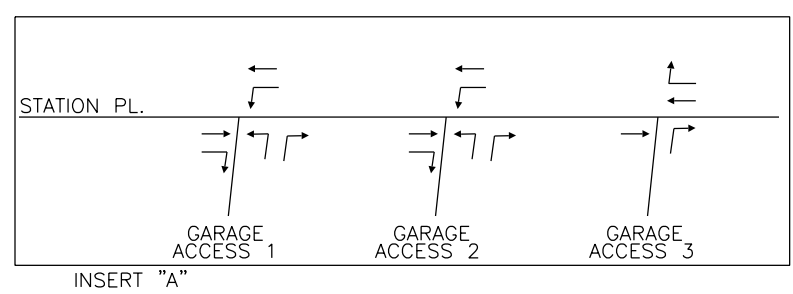
STAMFORD
STATION PLACE ORIGINAL GARAGE
RELOCATED TRIPS PM

STAMFORD
PARKING GARAGE

FIGURE
B-13
DATE: 4/18



LEGEND:
131 IN (9 OUT)



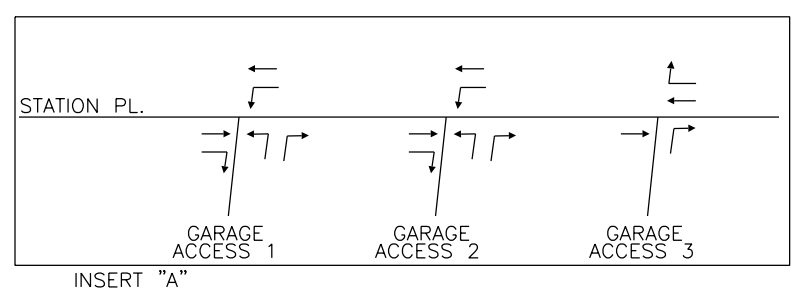
STAMFORD
GATEWAY GARAGE
RELOCATED TRIPS AM

STAMFORD
PARKING GARAGE

FIGURE
B-14
DATE: 4/18



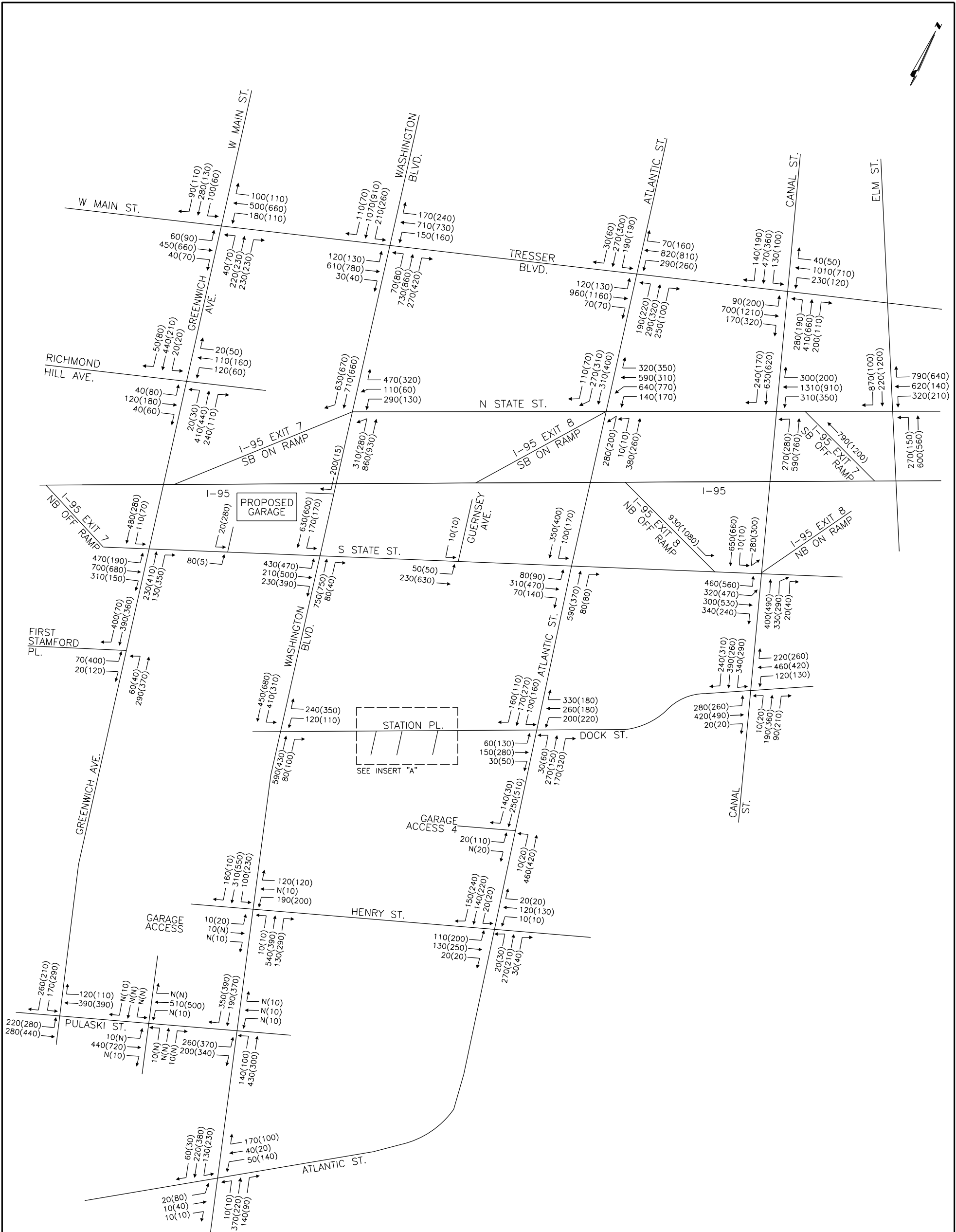
LEGEND:
9 IN (131 OUT)



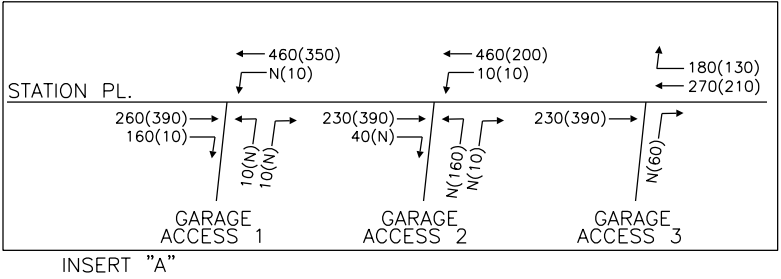
STAMFORD
GATEWAY GARAGE
RELOCATED TRIPS PM

STAMFORD
PARKING GARAGE

FIGURE
B-15
DATE: 4/18



LEGEND:
AM (PM)

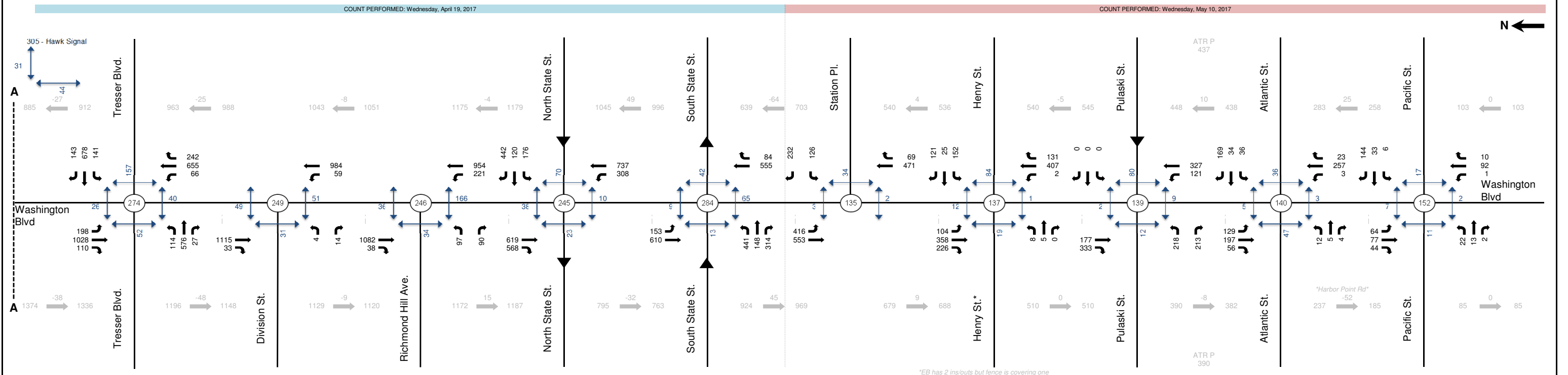
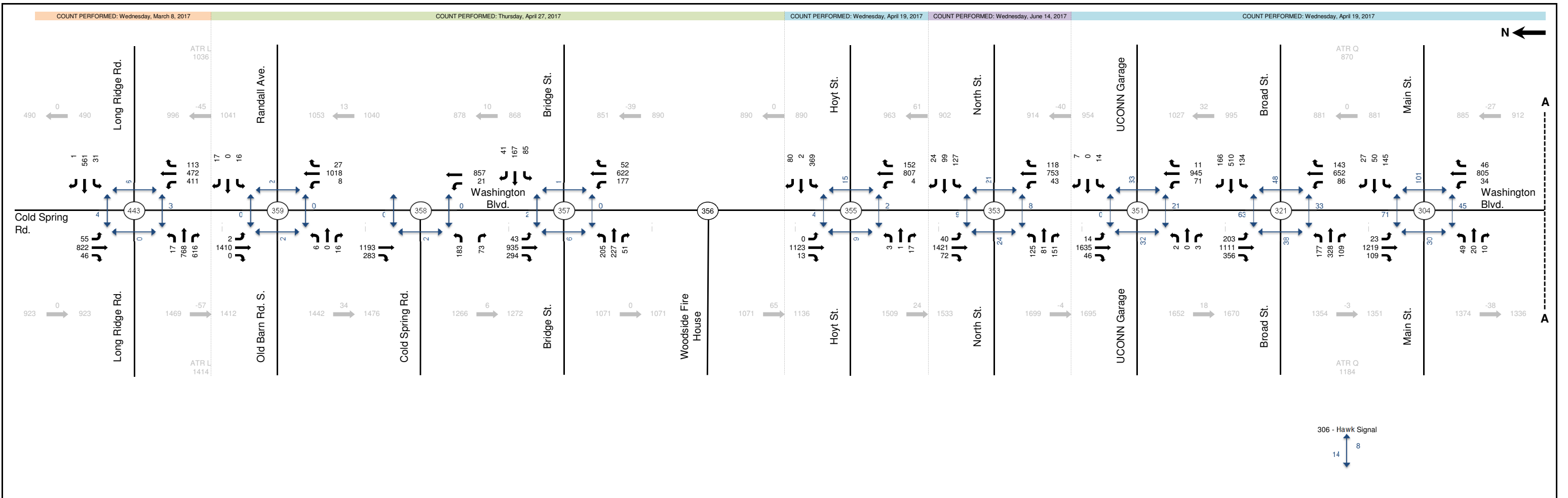


STAMFORD
2021 BUILD VOLUMES
STAMFORD
PARKING GARAGE

FIGURE
B-16
DATE: 4/18

APPENDIX C

Traffic Volume Data



Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- One-way street

Peak Hours:

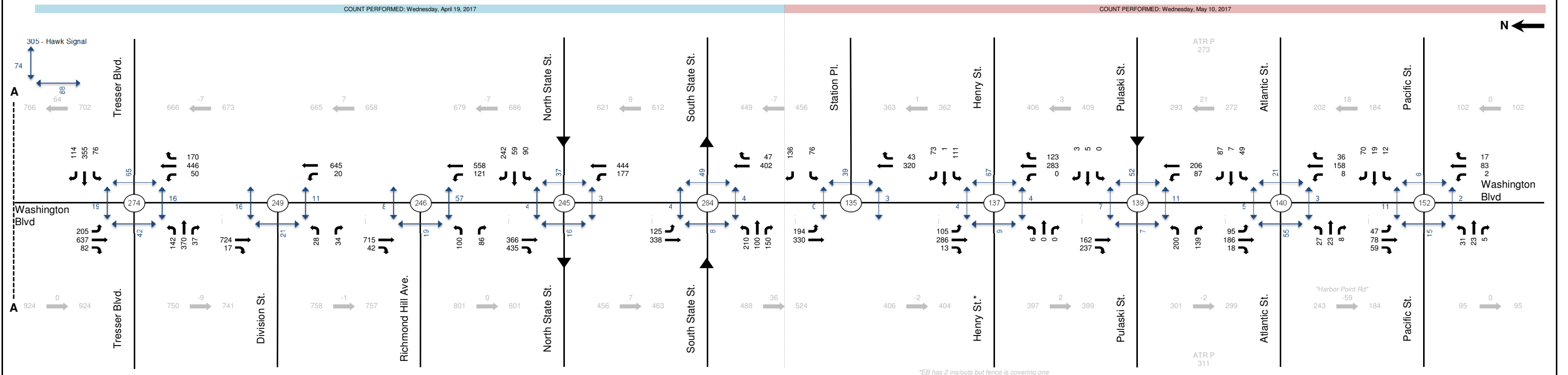
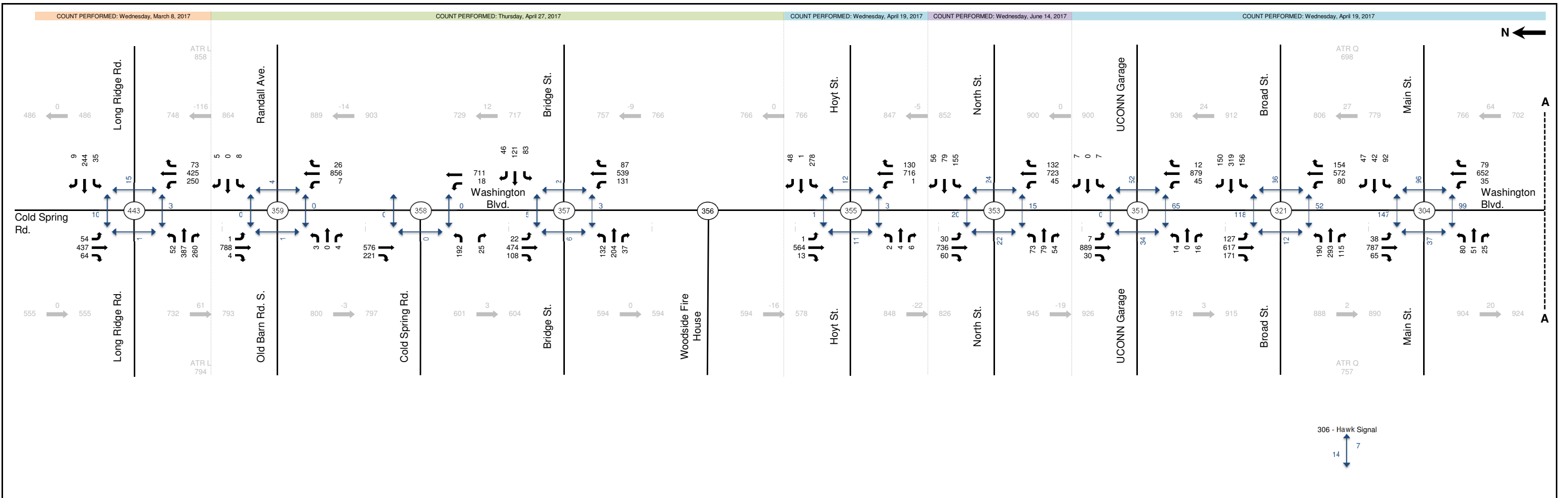
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	Count Performed: Wednesday, March 8, 2017	Peak Hour: 8:00 AM - 9:00 AM
	Count Performed: Thursday, April 27, 2017	Peak Hour: 8:00 AM - 9:00 AM
	Count Performed: Wednesday, May 10, 2017	Peak Hour: 7:15 AM - 8:15 AM
	Count Performed: Wednesday, June 14, 2017	Peak Hour: 7:45 AM - 8:45 AM

*EB has 2 ins/outs but fence is covering one

Stamford Traffic Signal Optimization - Data Collection
 Route 1: Washington Blvd
 AM Peak Hour Volumes - Raw



Not to Scale



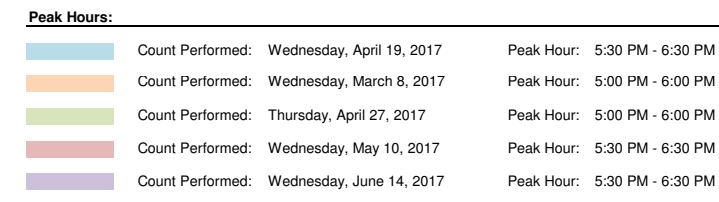
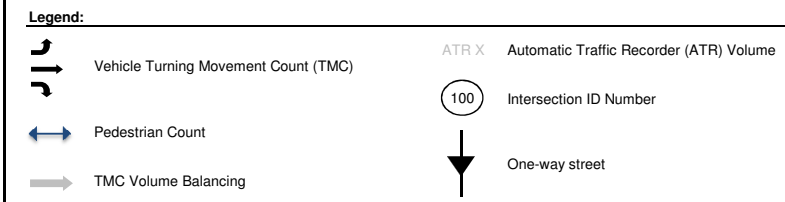
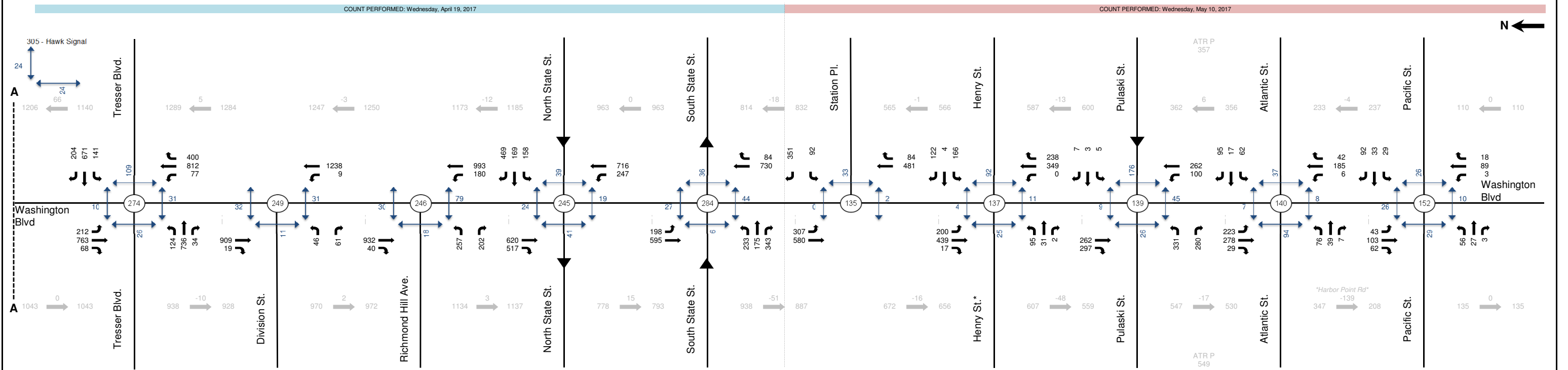
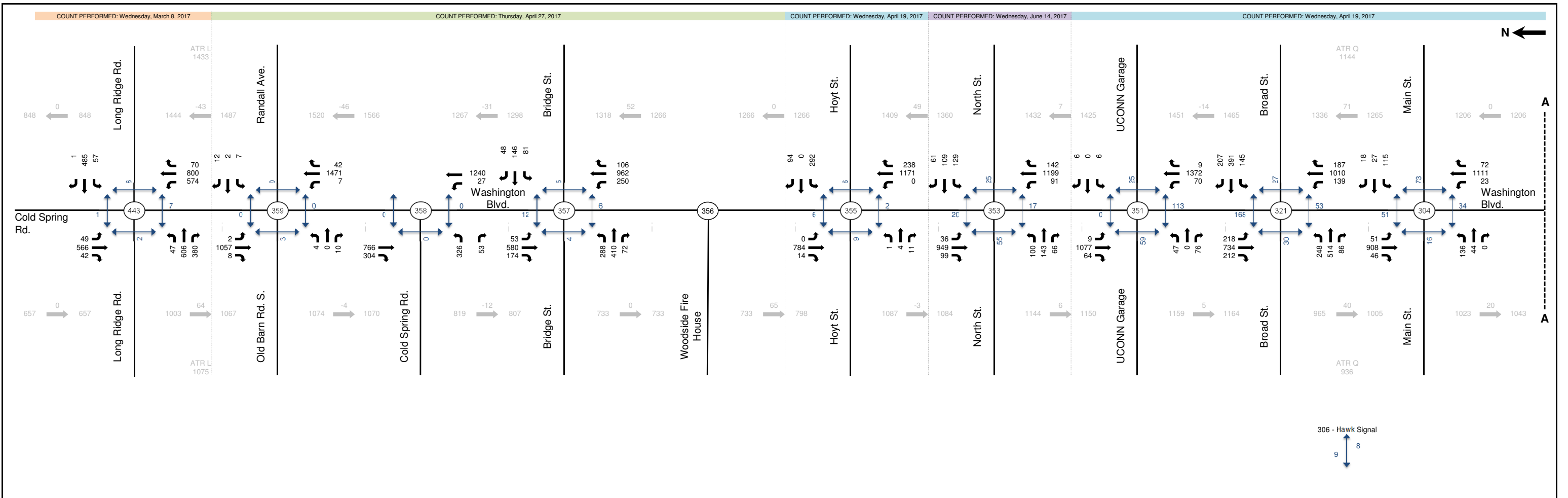
- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - Intersection ID Number
 - One-way street

- Peak Hours:**
- Count Performed: Wednesday, April 19, 2017 Peak Hour: 11:45 AM - 12:45 PM
 - Count Performed: Wednesday, March 8, 2017 Peak Hour: 12:00 PM - 1:00 PM
 - Count Performed: Thursday, April 27, 2017 Peak Hour: 12:00 PM - 1:00 PM
 - Count Performed: Wednesday, May 10, 2017 Peak Hour: 12:15 PM - 1:15 PM
 - Count Performed: Wednesday, June 14, 2017 Peak Hour: 11:45 AM - 12:45 PM

Stamford Traffic Signal Optimization - Data Collection
 Route 1: Washington Blvd
 MID Peak Hour Volumes - Raw



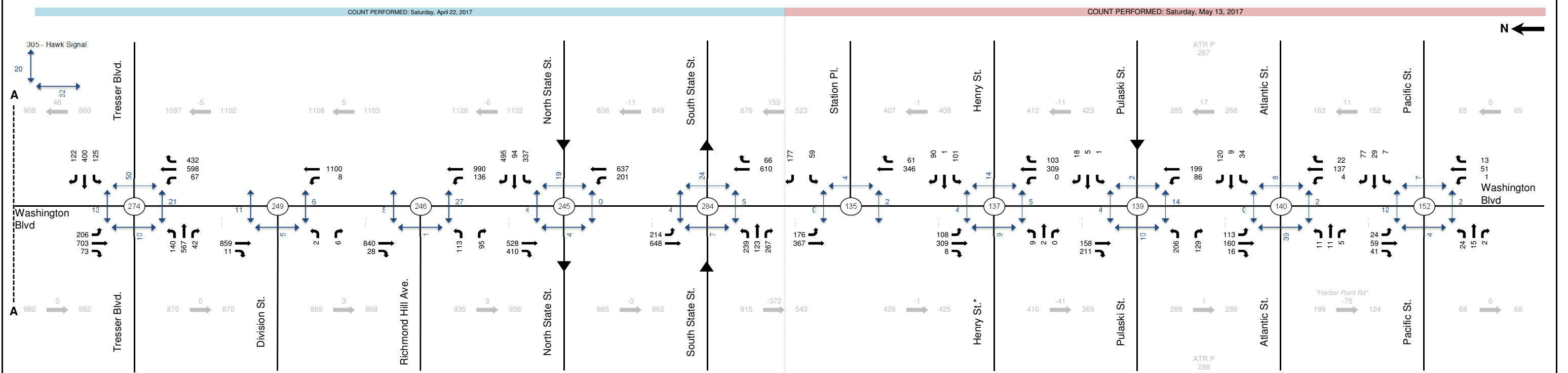
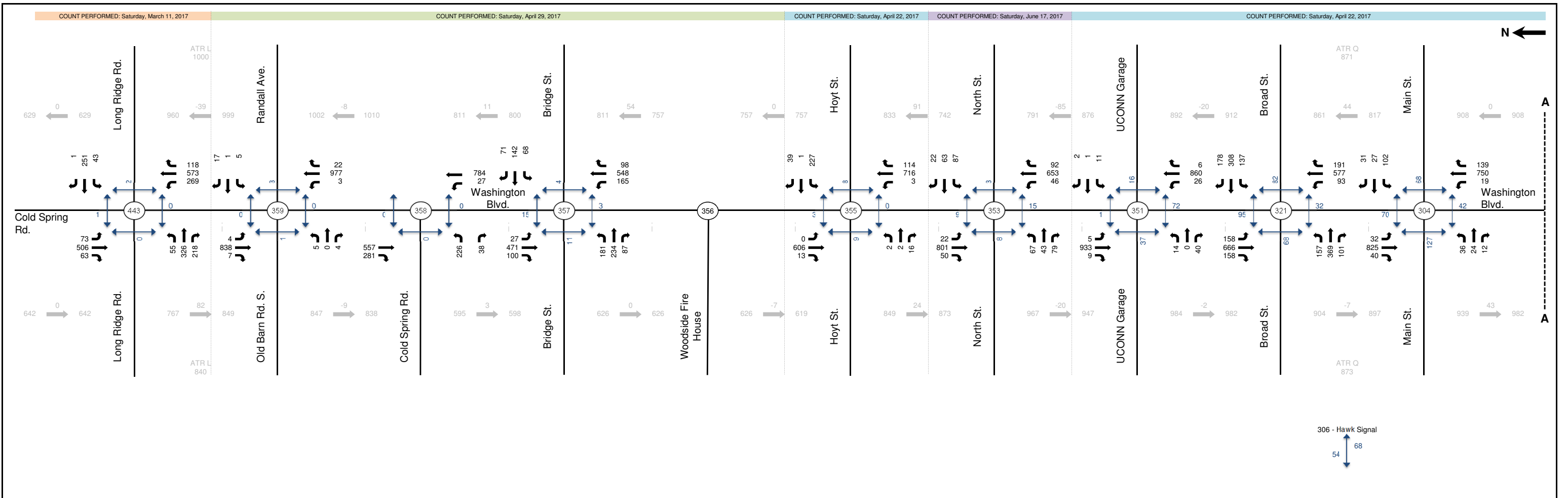
Not to Scale



Stamford Traffic Signal Optimization - Data Collection
 Route 1: Washington Blvd
 PM Peak Hour Volumes - Raw

Not to Scale





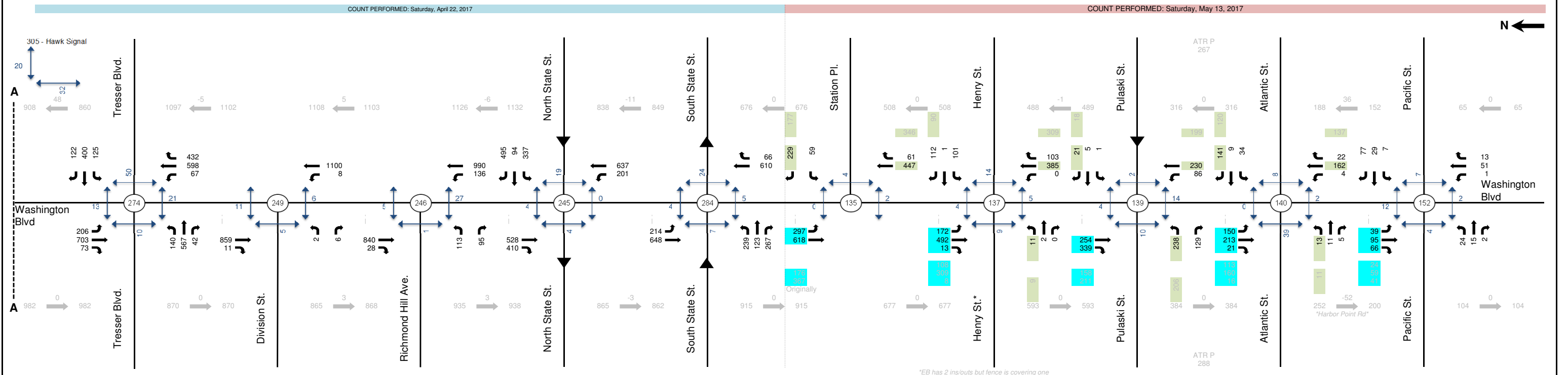
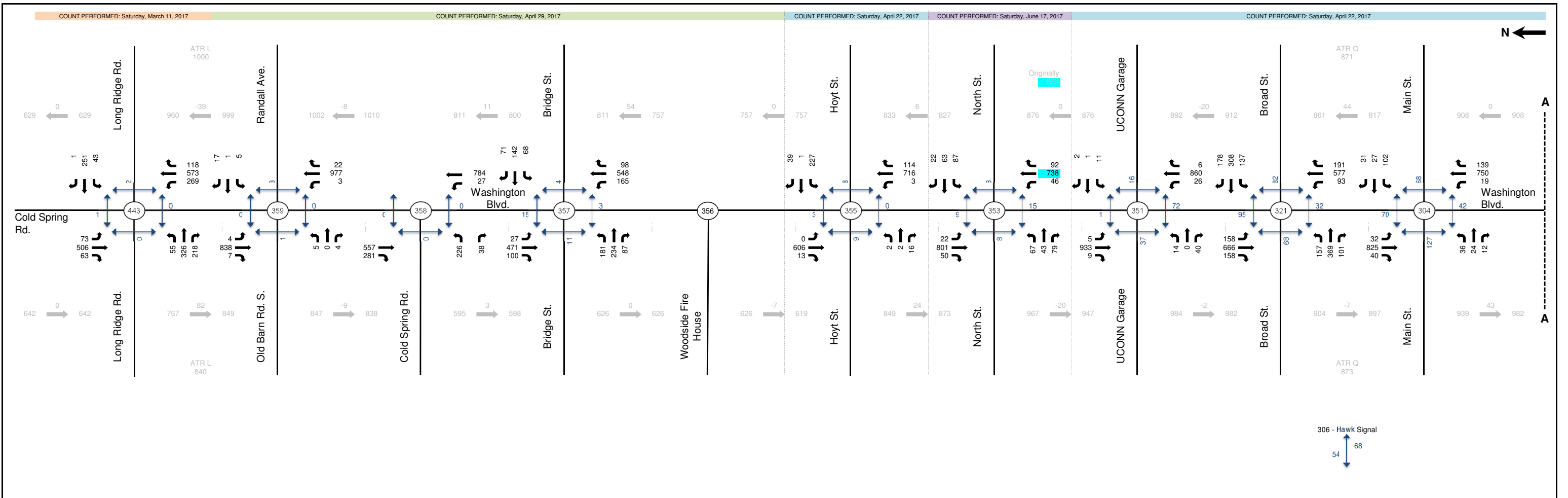
- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - Intersection ID Number
 - One-way street

- Peak Hours:**
- Count Performed: Saturday, April 22, 2017 Peak Hour: 12:00 PM - 1:00 PM
 - Count Performed: Saturday, March 11, 2017 Peak Hour: 11:45 AM - 12:45 PM
 - Count Performed: Saturday, April 29, 2017 Peak Hour: 11:45 AM - 12:45 PM
 - Count Performed: Saturday, May 13, 2017 Peak Hour: 12:15 PM - 1:15 PM
 - Count Performed: Saturday, June 17, 2017 Peak Hour: 12:00 PM - 1:00 PM

Stamford Traffic Signal Optimization - Data Collection
 Route 1: Washington Blvd
 SAT Peak Hour Volumes - Raw



Not to Scale



Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- One-way street

Peak Hours:

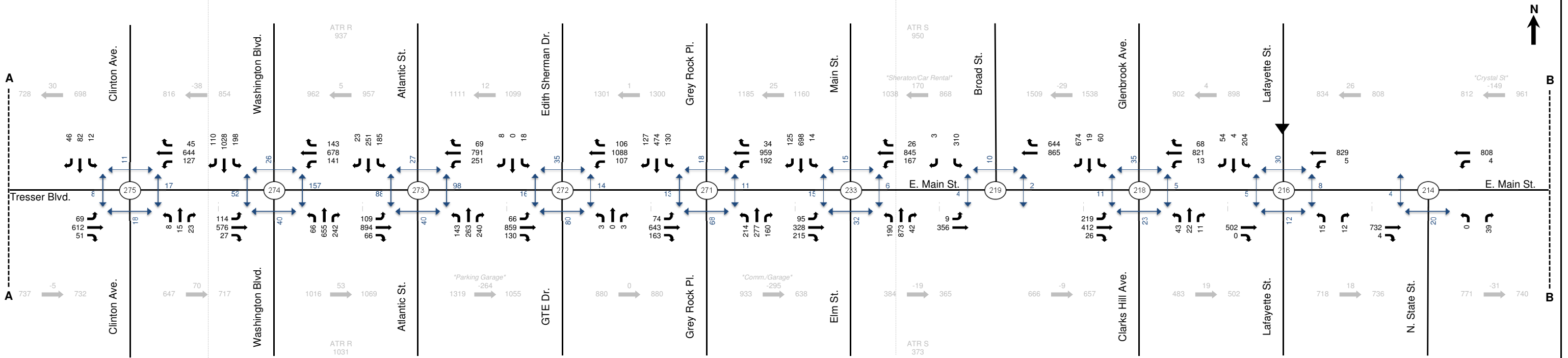
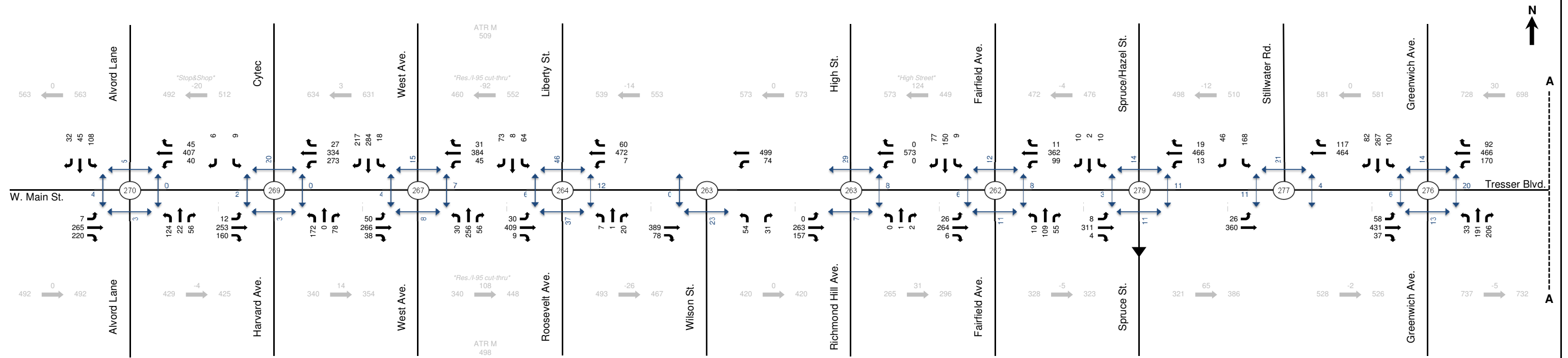
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	Count Performed: Saturday, March 11, 2017	Peak Hour: 11:45 AM - 12:45 PM
	Count Performed: Saturday, April 29, 2017	Peak Hour: 11:45 AM - 12:45 PM
	Count Performed: Saturday, May 13, 2017	Peak Hour: 12:15 PM - 1:15 PM
	Count Performed: Saturday, June 17, 2017	Peak Hour: 12:00 PM - 1:00 PM

Note: Raining on 5/13/2017

Stamford Traffic Signal Optimization - Data Collection
 Route 1: Washington Blvd
 SAT Peak Hour Volumes - Balanced



Not to Scale



Legend:

- Vehicle Turning Movement Count (TMC)
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- Pedestrian Count
- TMC Volume Balancing
- One-way street

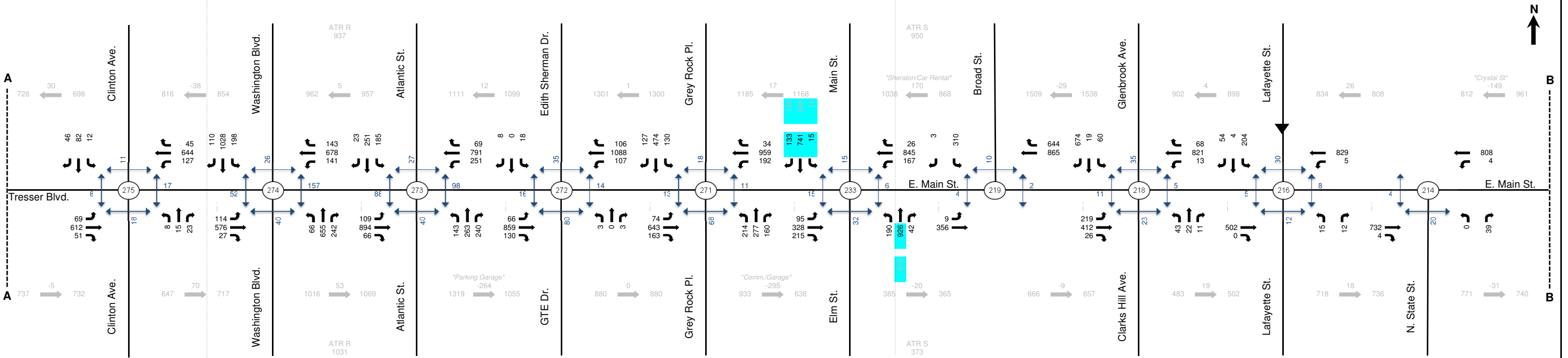
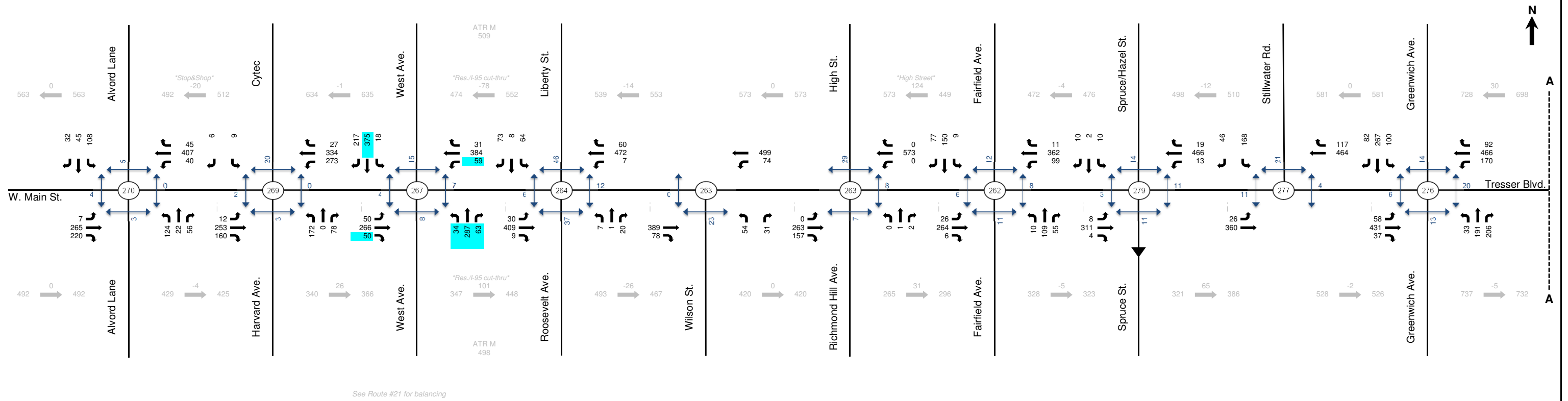
Peak Hours:

Count Performed:	Peak Hour:	Lift
Wednesday, April 19, 2017	7:45 AM - 8:45 AM	Lift 5
Thursday, April 27, 2017	7:45 AM - 8:45 AM	Lift 6
Wednesday, June 14, 2017	8:15 AM - 9:15 AM	Lift 7

Not to Scale

Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 AM Peak Hour Volumes - Raw





Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- One-way street

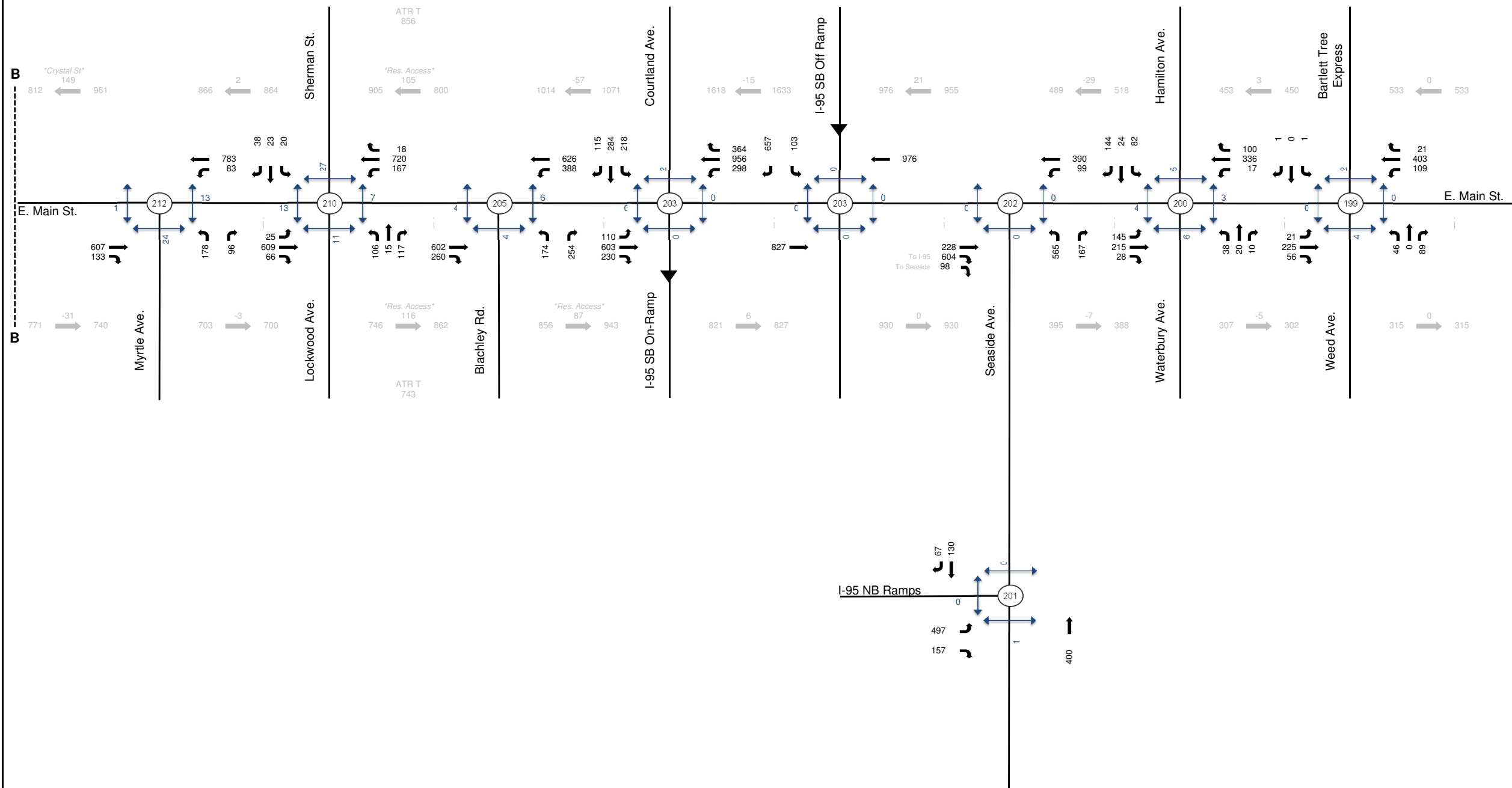
Peak Hours:

Count Performed	Peak Hour	Lift
Wednesday, April 19, 2017	7:45 AM - 8:45 AM	Lift 5
Thursday, April 27, 2017	7:45 AM - 8:45 AM	Lift 6
Wednesday, June 14, 2017	8:15 AM - 9:15 AM	Lift 7

Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 AM Peak Hour Volumes - Balanced



Not to Scale



Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- One-way street

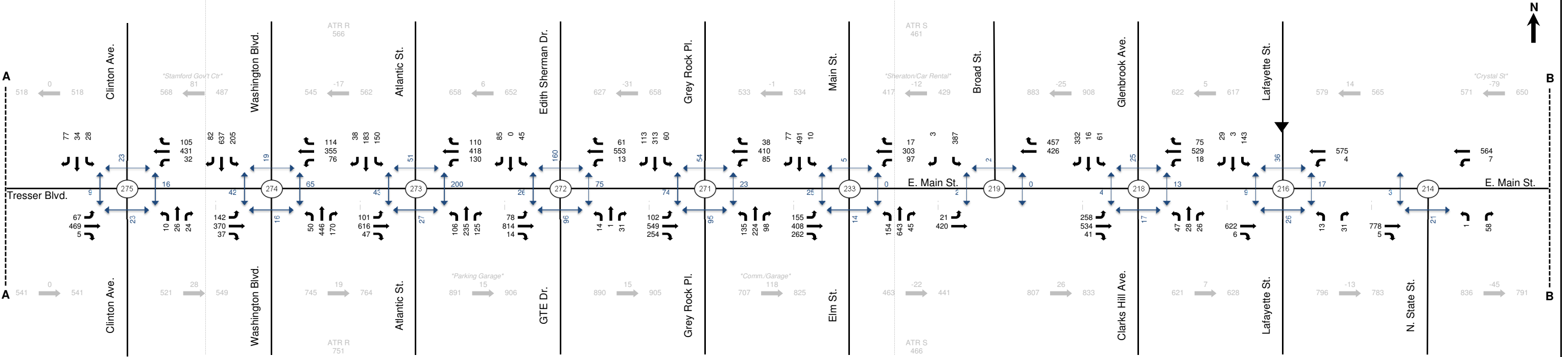
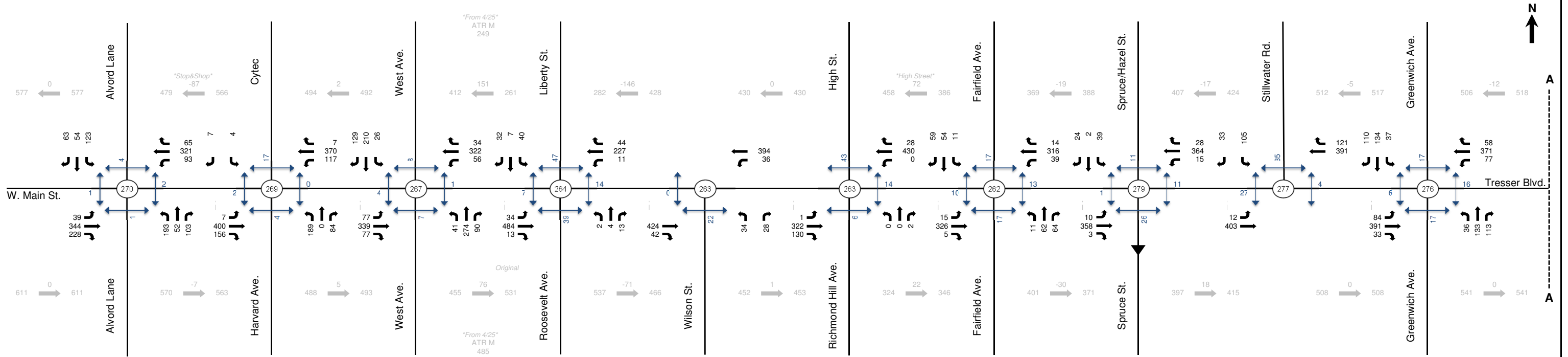
Peak Hours:

Count Performed: Wednesday, June 14, 2017 Peak Hour: 8:15 AM - 9:15 AM Lift 7



Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 AM Peak Hour Volumes - Raw

Not to Scale



Legend:

- Vehicle Turning Movement Count (TMC)
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- Pedestrian Count
- TMC Volume Balancing
- One-way street

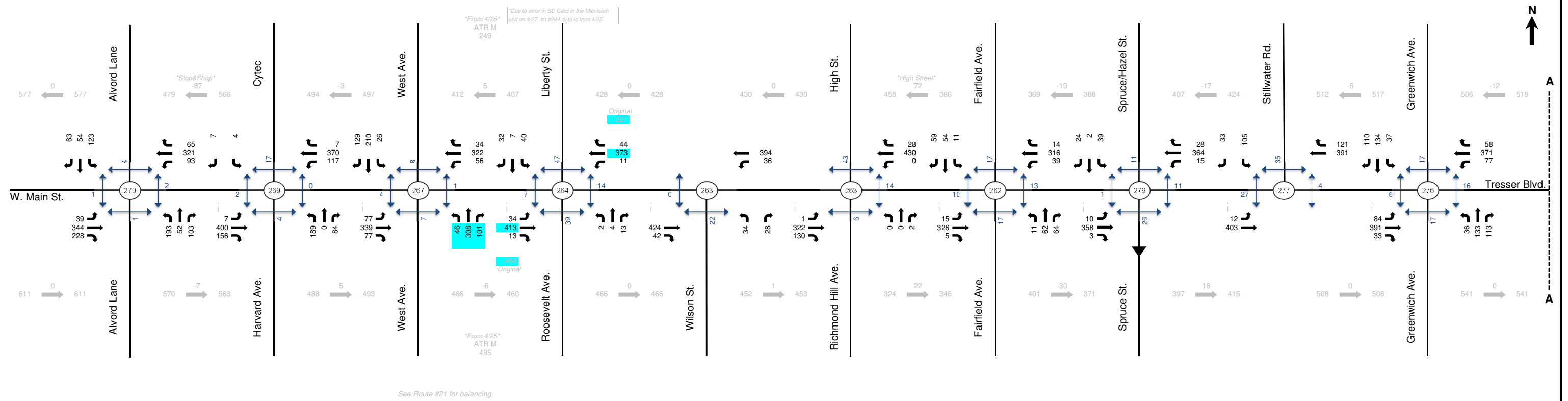
Peak Hours:

	Count Performed: Wednesday, April 19, 2017	Peak Hour: 11:45 AM - 12:45 PM	Lift 5
	Count Performed: Thursday, April 27, 2017	Peak Hour: 12:15 PM - 1:15 PM	Lift 6
	Count Performed: Wednesday, June 14, 2017	Peak Hour: 12:30 PM - 1:30 PM	Lift 7

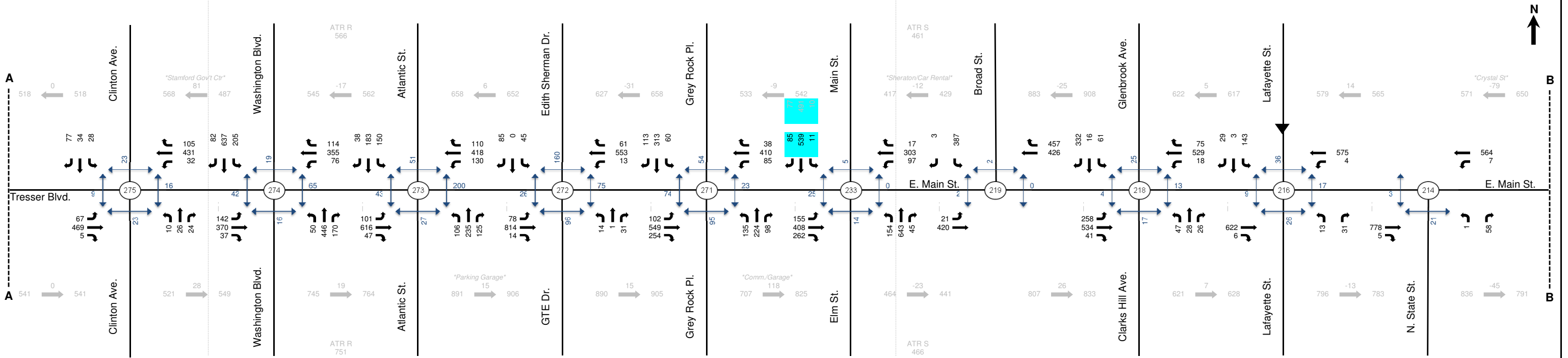
Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 MID Peak Hour Volumes - Raw



Not to Scale



See Route #21 for balancing



- Legend:**
- Vehicle Turning Movement Count (TMC)
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - Pedestrian Count
 - TMC Volume Balancing
 - Intersection ID Number
 - One-way street

- Peak Hours:**
- | | | | |
|--|--|--------------------------------|--------|
| | Count Performed: Wednesday, April 19, 2017 | Peak Hour: 11:45 AM - 12:45 PM | Lift 5 |
| | Count Performed: Thursday, April 27, 2017 | Peak Hour: 12:15 PM - 1:15 PM | Lift 6 |
| | Count Performed: Wednesday, June 14, 2017 | Peak Hour: 12:30 PM - 1:30 PM | Lift 7 |

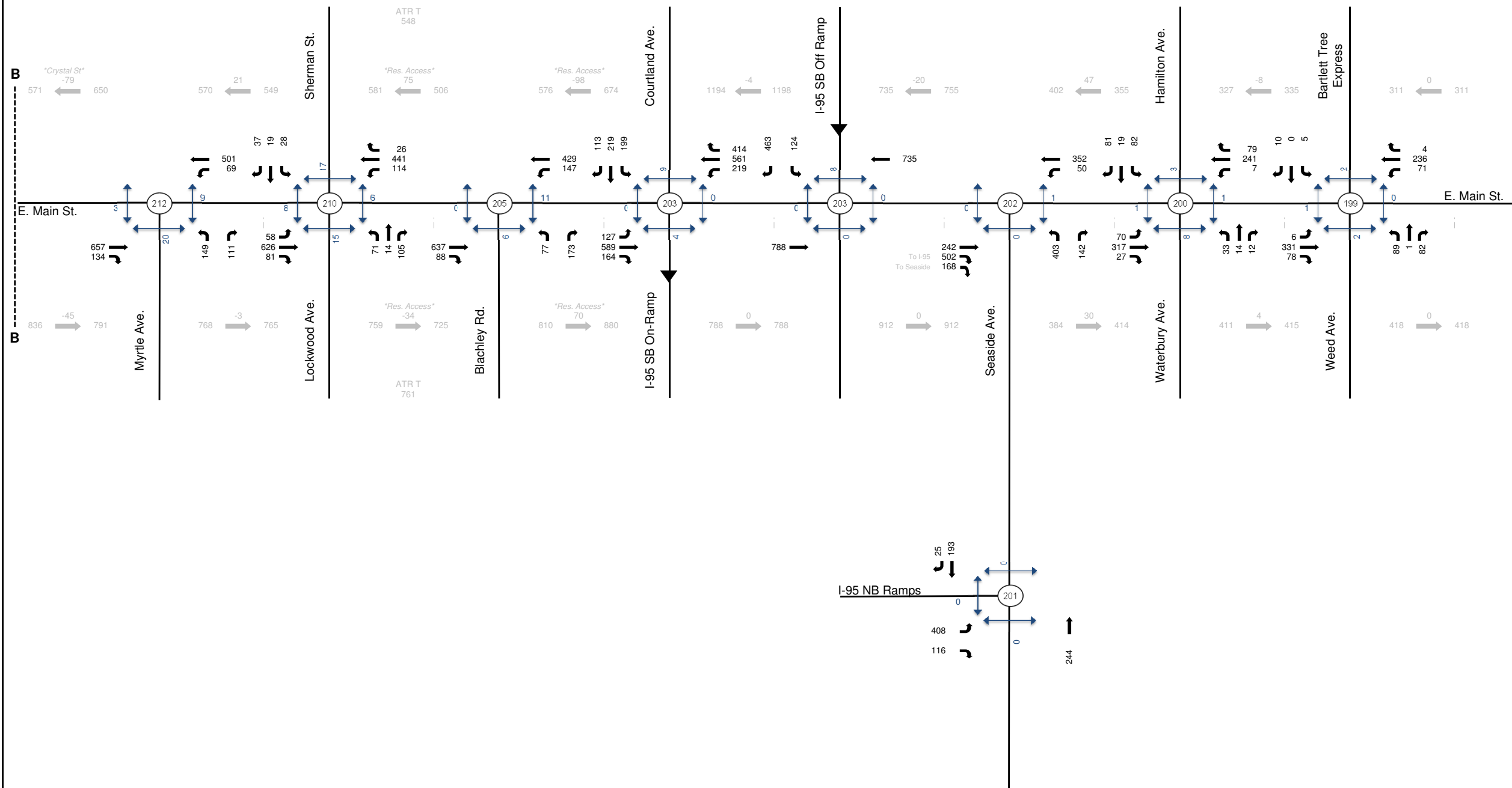
Stamford Traffic Signal Optimization - Data Collection

Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)

MID Peak Hour Volumes - Balanced

Not to Scale





Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- One-way street

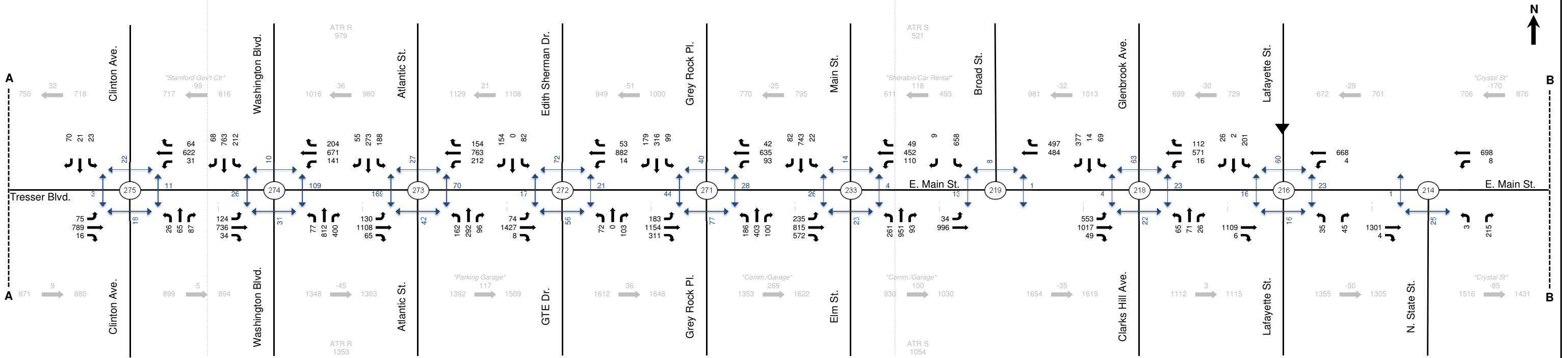
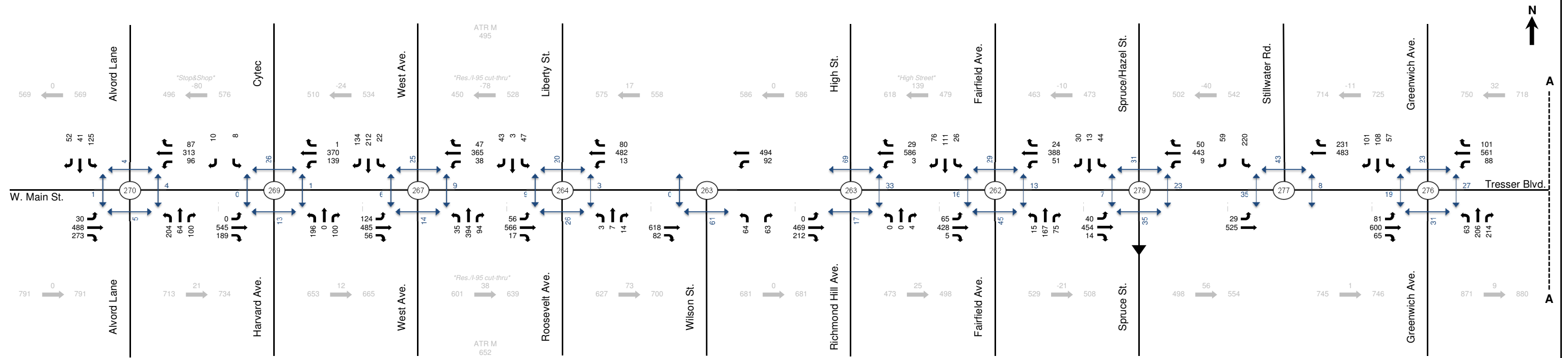
Peak Hours:

Count Performed: Wednesday, June 14, 2017 Peak Hour: 12:30 PM - 1:30 PM Lift 7



Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 MID Peak Hour Volumes - Raw

Not to Scale



Legend:

- Vehicle Turning Movement Count (TMC)
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- Pedestrian Count
- TMC Volume Balancing
- One-way street

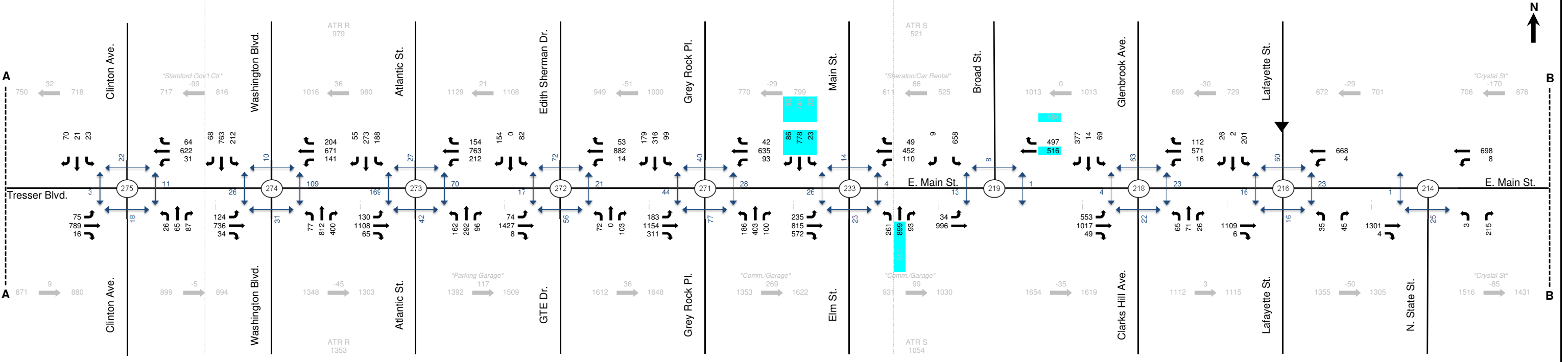
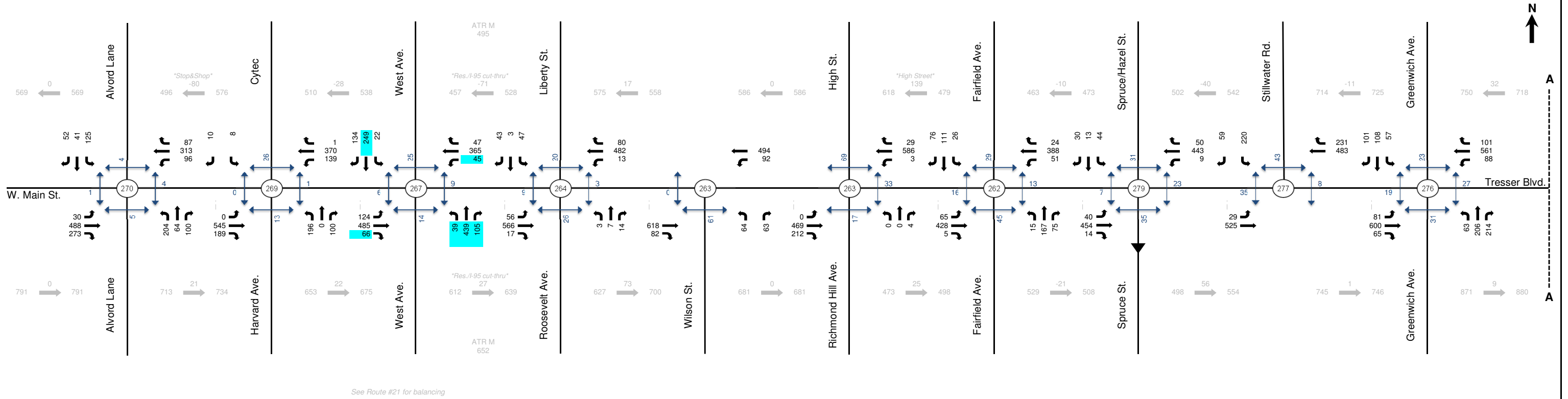
Peak Hours:

	Count Performed: Wednesday, April 19, 2017	Peak Hour: 5:30 PM - 6:30 PM	Lift 5
	Count Performed: Thursday, April 27, 2017	Peak Hour: 5:30 PM - 6:30 PM	Lift 6
	Count Performed: Wednesday, June 14, 2017	Peak Hour: 5:00 PM - 6:00 PM	Lift 7

Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 PM Peak Hour Volumes - Raw



Not to Scale



Legend:

- Vehicle Turning Movement Count (TMC)
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- Pedestrian Count
- TMC Volume Balancing
- One-way street

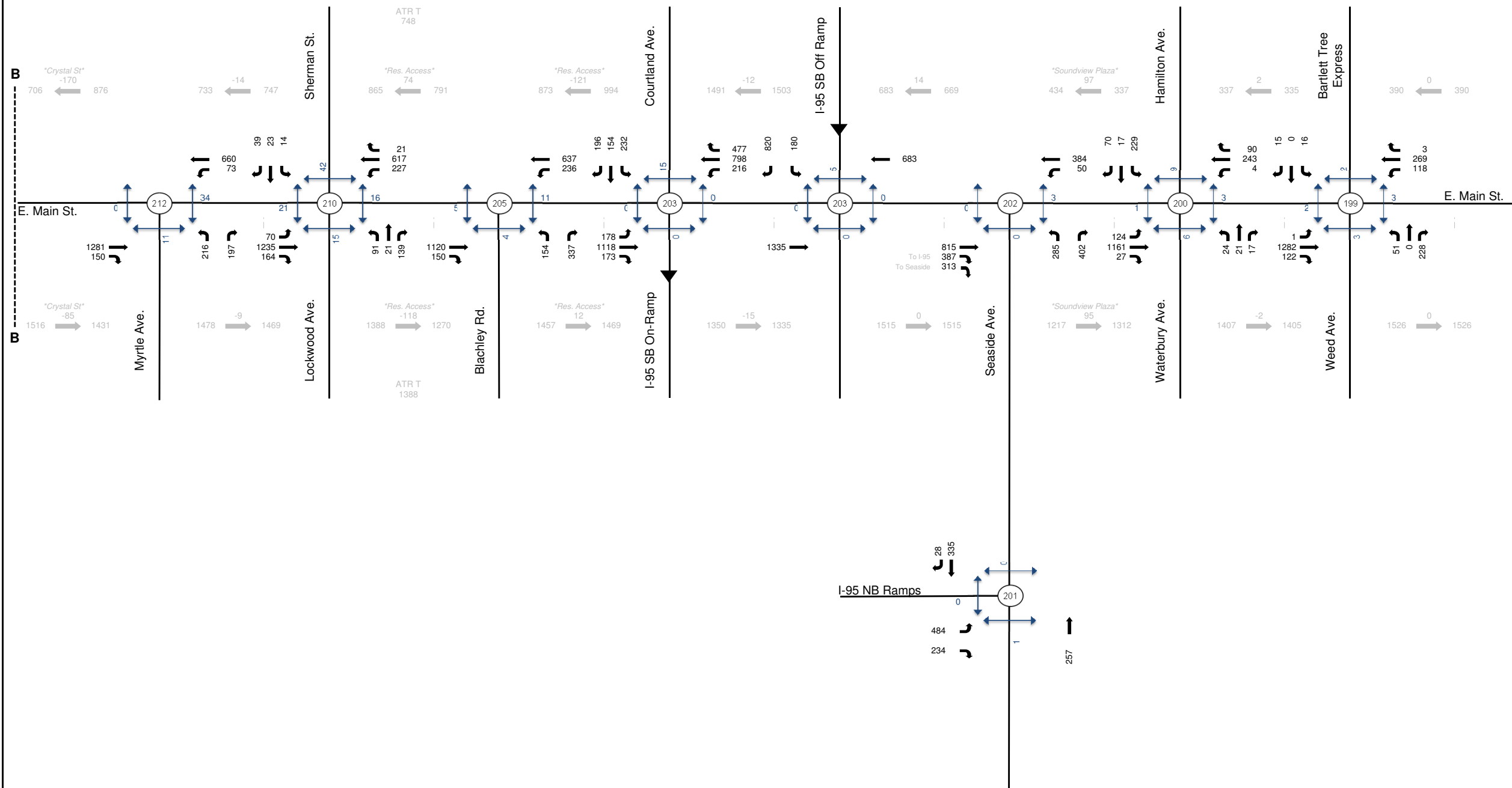
Peak Hours:

Count Performed: Wednesday, April 19, 2017	Peak Hour: 5:30 PM - 6:30 PM	Lift 5
Count Performed: Thursday, April 27, 2017	Peak Hour: 5:30 PM - 6:30 PM	Lift 6
Count Performed: Wednesday, June 14, 2017	Peak Hour: 5:00 PM - 6:00 PM	Lift 7

Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 PM Peak Hour Volumes - Balanced



Not to Scale



Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- One-way street

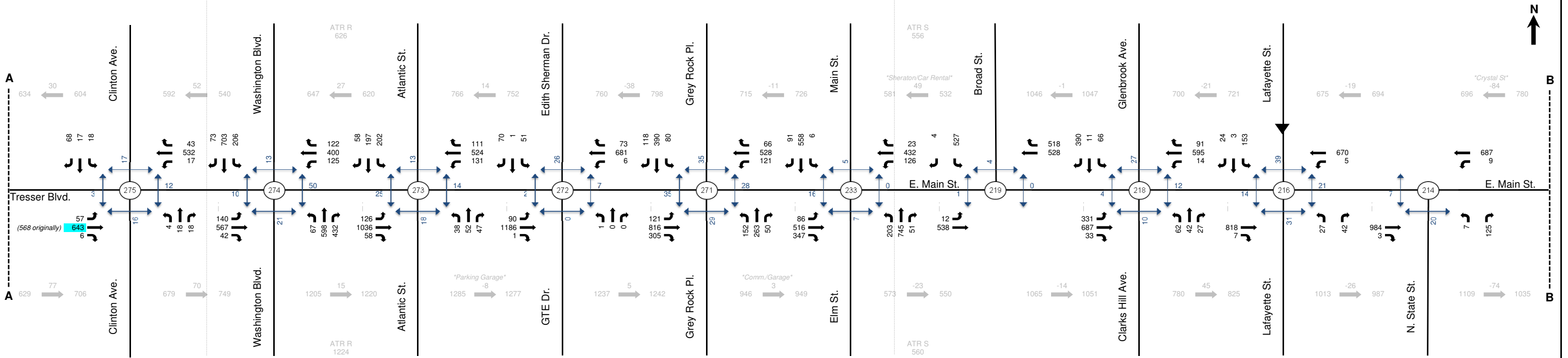
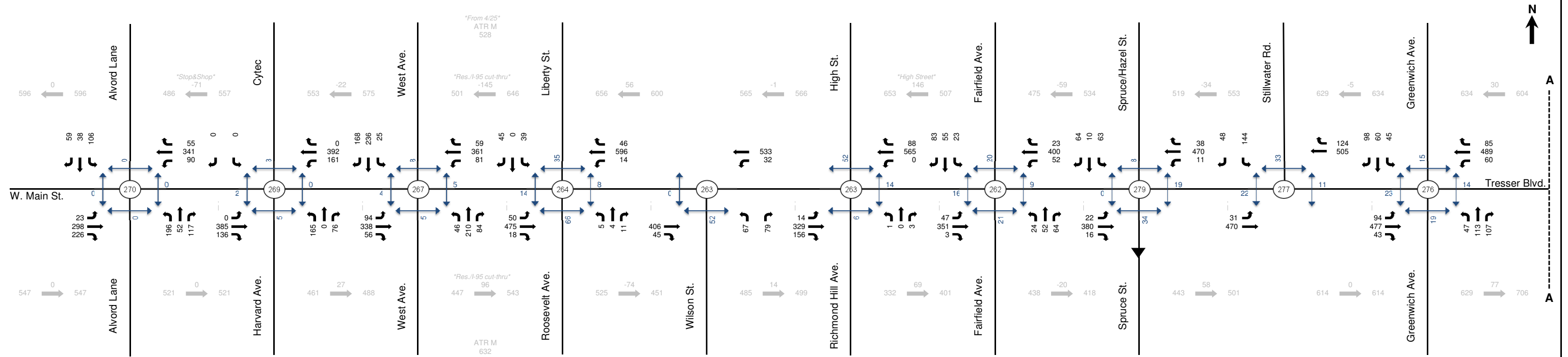
Peak Hours:

Count Performed: Wednesday, June 14, 2017 Peak Hour: 5:00 PM - 6:00 PM Lift 7



Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 PM Peak Hour Volumes - Raw

Not to Scale



Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- One-way street

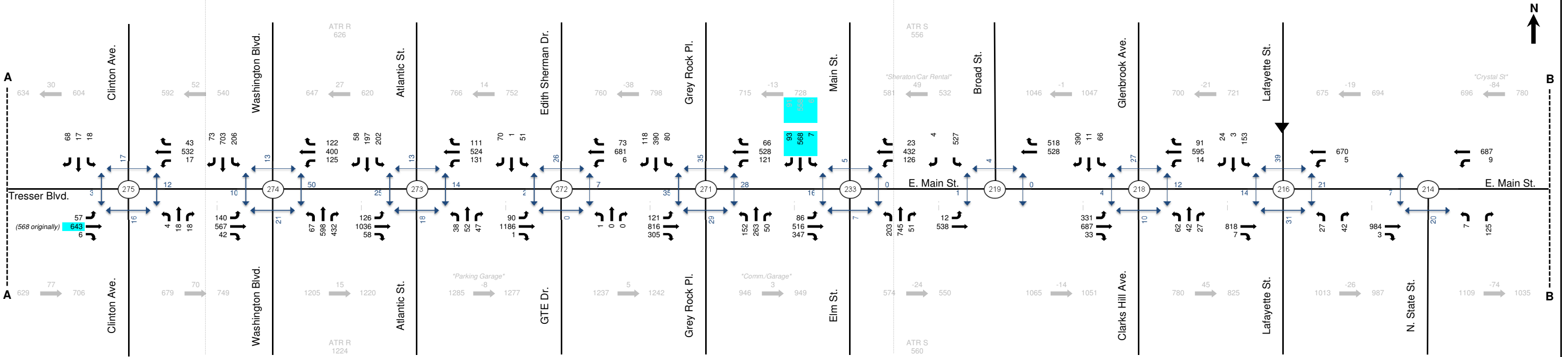
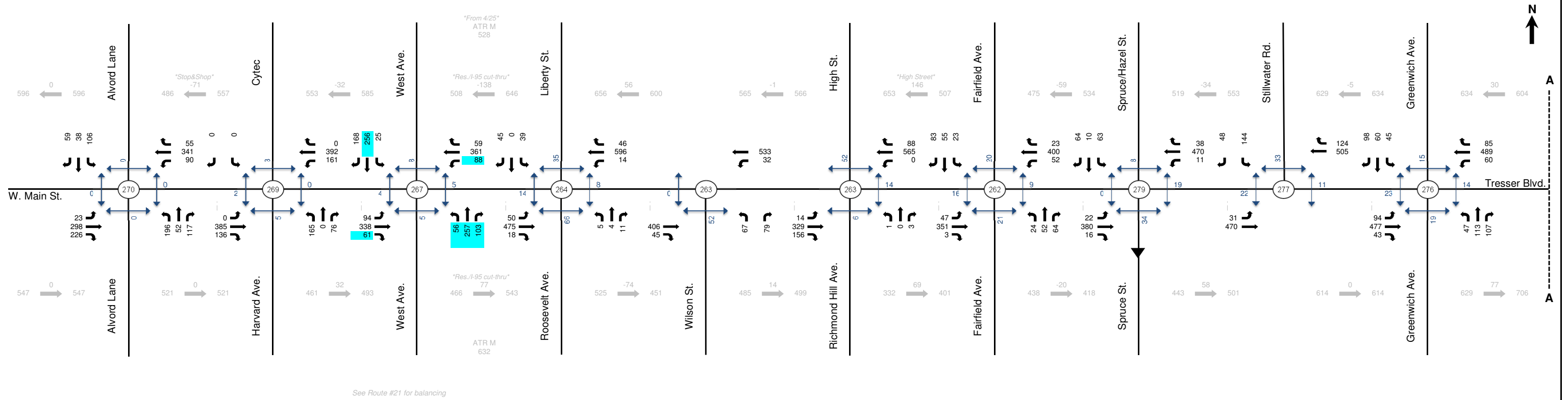
Peak Hours:

	Count Performed: Saturday, April 22, 2017	Peak Hour: 12:00 PM - 1:00 PM	Lift 5
	Count Performed: Saturday, April 29, 2017	Peak Hour: 11:45 AM - 12:45 PM	Lift 6
	Count Performed: Saturday, June 17, 2017	Peak Hour: 1:30 PM - 2:30 PM	Lift 7

Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 SAT Peak Hour Volumes - Raw



Not to Scale



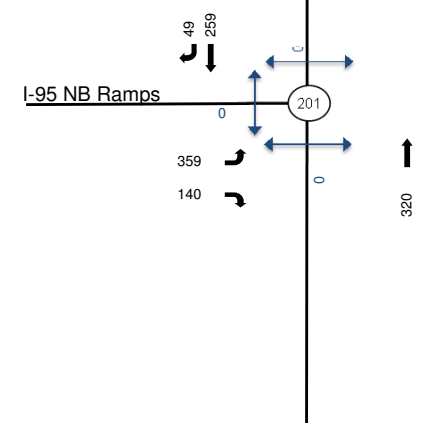
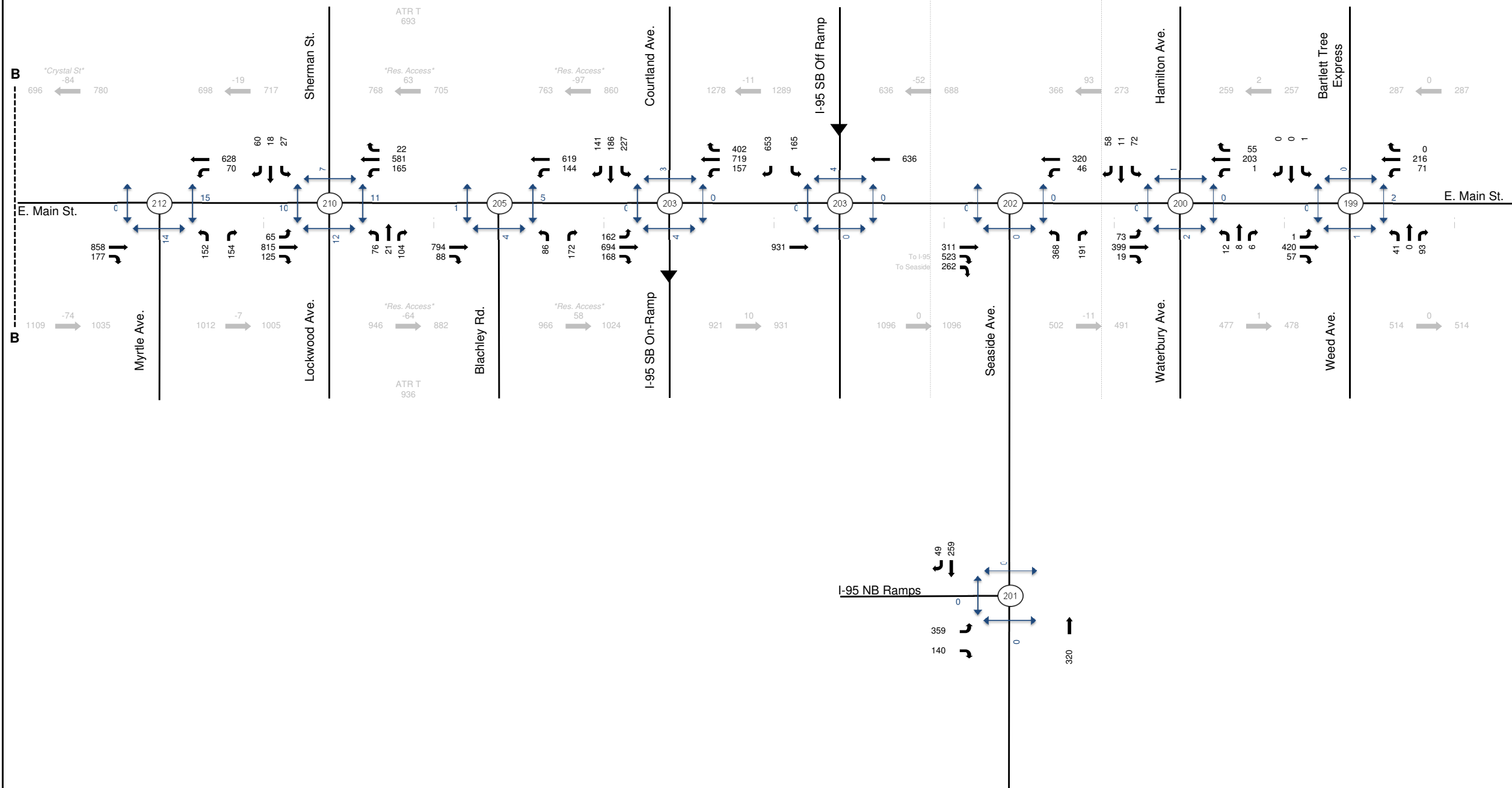
Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- One-way street

Peak Hours:

	Count Performed: Saturday, April 22, 2017	Peak Hour: 12:00 PM - 1:00 PM	Lift 5
	Count Performed: Saturday, April 29, 2017	Peak Hour: 11:45 AM - 12:45 PM	Lift 6
	Count Performed: Saturday, June 17, 2017	Peak Hour: 1:30 PM - 2:30 PM	Lift 7





Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- ATR X Automatic Traffic Recorder (ATR) Volume
- Intersection ID Number
- One-way street


Peak Hours:

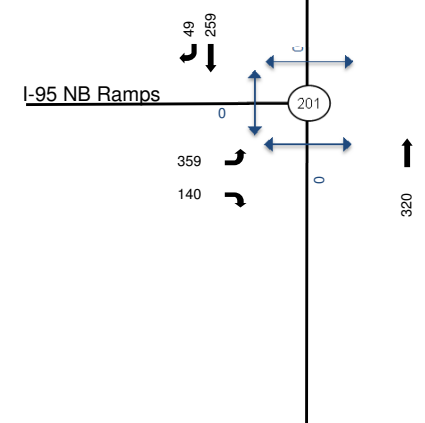
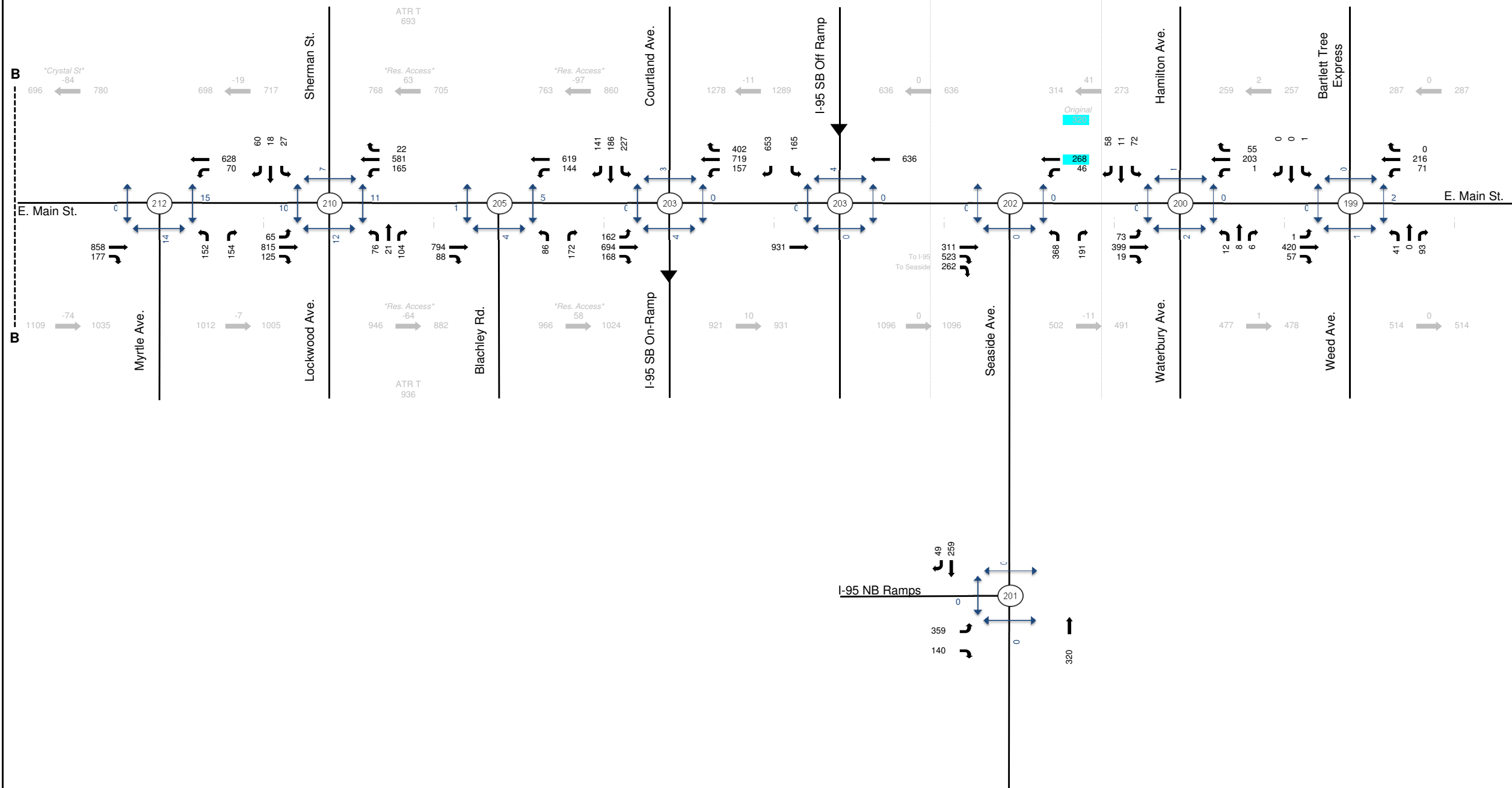
- Count Performed: Saturday, June 17, 2017
- Count Performed: Saturday, June 15, 2017
- Peak Hour: 1:30 PM - 2:30 PM
- Peak Hour: 1:30 PM - 2:30 PM
- Lift 7
- Lift 7

Not to Scale

Stamford Traffic Signal Optimization - Data Collection
 Route 2: E. Main St./ Tresser Blvd./ W. Main St. (US 1)
 SAT Peak Hour Volumes - Raw

Page 2 of 2

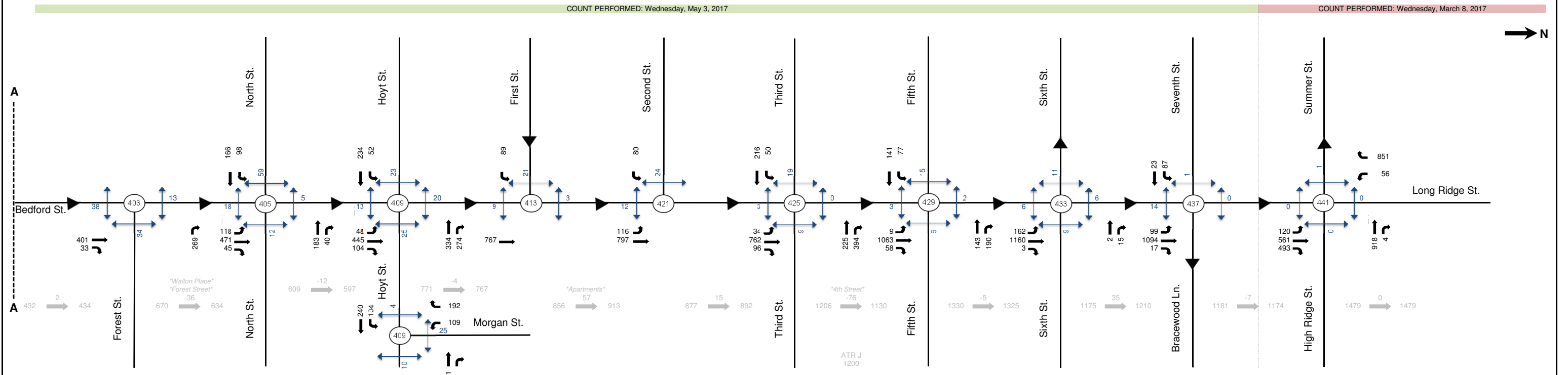
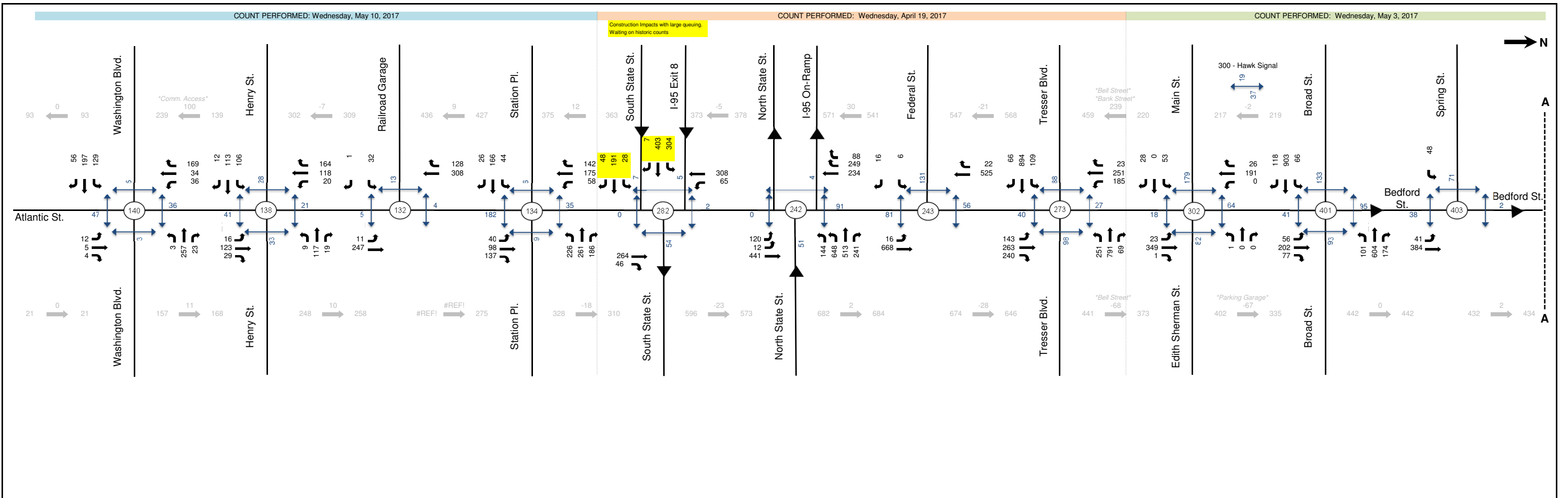




- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - Intersection ID Number
 - One-way street

- Peak Hours:**
- Count Performed: Saturday, June 17, 2017 Peak Hour: 1:30 PM - 2:30 PM Lift 7
 - Count Performed: Saturday, June 15, 2017 Peak Hour: 1:30 PM - 2:30 PM Lift 7

Not to Scale



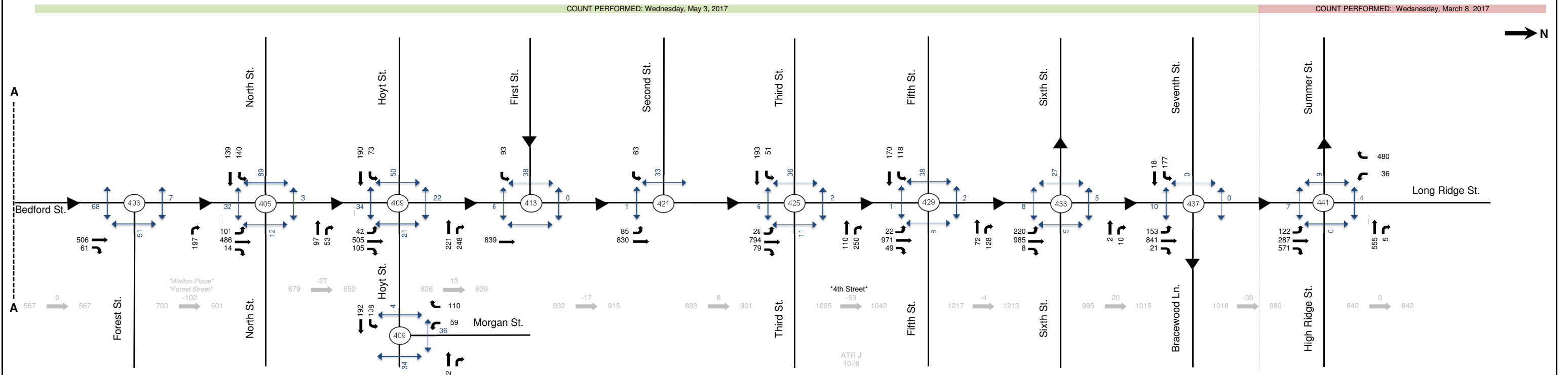
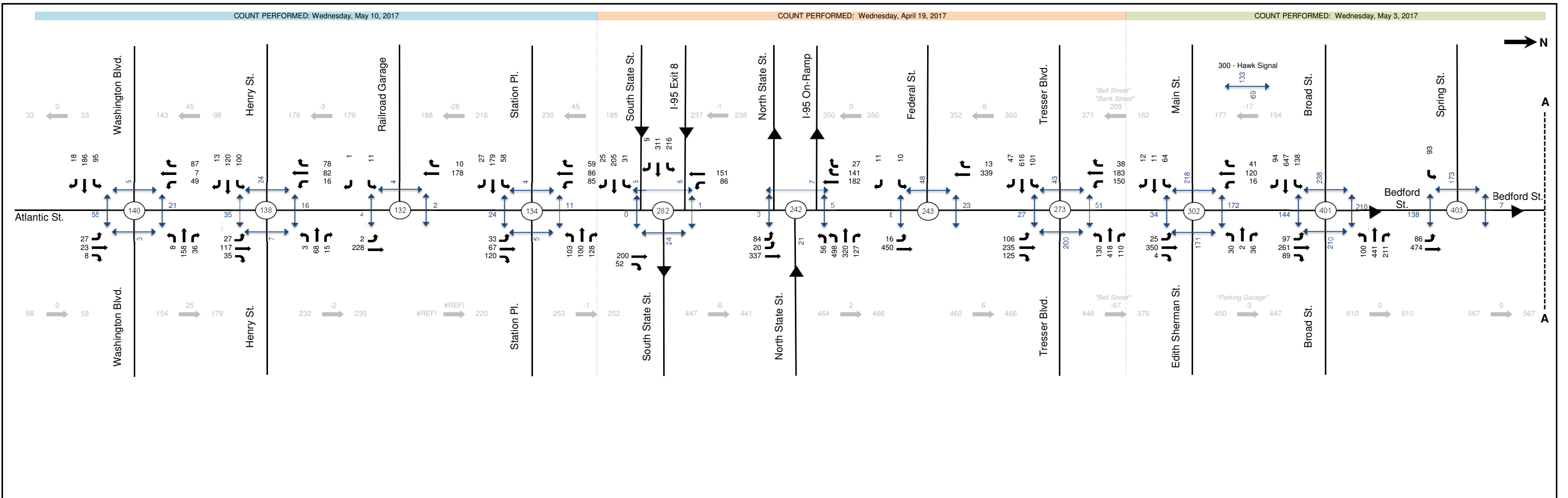
- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - 100 Intersection ID Number
 - One-way street

- Peak Hours:**
- Count Performed: Wednesday, May 10, 2017 Peak Hour: 7:15 AM - 8:15 AM
 - Count Performed: Wednesday April 19, 2017 Peak Hour: 7:45 AM - 8:45 AM
 - Count Performed: Wednesday, May 3, 2017 Peak Hour: 8:00 AM - 9:00 AM
 - Count Performed: Wednesday, March 8, 2017 Peak Hour: 8:00 AM - 9:00 AM

Stamford Traffic Signal Optimization - Data Collection
 Route 3: Bedford St./ Atlantic St.
 AM Peak Hour Volumes - Raw

Not to Scale





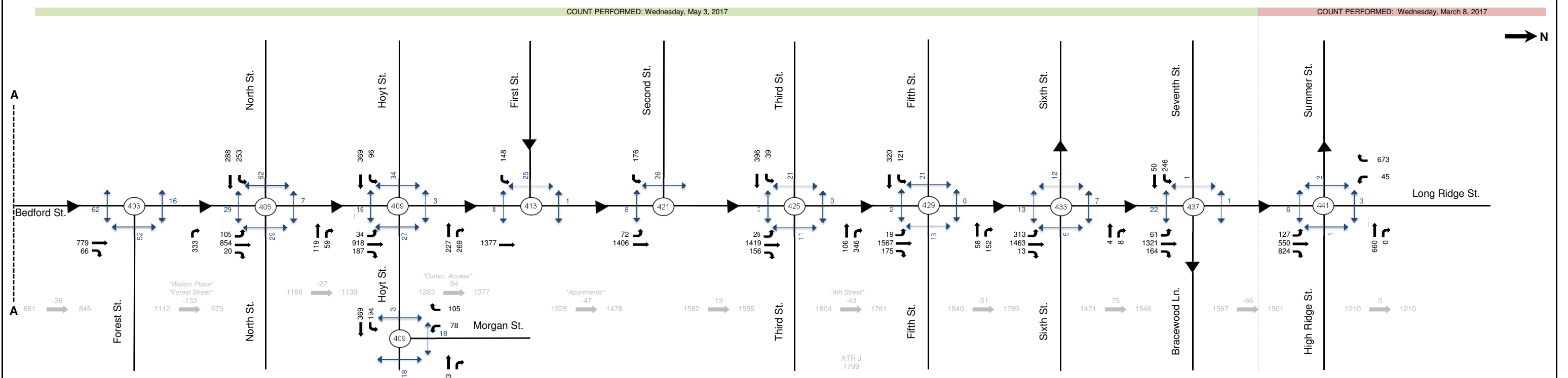
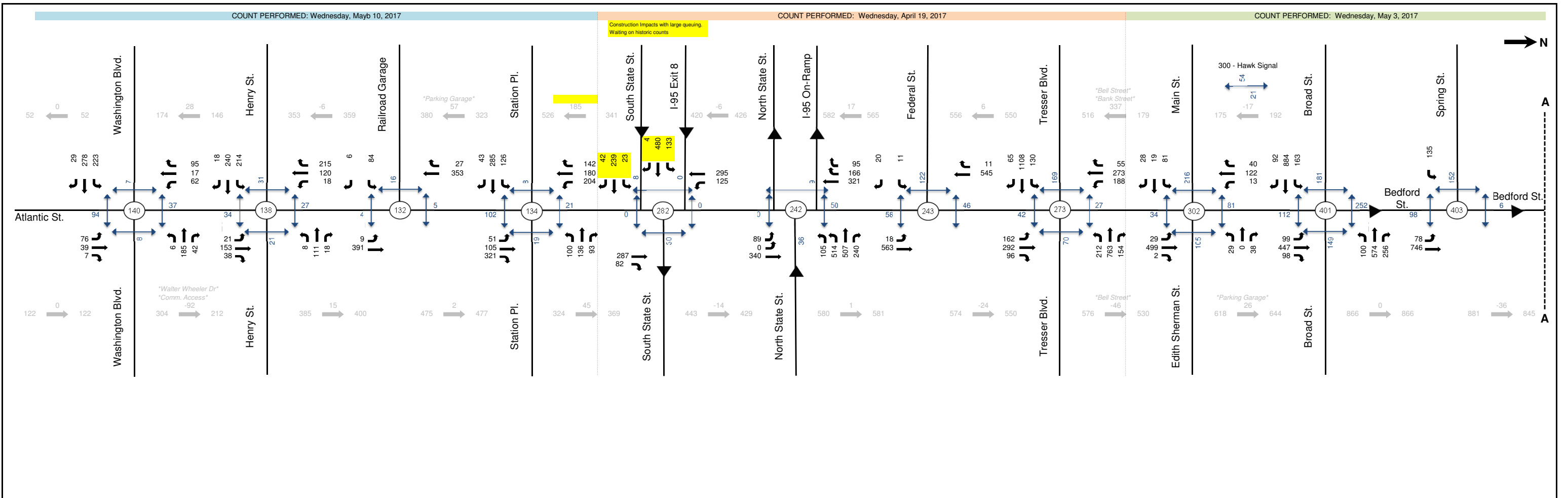
- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - 100 Intersection ID Number
 - One-way street

- Peak Hours:**
- Count Performed: Wednesday, May 10, 2017 Peak Hour: 12:15 PM - 1:15 PM
 - Count Performed: Wednesday, April 19, 2017 Peak Hour: 11:45 AM - 12:45 PM
 - Count Performed: Wednesday, May 3, 2017 Peak Hour: 12:15 PM - 1:15 PM
 - Count Performed: Wednesday, March 8, 2017 Peak Hour: 12:00 PM - 1:00 PM

Stamford Traffic Signal Optimization - Data Collection
 Route 3: Bedford St./ Atlantic St.
 MID Peak Hour Volumes - Raw



Not to Scale



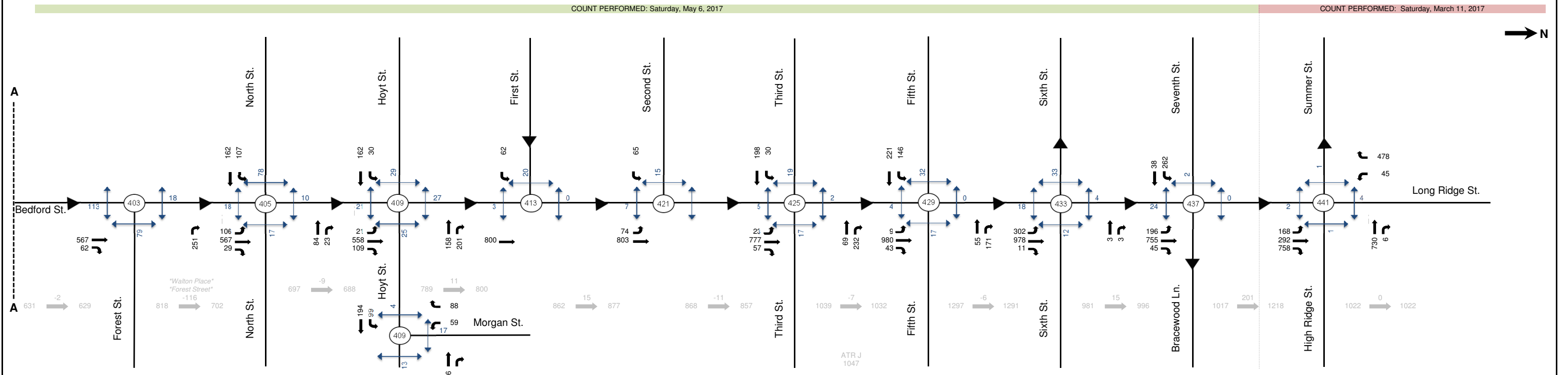
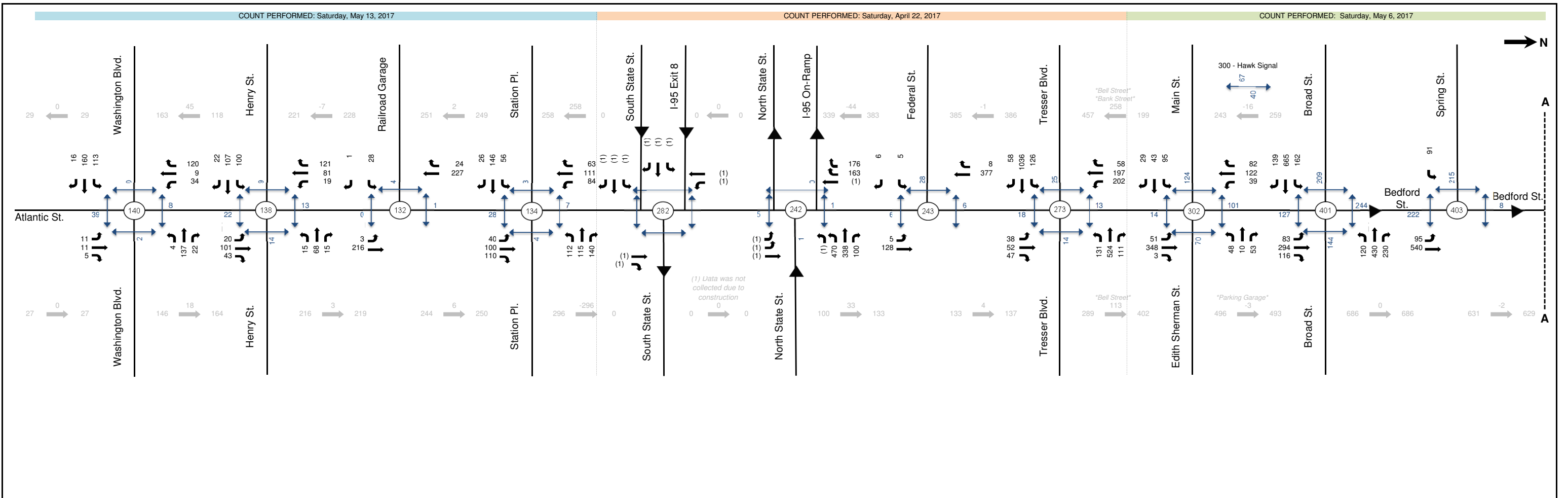
- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - 100 Intersection ID Number
 - One-way street

- Peak Hours:**
- Count Performed: Wednesday, May 10, 2017 Peak Hour: 5:30 PM - 6:30 PM
 - Count Performed: Wednesday, April 19, 2017 Peak Hour: 5:30 PM - 6:30 PM
 - Count Performed: Wednesday, May 3, 2017 Peak Hour: 5:00 PM - 6:00 PM
 - Count Performed: Wednesday, March 8, 2017 Peak Hour: 5:00 PM - 6:00 PM

Stamford Traffic Signal Optimization - Data Collection
 Route 3: Bedford St./ Atlantic St.
 PM Peak Hour Volumes - Raw



Not to Scale



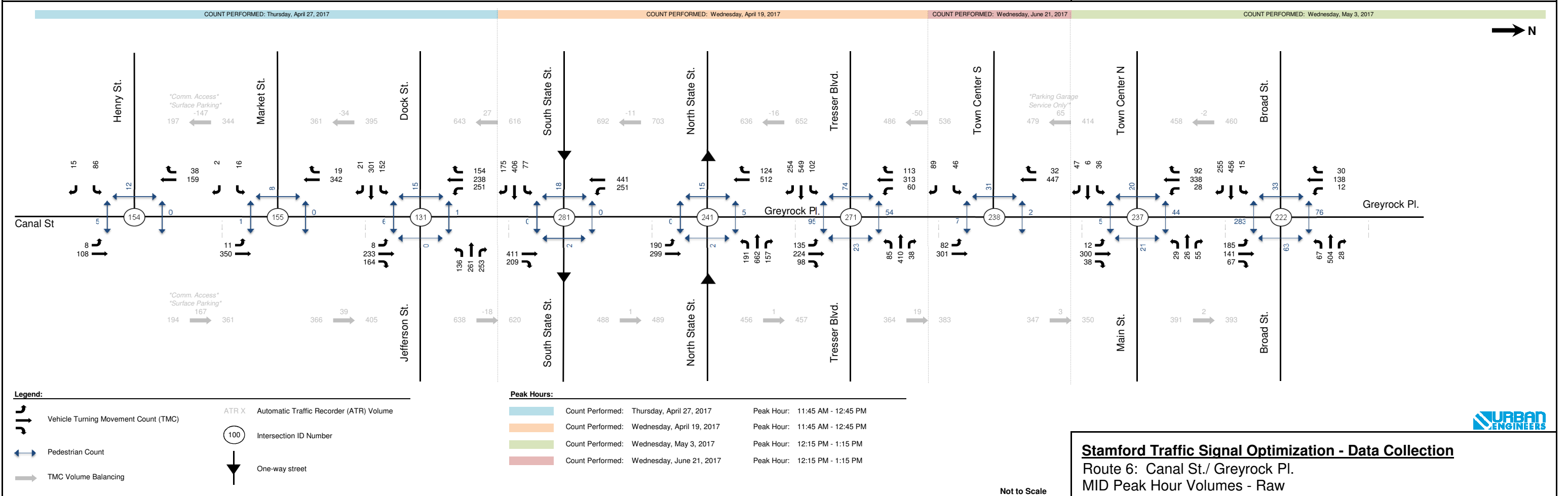
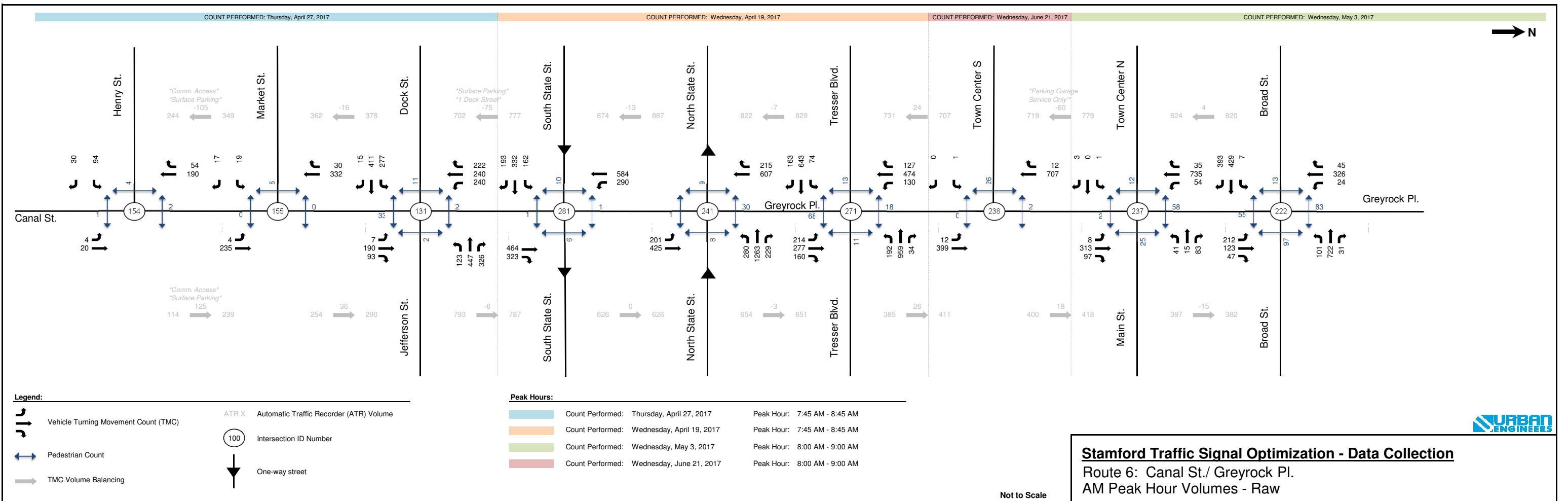
- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - 100 Intersection ID Number
 - One-way street

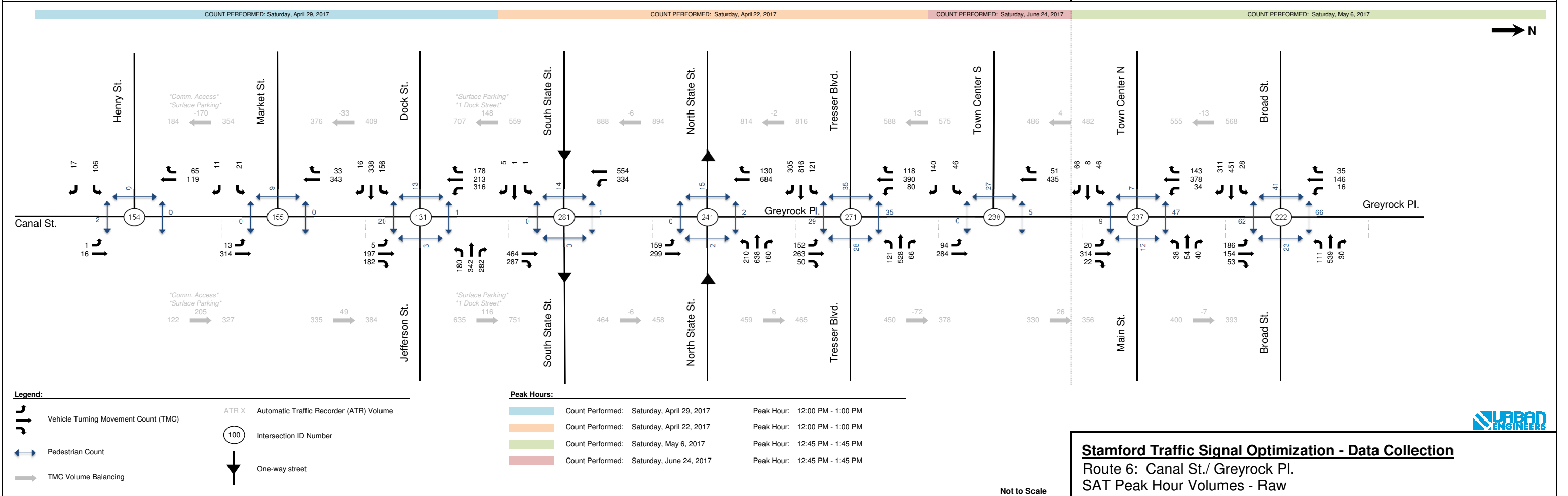
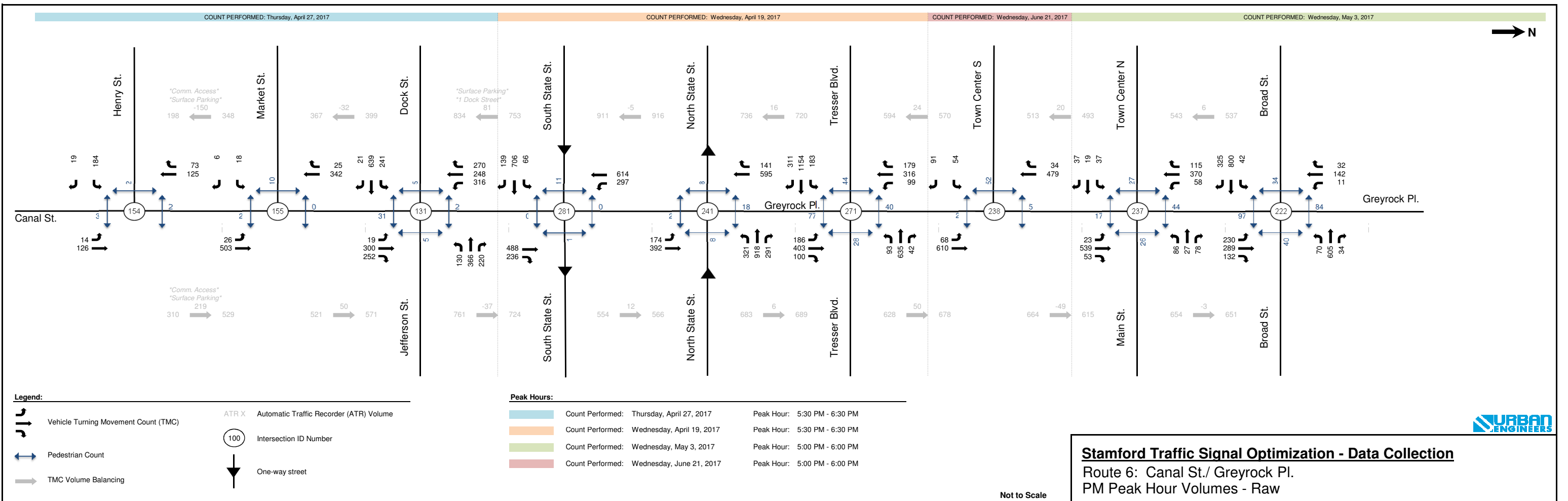
- Peak Hours:**
- Count Performed: Wednesday, March 8, 2017 Peak Hour: 12:15 PM - 1:15 PM
 - Count Performed: Saturday, April 22, 2017 Peak Hour: 12:00 PM - 1:00 PM
 - Count Performed: Saturday, May 6, 2017 Peak Hour: 12:45 PM - 1:45 PM
 - Count Performed: Saturday, March 11, 2017 Peak Hour: 11:45 AM - 12:45 PM

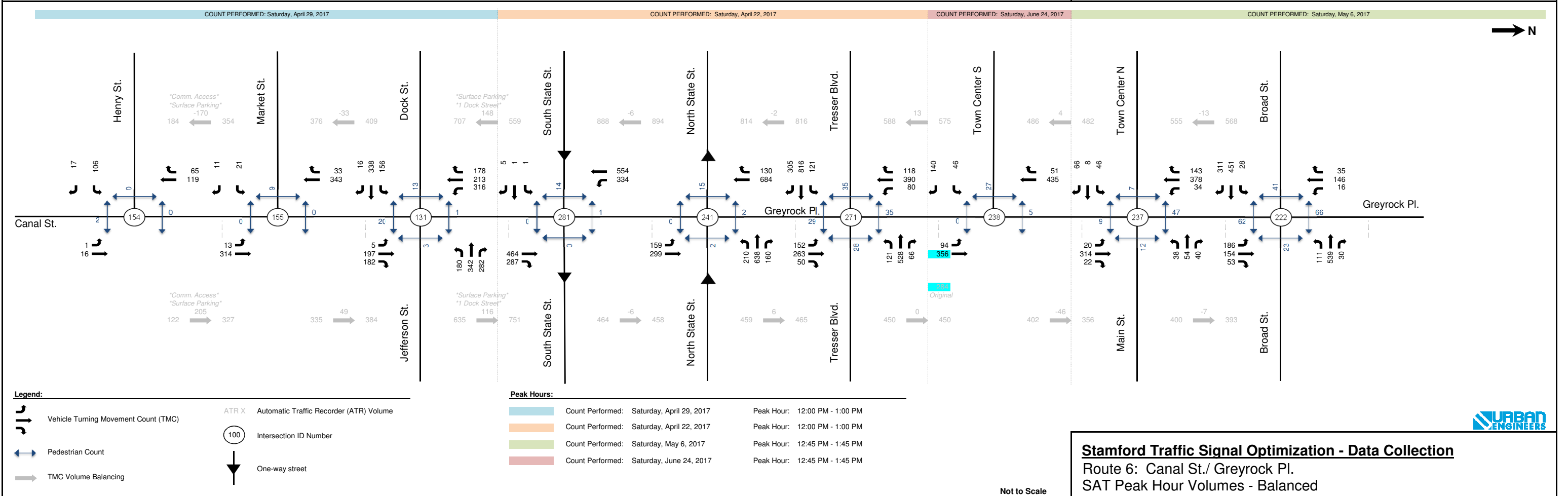
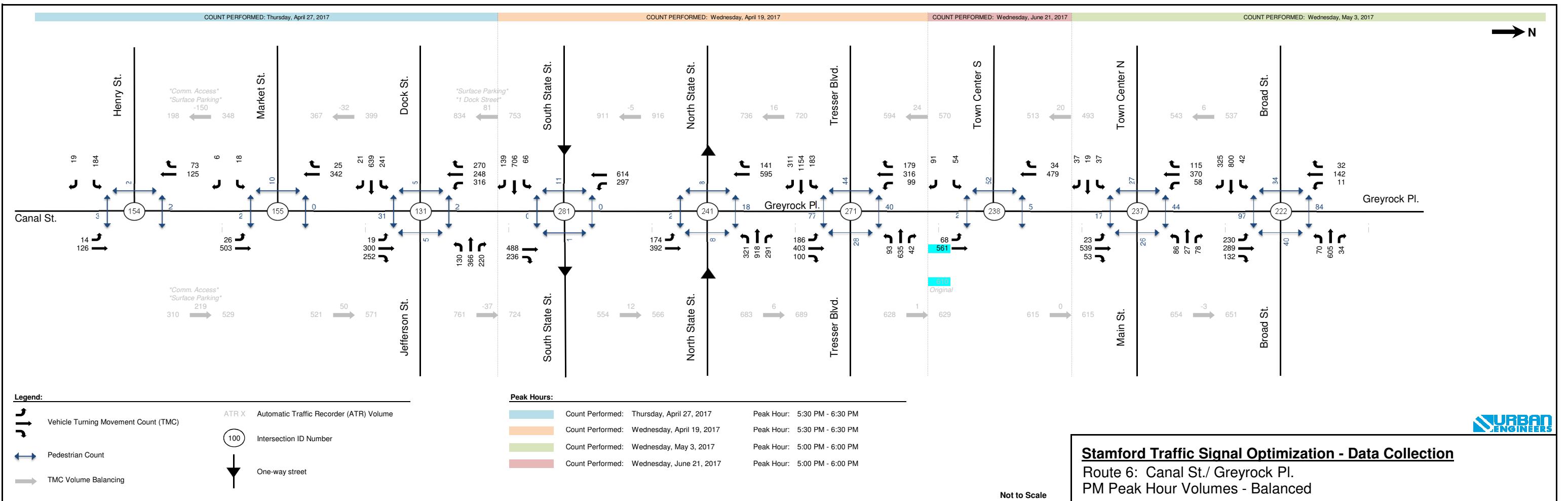
Stamford Traffic Signal Optimization - Data Collection
 Route 3: Bedford St./ Atlantic St.
 SAT Peak Hour Volumes - Raw

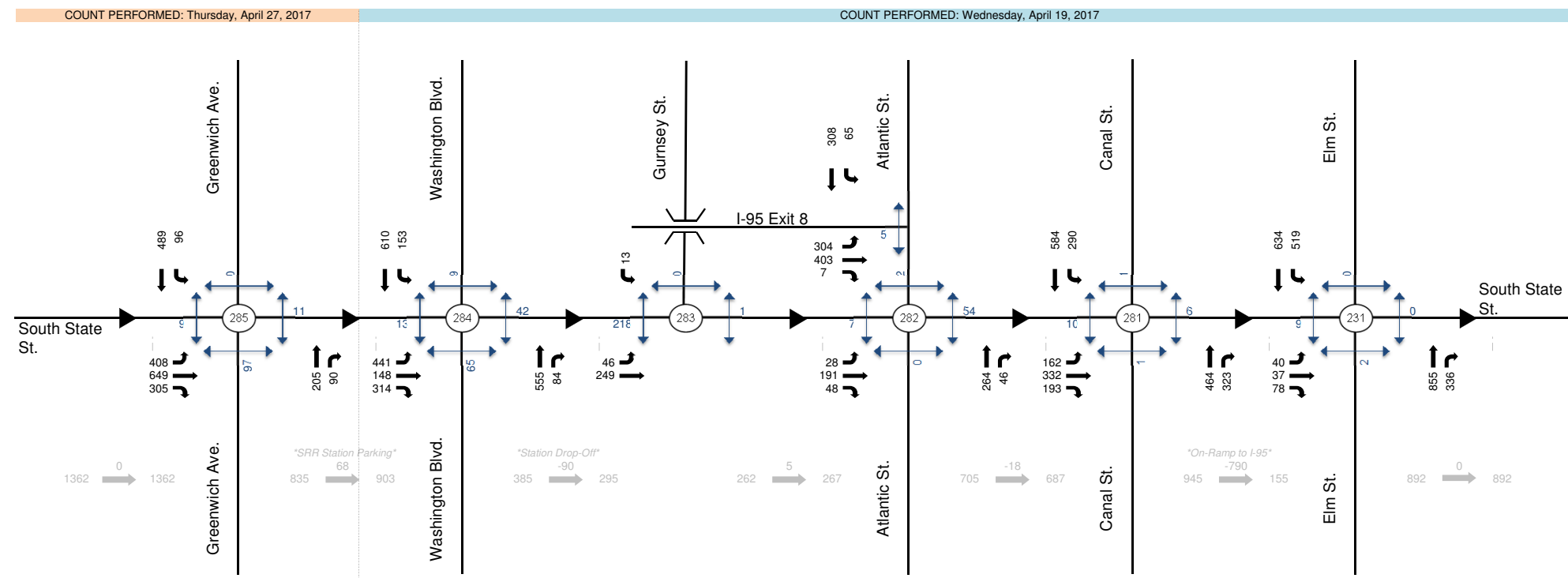


Not to Scale

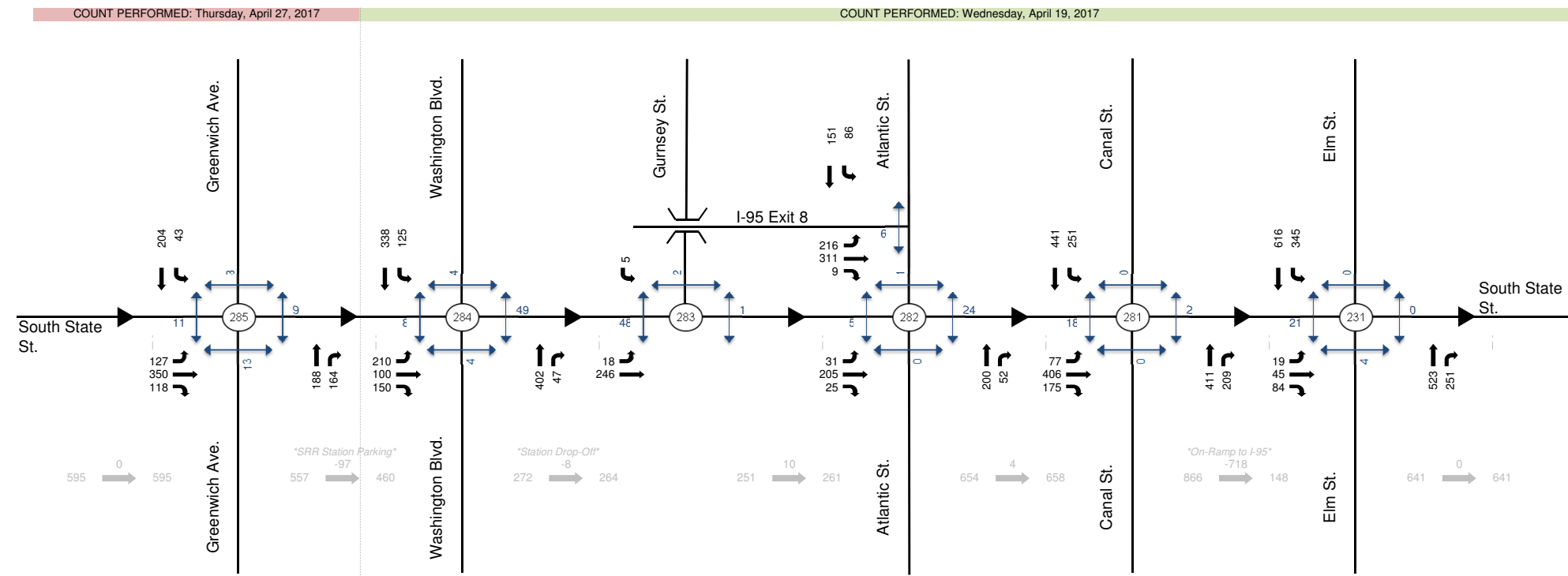




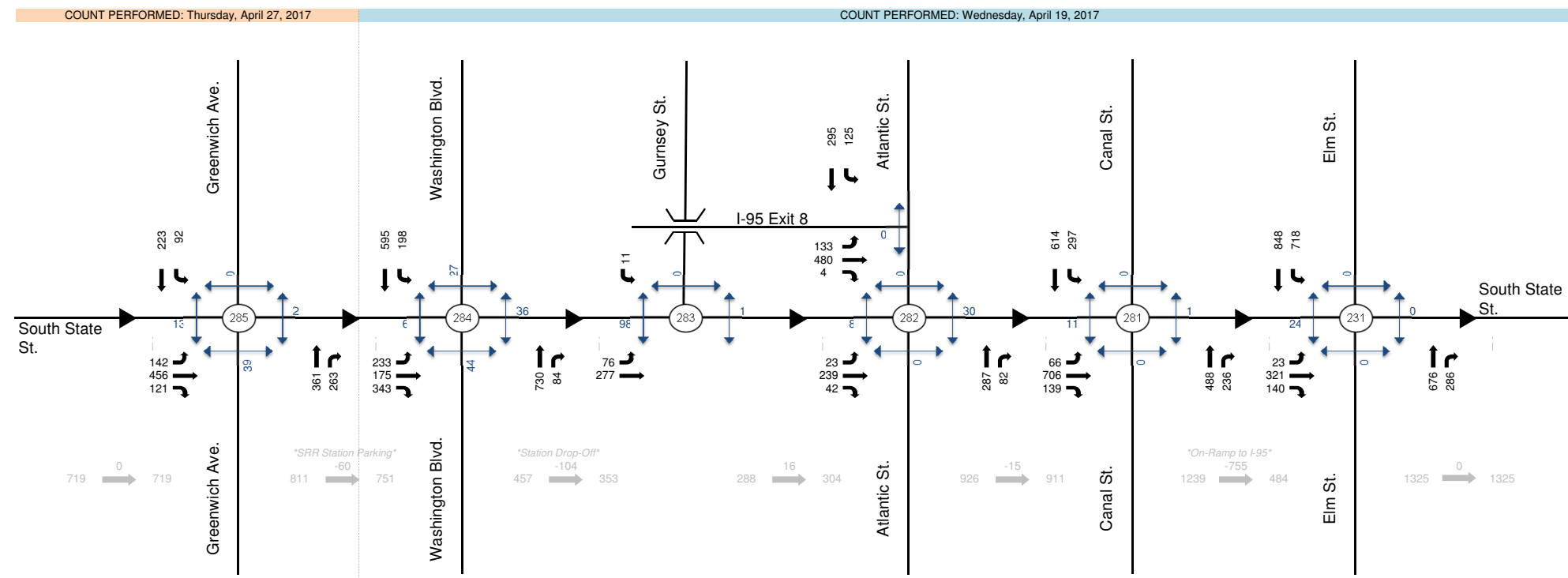




Stamford Traffic Signal Optimization - Data Collection
 Route 14: South State St.
 AM Peak Hour Volumes - Raw



Stamford Traffic Signal Optimization - Data Collection
 Route 14: South State St.
 MID Peak Hour Volumes - Raw



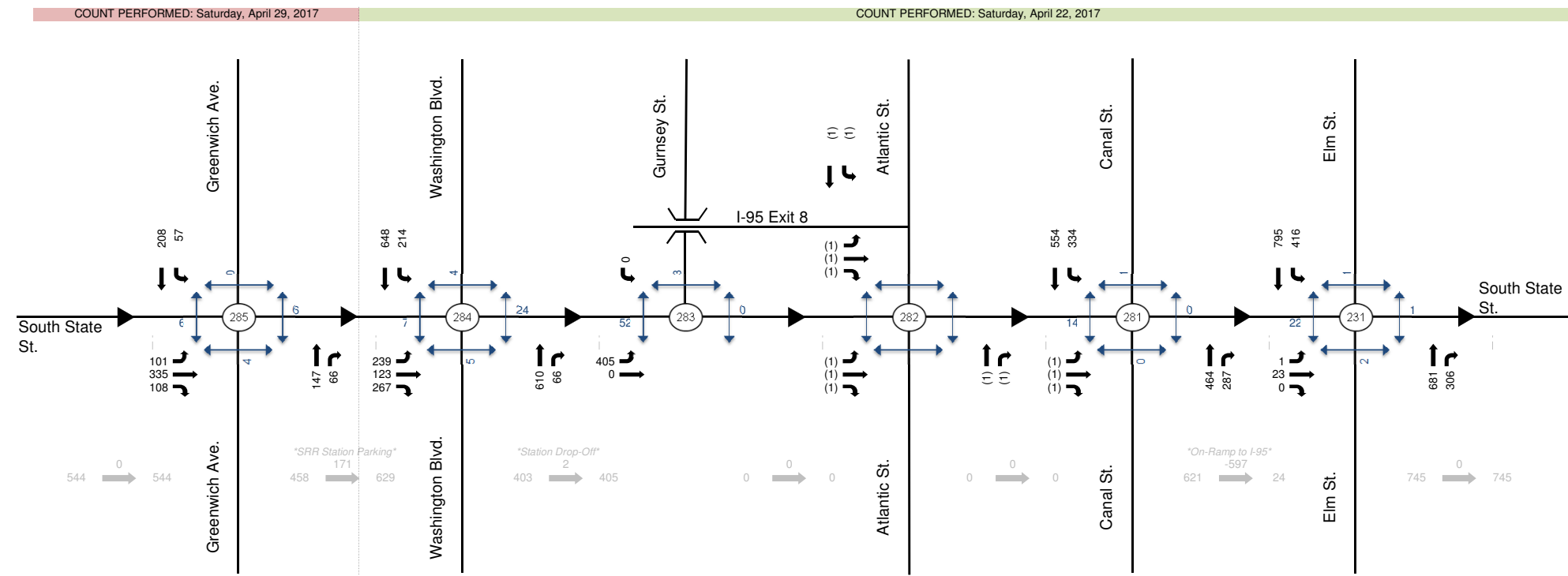
- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - Intersection ID Number
 - One-way street

- Peak Hours:**
- Count Performed: Wednesday, April 19, 2017 Peak Hour: 5:30 PM - 6:30 PM
 - Count Performed: Thursday, April 27, 2017 Peak Hour: 5:30 PM - 6:30 PM



Stamford Traffic Signal Optimization - Data Collection
 Route 14: South State St.
 PM Peak Hour Volumes - Raw

Not to Scale



- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - Intersection ID Number
 - One-way street

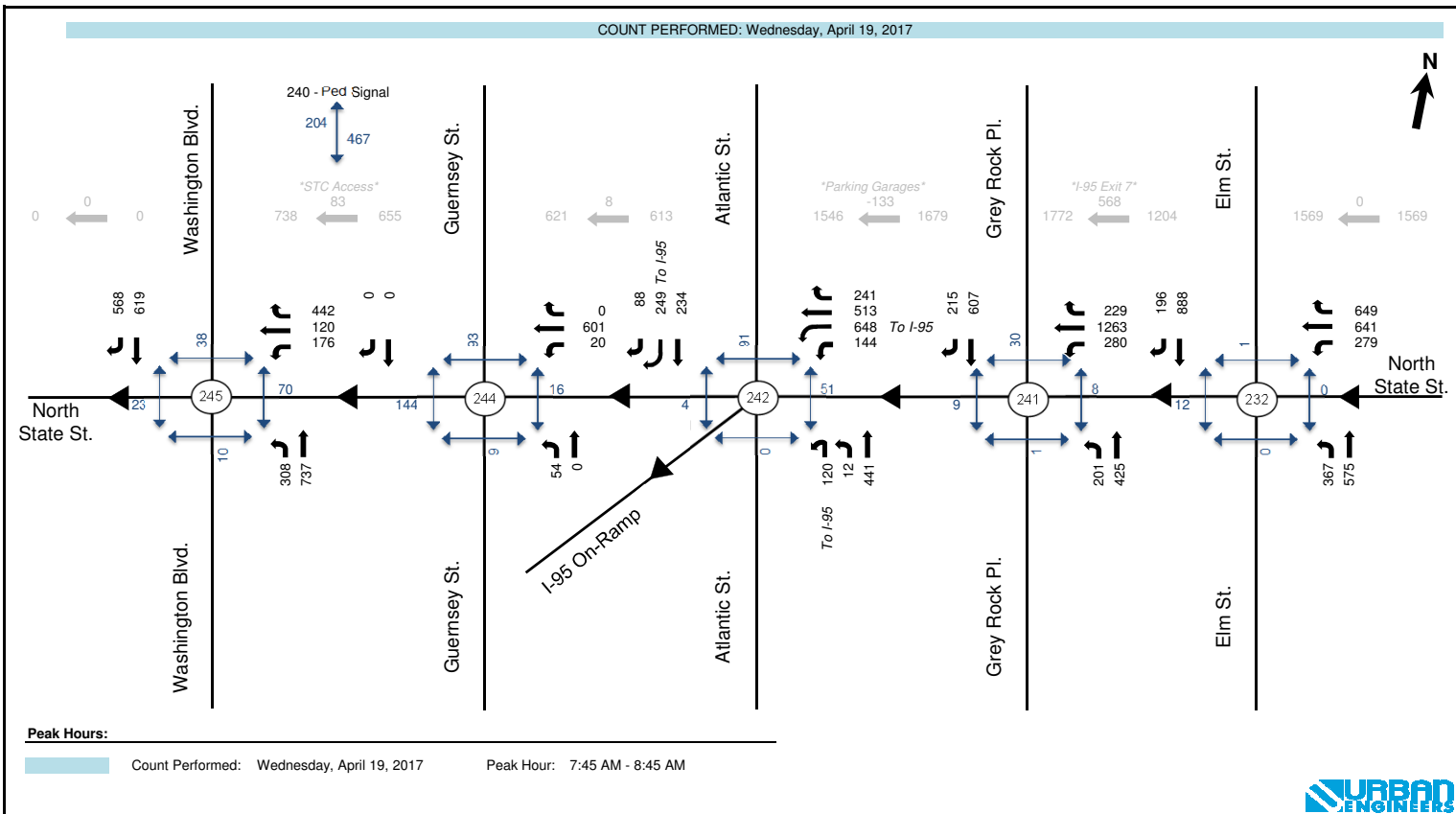
- Peak Hours:**
- Count Performed: Saturday, April 22, 2017 Peak Hour: 12:00 PM - 1:00 PM
 - Count Performed: Saturday, April 29, 2017 Peak Hour: 12:00 PM - 1:00 PM



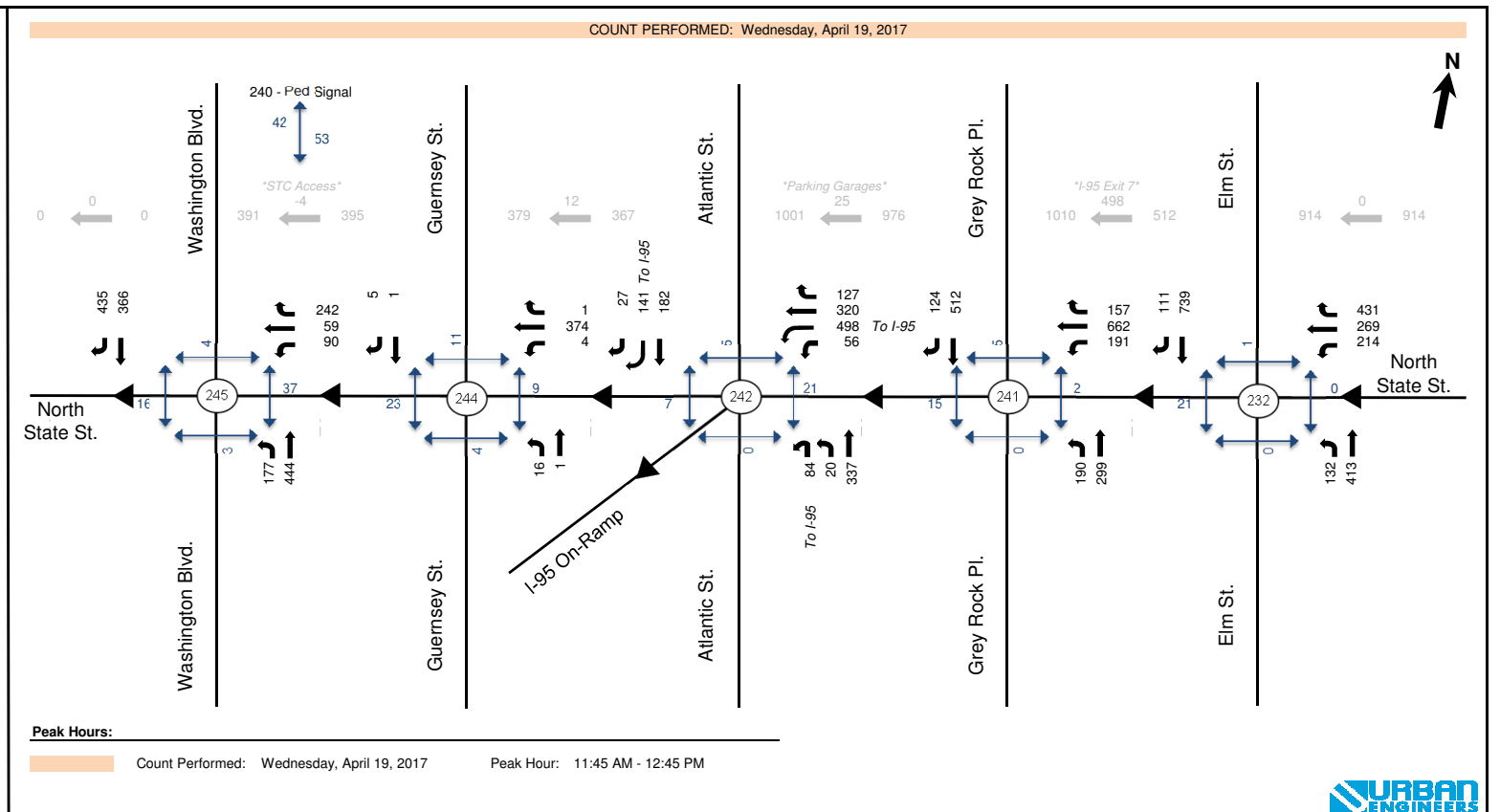
Stamford Traffic Signal Optimization - Data Collection
 Route 14: South State St.
 SAT Peak Hour Volumes - Raw

Not to Scale

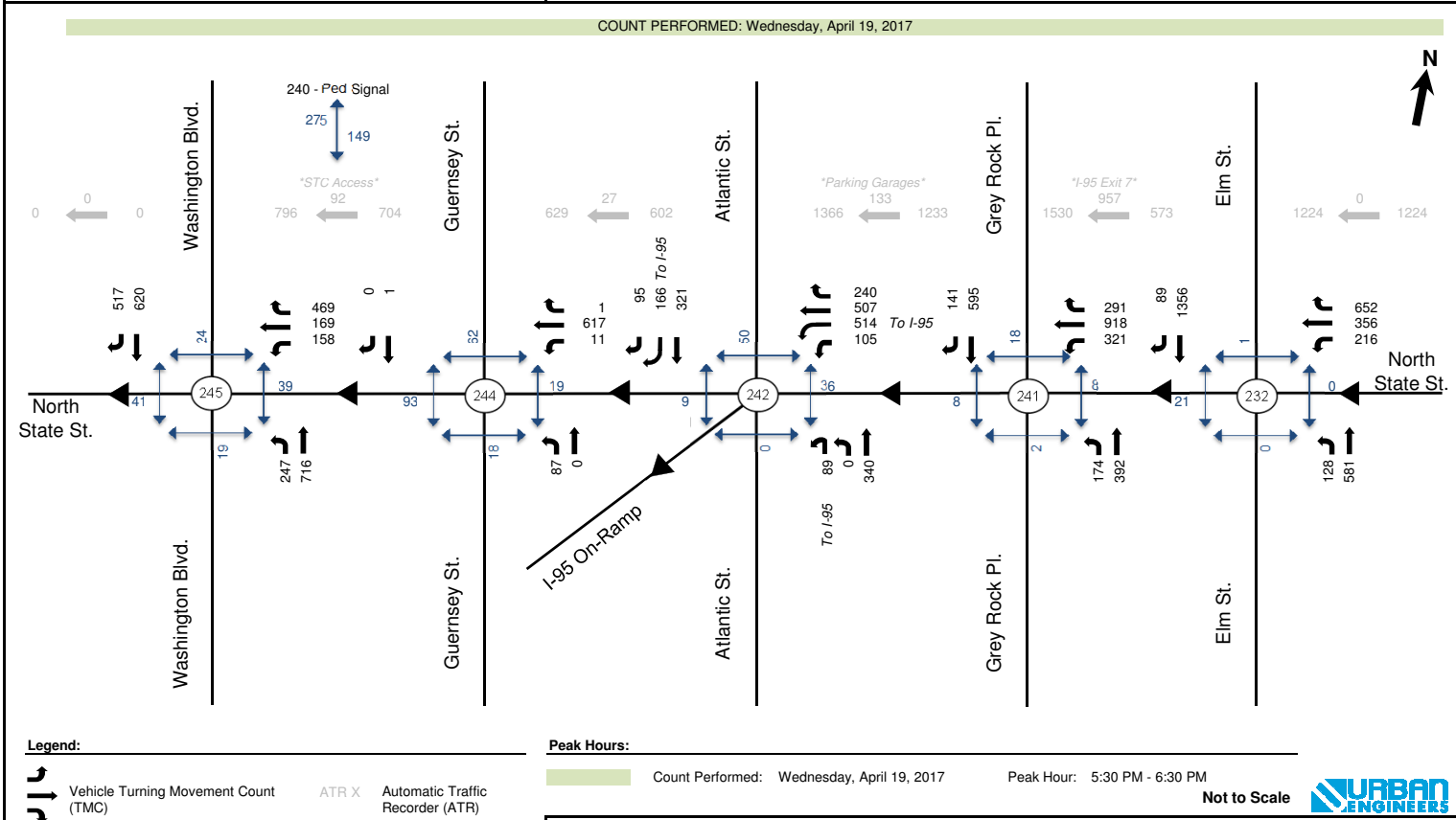
(1) Construction shut the intersection down; therefore, no count



Stamford Traffic Signal Optimization - Data Collection
Route 15: North State St.
AM Peak Hour Volumes - Raw



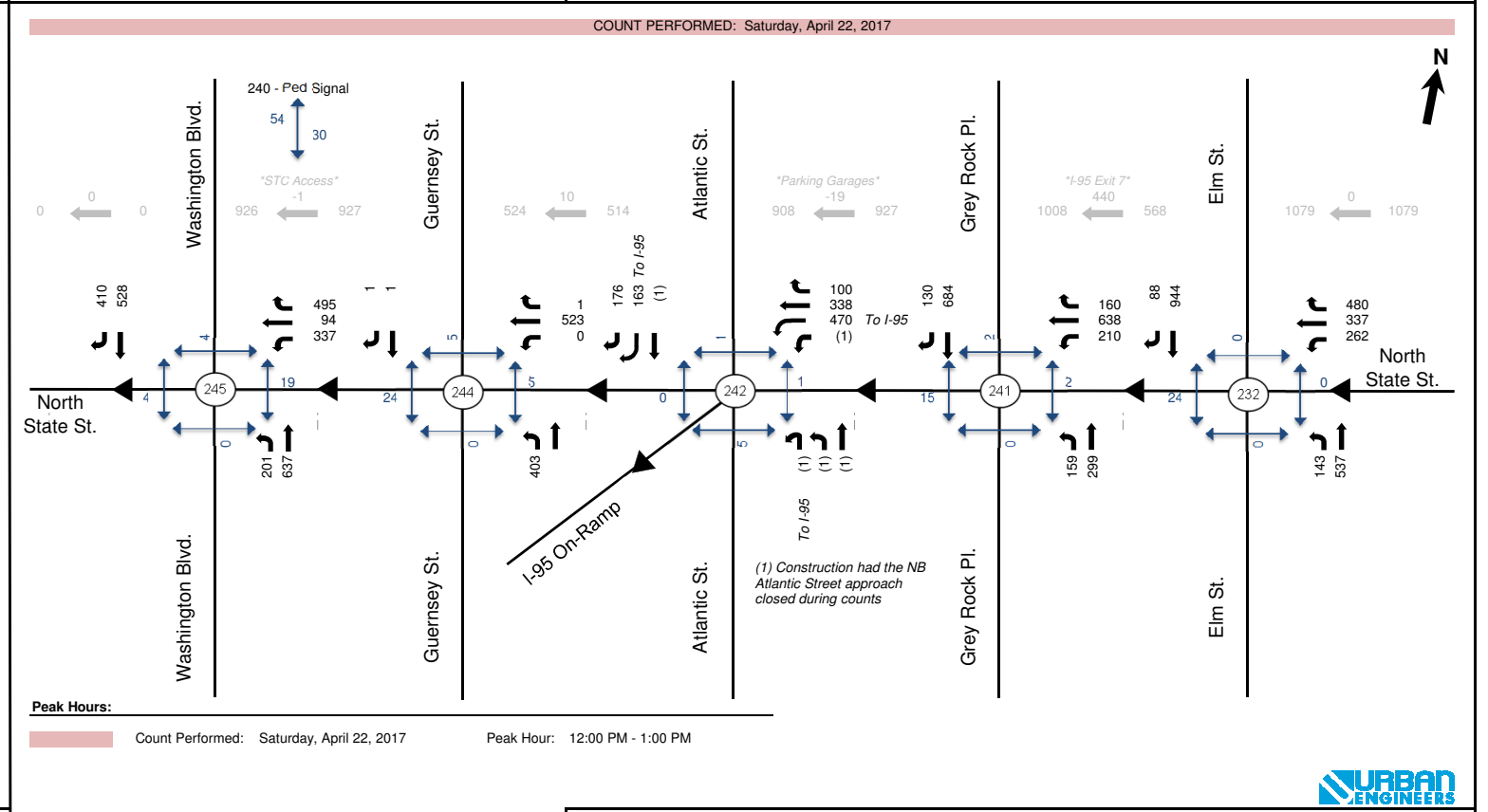
Stamford Traffic Signal Optimization - Data Collection
Route 15: North State St.
MID Peak Hour Volumes - Raw



Stamford Traffic Signal Optimization - Data Collection
Route 15: North State St.
PM Peak Hour Volumes - Raw

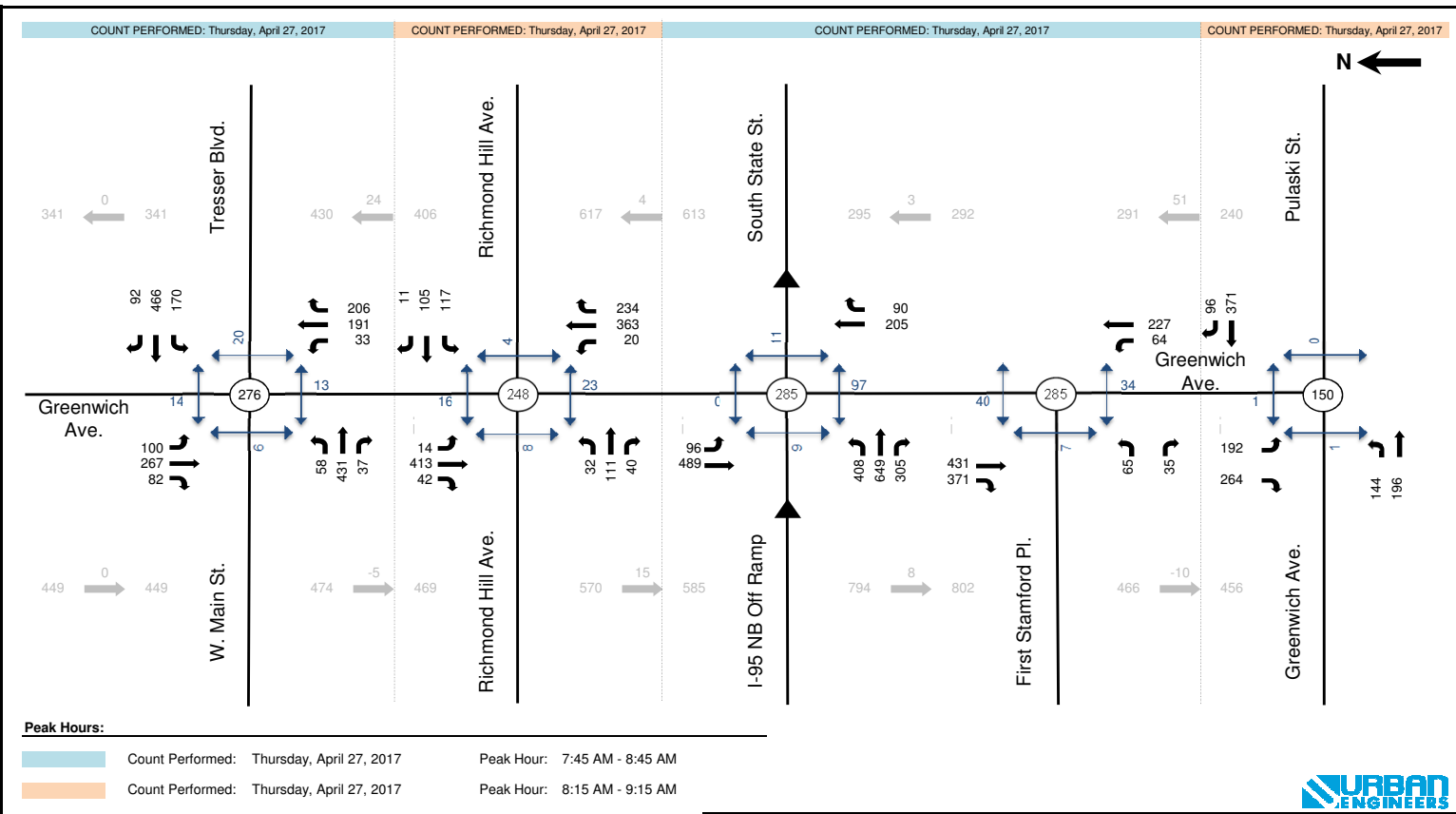
Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- Automatic Traffic Recorder (ATR)
- Intersection ID Number
- One-way street

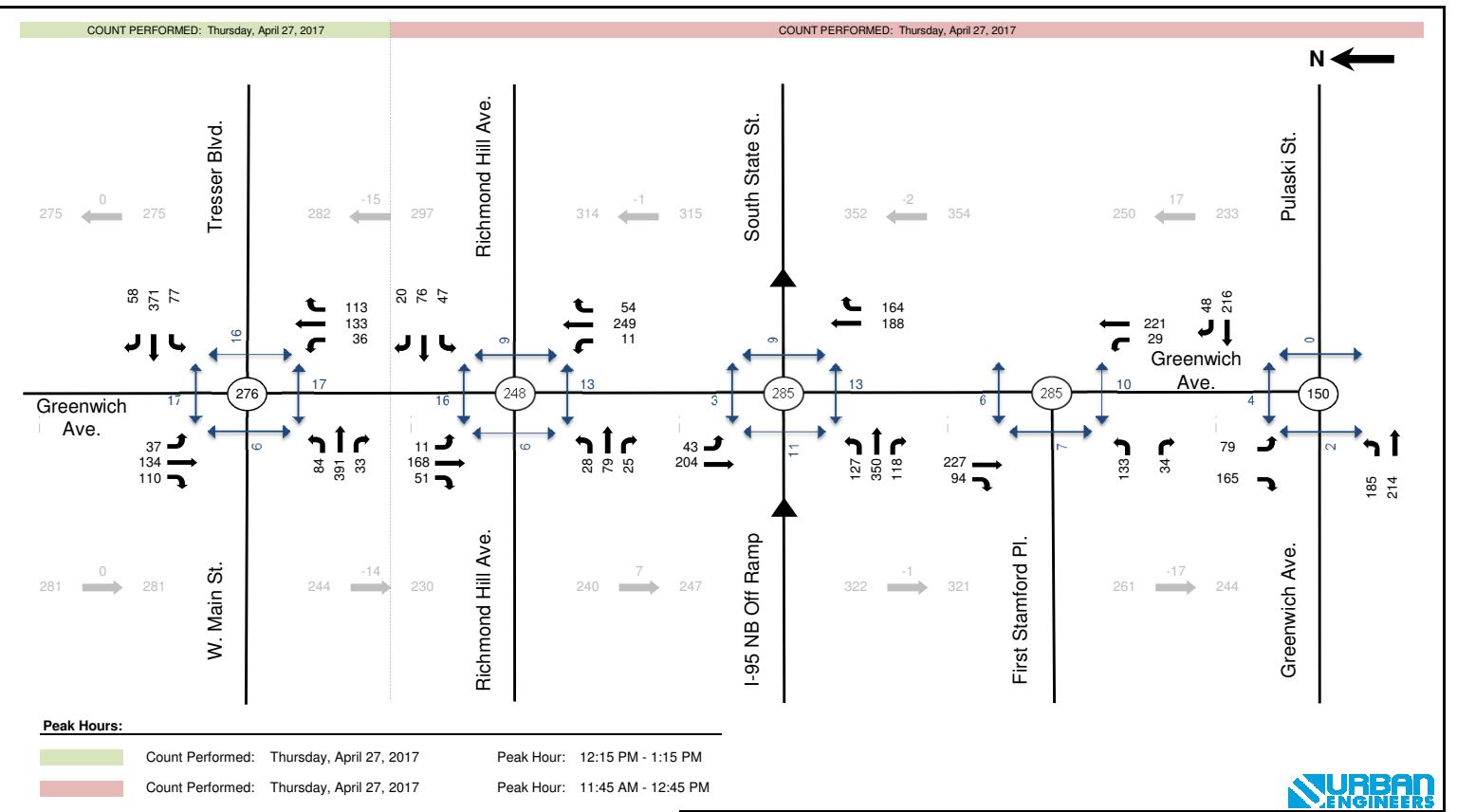


Stamford Traffic Signal Optimization - Data Collection
Route 15: North State St.
SAT Peak Hour Volumes - Raw

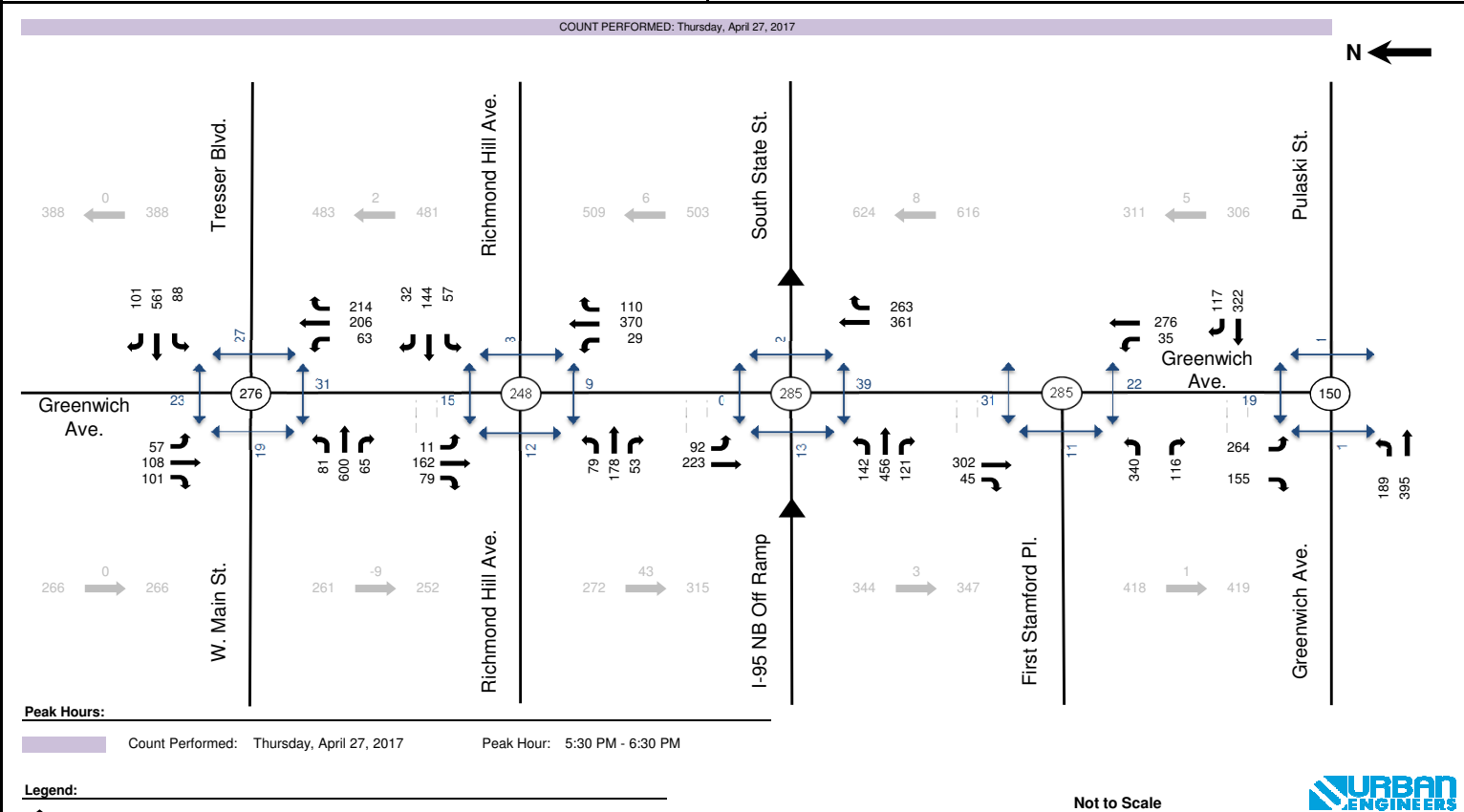




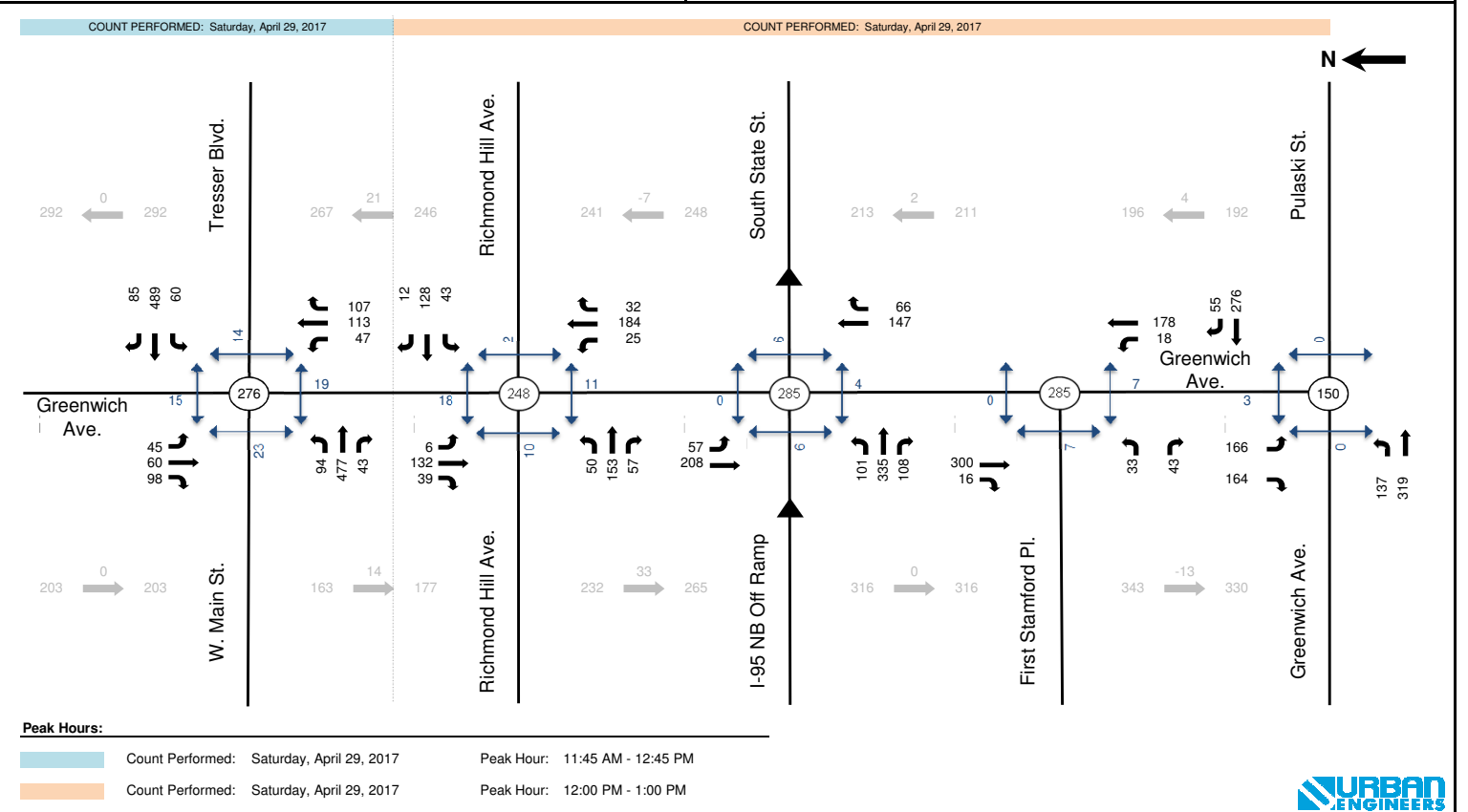
Stamford Traffic Signal Optimization - Data Collection
Route 18: Greenwich Ave.
AM Peak Hour Volumes - Raw



Stamford Traffic Signal Optimization - Data Collection
Route 18: Greenwich Ave.
MID Peak Hour Volumes - Raw



Stamford Traffic Signal Optimization - Data Collection
Route 18: Greenwich Ave.
PM Peak Hour Volumes - Raw



Stamford Traffic Signal Optimization - Data Collection
Route 18: Greenwich Ave.
SAT Peak Hour Volumes - Raw

Legend:

- Vehicle Turning Movement Count (TMC)
- Pedestrian Count
- TMC Volume Balancing
- One-way street
- Intersection ID Number
- Automatic Traffic Recorder (ATR) Volume



Not to Scale

Not to Scale

Not to Scale

Not to Scale

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Atlantic Street at Parking Garage Drive
 Stamford, Connecticut

File Name : 16725
 Site Code : 16725
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

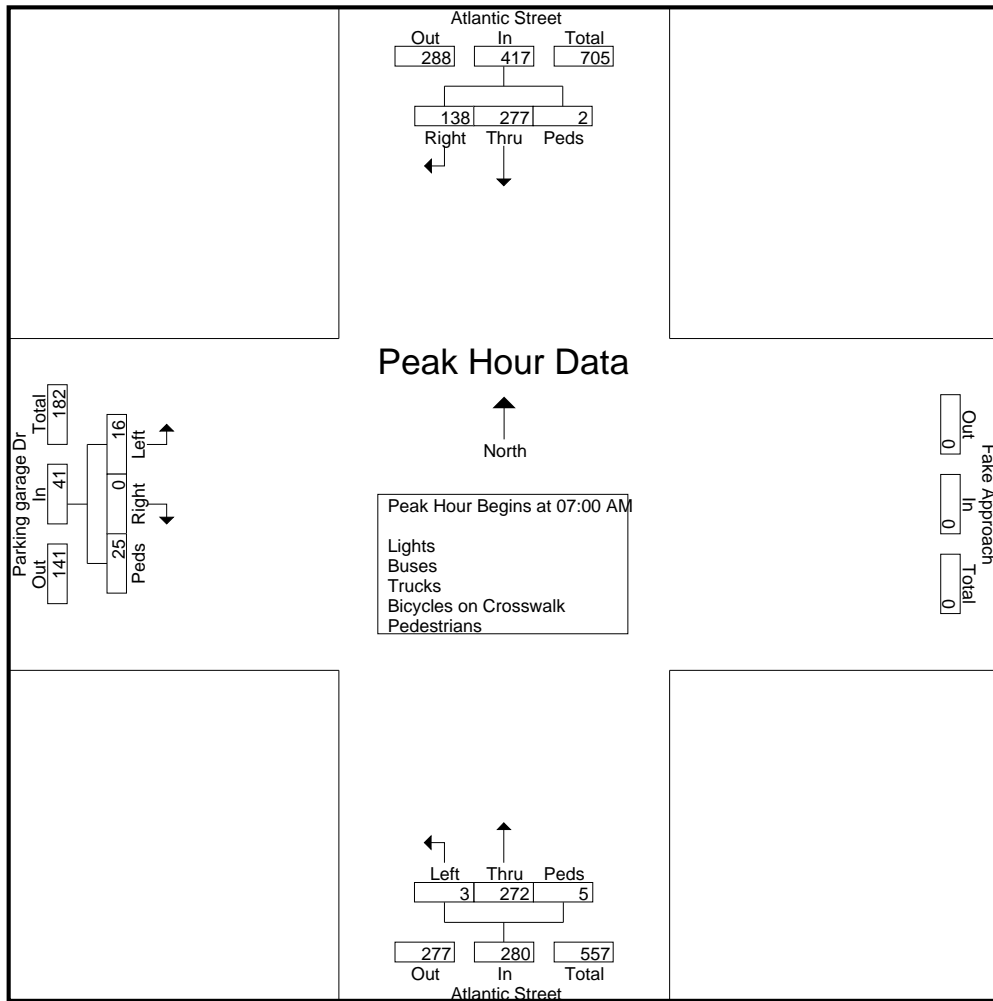
Start Time	Atlantic Street From North				Atlantic Street From South				Parking garage Dr From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
05:30 AM	6	12	0	18	10	0	0	10	0	0	1	1	29
05:45 AM	10	18	0	28	17	0	0	17	0	0	1	1	46
Total	16	30	0	46	27	0	0	27	0	0	2	2	75
06:00 AM	10	29	0	39	14	0	0	14	0	1	4	5	58
06:15 AM	11	28	1	40	34	1	2	37	0	2	3	5	82
06:30 AM	21	36	0	57	42	1	3	46	0	2	2	4	107
06:45 AM	22	53	1	76	62	0	2	64	0	3	5	8	148
Total	64	146	2	212	152	2	7	161	0	8	14	22	395
07:00 AM	32	60	0	92	76	1	2	79	0	3	7	10	181
07:15 AM	46	76	0	122	60	1	2	63	0	2	12	14	199
07:30 AM	37	62	1	100	73	1	0	74	0	9	2	11	185
07:45 AM	23	79	1	103	63	0	1	64	0	2	4	6	173
Total	138	277	2	417	272	3	5	280	0	16	25	41	738
08:00 AM	22	71	0	93	55	1	0	56	1	15	4	20	169
08:15 AM	15	65	1	81	61	1	1	63	0	9	3	12	156
08:30 AM	18	69	1	88	78	1	1	80	1	0	3	4	172
08:45 AM	18	73	0	91	64	1	1	66	1	0	6	7	164
Total	73	278	2	353	258	4	3	265	3	24	16	43	661
09:00 AM	7	66	0	73	47	3	4	54	2	0	5	7	134
09:15 AM	18	67	0	85	41	3	2	46	0	0	2	2	133
Grand Total	316	864	6	1186	797	15	21	833	5	48	64	117	2136
Apprch %	26.6	72.8	0.5		95.7	1.8	2.5		4.3	41	54.7		
Total %	14.8	40.4	0.3	55.5	37.3	0.7	1	39	0.2	2.2	3	5.5	
Lights	316	804	0	1120	724	15	0	739	5	48	0	53	1912
% Lights	100	93.1	0	94.4	90.8	100	0	88.7	100	100	0	45.3	89.5
Buses	0	13	0	13	25	0	0	25	0	0	0	0	38
% Buses	0	1.5	0	1.1	3.1	0	0	3	0	0	0	0	1.8
Trucks	0	47	0	47	48	0	0	48	0	0	0	0	95
% Trucks	0	5.4	0	4	6	0	0	5.8	0	0	0	0	4.4
Bicycles on Crosswalk	0	0	0	0	0	0	1	1	0	0	1	1	2
% Bicycles on Crosswalk	0	0	0	0	0	0	4.8	0.1	0	0	1.6	0.9	0.1
Pedestrians	0	0	6	6	0	0	20	20	0	0	63	63	89
% Pedestrians	0	0	100	0.5	0	0	95.2	2.4	0	0	98.4	53.8	4.2

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 16725
Site Code : 16725
Start Date : 11/9/2017
Page No : 2

Start Time	Atlantic Street From North				Atlantic Street From South				Parking garage Dr From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	32	60	0	92	76	1	2	79	0	3	7	10	181
07:15 AM	46	76	0	122	60	1	2	63	0	2	12	14	199
07:30 AM	37	62	1	100	73	1	0	74	0	9	2	11	185
07:45 AM	23	79	1	103	63	0	1	64	0	2	4	6	173
Total Volume	138	277	2	417	272	3	5	280	0	16	25	41	738
% App. Total	33.1	66.4	0.5		97.1	1.1	1.8		0	39	61		
PHF	.750	.877	.500	.855	.895	.750	.625	.886	.000	.444	.521	.732	.927



Connecticut Counts LLC

Kensington, Connecticut 06037
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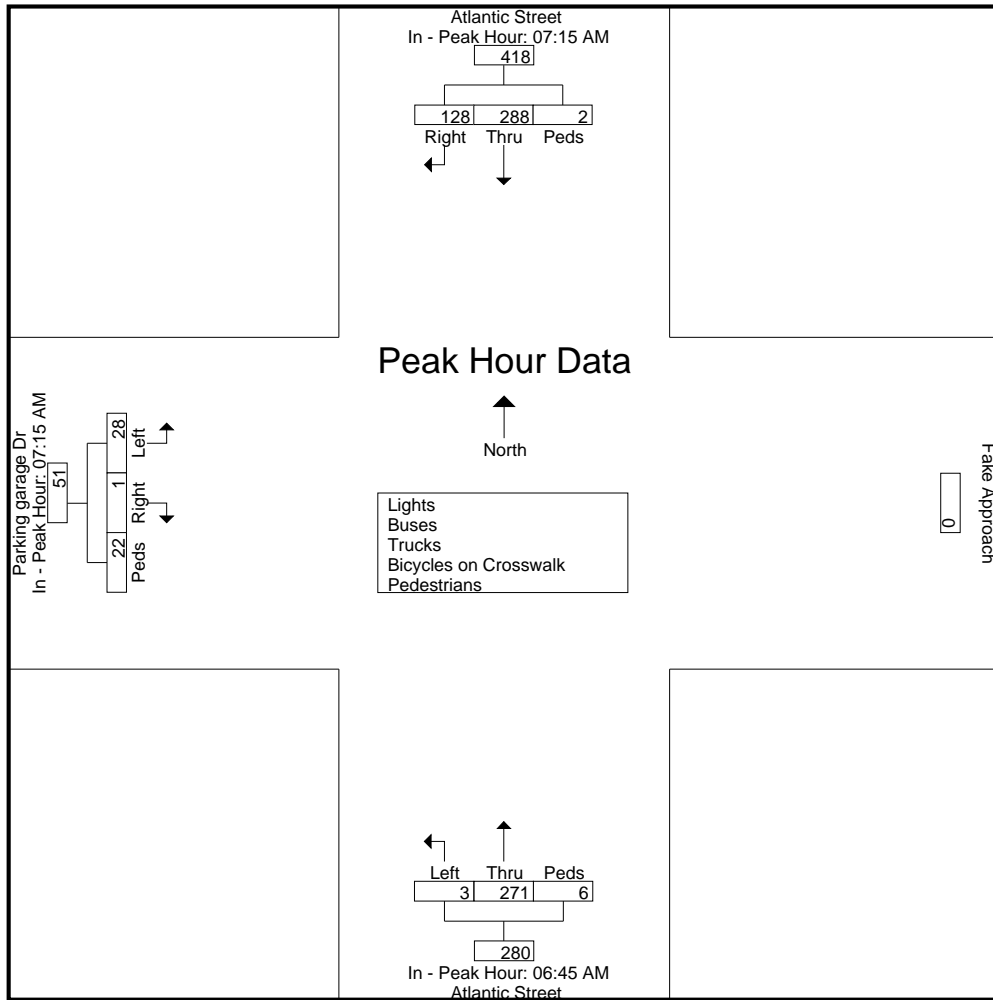
File Name : 16725
Site Code : 16725
Start Date : 11/9/2017
Page No : 3

Start Time	Atlantic Street From North				Atlantic Street From South				Parking garage Dr From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	

Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				06:45 AM				07:15 AM			
+0 mins.	46	76	0	122	62	0	2	64	0	2	12	14
+15 mins.	37	62	1	100	76	1	2	79	0	9	2	11
+30 mins.	23	79	1	103	60	1	2	63	0	2	4	6
+45 mins.	22	71	0	93	73	1	0	74	1	15	4	20
Total Volume	128	288	2	418	271	3	6	280	1	28	22	51
% App. Total	30.6	68.9	0.5		96.8	1.1	2.1		2	54.9	43.1	
PHF	.696	.911	.500	.857	.891	.750	.750	.886	.250	.467	.458	.638



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Atlantic Street at Parking Garage Drive
 Stamford, Connecticut

File Name : 16726
 Site Code : 16726
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

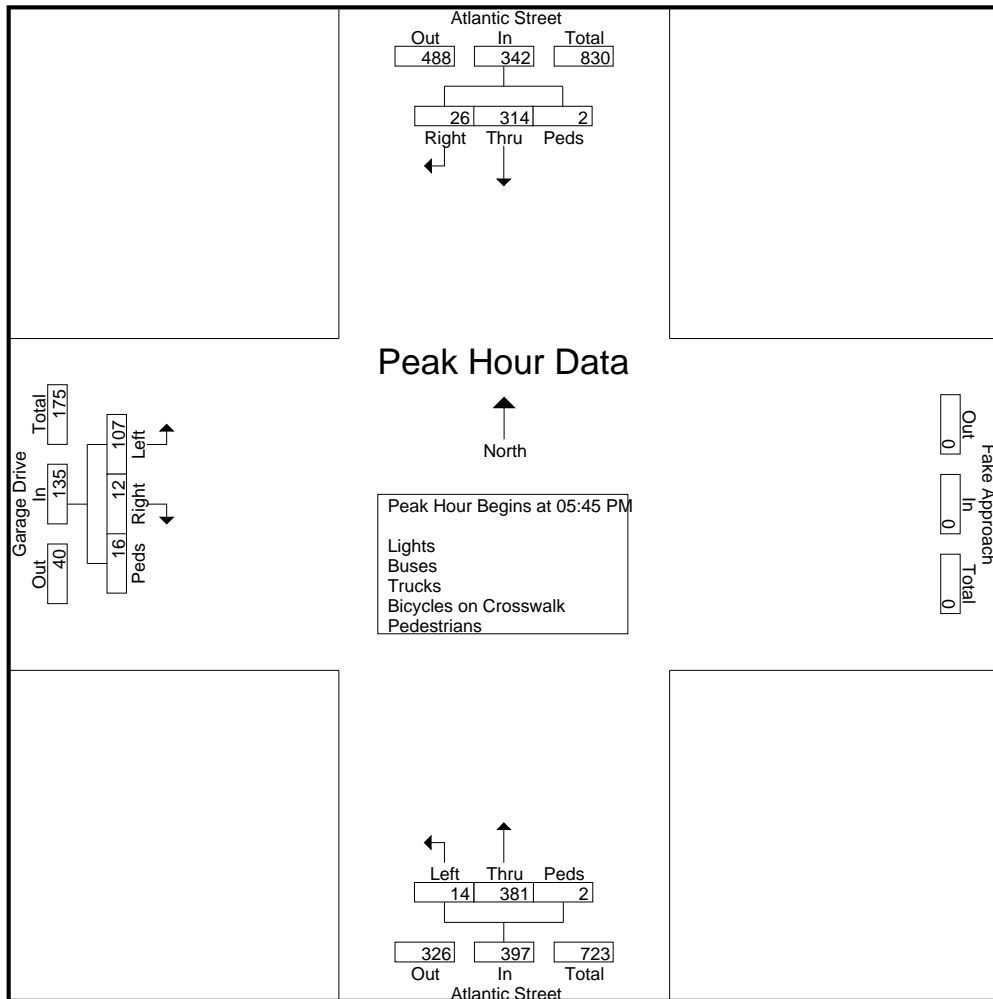
Start Time	Atlantic Street From North				Atlantic Street From South				Garage Drive From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
03:30 PM	6	51	3	60	72	2	0	74	2	6	6	14	148
03:45 PM	8	97	0	105	46	3	0	49	0	12	3	15	169
Total	14	148	3	165	118	5	0	123	2	18	9	29	317
04:00 PM	4	68	0	72	79	2	1	82	1	9	2	12	166
04:15 PM	5	57	0	62	76	2	0	78	0	6	7	13	153
04:30 PM	10	64	0	74	95	1	1	97	0	14	2	16	187
04:45 PM	7	71	3	81	80	1	1	82	0	18	9	27	190
Total	26	260	3	289	330	6	3	339	1	47	20	68	696
05:00 PM	6	60	0	66	129	4	0	133	0	13	6	19	218
05:15 PM	7	80	2	89	96	2	0	98	1	9	7	17	204
05:30 PM	2	51	0	53	112	5	0	117	0	14	7	21	191
05:45 PM	2	83	0	85	88	2	0	90	2	26	7	35	210
Total	17	274	2	293	425	13	0	438	3	62	27	92	823
06:00 PM	5	77	0	82	103	4	1	108	3	22	1	26	216
06:15 PM	9	78	0	87	89	6	0	95	4	37	1	42	224
06:30 PM	10	76	2	88	101	2	1	104	3	22	7	32	224
06:45 PM	9	64	0	73	87	3	1	91	2	35	3	40	204
Total	33	295	2	330	380	15	3	398	12	116	12	140	868
07:00 PM	7	48	0	55	59	3	0	62	2	40	6	48	165
07:15 PM	13	56	0	69	60	4	0	64	2	23	4	29	162
Grand Total	110	1081	10	1201	1372	46	6	1424	22	306	78	406	3031
Apprch %	9.2	90	0.8		96.3	3.2	0.4		5.4	75.4	19.2		
Total %	3.6	35.7	0.3	39.6	45.3	1.5	0.2	47	0.7	10.1	2.6	13.4	
Lights	110	1056	0	1166	1335	46	0	1381	22	306	0	328	2875
% Lights	100	97.7	0	97.1	97.3	100	0	97	100	100	0	80.8	94.9
Buses	0	6	0	6	15	0	0	15	0	0	0	0	21
% Buses	0	0.6	0	0.5	1.1	0	0	1.1	0	0	0	0	0.7
Trucks	0	19	0	19	22	0	0	22	0	0	0	0	41
% Trucks	0	1.8	0	1.6	1.6	0	0	1.5	0	0	0	0	1.4
Bicycles on Crosswalk	0	0	1	1	0	0	0	0	0	0	1	1	2
% Bicycles on Crosswalk	0	0	10	0.1	0	0	0	0	0	0	1.3	0.2	0.1
Pedestrians	0	0	9	9	0	0	6	6	0	0	77	77	92
% Pedestrians	0	0	90	0.7	0	0	100	0.4	0	0	98.7	19	3

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 16726
 Site Code : 16726
 Start Date : 11/9/2017
 Page No : 2

Start Time	Atlantic Street From North				Atlantic Street From South				Garage Drive From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:45 PM													
05:45 PM	2	83	0	85	88	2	0	90	2	26	7	35	210
06:00 PM	5	77	0	82	103	4	1	108	3	22	1	26	216
06:15 PM	9	78	0	87	89	6	0	95	4	37	1	42	224
06:30 PM	10	76	2	88	101	2	1	104	3	22	7	32	224
Total Volume	26	314	2	342	381	14	2	397	12	107	16	135	874
% App. Total	7.6	91.8	0.6		96	3.5	0.5		8.9	79.3	11.9		
PHF	.650	.946	.250	.972	.925	.583	.500	.919	.750	.723	.571	.804	.975



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

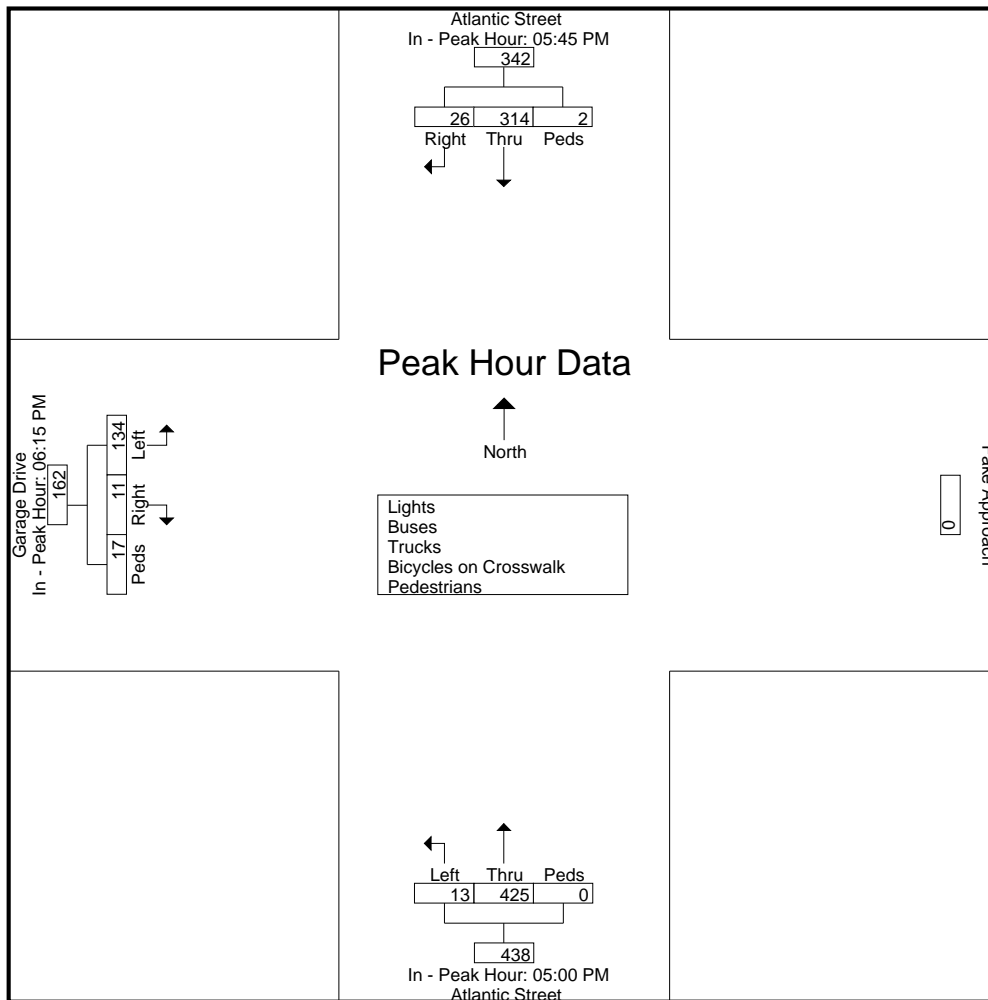
File Name : 16726
Site Code : 16726
Start Date : 11/9/2017
Page No : 3

Start Time	Atlantic Street From North				Atlantic Street From South				Garage Drive From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	

Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:45 PM				05:00 PM				06:15 PM			
+0 mins.	2	83	0	85	129	4	0	133	4	37	1	42
+15 mins.	5	77	0	82	96	2	0	98	3	22	7	32
+30 mins.	9	78	0	87	112	5	0	117	2	35	3	40
+45 mins.	10	76	2	88	88	2	0	90	2	40	6	48
Total Volume	26	314	2	342	425	13	0	438	11	134	17	162
% App. Total	7.6	91.8	0.6		97	3	0		6.8	82.7	10.5	
PHF	.650	.946	.250	.972	.824	.650	.000	.823	.688	.838	.607	.844



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

S. State Street at Parking Lot Drive
 Stamford, Connecticut

File Name : 16730
 Site Code : 16730
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

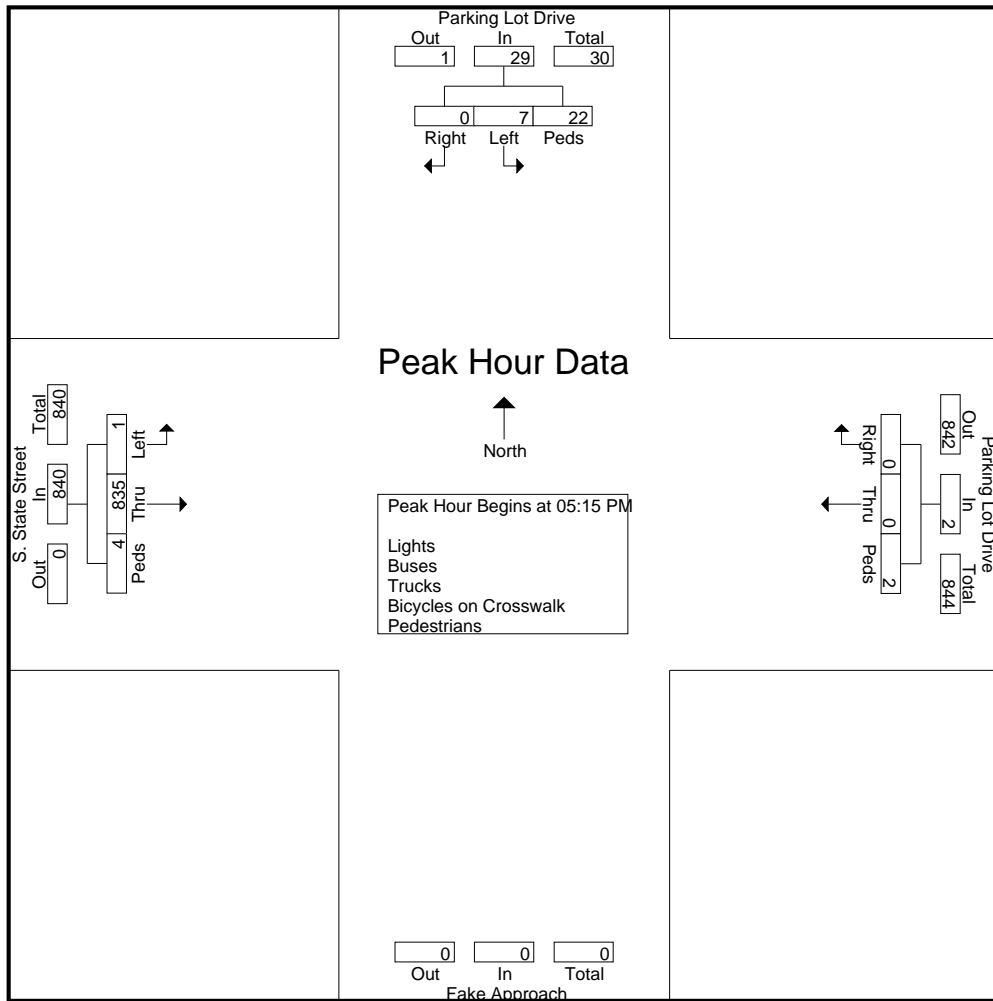
Start Time	Parking Lot Drive From North				Parking Lot Drive From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
03:30 PM	0	1	3	4	0	0	2	2	137	0	0	137	143
03:45 PM	0	1	6	7	0	0	0	0	167	0	1	168	175
Total	0	2	9	11	0	0	2	2	304	0	1	305	318
04:00 PM	0	0	6	6	0	0	0	0	151	0	1	152	158
04:15 PM	0	0	1	1	0	0	0	0	168	1	1	170	171
04:30 PM	0	0	3	3	0	0	0	0	185	0	2	187	190
04:45 PM	0	0	0	0	0	0	0	0	166	0	0	166	166
Total	0	0	10	10	0	0	0	0	670	1	4	675	685
05:00 PM	0	2	5	7	0	0	0	0	185	0	4	189	196
05:15 PM	0	0	5	5	0	0	0	0	209	0	0	209	214
05:30 PM	0	4	5	9	0	0	0	0	187	0	1	188	197
05:45 PM	0	1	7	8	0	0	2	2	229	0	2	231	241
Total	0	7	22	29	0	0	2	2	810	0	7	817	848
06:00 PM	0	2	5	7	0	0	0	0	210	1	1	212	219
06:15 PM	0	2	4	6	0	0	0	0	208	0	0	208	214
06:30 PM	0	4	1	5	0	0	0	0	177	0	0	177	182
06:45 PM	0	7	2	9	0	0	0	0	159	1	0	160	169
Total	0	15	12	27	0	0	0	0	754	2	1	757	784
07:00 PM	0	7	1	8	0	0	0	0	176	2	0	178	186
07:15 PM	0	6	3	9	0	0	0	0	149	1	0	150	159
Grand Total	0	37	57	94	0	0	4	4	2863	6	13	2882	2980
Apprch %	0	39.4	60.6		0	0	100		99.3	0.2	0.5		
Total %	0	1.2	1.9	3.2	0	0	0.1	0.1	96.1	0.2	0.4	96.7	
Lights	0	37	0	37	0	0	0	0	2734	6	0	2740	2777
% Lights	0	100	0	39.4	0	0	0	0	95.5	100	0	95.1	93.2
Buses	0	0	0	0	0	0	0	0	81	0	0	81	81
% Buses	0	0	0	0	0	0	0	0	2.8	0	0	2.8	2.7
Trucks	0	0	0	0	0	0	0	0	48	0	0	48	48
% Trucks	0	0	0	0	0	0	0	0	1.7	0	0	1.7	1.6
Bicycles on Crosswalk	0	0	2	2	0	0	1	1	0	0	0	0	3
% Bicycles on Crosswalk	0	0	3.5	2.1	0	0	25	25	0	0	0	0	0.1
Pedestrians	0	0	55	55	0	0	3	3	0	0	13	13	71
% Pedestrians	0	0	96.5	58.5	0	0	75	75	0	0	100	0.5	2.4

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 16730
Site Code : 16730
Start Date : 11/9/2017
Page No : 2

Start Time	Parking Lot Drive From North				Parking Lot Drive From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:15 PM													
05:15 PM	0	0	5	5	0	0	0	0	209	0	0	209	214
05:30 PM	0	4	5	9	0	0	0	0	187	0	1	188	197
05:45 PM	0	1	7	8	0	0	2	2	229	0	2	231	241
06:00 PM	0	2	5	7	0	0	0	0	210	1	1	212	219
Total Volume	0	7	22	29	0	0	2	2	835	1	4	840	871
% App. Total	0	24.1	75.9		0	0	100		99.4	0.1	0.5		
PHF	.000	.438	.786	.806	.000	.000	.250	.250	.912	.250	.500	.909	.904



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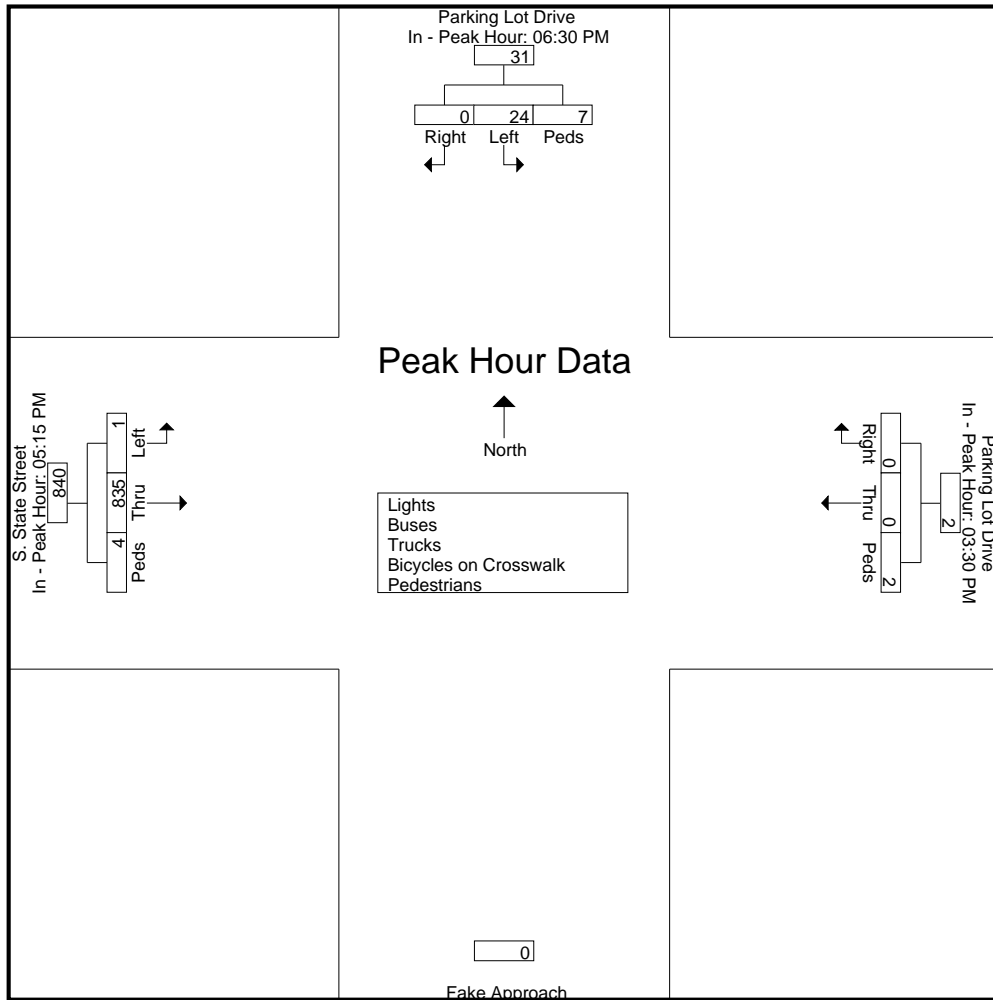
File Name : 16730
Site Code : 16730
Start Date : 11/9/2017
Page No : 3

Start Time	Parking Lot Drive From North				Parking Lot Drive From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	06:30 PM				03:30 PM				05:15 PM			
+0 mins.	0	4	1	5	0	0	2	2	209	0	0	209
+15 mins.	0	7	2	9	0	0	0	0	187	0	1	188
+30 mins.	0	7	1	8	0	0	0	0	229	0	2	231
+45 mins.	0	6	3	9	0	0	0	0	210	1	1	212
Total Volume	0	24	7	31	0	0	2	2	835	1	4	840
% App. Total	0	77.4	22.6		0	0	100		99.4	0.1	0.5	
PHF	.000	.857	.583	.861	.000	.000	.250	.250	.912	.250	.500	.909



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S. State Street at Parking Lot Drive
 Stamford, Connecticut

File Name : 16729
 Site Code : 16729
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

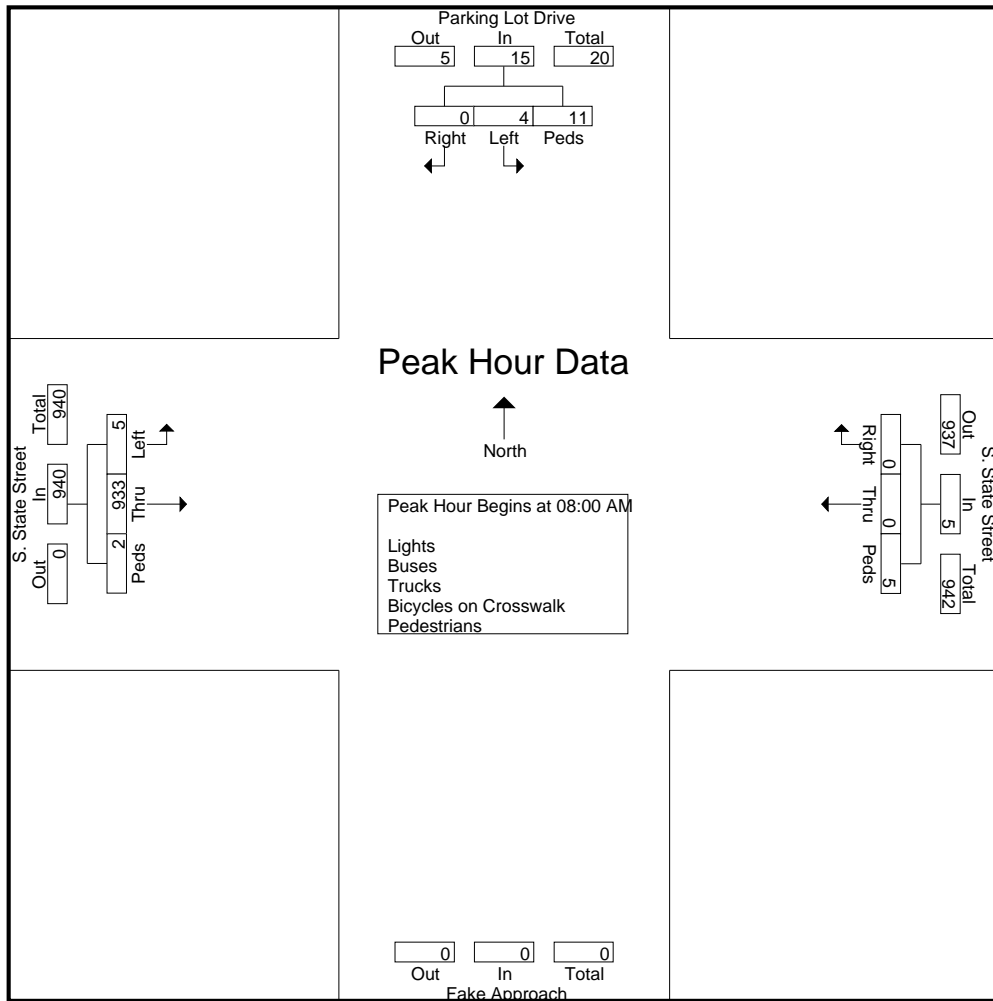
Start Time	Parking Lot Drive From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
05:30 AM	0	0	1	1	0	0	0	0	19	0	0	19	20
05:45 AM	0	0	0	0	0	0	0	0	29	0	0	29	29
Total	0	0	1	1	0	0	0	0	48	0	0	48	49
06:00 AM	0	0	5	5	0	0	1	1	43	1	2	46	52
06:15 AM	0	0	2	2	0	0	2	2	69	2	0	71	75
06:30 AM	0	0	8	8	0	0	0	0	103	0	1	104	112
06:45 AM	0	0	7	7	0	0	0	0	116	0	1	117	124
Total	0	0	22	22	0	0	3	3	331	3	4	338	363
07:00 AM	0	1	8	9	0	0	0	0	146	3	0	149	158
07:15 AM	0	0	7	7	0	0	0	0	143	1	0	144	151
07:30 AM	0	0	0	0	0	0	0	0	189	2	0	191	191
07:45 AM	0	1	4	5	0	0	1	1	214	2	0	216	222
Total	0	2	19	21	0	0	1	1	692	8	0	700	722
08:00 AM	0	2	2	4	0	0	1	1	222	3	2	227	232
08:15 AM	0	0	1	1	0	0	2	2	220	0	0	220	223
08:30 AM	0	2	5	7	0	0	2	2	241	2	0	243	252
08:45 AM	0	0	3	3	0	0	0	0	250	0	0	250	253
Total	0	4	11	15	0	0	5	5	933	5	2	940	960
09:00 AM	0	1	4	5	0	0	0	0	174	1	1	176	181
09:15 AM	0	0	21	21	0	0	4	4	158	0	2	160	185
Grand Total	0	7	78	85	0	0	13	13	2336	17	9	2362	2460
Apprch %	0	8.2	91.8		0	0	100		98.9	0.7	0.4		
Total %	0	0.3	3.2	3.5	0	0	0.5	0.5	95	0.7	0.4	96	
Lights	0	7	0	7	0	0	0	0	2145	16	0	2161	2168
% Lights	0	100	0	8.2	0	0	0	0	91.8	94.1	0	91.5	88.1
Buses	0	0	0	0	0	0	0	0	86	0	0	86	86
% Buses	0	0	0	0	0	0	0	0	3.7	0	0	3.6	3.5
Trucks	0	0	0	0	0	0	0	0	105	1	0	106	106
% Trucks	0	0	0	0	0	0	0	0	4.5	5.9	0	4.5	4.3
Bicycles on Crosswalk	0	0	1	1	0	0	0	0	0	0	0	0	1
% Bicycles on Crosswalk	0	0	1.3	1.2	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	77	77	0	0	13	13	0	0	9	9	99
% Pedestrians	0	0	98.7	90.6	0	0	100	100	0	0	100	0.4	4

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File Name : 16729
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Start Time	Parking Lot Drive From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	2	2	4	0	0	1	1	222	3	2	227	232
08:15 AM	0	0	1	1	0	0	2	2	220	0	0	220	223
08:30 AM	0	2	5	7	0	0	2	2	241	2	0	243	252
08:45 AM	0	0	3	3	0	0	0	0	250	0	0	250	253
Total Volume	0	4	11	15	0	0	5	5	933	5	2	940	960
% App. Total	0	26.7	73.3		0	0	100		99.3	0.5	0.2		
PHF	.000	.500	.550	.536	.000	.000	.625	.625	.933	.417	.250	.940	.949



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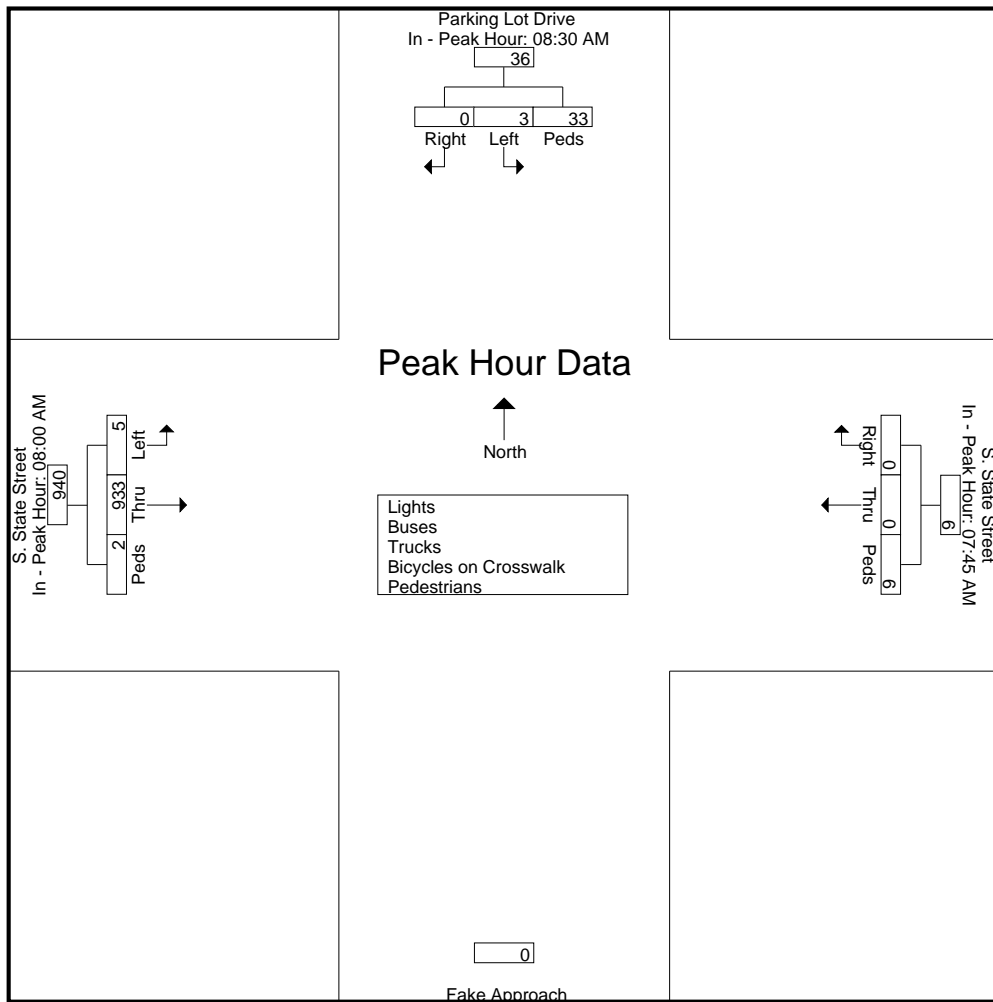
File Name : 16729
Site Code : 16729
Start Date : 11/9/2017
Page No : 3

Start Time	Parking Lot Drive From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM				07:45 AM				08:00 AM			
+0 mins.	0	2	5	7	0	0	1	1	222	3	2	227
+15 mins.	0	0	3	3	0	0	1	1	220	0	0	220
+30 mins.	0	1	4	5	0	0	2	2	241	2	0	243
+45 mins.	0	0	21	21	0	0	2	2	250	0	0	250
Total Volume	0	3	33	36	0	0	6	6	933	5	2	940
% App. Total	0	8.3	91.7		0	0	100		99.3	0.5	0.2	
PHF	.000	.375	.393	.429	.000	.000	.750	.750	.933	.417	.250	.940



Connecticut Counts LLC
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Station Place at East Garage Dr/Drop Off
 Stamford, Connecticut

File Name : 16735
 Site Code : 16735
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

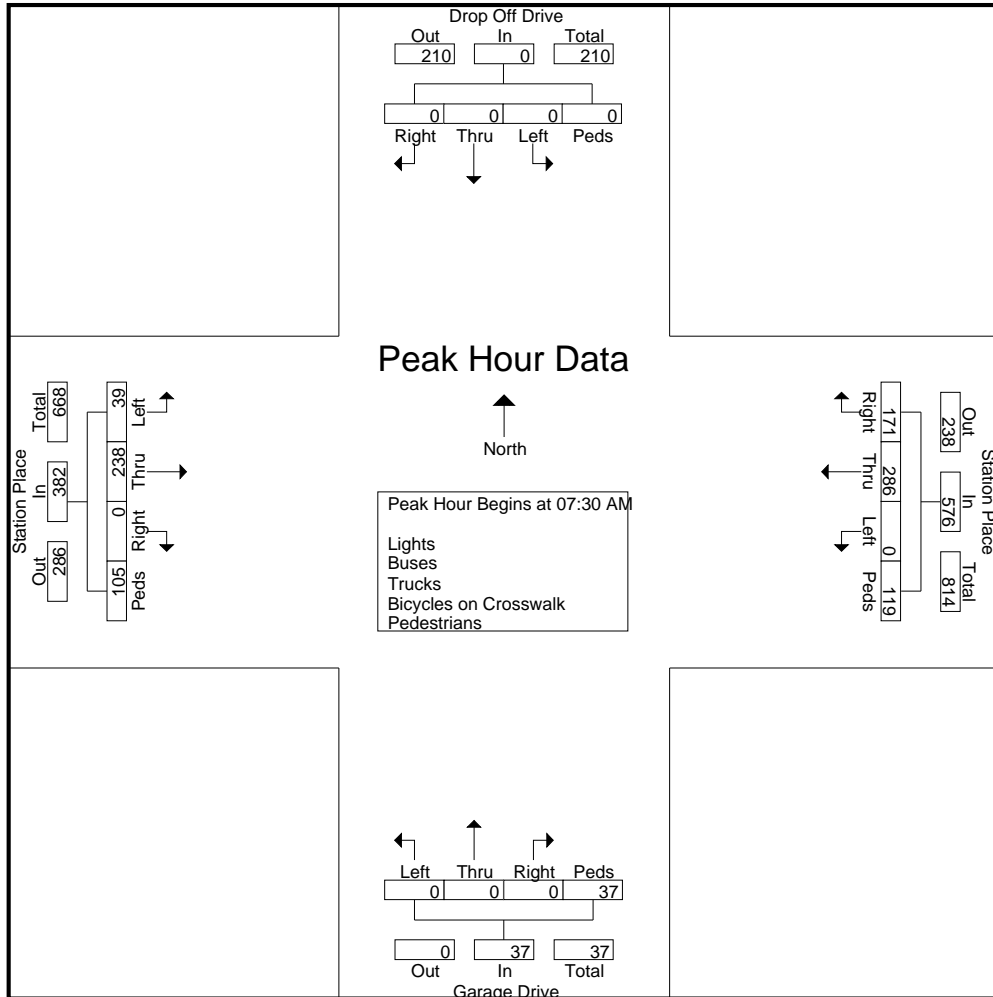
Start Time	Drop Off Drive From North					Station Place From East					Garage Drive From South					Station Place From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:30 AM	0	0	0	0	0	9	11	0	1	21	0	0	0	2	2	0	10	1	0	11	34
05:45 AM	0	0	0	0	0	13	17	1	4	35	0	0	0	3	3	0	14	2	0	16	54
Total	0	0	0	0	0	22	28	1	5	56	0	0	0	5	5	0	24	3	0	27	88
06:00 AM	0	0	0	1	1	14	13	0	5	32	0	0	0	4	4	0	15	5	0	20	57
06:15 AM	0	0	0	0	0	20	26	0	8	54	0	0	0	4	4	0	18	4	0	22	80
06:30 AM	0	0	0	0	0	22	33	0	11	66	0	0	0	6	6	0	35	6	0	41	113
06:45 AM	0	0	0	0	0	19	49	0	24	92	0	0	0	8	8	0	37	3	4	44	144
Total	0	0	0	1	1	75	121	0	48	244	0	0	0	22	22	0	105	18	4	127	394
07:00 AM	0	0	0	0	0	45	56	0	24	125	0	0	0	7	7	0	56	13	2	71	203
07:15 AM	0	0	0	0	0	42	59	0	29	130	0	0	0	6	6	0	57	8	2	67	203
07:30 AM	0	0	0	0	0	45	87	0	31	163	0	0	0	6	6	0	49	7	29	85	254
07:45 AM	0	0	0	0	0	41	68	0	27	136	0	0	0	10	10	0	58	10	33	101	247
Total	0	0	0	0	0	173	270	0	111	554	0	0	0	29	29	0	220	38	66	324	907
08:00 AM	0	0	0	0	0	42	77	0	32	151	0	0	0	10	10	0	68	8	32	108	269
08:15 AM	0	0	0	0	0	43	54	0	29	126	0	0	0	11	11	0	63	14	11	88	225
08:30 AM	0	0	0	0	0	25	74	0	22	121	0	0	0	11	11	0	81	10	0	91	223
08:45 AM	0	0	0	0	0	21	71	0	14	106	0	0	0	2	2	0	75	10	0	85	193
Total	0	0	0	0	0	131	276	0	97	504	0	0	0	34	34	0	287	42	43	372	910
09:00 AM	0	0	0	0	0	27	48	0	29	104	0	0	0	11	11	0	72	7	0	79	194
09:15 AM	0	0	0	0	0	22	60	0	6	88	0	0	0	7	7	0	55	9	0	64	159
Grand Total	0	0	0	1	1	450	803	1	296	1550	0	0	0	108	108	0	763	117	113	993	2652
Apprch %	0	0	0	100		29	51.8	0.1	19.1		0	0	0	100		0	76.8	11.8	11.4		
Total %	0	0	0	0	0	17	30.3	0	11.2	58.4	0	0	0	4.1	4.1	0	28.8	4.4	4.3	37.4	
Lights	0	0	0	0	0	447	764	1	0	1212	0	0	0	0	0	0	701	115	0	816	2028
% Lights	0	0	0	0	0	99.3	95.1	100	0	78.2	0	0	0	0	0	0	91.9	98.3	0	82.2	76.5
Buses	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	0	22	1	0	23	45
% Buses	0	0	0	0	0	0	2.7	0	0	1.4	0	0	0	0	0	0	2.9	0.9	0	2.3	1.7
Trucks	0	0	0	0	0	3	17	0	0	20	0	0	0	0	0	0	40	1	0	41	61
% Trucks	0	0	0	0	0	0.7	2.1	0	0	1.3	0	0	0	0	0	0	5.2	0.9	0	4.1	2.3
Bicycles on Crosswalk % Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	1.9	0	0	0	0	0	0.1
Pedestrians	0	0	0	1	1	0	0	0	296	296	0	0	0	106	106	0	0	0	113	113	516
% Pedestrians	0	0	0	100	100	0	0	0	100	19.1	0	0	0	98.1	98.1	0	0	0	100	11.4	19.5

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File Name : 16735
 Site Code : 16735
 Start Date : 11/9/2017
 Page No : 2

Start Time	Drop Off Drive From North					Station Place From East					Garage Drive From South					Station Place From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	45	87	0	31	163	0	0	0	6	6	0	49	7	29	85	254
07:45 AM	0	0	0	0	0	41	68	0	27	136	0	0	0	10	10	0	58	10	33	101	247
08:00 AM	0	0	0	0	0	42	77	0	32	151	0	0	0	10	10	0	68	8	32	108	269
08:15 AM	0	0	0	0	0	43	54	0	29	126	0	0	0	11	11	0	63	14	11	88	225
Total Volume	0	0	0	0	0	171	286	0	119	576	0	0	0	37	37	0	238	39	105	382	995
% App. Total	0	0	0	0	0	29.7	49.7	0	20.7		0	0	0	100		0	62.3	10.2	27.5		
PHF	.000	.000	.000	.000	.000	.950	.822	.000	.930	.883	.000	.000	.000	.841	.841	.000	.875	.696	.795	.884	.925



Connecticut Counts LLC

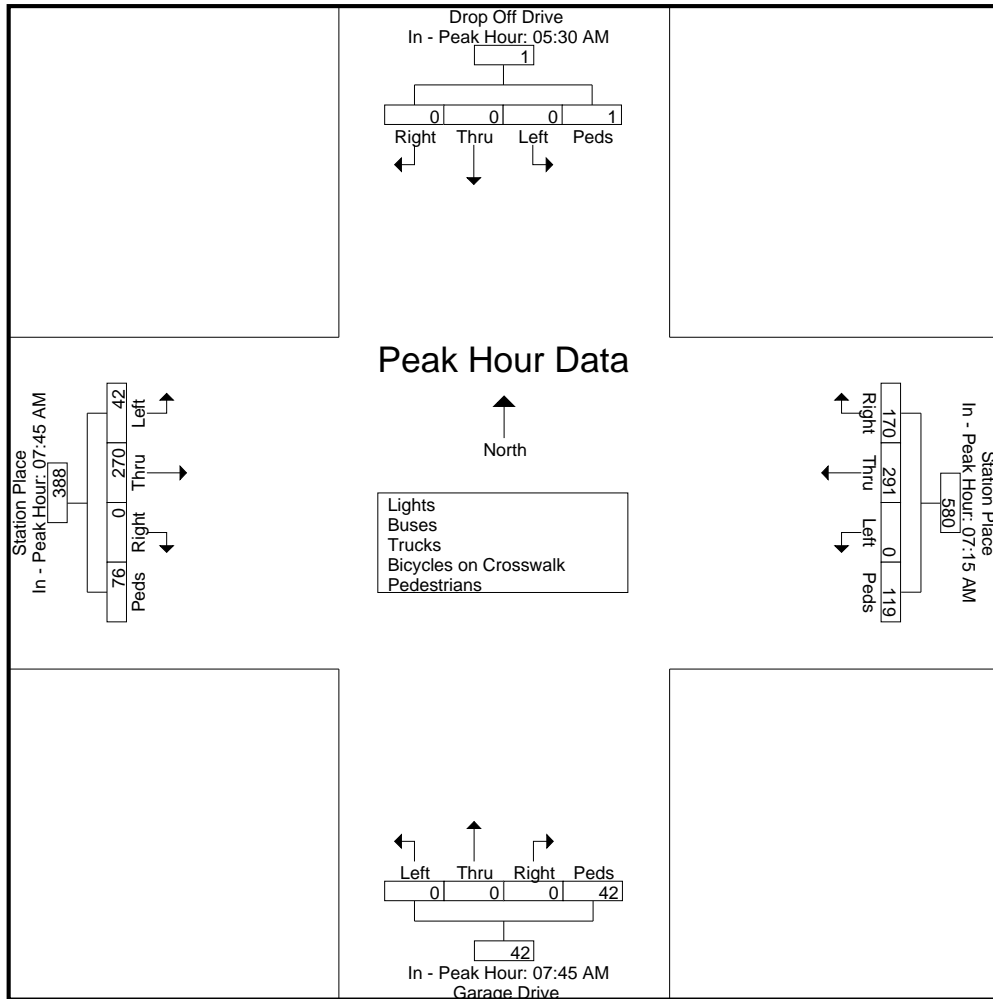
Kensington, Connecticut 06037
(860) 828-1693

File Name : 16735
 Site Code : 16735
 Start Date : 11/9/2017
 Page No : 3

Start Time	Drop Off Drive From North					Station Place From East					Garage Drive From South					Station Place From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:30 AM					07:15 AM					07:45 AM					07:45 AM				
+0 mins.	0	0	0	0	0	42	59	0	29	130	0	0	0	10	10	0	58	10	33	101
+15 mins.	0	0	0	0	0	45	87	0	31	163	0	0	0	10	10	0	68	8	32	108
+30 mins.	0	0	0	1	1	41	68	0	27	136	0	0	0	11	11	0	63	14	11	88
+45 mins.	0	0	0	0	0	42	77	0	32	151	0	0	0	11	11	0	81	10	0	91
Total Volume	0	0	0	1	1	170	291	0	119	580	0	0	0	42	42	0	270	42	76	388
% App. Total	0	0	0	100		29.3	50.2	0	20.5		0	0	0	100		0	69.6	10.8	19.6	
PHF	.000	.000	.000	.250	.250	.944	.836	.000	.930	.890	.000	.000	.000	.955	.955	.000	.833	.750	.576	.898



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Station Place at Garage Dr/Drop Off Dr
Stamford, Connecticut

File Name : 16736
Site Code : 16736
Start Date : 11/9/2017
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

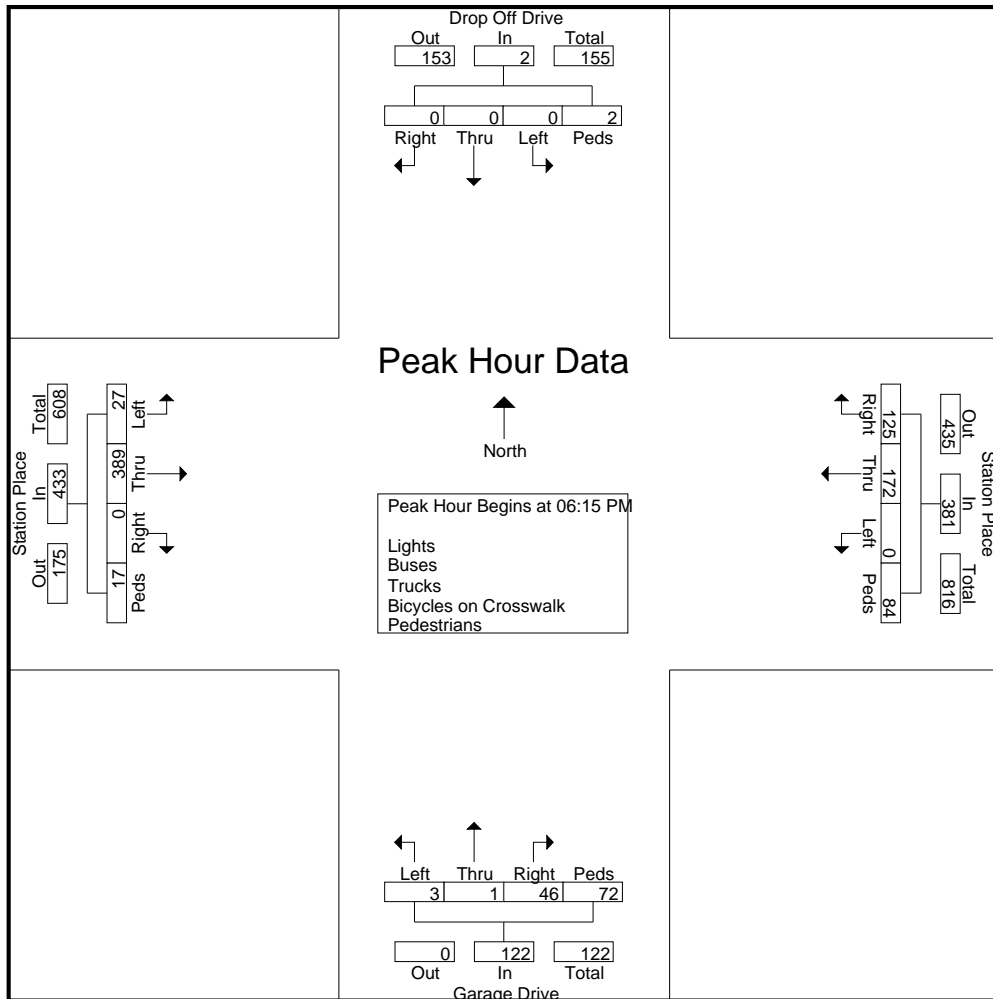
Start Time	Drop Off Drive From North					Station Place From East					Garage Drive From South					Station Place From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	0	0	0	0	0	21	28	0	8	57	0	0	0	2	2	0	73	5	0	78	137
03:45 PM	0	0	0	0	0	29	41	0	5	75	2	0	0	3	5	0	78	10	0	88	168
Total	0	0	0	0	0	50	69	0	13	132	2	0	0	5	7	0	151	15	0	166	305
04:00 PM	0	0	0	0	0	22	50	0	11	83	3	0	0	2	5	0	98	12	0	110	198
04:15 PM	0	0	0	0	0	27	41	0	10	78	1	0	0	10	11	0	79	12	0	91	180
04:30 PM	0	0	0	0	0	25	45	0	9	79	5	0	0	4	9	0	107	6	0	113	201
04:45 PM	0	0	0	0	0	31	43	0	23	97	0	0	0	6	6	0	97	5	0	102	205
Total	0	0	0	0	0	105	179	0	53	337	9	0	0	22	31	0	381	35	0	416	784
05:00 PM	0	0	0	0	0	29	45	0	22	96	5	0	0	7	12	0	105	8	0	113	221
05:15 PM	0	0	0	0	0	14	57	0	33	104	1	0	0	16	17	0	93	2	0	95	216
05:30 PM	0	0	0	0	0	27	35	0	16	78	9	0	1	9	19	0	107	5	0	112	209
05:45 PM	0	0	0	0	0	37	41	0	12	90	8	0	0	14	22	0	100	8	2	110	222
Total	0	0	0	0	0	107	178	0	83	368	23	0	1	46	70	0	405	23	2	430	868
06:00 PM	0	0	0	0	0	31	34	0	19	84	5	0	0	8	13	0	98	4	0	102	199
06:15 PM	0	0	0	0	0	30	53	0	18	101	9	0	0	19	28	0	112	5	2	119	248
06:30 PM	0	0	0	1	1	34	42	0	27	103	12	0	1	21	34	0	100	3	8	111	249
06:45 PM	0	0	0	0	0	32	41	0	15	88	13	1	1	14	29	0	79	12	6	97	214
Total	0	0	0	1	1	127	170	0	79	376	39	1	2	62	104	0	389	24	16	429	910
07:00 PM	0	0	0	1	1	29	36	0	24	89	12	0	1	18	31	0	98	7	1	106	227
07:15 PM	0	0	0	0	0	33	40	0	17	90	4	0	0	6	10	0	82	9	0	91	191
Grand Total	0	0	0	2	2	451	672	0	269	1392	89	1	4	159	253	0	1506	113	19	1638	3285
Apprch %	0	0	0	100		32.4	48.3	0	19.3		35.2	0.4	1.6	62.8		0	91.9	6.9	1.2		
Total %	0	0	0	0.1	0.1	13.7	20.5	0	8.2	42.4	2.7	0	0.1	4.8	7.7	0	45.8	3.4	0.6	49.9	
Lights	0	0	0	0	0	450	618	0	0	1068	89	1	4	0	94	0	1471				
% Lights	0	0	0	0	0	99.8	92	0	0	76.7	100	100	100	0	37.2	0	97.7	100	0	96.7	83.6
Buses	0	0	0	0	0	1	42	0	0	43	0	0	0	0	0	0	19	0	0	19	62
% Buses	0	0	0	0	0	0.2	6.2	0	0	3.1	0	0	0	0	0	0	1.3	0	0	1.2	1.9
Trucks	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	16	0	0	16	28
% Trucks	0	0	0	0	0	0	1.8	0	0	0.9	0	0	0	0	0	0	1.1	0	0	1	0.9
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0.4	0.1	0	0	0	1.3	0.8	0	0	0	0	0	0.1
Pedestrians	0	0	0	2	2	0	0	0	268	268	0	0	0	157	157	0	0	0	19	19	446
% Pedestrians	0	0	0	100	100	0	0	0	99.6	19.3	0	0	0	98.7	62.1	0	0	0	100	1.2	13.6

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 16736
 Site Code : 16736
 Start Date : 11/9/2017
 Page No : 2

Start Time	Drop Off Drive From North					Station Place From East					Garage Drive From South					Station Place From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:15 PM																					
06:15 PM	0	0	0	0	0	30	53	0	18	101	9	0	0	19	28	0	112	5	2	119	248
06:30 PM	0	0	0	1	1	34	42	0	27	103	12	0	1	21	34	0	100	3	8	111	249
06:45 PM	0	0	0	0	0	32	41	0	15	88	13	1	1	14	29	0	79	12	6	97	214
07:00 PM	0	0	0	1	1	29	36	0	24	89	12	0	1	18	31	0	98	7	1	106	227
Total Volume	0	0	0	2	2	125	172	0	84	381	46	1	3	72	122	0	389	27	17	433	938
% App. Total	0	0	0	100		32.8	45.1	0	22		37.7	0.8	2.5	59		0	89.8	6.2	3.9		
PHF	.000	.000	.000	.500	.500	.919	.811	.000	.778	.925	.885	.250	.750	.857	.897	.000	.868	.563	.531	.910	.942



Connecticut Counts LLC

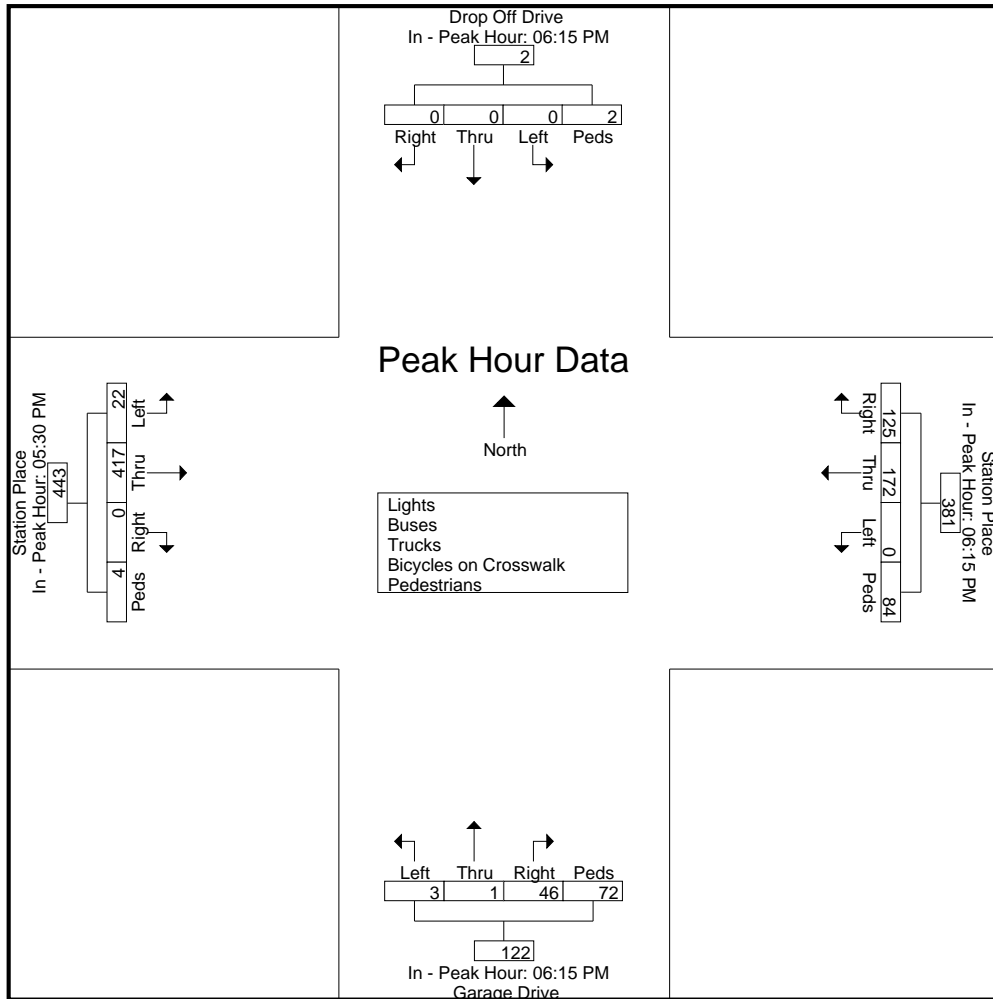
Kensington, Connecticut 06037
(860) 828-1693

File Name : 16736
 Site Code : 16736
 Start Date : 11/9/2017
 Page No : 3

Start Time	Drop Off Drive From North					Station Place From East					Garage Drive From South					Station Place From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	06:15 PM					06:15 PM					06:15 PM					05:30 PM				
+0 mins.	0	0	0	0	0	30	53	0	18	101	9	0	0	19	28	0	107	5	0	112
+15 mins.	0	0	0	1	1	34	42	0	27	103	12	0	1	21	34	0	100	8	2	110
+30 mins.	0	0	0	0	0	32	41	0	15	88	13	1	1	14	29	0	98	4	0	102
+45 mins.	0	0	0	1	1	29	36	0	24	89	12	0	1	18	31	0	112	5	2	119
Total Volume	0	0	0	2	2	125	172	0	84	381	46	1	3	72	122	0	417	22	4	443
% App. Total	0	0	0	100		32.8	45.1	0	22		37.7	0.8	2.5	59		0	94.1	5	0.9	
PHF	.000	.000	.000	.500	.500	.919	.811	.000	.778	.925	.885	.250	.750	.857	.897	.000	.931	.688	.500	.931



Connecticut Counts LLC
Kensington, Connecticut 06037
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Station Place at Metro Center Drive
 Stamford, Connecticut

File Name : 16737
 Site Code : 16737
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

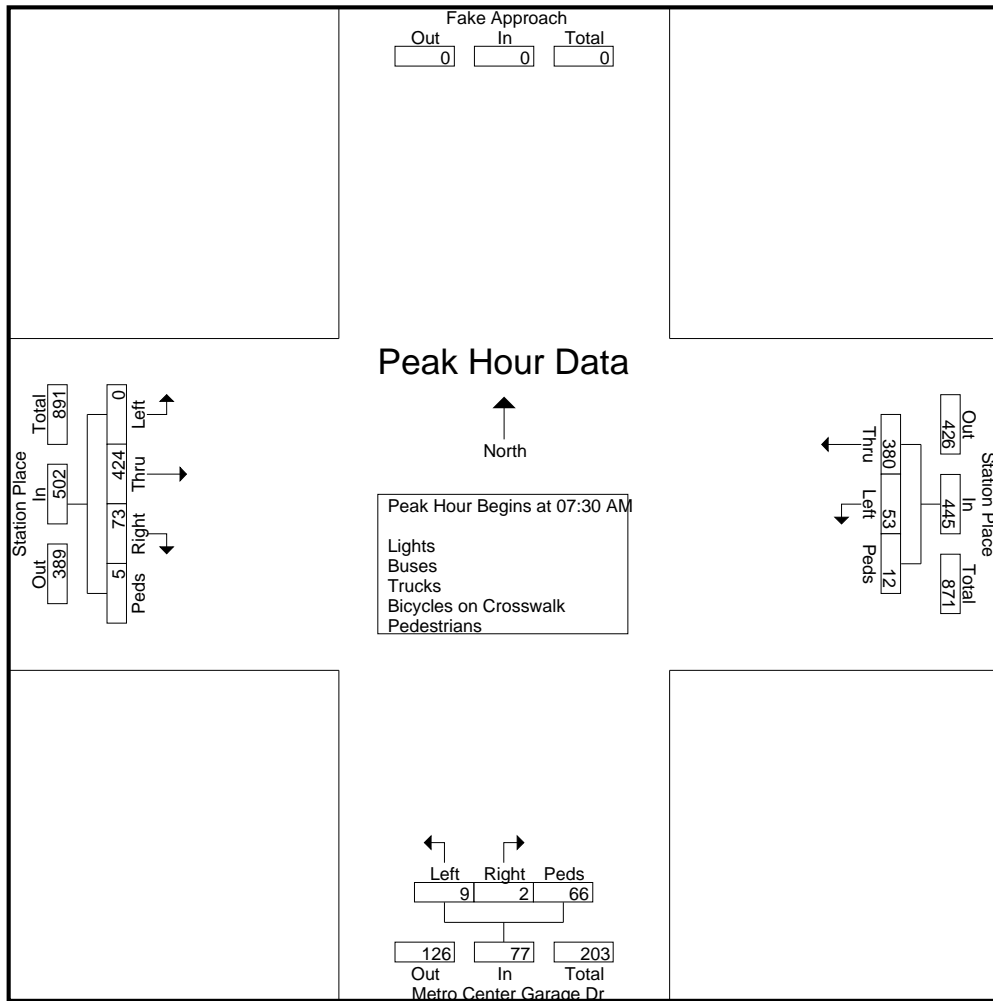
Start Time	Station Place From East				Metro Center Garage Dr From South				Station Place From West				Int. Total	
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds		App. Total
05:30 AM	11	0	0	11	0	0	1	1	3	31	0	1	35	47
05:45 AM	18	3	0	21	0	0	0	0	3	43	0	0	46	67
Total	29	3	0	32	0	0	1	1	6	74	0	1	81	114
06:00 AM	20	4	0	24	0	0	2	2	2	32	0	0	34	60
06:15 AM	28	5	2	35	0	0	8	8	5	74	0	0	79	122
06:30 AM	46	7	13	66	0	1	17	18	12	89	0	0	101	185
06:45 AM	46	7	4	57	0	1	14	15	10	71	0	0	81	153
Total	140	23	19	182	0	2	41	43	29	266	0	0	295	520
07:00 AM	72	11	0	83	0	1	7	8	10	112	1	2	125	216
07:15 AM	92	14	3	109	3	3	15	21	11	119	0	0	130	260
07:30 AM	101	14	0	115	0	2	6	8	13	115	0	1	129	252
07:45 AM	94	11	4	109	0	4	13	17	21	98	0	1	120	246
Total	359	50	7	416	3	10	41	54	55	444	1	4	504	974
08:00 AM	98	13	2	113	2	1	16	19	21	110	0	2	133	265
08:15 AM	87	15	6	108	0	2	31	33	18	101	0	1	120	261
08:30 AM	83	15	0	98	0	2	16	18	18	93	0	0	111	227
08:45 AM	73	8	0	81	0	3	10	13	18	99	0	0	117	211
Total	341	51	8	400	2	8	73	83	75	403	0	3	481	964
09:00 AM	76	7	0	83	1	1	17	19	14	80	0	3	97	199
09:15 AM	64	12	0	76	0	1	9	10	15	65	0	0	80	166
Grand Total	1009	146	34	1189	6	22	182	210	194	1332	1	11	1538	2937
Apprch %	84.9	12.3	2.9		2.9	10.5	86.7		12.6	86.6	0.1	0.7		
Total %	34.4	5	1.2	40.5	0.2	0.7	6.2	7.2	6.6	45.4	0	0.4	52.4	
Lights	970	146	0	1116	6	22	0	28	194	1262	1	0	1457	2601
% Lights	96.1	100	0	93.9	100	100	0	13.3	100	94.7	100	0	94.7	88.6
Buses	20	0	0	20	0	0	0	0	0	39	0	0	39	59
% Buses	2	0	0	1.7	0	0	0	0	0	2.9	0	0	2.5	2
Trucks	19	0	0	19	0	0	0	0	0	31	0	0	31	50
% Trucks	1.9	0	0	1.6	0	0	0	0	0	2.3	0	0	2	1.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	34	34	0	0	182	182	0	0	0	11	11	227
% Pedestrians	0	0	100	2.9	0	0	100	86.7	0	0	0	100	0.7	7.7

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 16737
 Site Code : 16737
 Start Date : 11/9/2017
 Page No : 2

Start Time	Station Place From East				Metro Center Garage Dr From South				Station Place From West				Int. Total	
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds		App. Total
Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 07:30 AM														
07:30 AM	101	14	0	115	0	2	6	8	13	115	0	1	129	252
07:45 AM	94	11	4	109	0	4	13	17	21	98	0	1	120	246
08:00 AM	98	13	2	113	2	1	16	19	21	110	0	2	133	265
08:15 AM	87	15	6	108	0	2	31	33	18	101	0	1	120	261
Total Volume	380	53	12	445	2	9	66	77	73	424	0	5	502	1024
% App. Total	85.4	11.9	2.7		2.6	11.7	85.7		14.5	84.5	0	1		
PHF	.941	.883	.500	.967	.250	.563	.532	.583	.869	.922	.000	.625	.944	.966



Connecticut Counts LLC

Kensington, Connecticut 06037

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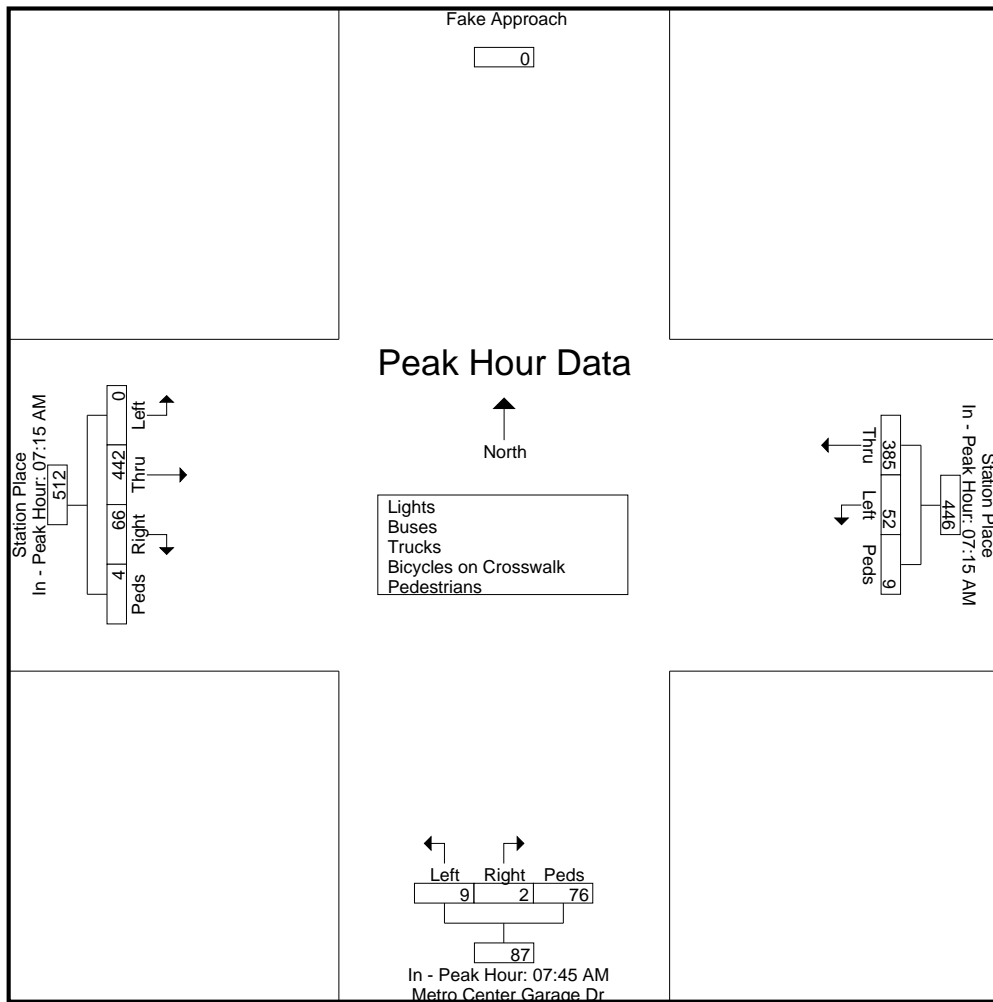
File Name : 16737
 Site Code : 16737
 Start Date : 11/9/2017
 Page No : 3

Start Time	Station Place From East				Metro Center Garage Dr From South				Station Place From West					Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:45 AM				07:15 AM				
+0 mins.	92	14	3	109	0	4	13	17	11	119	0	0	130
+15 mins.	101	14	0	115	2	1	16	19	13	115	0	1	129
+30 mins.	94	11	4	109	0	2	31	33	21	98	0	1	120
+45 mins.	98	13	2	113	0	2	16	18	21	110	0	2	133
Total Volume	385	52	9	446	2	9	76	87	66	442	0	4	512
% App. Total	86.3	11.7	2		2.3	10.3	87.4		12.9	86.3	0	0.8	
PHF	.953	.929	.563	.970	.250	.563	.613	.659	.786	.929	.000	.500	.962



Connecticut Counts LLC
Kensington, Connecticut 06037
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Station Place at Metro Center Drive
 Stamford, Connecticut

File Name : 16738
 Site Code : 16738
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Station Place From East				Metro Center Garage Dr From South				Station Place From West				Int. Total	
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds		App. Total
03:30 PM	36	0	3	39	4	7	4	15	3	64	1	1	69	123
03:45 PM	72	4	1	77	7	9	14	30	1	84	1	0	86	193
Total	108	4	4	116	11	16	18	45	4	148	2	1	155	316
04:00 PM	84	3	2	89	8	8	5	21	4	96	0	1	101	211
04:15 PM	62	7	0	69	4	7	12	23	7	98	0	1	106	198
04:30 PM	86	0	0	86	7	17	12	36	2	91	0	0	93	215
04:45 PM	78	1	0	79	10	12	10	32	4	84	0	2	90	201
Total	310	11	2	323	29	44	39	112	17	369	0	4	390	825
05:00 PM	75	4	2	81	10	14	10	34	1	90	0	0	91	206
05:15 PM	78	2	0	80	6	10	15	31	4	93	0	4	101	212
05:30 PM	96	2	2	100	5	19	10	34	6	87	0	1	94	228
05:45 PM	90	5	5	100	3	17	12	32	2	103	1	1	107	239
Total	339	13	9	361	24	60	47	131	13	373	1	6	393	885
06:00 PM	82	1	0	83	8	14	16	38	2	93	1	2	98	219
06:15 PM	118	2	7	127	3	9	18	30	5	95	0	1	101	258
06:30 PM	110	6	0	116	4	13	12	29	0	90	0	1	91	236
06:45 PM	122	3	3	128	1	3	22	26	3	86	1	3	93	247
Total	432	12	10	454	16	39	68	123	10	364	2	7	383	960
07:00 PM	114	2	2	118	9	6	15	30	4	84	0	2	90	238
07:15 PM	97	6	0	103	4	8	10	22	2	83	0	0	85	210
Grand Total	1400	48	27	1475	93	173	197	463	50	1421	5	20	1496	3434
Apprch %	94.9	3.3	1.8		20.1	37.4	42.5		3.3	95	0.3	1.3		
Total %	40.8	1.4	0.8	43	2.7	5	5.7	13.5	1.5	41.4	0.1	0.6	43.6	
Lights	1354	48	0	1402	93	173	0	266	50	1385	5	0	1440	3108
% Lights	96.7	100	0	95.1	100	100	0	57.5	100	97.5	100	0	96.3	90.5
Buses	38	0	0	38	0	0	0	0	0	20	0	0	20	58
% Buses	2.7	0	0	2.6	0	0	0	0	0	1.4	0	0	1.3	1.7
Trucks	8	0	0	8	0	0	0	0	0	16	0	0	16	24
% Trucks	0.6	0	0	0.5	0	0	0	0	0	1.1	0	0	1.1	0.7
Bicycles on Crosswalk	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0.5	0.2	0	0	0	0	0	0
Pedestrians	0	0	27	27	0	0	196	196	0	0	0	20	20	243
% Pedestrians	0	0	100	1.8	0	0	99.5	42.3	0	0	0	100	1.3	7.1

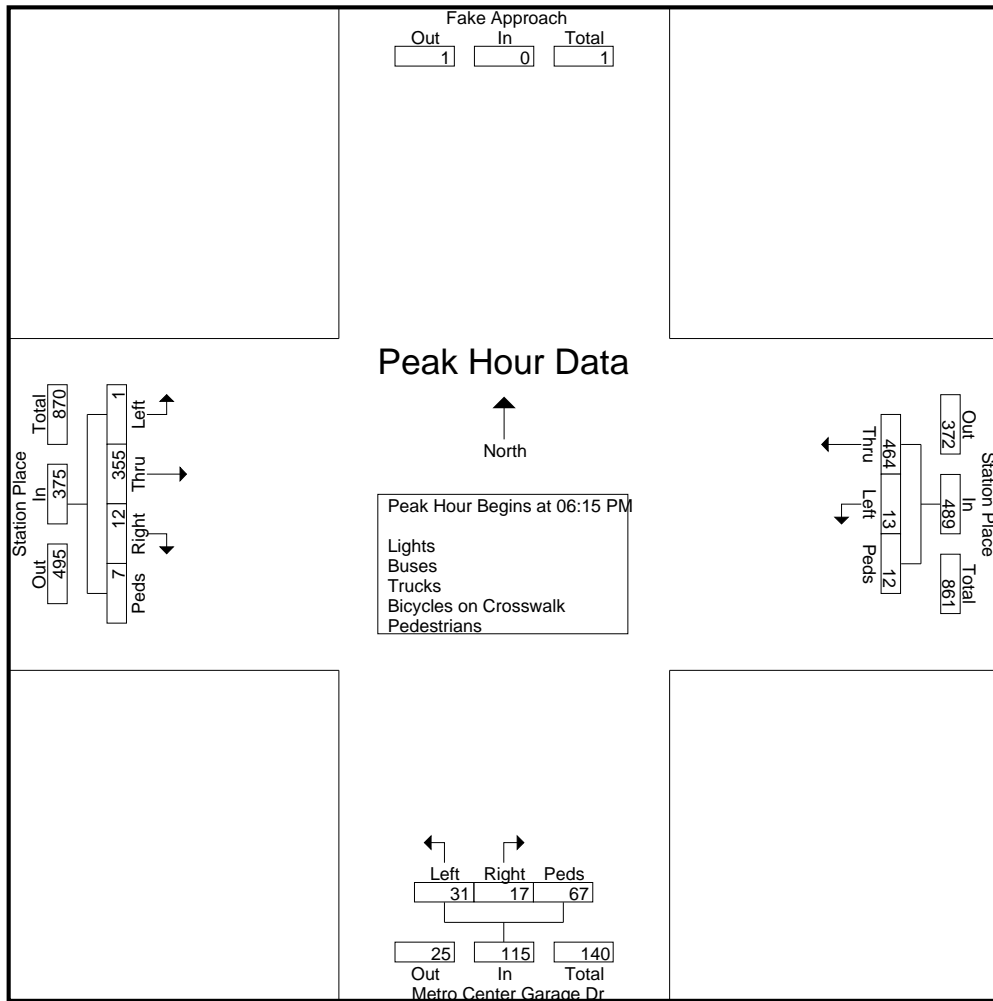
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 16738
 Site Code : 16738
 Start Date : 11/9/2017
 Page No : 2

Start Time	Station Place From East				Metro Center Garage Dr From South				Station Place From West					Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 06:15 PM														
06:15 PM	118	2	7	127	3	9	18	30	5	95	0	1	101	258
06:30 PM	110	6	0	116	4	13	12	29	0	90	0	1	91	236
06:45 PM	122	3	3	128	1	3	22	26	3	86	1	3	93	247
07:00 PM	114	2	2	118	9	6	15	30	4	84	0	2	90	238
Total Volume	464	13	12	489	17	31	67	115	12	355	1	7	375	979
% App. Total	94.9	2.7	2.5		14.8	27	58.3		3.2	94.7	0.3	1.9		
PHF	.951	.542	.429	.955	.472	.596	.761	.958	.600	.934	.250	.583	.928	.949



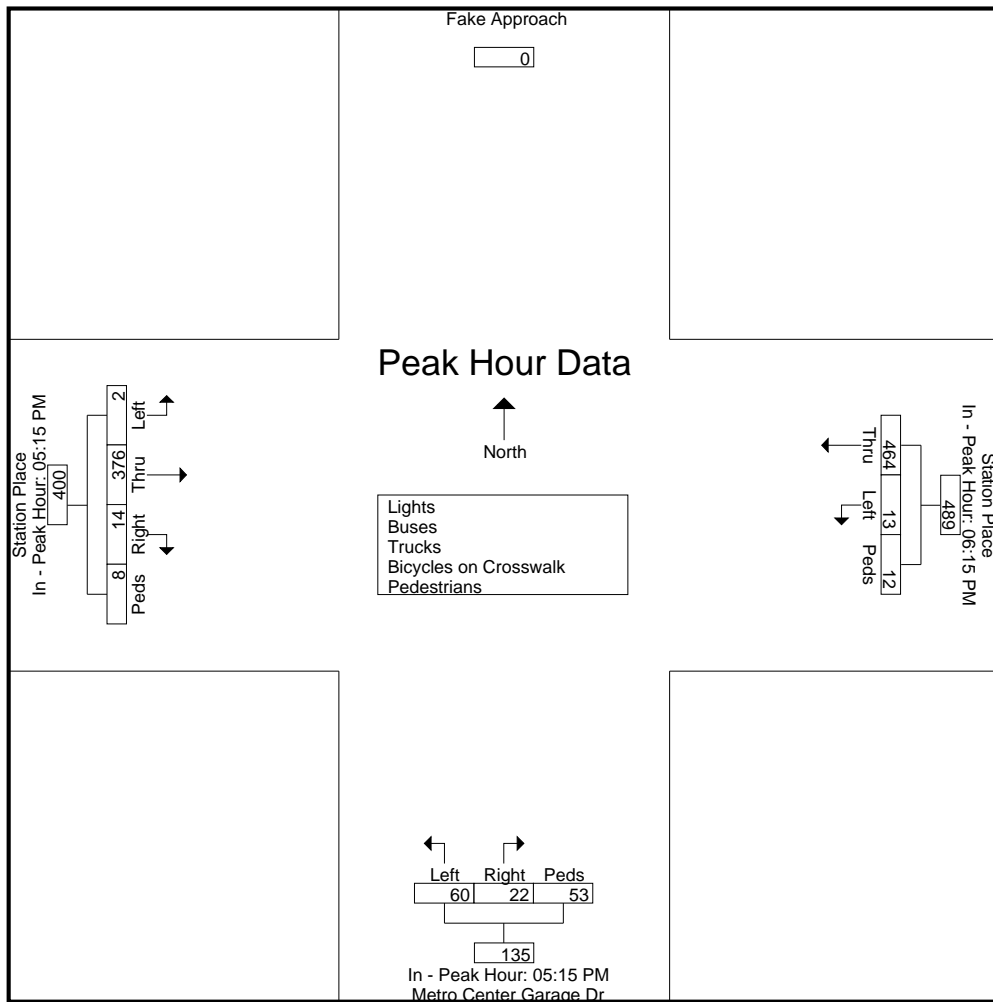
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 16738
 Site Code : 16738
 Start Date : 11/9/2017
 Page No : 3

Start Time	Station Place From East				Metro Center Garage Dr From South				Station Place From West					Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	06:15 PM				05:15 PM				05:15 PM					
+0 mins.	118	2	7	127	6	10	15	31	4	93	0	4	101	
+15 mins.	110	6	0	116	5	19	10	34	6	87	0	1	94	
+30 mins.	122	3	3	128	3	17	12	32	2	103	1	1	107	
+45 mins.	114	2	2	118	8	14	16	38	2	93	1	2	98	
Total Volume	464	13	12	489	22	60	53	135	14	376	2	8	400	
% App. Total	94.9	2.7	2.5		16.3	44.4	39.3		3.5	94	0.5	2		
PHF	.951	.542	.429	.955	.688	.789	.828	.888	.583	.913	.500	.500	.935	



Fake Approach

0

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Station Place at West Garage Drives
Stamford, Connecticut

File Name : 16733
Site Code : 16733
Start Date : 11/9/2017
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

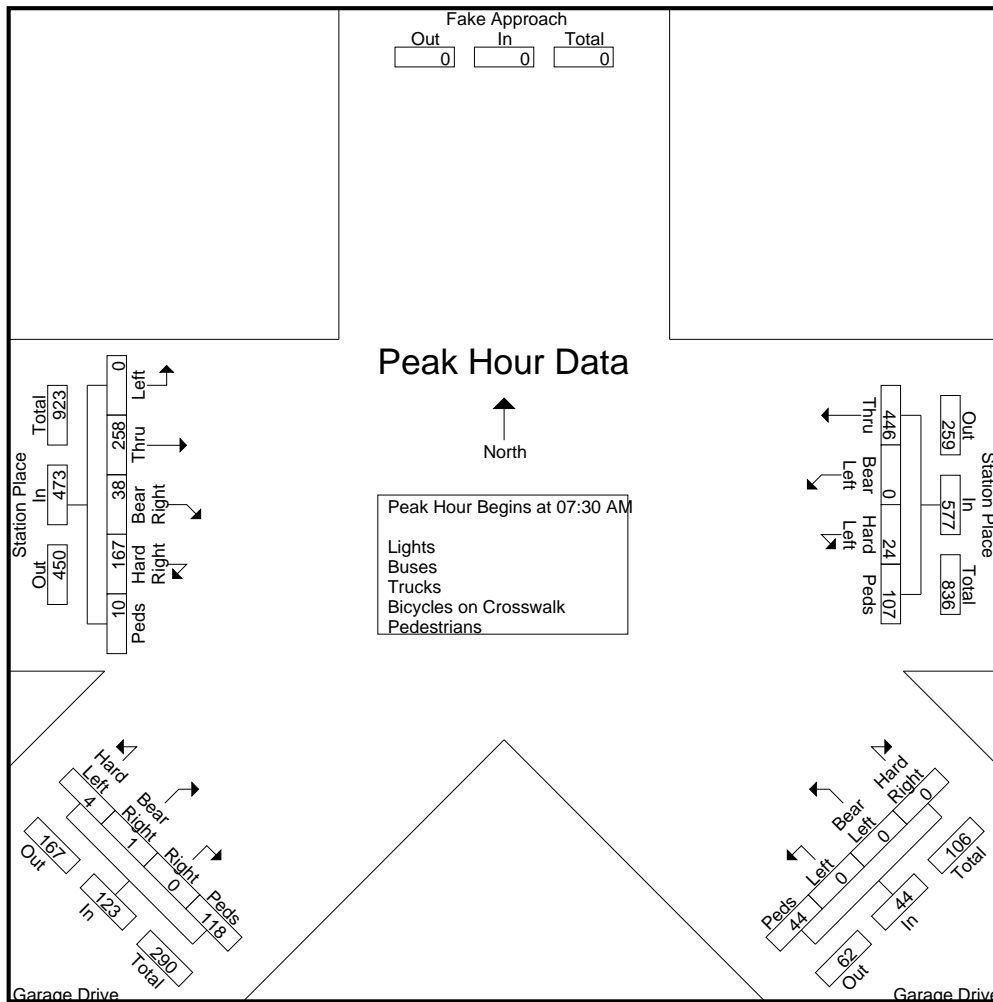
Start Time	Station Place From East					Garage Drive From Southeast					Garage Drive From Southwest					Station Place From West					Int. Total	
	Thru	Bear Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Left	Peds	App. Total	Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Bear Right	Thru	Left	Peds		App. Total
05:30 AM	11	0	4	10	25	0	0	0	0	0	0	0	0	1	1	14	6	7	0	0	27	53
05:45 AM	19	0	4	23	46	0	0	0	1	1	0	1	0	6	7	19	15	12	0	0	46	100
Total	30	0	8	33	71	0	0	0	1	1	0	1	0	7	8	33	21	19	0	0	73	153
06:00 AM	26	0	4	16	46	0	0	0	4	4	0	0	0	9	9	9	8	15	0	1	33	92
06:15 AM	33	0	6	33	72	0	0	0	5	5	0	0	1	17	18	29	24	18	0	1	72	167
06:30 AM	55	0	5	30	90	0	0	0	9	9	0	0	0	20	20	47	11	43	0	18	119	238
06:45 AM	56	1	11	24	92	0	0	0	8	8	0	0	0	16	16	37	7	33	0	16	93	209
Total	170	1	26	103	300	0	0	0	26	26	0	0	1	62	63	122	50	109	0	36	317	706
07:00 AM	84	0	8	26	118	0	0	0	6	6	0	0	1	9	10	37	15	62	0	18	132	266
07:15 AM	105	0	6	21	132	0	0	0	4	4	0	0	1	17	18	52	17	52	0	16	137	291
07:30 AM	121	0	10	30	161	0	0	0	4	4	0	0	0	26	26	54	18	51	0	5	128	319
07:45 AM	110	0	6	23	139	0	0	0	9	9	0	0	0	27	27	43	6	63	0	2	114	289
Total	420	0	30	100	550	0	0	0	23	23	0	0	2	79	81	186	56	228	0	41	511	1165
08:00 AM	108	0	5	20	133	0	0	0	14	14	0	1	3	28	32	44	8	71	0	1	124	303
08:15 AM	107	0	3	34	144	0	0	0	17	17	0	0	1	37	38	26	6	73	0	2	107	306
08:30 AM	100	0	3	14	117	0	0	0	9	9	0	1	2	21	24	18	2	81	0	0	101	251
08:45 AM	88	0	3	15	106	0	0	0	5	5	0	0	0	25	25	16	3	88	0	5	112	248
Total	403	0	14	83	500	0	0	0	45	45	0	2	6	111	119	104	19	313	0	8	444	1108
09:00 AM	83	0	5	9	97	0	0	0	3	3	0	0	2	16	18	10	2	73	0	3	88	206
09:15 AM	75	0	3	5	83	0	0	0	9	9	0	0	2	9	11	8	2	62	0	0	72	175
Grand Total	1181	1	86	333	1601	0	0	0	107	107	0	3	13	284	300	463	150	804	0	88	1505	3513
Apprch %	73.8	0.1	5.4	20.8		0	0	0	100		0	1	4.3	94.7		30.8	10	53.4	0	5.8		
Total %	33.6	0	2.4	9.5	45.6	0	0	0	3	3	0	0.1	0.4	8.1	8.5	13.2	4.3	22.9	0	2.5	42.8	
Lights	1144	1	86	0	1231	0	0	0	0	0	0	3	13	0	16	463	150	739	0	0	1352	2599
% Lights	96.9	100	100	0	76.9	0	0	0	0	0	0	100	100	0	5.3	100	100	91.9	0	0	89.8	74
Buses	21	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	30	51
% Buses	1.8	0	0	0	1.3	0	0	0	0	0	0	0	0	0	0	0	0	3.7	0	0	2	1.5
Trucks	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0	35	51
% Trucks	1.4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4.4	0	0	2.3	1.5
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	333	333	0	0	0	107	107	0	0	0	284	284	0	0	0	0	88	88	812
% Pedestrians	0	0	0	100	20.8	0	0	0	100	100	0	0	0	100	94.7	0	0	0	0	100	5.8	23.1

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 16733
 Site Code : 16733
 Start Date : 11/9/2017
 Page No : 2

Start Time	Station Place From East					Garage Drive From Southeast					Garage Drive From Southwest					Station Place From West					Int. Total	
	Thru	Bear Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Left	Peds	App. Total	Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Bear Right	Thru	Left	Peds		App. Total
Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 07:30 AM																						
07:30 AM	121	0	10	30	161	0	0	0	4	4	0	0	0	26	26	54	18	51	0	5	128	319
07:45 AM	110	0	6	23	139	0	0	0	9	9	0	0	0	27	27	43	6	63	0	2	114	289
08:00 AM	108	0	5	20	133	0	0	0	14	14	0	1	3	28	32	44	8	71	0	1	124	303
08:15 AM	107	0	3	34	144	0	0	0	17	17	0	0	1	37	38	26	6	73	0	2	107	306
Total Volume	446	0	24	107	577	0	0	0	44	44	0	1	4	118	123	167	38	258	0	10	473	1217
% App. Total	77.3	0	4.2	18.5		0	0	0	100		0	0.8	3.3	95.9		35.3	8	54.5	0	2.1		
PHF	.921	.000	.600	.787	.896	.000	.000	.000	.647	.647	.000	.250	.333	.797	.809	.773	.528	.884	.000	.500	.924	.954



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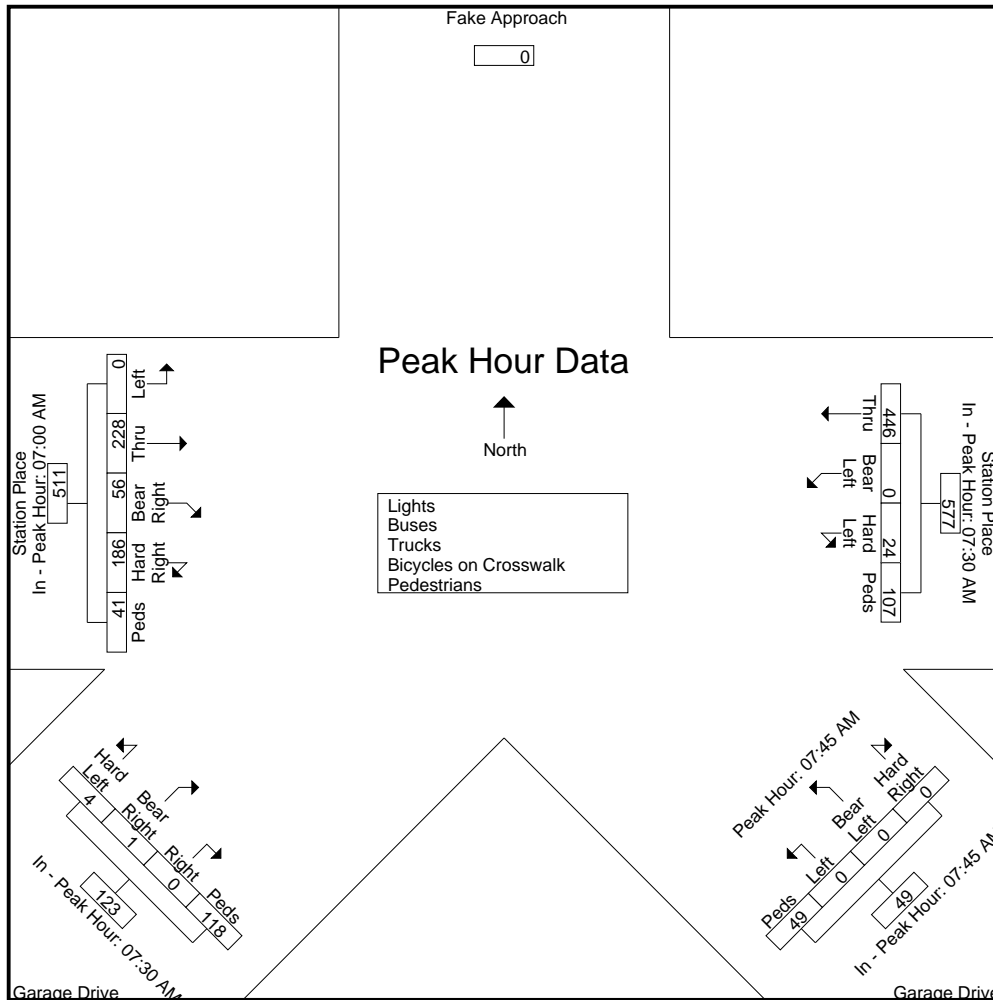
Kensington, Connecticut 06037
(860) 828-1693

File Name : 16733
 Site Code : 16733
 Start Date : 11/9/2017
 Page No : 3

Start Time	Station Place From East					Garage Drive From Southeast					Garage Drive From Southwest					Station Place From West					Int. Total
	Thru	Bear Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Left	Peds	App. Total	Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Bear Right	Thru	Left	Peds	

Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM					07:45 AM					07:30 AM					07:00 AM					
+0 mins.	121	0	10	30	161	0	0	0	9	9	0	0	0	26	26	37	15	62	0	18	132
+15 mins.	110	0	6	23	139	0	0	0	14	14	0	0	0	27	27	52	17	52	0	16	137
+30 mins.	108	0	5	20	133	0	0	0	17	17	0	1	3	28	32	54	18	51	0	5	128
+45 mins.	107	0	3	34	144	0	0	0	9	9	0	0	1	37	38	43	6	63	0	2	114
Total Volume	446	0	24	107	577	0	0	0	49	49	0	1	4	118	123	186	56	228	0	41	511
% App. Total	77.3	0	4.2	18.5		0	0	0	100		0	0.8	3.3	95.9		36.4	11	44.6	0	8	
PHF	.921	.000	.600	.787	.896	.000	.000	.000	.721	.721	.000	.250	.333	.797	.809	.861	.778	.905	.000	.569	.932



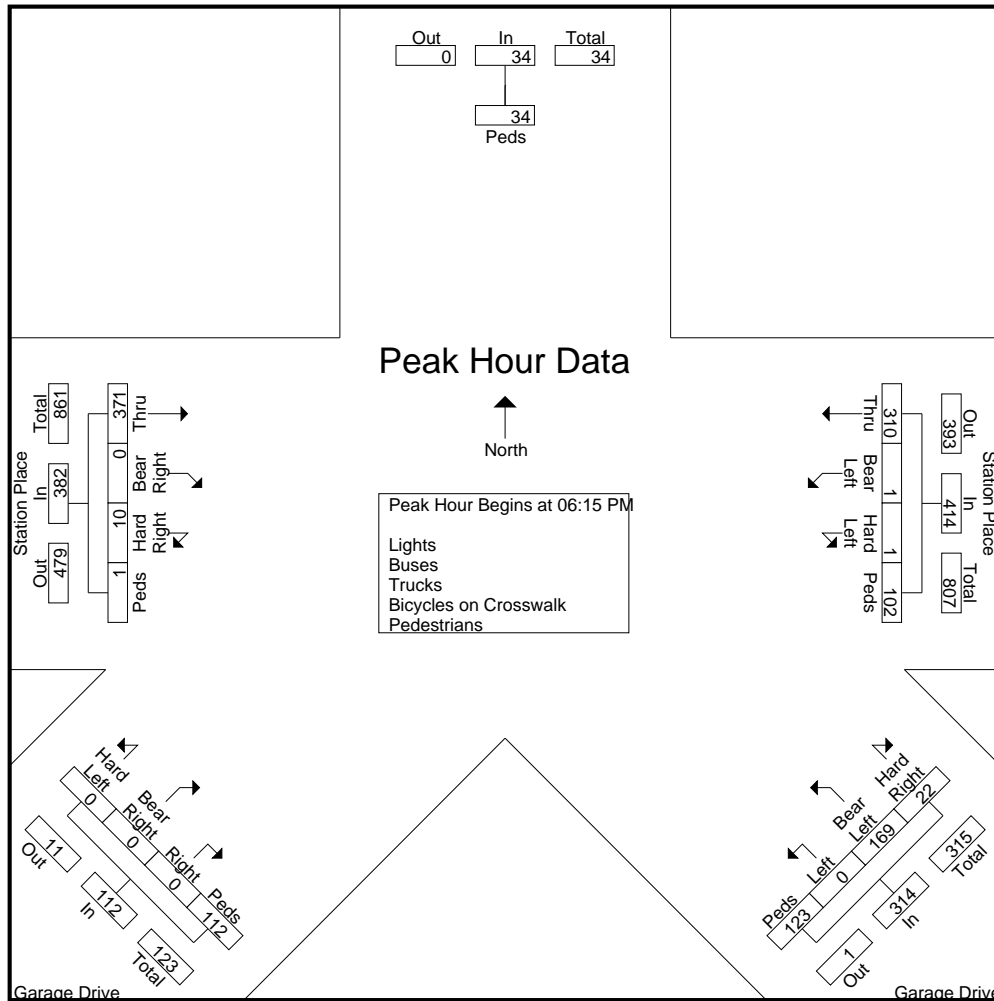
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 16734
 Site Code : 16734
 Start Date : 11/9/2017
 Page No : 2

Start Time	From North		Station Place From East				Garage Drive From Southeast				Garage Drive From Southwest				Station Place From West				Int. Total				
	Peds	App. Total	Thru	Bear Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Left	Peds	App. Total	Right	Bear Right	Hard Left	Peds	App. Total	Hard Right		Bear Right	Thru	Peds	App. Total
Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1																							
Peak Hour for Entire Intersection Begins at 06:15 PM																							
06:15 PM	14	14	78	0	0	27	105	6	43	0	24	73	0	0	0	34	34	1	0	100	0	101	327
06:30 PM	11	11	81	0	0	16	97	5	38	0	26	69	0	0	0	23	23	0	0	96	0	96	296
06:45 PM	5	5	72	0	1	25	98	3	49	0	37	89	0	0	0	30	30	3	0	81	0	84	306
07:00 PM	4	4	79	1	0	34	114	8	39	0	36	83	0	0	0	25	25	6	0	94	1	101	327
Total Volume	34	34	310	1	1	102	414	22	169	0	123	314	0	0	0	112	112	10	0	371	1	382	1256
% App. Total	100		74.9	0.2	0.2	24.6		7	53.8	0	39.2		0	0	0	100		2.6	0	97.1	0.3		
PHF	.607	.607	.957	.250	.250	.750	.908	.688	.862	.000	.831	.882	.000	.000	.000	.824	.824	.417	.000	.928	.250	.946	.960



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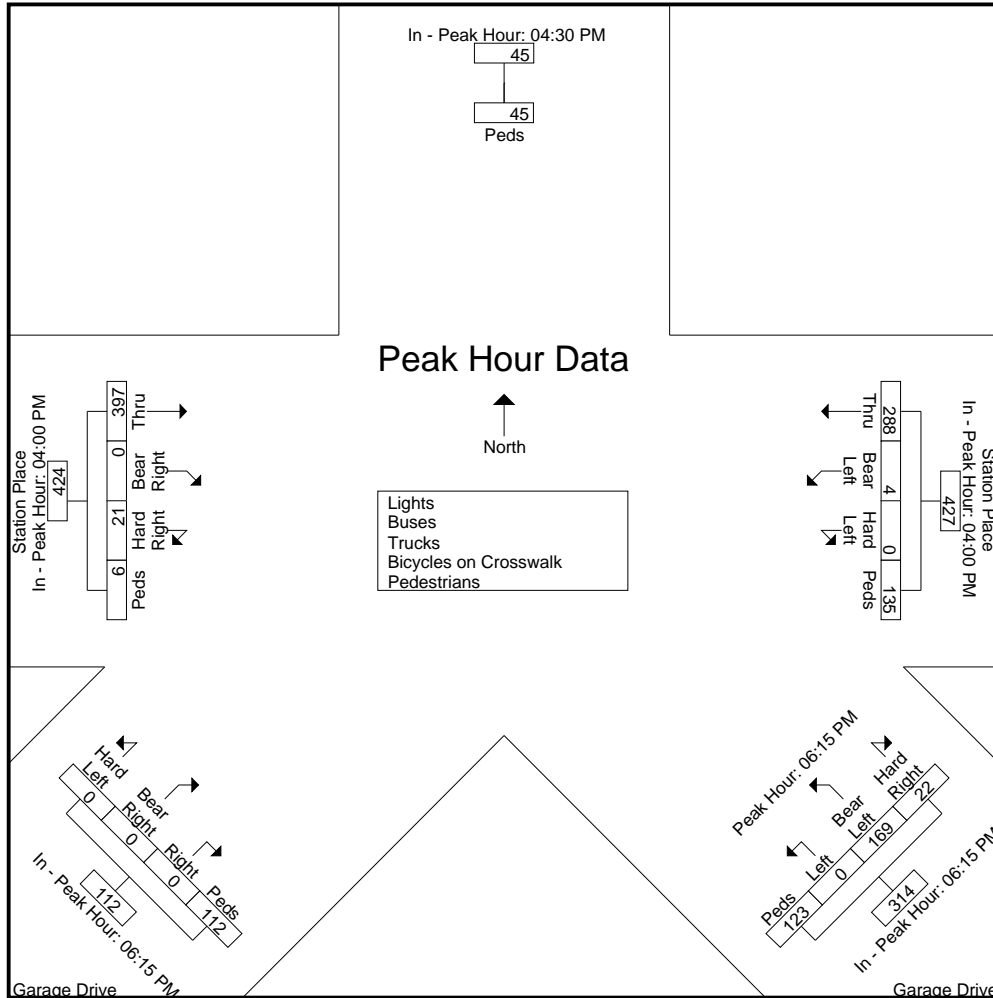
File Name : 16734
 Site Code : 16734
 Start Date : 11/9/2017
 Page No : 3

Start Time	From North		Station Place From East					Garage Drive From Southeast					Garage Drive From Southwest					Station Place From West					Int. Total
	Peds	App. Total	Thru	Bear Left	Hard Left	Peds	App. Total	Hard Right	Bear Left	Left	Peds	App. Total	Right	Bear Right	Hard Left	Peds	App. Total	Hard Right	Bear Right	Thru	Peds	App. Total	

Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM		04:00 PM					06:15 PM					06:15 PM					04:00 PM				
+0 mins.	8	8	76	0	0	28	104	6	43	0	24	73	0	0	0	34	34	5	0	102	0	107
+15 mins.	15	15	67	2	0	33	102	5	38	0	26	69	0	0	0	23	23	7	0	102	3	112
+30 mins.	10	10	77	2	0	22	101	3	49	0	37	89	0	0	0	30	30	3	0	99	3	105
+45 mins.	12	12	68	0	0	52	120	8	39	0	36	83	0	0	0	25	25	6	0	94	0	100
Total Volume	45	45	288	4	0	135	427	22	169	0	123	314	0	0	0	112	112	21	0	397	6	424
% App. Total	100		67.4	0.9	0	31.6		7	53.8	0	39.2		0	0	0	100		5	0	93.6	1.4	
PHF	.750	.750	.935	.500	.000	.649	.890	.688	.862	.000	.831	.882	.000	.000	.000	.824	.824	.750	.000	.973	.500	.946



Connecticut Counts LLC
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Washington Blvd at Henry St/Gateway Dr
 Stamford, Connecticut

File Name : 16731
 Site Code : 16731
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Washington Blvd From North					Henry Street From East					Washington Blvd From South					Garage Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:30 AM	16	17	4	0	37	5	3	6	4	18	3	14	0	1	18	0	1	0	1	2	75
05:45 AM	23	16	4	0	43	5	3	4	3	15	6	21	0	1	28	0	0	1	1	2	88
Total	39	33	8	0	80	10	6	10	7	33	9	35	0	2	46	0	1	1	2	4	163
06:00 AM	20	26	9	0	55	8	0	14	5	27	8	21	2	2	33	1	1	0	1	3	118
06:15 AM	32	51	9	0	92	10	5	14	10	39	14	34	1	1	50	0	2	0	2	4	185
06:30 AM	37	39	24	0	100	11	8	14	18	51	23	65	0	11	99	0	3	0	1	4	254
06:45 AM	46	69	13	1	129	26	3	32	15	76	21	48	0	5	74	0	2	2	2	6	285
Total	135	185	55	1	376	55	16	74	48	193	66	168	3	19	256	1	8	2	6	17	842
07:00 AM	53	63	26	2	144	25	6	38	16	85	34	78	0	6	118	0	0	4	5	9	356
07:15 AM	74	73	18	0	165	26	5	45	15	91	31	89	1	2	123	0	1	1	2	4	383
07:30 AM	60	70	25	1	156	27	6	42	13	88	23	102	2	4	131	0	1	0	6	7	382
07:45 AM	54	91	35	3	183	35	8	41	11	95	36	122	1	1	160	0	2	1	2	5	443
Total	241	297	104	6	648	113	25	166	55	359	124	391	4	13	532	0	4	6	15	25	1564
08:00 AM	48	77	27	0	152	23	4	45	10	82	26	102	1	2	131	0	4	2	3	9	374
08:15 AM	18	89	25	0	132	20	2	39	26	87	30	98	0	2	130	0	0	1	6	7	356
08:30 AM	22	86	32	1	141	18	4	53	9	84	37	86	0	1	124	0	0	3	2	5	354
08:45 AM	23	108	37	1	169	21	0	39	5	65	39	66	0	0	105	0	0	3	2	5	344
Total	111	360	121	2	594	82	10	176	50	318	132	352	1	5	490	0	4	9	13	26	1428
09:00 AM	18	88	39	0	145	10	2	41	18	71	29	60	0	2	91	1	0	2	5	8	315
09:15 AM	10	90	27	1	128	17	2	35	10	64	20	53	0	1	74	0	0	0	2	2	268
Grand Total	554	1053	354	10	1971	287	61	502	188	1038	380	1059	8	42	1489	2	17	20	43	82	4580
Apprch %	28.1	53.4	18	0.5		27.6	5.9	48.4	18.1		25.5	71.1	0.5	2.8		2.4	20.7	24.4	52.4		
Total %	12.1	23	7.7	0.2	43	6.3	1.3	11	4.1	22.7	8.3	23.1	0.2	0.9	32.5	0	0.4	0.4	0.9	1.8	
Lights	554	958	316	0	1828	253	61	469	0	783	332	974	8	0	1314	2	17	20	0	39	3964
% Lights	100	91	89.3	0	92.7	88.2	100	93.4	0	75.4	87.4	92	100	0	88.2	100	100	100	0	47.6	86.6
Buses	0	50	23	0	73	26	0	5	0	31	14	39	0	0	53	0	0	0	0	0	157
% Buses	0	4.7	6.5	0	3.7	9.1	0	1	0	3	3.7	3.7	0	0	3.6	0	0	0	0	0	3.4
Trucks	0	45	15	0	60	8	0	28	0	36	34	46	0	0	80	0	0	0	0	0	176
% Trucks	0	4.3	4.2	0	3	2.8	0	5.6	0	3.5	8.9	4.3	0	0	5.4	0	0	0	0	0	3.8
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	4.8	0.1	0	0	0	0	0	0
Pedestrians	0	0	0	10	10	0	0	0	188	188	0	0	0	40	40	0	0	0	43	43	281
% Pedestrians	0	0	0	100	0.5	0	0	0	100	18.1	0	0	0	95.2	2.7	0	0	0	100	52.4	6.1

Connecticut Counts LLC

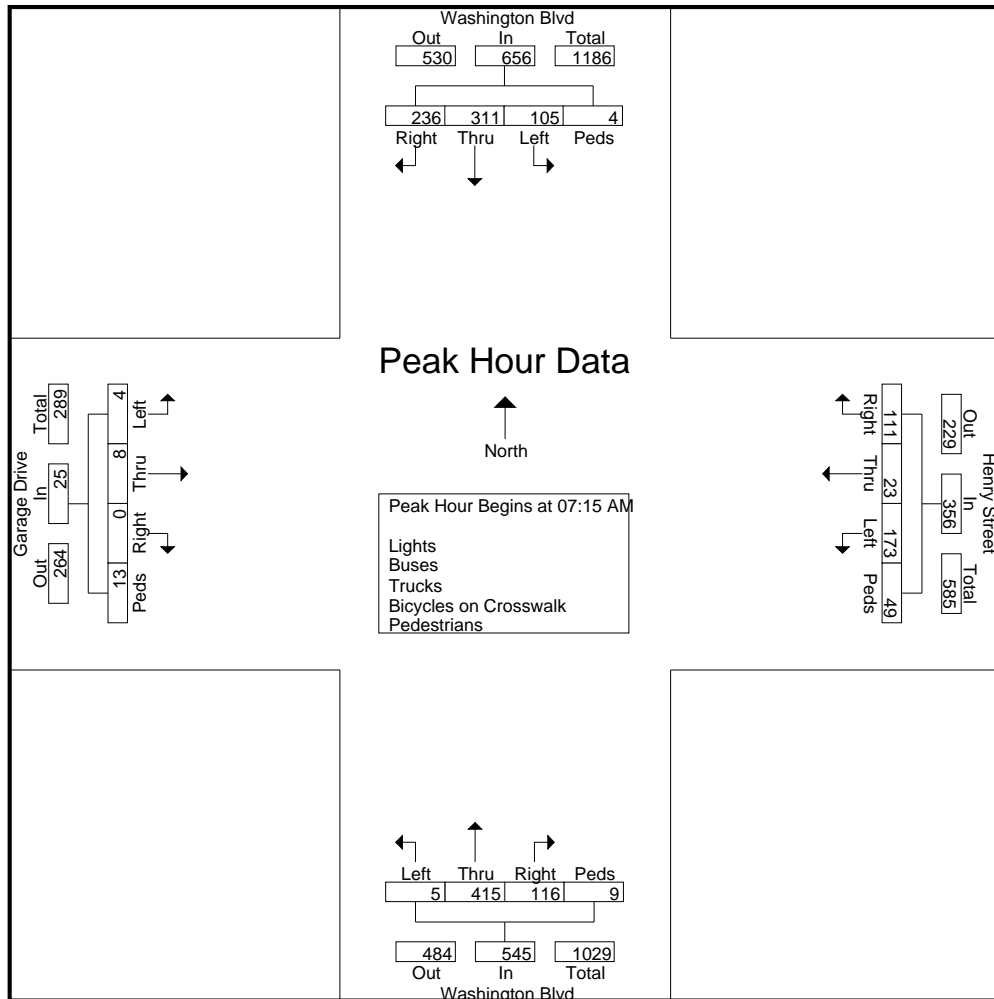
Kensington, Connecticut 06037
(860) 828-1693

File Name : 16731
 Site Code : 16731
 Start Date : 11/9/2017
 Page No : 2

Start Time	Washington Blvd From North					Henry Street From East					Washington Blvd From South					Garage Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:15 AM

07:15 AM	74	73	18	0	165	26	5	45	15	91	31	89	1	2	123	0	1	1	2	4	383
07:30 AM	60	70	25	1	156	27	6	42	13	88	23	102	2	4	131	0	1	0	6	7	382
07:45 AM	54	91	35	3	183	35	8	41	11	95	36	122	1	1	160	0	2	1	2	5	443
08:00 AM	48	77	27	0	152	23	4	45	10	82	26	102	1	2	131	0	4	2	3	9	374
Total Volume	236	311	105	4	656	111	23	173	49	356	116	415	5	9	545	0	8	4	13	25	1582
% App. Total	36	47.4	16	0.6		31.2	6.5	48.6	13.8		21.3	76.1	0.9	1.7		0	32	16	52		
PHF	.797	.854	.750	.333	.896	.793	.719	.961	.817	.937	.806	.850	.625	.563	.852	.000	.500	.500	.542	.694	.893



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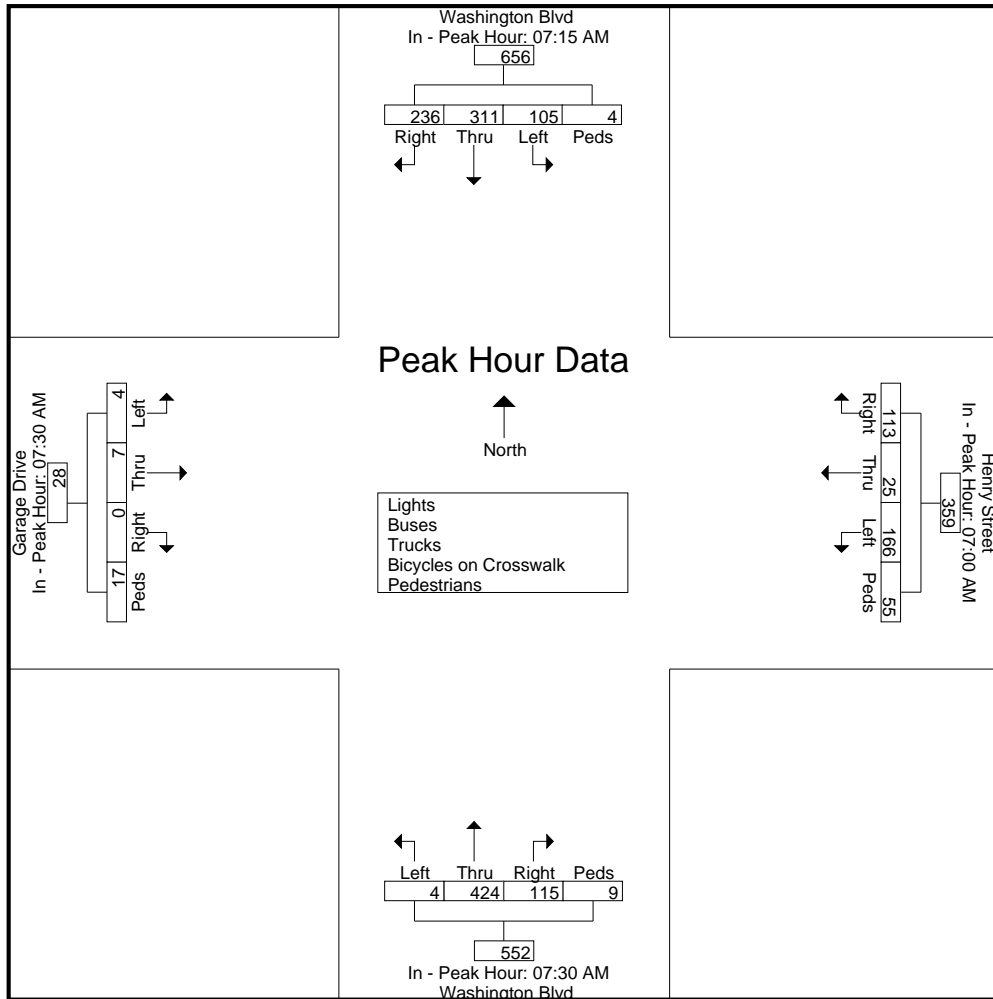
Kensington, Connecticut 06037
(860) 828-1693

File Name : 16731
 Site Code : 16731
 Start Date : 11/9/2017
 Page No : 3

Start Time	Washington Blvd From North					Henry Street From East					Washington Blvd From South					Garage Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM					07:00 AM					07:30 AM					07:30 AM				
+0 mins.	74	73	18	0	165	25	6	38	16	85	23	102	2	4	131	0	1	0	6	7
+15 mins.	60	70	25	1	156	26	5	45	15	91	36	122	1	1	160	0	2	1	2	5
+30 mins.	54	91	35	3	183	27	6	42	13	88	26	102	1	2	131	0	4	2	3	9
+45 mins.	48	77	27	0	152	35	8	41	11	95	30	98	0	2	130	0	0	1	6	7
Total Volume	236	311	105	4	656	113	25	166	55	359	115	424	4	9	552	0	7	4	17	28
% App. Total	36	47.4	16	0.6		31.5	7	46.2	15.3		20.8	76.8	0.7	1.6		0	25	14.3	60.7	
PHF	.797	.854	.750	.333	.896	.807	.781	.922	.859	.945	.799	.869	.500	.563	.863	.000	.438	.500	.708	.778



Connecticut Counts LLC

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Washington Blvd at Henry St/Gateway Dr
Stamford, Connecticut

File Name : 16732
Site Code : 16732
Start Date : 11/9/2017
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Washington Blvd From North					Henry Street From East					Washington Blvd From South					Garage Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	7	57	27	2	93	18	0	16	4	38	39	80	0	2	121	0	1	7	1	9	261
03:45 PM	7	80	38	2	127	14	0	33	19	66	35	57	1	3	96	0	3	0	1	4	293
Total	14	137	65	4	220	32	0	49	23	104	74	137	1	5	217	0	4	7	2	13	554
04:00 PM	8	83	32	4	127	31	0	35	11	77	40	79	0	1	120	0	2	9	2	13	337
04:15 PM	7	66	34	0	107	28	0	29	13	70	56	77	0	0	133	0	0	3	3	6	316
04:30 PM	10	76	47	3	136	26	2	34	12	74	63	75	0	0	138	0	0	10	4	14	362
04:45 PM	10	73	48	2	133	29	0	37	9	75	52	58	1	2	113	1	1	6	6	14	335
Total	35	298	161	9	503	114	2	135	45	296	211	289	1	3	504	1	3	28	15	47	1350
05:00 PM	15	87	35	0	137	29	0	34	19	82	66	78	0	1	145	0	2	12	5	19	383
05:15 PM	10	96	52	2	160	35	3	51	23	112	72	77	0	0	149	1	0	4	3	8	429
05:30 PM	10	105	45	1	161	22	2	45	12	81	69	72	2	0	143	1	5	27	9	42	427
05:45 PM	1	106	52	6	165	24	0	43	18	85	64	95	0	1	160	2	3	19	7	31	441
Total	36	394	184	9	623	110	5	173	72	360	271	322	2	2	597	4	10	62	24	100	1680
06:00 PM	1	99	53	5	158	39	0	41	14	94	70	72	0	3	145	2	5	15	3	25	422
06:15 PM	7	105	55	1	168	32	1	49	15	97	52	66	1	2	121	0	19	27	2	48	434
06:30 PM	4	81	47	2	134	29	0	34	22	85	58	61	0	1	120	1	8	25	0	34	373
06:45 PM	2	81	38	1	122	19	0	29	12	60	42	81	0	1	124	1	16	36	3	56	362
Total	14	366	193	9	582	119	1	153	63	336	222	280	1	7	510	4	48	103	8	163	1591
07:00 PM	1	72	52	0	125	27	0	22	22	71	27	66	0	4	97	0	10	30	4	44	337
07:15 PM	3	75	42	0	120	30	0	18	11	59	35	60	0	3	98	3	7	23	3	36	313
Grand Total	103	1342	697	31	2173	432	8	550	236	1226	840	1154	5	24	2023	12	82	253	56	403	5825
Apprch %	4.7	61.8	32.1	1.4		35.2	0.7	44.9	19.2		41.5	57	0.2	1.2		3	20.3	62.8	13.9		
Total %	1.8	23	12	0.5	37.3	7.4	0.1	9.4	4.1	21	14.4	19.8	0.1	0.4	34.7	0.2	1.4	4.3	1	6.9	
Lights	103	1262									1109										
% Lights	100	94	92	0	92.3	91.4	100	97.1	0	76.4	98.5	96.1	100	0	95.9	100	100	99.6	0	85.9	89.8
Buses	0	54	51	0	105	31	0	6	0	37	4	31	0	0	35	0	0	1	0	1	178
% Buses	0	4	7.3	0	4.8	7.2	0	1.1	0	3	0.5	2.7	0	0	1.7	0	0	0.4	0	0.2	3.1
Trucks	0	26	5	0	31	6	0	10	0	16	9	14	0	0	23	0	0	0	0	0	70
% Trucks	0	1.9	0.7	0	1.4	1.4	0	1.8	0	1.3	1.1	1.2	0	0	1.1	0	0	0	0	0	1.2
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	9.7	0.1	0	0	0	0.8	0.2	0	0	0	4.2	0	0	0	0	7.1	1	0.2
Pedestrians	0	0	0	28	28	0	0	0	234	234	0	0	0	23	23	0	0	0	52	52	337
% Pedestrians	0	0	0	90.3	1.3	0	0	0	99.2	19.1	0	0	0	95.8	1.1	0	0	0	92.9	12.9	5.8

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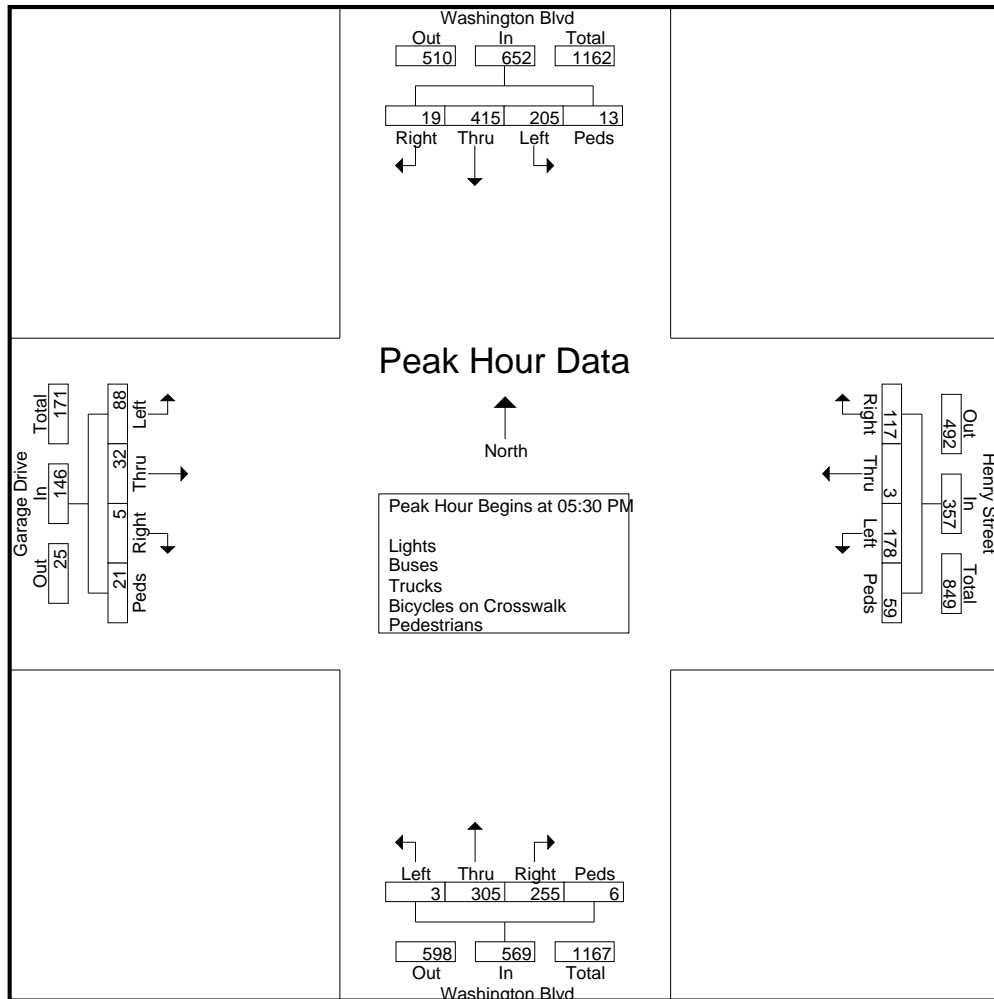
Kensington, Connecticut 06037
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File Name : 16732
 Site Code : 16732
 Start Date : 11/9/2017
 Page No : 2

Start Time	Washington Blvd From North					Henry Street From East					Washington Blvd From South					Garage Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 05:30 PM

05:30 PM	10	105	45	1	161	22	2	45	12	81	69	72	2	0	143	1	5	27	9	42	427
05:45 PM	1	106	52	6	165	24	0	43	18	85	64	95	0	1	160	2	3	19	7	31	441
06:00 PM	1	99	53	5	158	39	0	41	14	94	70	72	0	3	145	2	5	15	3	25	422
06:15 PM	7	105	55	1	168	32	1	49	15	97	52	66	1	2	121	0	19	27	2	48	434
Total Volume	19	415	205	13	652	117	3	178	59	357	255	305	3	6	569	5	32	88	21	146	1724
% App. Total	2.9	63.7	31.4	2		32.8	0.8	49.9	16.5		44.8	53.6	0.5	1.1		3.4	21.9	60.3	14.4		
PHF	.475	.979	.932	.542	.970	.750	.375	.908	.819	.920	.911	.803	.375	.500	.889	.625	.421	.815	.583	.760	.977



Connecticut Counts LLC

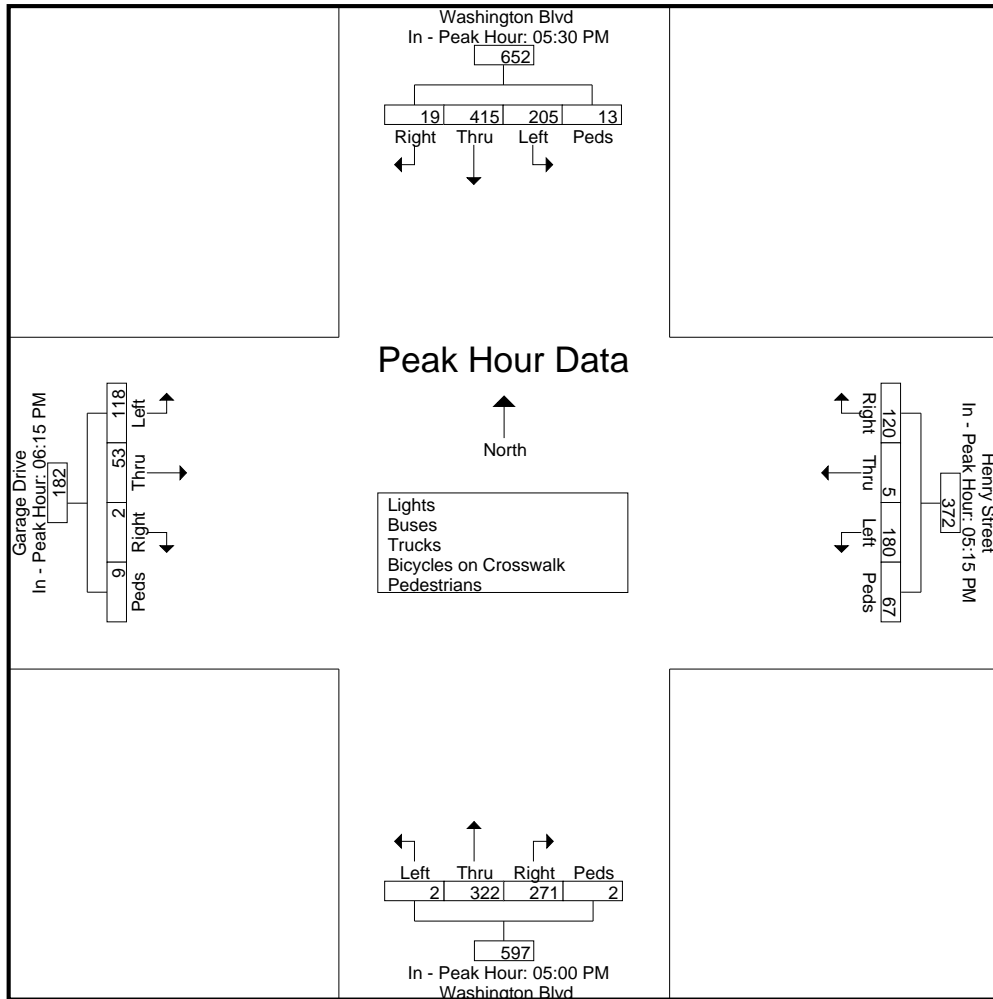
Kensington, Connecticut 06037
(860) 828-1693

File Name : 16732
 Site Code : 16732
 Start Date : 11/9/2017
 Page No : 3

Start Time	Washington Blvd From North					Henry Street From East					Washington Blvd From South					Garage Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:30 PM					05:15 PM					05:00 PM					06:15 PM				
+0 mins.	10	105	45	1	161	35	3	51	23	112	66	78	0	1	145	0	19	27	2	48
+15 mins.	1	106	52	6	165	22	2	45	12	81	72	77	0	0	149	1	8	25	0	34
+30 mins.	1	99	53	5	158	24	0	43	18	85	69	72	2	0	143	1	16	36	3	56
+45 mins.	7	105	55	1	168	39	0	41	14	94	64	95	0	1	160	0	10	30	4	44
Total Volume	19	415	205	13	652	120	5	180	67	372	271	322	2	2	597	2	53	118	9	182
% App. Total	2.9	63.7	31.4	2		32.3	1.3	48.4	18		45.4	53.9	0.3	0.3		1.1	29.1	64.8	4.9	
PHF	.475	.979	.932	.542	.970	.769	.417	.882	.728	.830	.941	.847	.250	.500	.933	.500	.697	.819	.563	.813



Connecticut Counts LLC
Kensington, Connecticut 06037
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S. State Street at Wahington Blvd
 Stamford, Connecticut

File Name : 16727
 Site Code : 16727
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

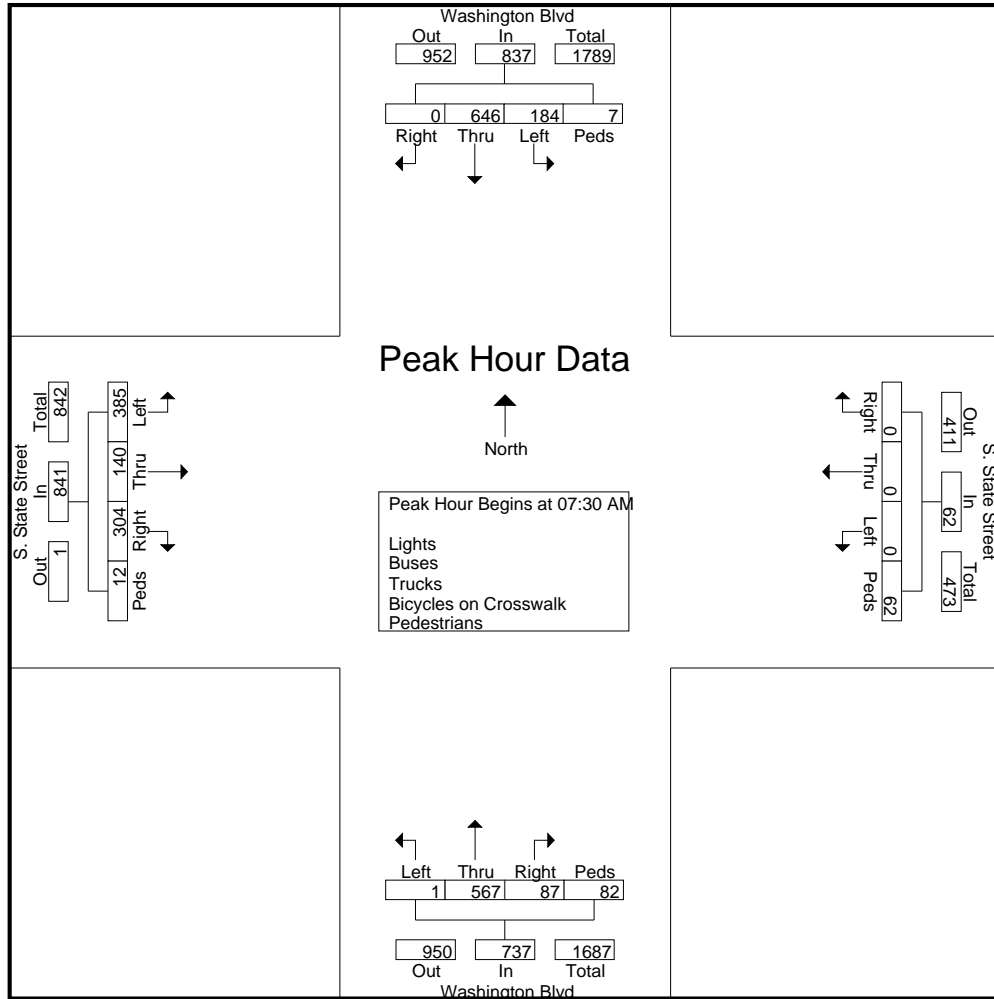
Start Time	Washington Blvd From North					S. State Street From East					Washington Blvd From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:30 AM	0	57	6	0	63	0	0	0	0	0	2	20	0	1	23	13	5	7	0	25	111
05:45 AM	0	62	12	3	77	0	0	2	4	6	3	29	0	6	38	14	4	16	0	34	155
Total	0	119	18	3	140	0	0	2	4	6	5	49	0	7	61	27	9	23	0	59	266
06:00 AM	0	66	13	2	81	0	0	0	2	2	3	34	0	0	37	12	8	23	1	44	164
06:15 AM	0	117	25	2	144	0	0	0	2	2	4	42	0	1	47	36	15	21	0	72	265
06:30 AM	0	124	37	8	169	0	0	0	4	4	8	58	0	6	72	36	19	40	0	95	340
06:45 AM	0	124	27	7	158	0	0	0	2	2	14	64	0	4	82	38	32	31	2	103	345
Total	0	431	102	19	552	0	0	0	10	10	29	198	0	11	238	122	74	115	3	314	1114
07:00 AM	0	165	39	9	213	0	0	0	4	4	18	86	0	9	113	71	21	38	2	132	462
07:15 AM	0	158	33	4	195	0	0	0	10	10	25	102	0	25	152	62	21	60	8	151	508
07:30 AM	0	195	57	1	253	0	0	0	7	7	16	151	0	7	174	62	44	64	4	174	608
07:45 AM	0	154	47	2	203	0	0	0	20	20	20	151	0	12	183	85	33	77	3	198	604
Total	0	672	176	16	864	0	0	0	41	41	79	490	0	53	622	280	119	239	17	655	2182
08:00 AM	0	164	42	1	207	0	0	0	14	14	27	148	1	19	195	80	33	107	3	223	639
08:15 AM	0	133	38	3	174	0	0	0	21	21	24	117	0	44	185	77	30	137	2	246	626
08:30 AM	0	132	34	5	171	0	0	0	8	8	19	80	0	18	117	75	33	113	1	222	518
08:45 AM	0	138	31	3	172	0	0	0	11	11	10	85	0	15	110	82	28	106	3	219	512
Total	0	567	145	12	724	0	0	0	54	54	80	430	1	96	607	314	124	463	9	910	2295
09:00 AM	0	132	31	1	164	0	0	0	10	10	7	62	0	14	83	69	25	72	1	167	424
09:15 AM	0	121	32	3	156	0	0	0	8	8	7	70	0	9	86	46	21	59	1	127	377
Grand Total	0	2042	504	54	2600	0	0	2	127	129	207	1299	1	190	1697	858	372	971	31	2232	6658
Apprch %	0	78.5	19.4	2.1		0	0	1.6	98.4		12.2	76.5	0.1	11.2		38.4	16.7	43.5	1.4		
Total %	0	30.7	7.6	0.8	39.1	0	0	0	1.9	1.9	3.1	19.5	0	2.9	25.5	12.9	5.6	14.6	0.5	33.5	
Lights	0	1906									1258										
% Lights	0	93.3	87.9	0	90.3	0	0	100	0	1.6	74.4	96.8	100	0	83.3	96.5	82.5	94.4	0	91.9	87.4
Buses	0	93	44	0	137	0	0	0	0	0	45	15	0	0	60	5	45	4	0	54	251
% Buses	0	4.6	8.7	0	5.3	0	0	0	0	0	21.7	1.2	0	0	3.5	0.6	12.1	0.4	0	2.4	3.8
Trucks	0	43	17	0	60	0	0	0	0	0	8	26	0	0	34	25	20	50	0	95	189
% Trucks	0	2.1	3.4	0	2.3	0	0	0	0	0	3.9	2	0	0	2	2.9	5.4	5.1	0	4.3	2.8
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	1.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	53	53	0	0	0	127	127	0	0	0	190	190	0	0	0	31	31	401
% Pedestrians	0	0	0	98.1	2	0	0	0	100	98.4	0	0	0	100	11.2	0	0	0	100	1.4	6

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 16727
 Site Code : 16727
 Start Date : 11/9/2017
 Page No : 2

Start Time	Washington Blvd From North					S. State Street From East					Washington Blvd From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	195	57	1	253	0	0	0	7	7	16	151	0	7	174	62	44	64	4	174	608
07:45 AM	0	154	47	2	203	0	0	0	20	20	20	151	0	12	183	85	33	77	3	198	604
08:00 AM	0	164	42	1	207	0	0	0	14	14	27	148	1	19	195	80	33	107	3	223	639
08:15 AM	0	133	38	3	174	0	0	0	21	21	24	117	0	44	185	77	30	137	2	246	626
Total Volume	0	646	184	7	837	0	0	0	62	62	87	567	1	82	737	304	140	385	12	841	2477
% App. Total	0	77.2	22	0.8		0	0	0	100		11.8	76.9	0.1	11.1		36.1	16.6	45.8	1.4		
PHF	.000	.828	.807	.583	.827	.000	.000	.000	.738	.738	.806	.939	.250	.466	.945	.894	.795	.703	.750	.855	.969



Connecticut Counts LLC

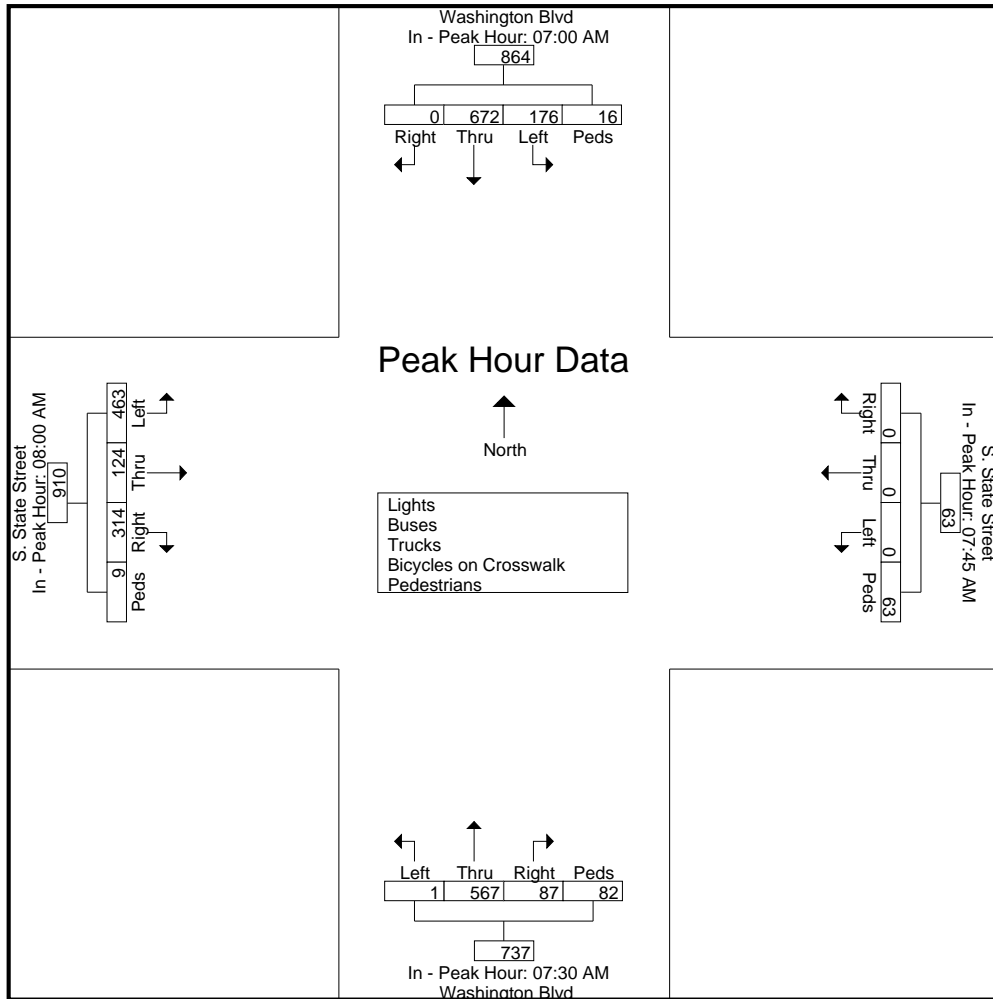
Kensington, Connecticut 06037
(860) 828-1693

File Name : 16727
 Site Code : 16727
 Start Date : 11/9/2017
 Page No : 3

Start Time	Washington Blvd From North					S. State Street From East					Washington Blvd From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:30 AM to 09:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM					07:45 AM					07:30 AM					08:00 AM				
+0 mins.	0	165	39	9	213	0	0	0	20	20	16	151	0	7	174	80	33	107	3	223
+15 mins.	0	158	33	4	195	0	0	0	14	14	20	151	0	12	183	77	30	137	2	246
+30 mins.	0	195	57	1	253	0	0	0	21	21	27	148	1	19	195	75	33	113	1	222
+45 mins.	0	154	47	2	203	0	0	0	8	8	24	117	0	44	185	82	28	106	3	219
Total Volume	0	672	176	16	864	0	0	0	63	63	87	567	1	82	737	314	124	463	9	910
% App. Total	0	77.8	20.4	1.9		0	0	0	100		11.8	76.9	0.1	11.1		34.5	13.6	50.9	1	
PHF	.000	.862	.772	.444	.854	.000	.000	.000	.750	.750	.806	.939	.250	.466	.945	.957	.939	.845	.750	.925



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

S. State Street at Washington Blvd
 Stamford, Connecticut

File Name : 16728
 Site Code : 16728
 Start Date : 11/9/2017
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Washington Blvd From North					S. State Street From East					Washington Blvd From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	0	87	28	1	116	0	0	0	20	20	12	98	0	3	113	59	43	49	2	153	402
03:45 PM	0	100	29	0	129	0	0	0	12	12	9	113	0	9	131	75	28	60	0	163	435
Total	0	187	57	1	245	0	0	0	32	32	21	211	0	12	244	134	71	109	2	316	837
04:00 PM	0	113	36	0	149	0	0	0	11	11	17	133	0	9	159	62	36	44	1	143	462
04:15 PM	0	110	35	0	145	0	0	0	15	15	23	118	0	7	148	82	41	56	0	179	487
04:30 PM	0	115	46	0	161	0	0	0	7	7	18	112	0	18	148	62	52	62	2	178	494
04:45 PM	0	117	28	2	147	1	0	0	9	10	5	127	0	25	157	63	50	56	4	173	487
Total	0	455	145	2	602	1	0	0	42	43	63	490	0	59	612	269	179	218	7	673	1930
05:00 PM	0	109	37	6	152	0	0	0	16	16	9	106	0	13	128	69	56	55	1	181	477
05:15 PM	0	110	44	1	155	0	0	0	10	10	9	132	0	39	180	91	52	68	3	214	559
05:30 PM	0	143	48	9	200	0	0	0	0	0	28	134	0	12	174	91	37	49	3	180	554
05:45 PM	0	126	52	2	180	0	0	0	0	0	7	114	0	4	125	87	54	84	4	229	534
Total	0	488	181	18	687	0	0	0	26	26	53	486	0	68	607	338	199	256	11	804	2124
06:00 PM	0	127	36	2	165	0	0	0	0	0	16	134	0	7	157	89	44	70	3	206	528
06:15 PM	0	131	47	2	180	0	0	1	0	1	14	143	0	12	169	82	37	80	2	201	551
06:30 PM	0	82	31	0	113	0	0	0	1	1	28	109	0	2	139	71	28	49	0	148	401
06:45 PM	0	96	32	4	132	0	0	0	1	1	26	104	0	4	134	87	30	70	1	188	455
Total	0	436	146	8	590	0	0	1	2	3	84	490	0	25	599	329	139	269	6	743	1935
07:00 PM	0	97	37	4	138	0	0	0	3	3	19	103	0	7	129	66	26	70	1	163	433
07:15 PM	0	93	16	7	116	1	0	0	5	6	22	90	1	9	122	53	27	58	2	140	384
Grand Total	0	1756	582	40	2378	2	0	1	110	113	262	1870	1	180	2313	1189	641	980	29	2839	7643
Apprch %	0	73.8	24.5	1.7		1.8	0	0.9	97.3		11.3	80.8	0	7.8		41.9	22.6	34.5	1		
Total %	0	23	7.6	0.5	31.1	0	0	0	1.4	1.5	3.4	24.5	0	2.4	30.3	15.6	8.4	12.8	0.4	37.1	
Lights	0	1646									1842					1166					
% Lights	0	93.7	93	0	92	100	0	100	0	2.7	84.7	98.5	100	0	89.3	98.1	88.3	98.1	0	94.9	90.9
Buses	0	92	37	0	129	0	0	0	0	0	36	17	0	0	53	6	53	7	0	66	248
% Buses	0	5.2	6.4	0	5.4	0	0	0	0	0	13.7	0.9	0	0	2.3	0.5	8.3	0.7	0	2.3	3.2
Trucks	0	18	4	0	22	0	0	0	0	0	4	11	0	0	15	17	22	12	0	51	88
% Trucks	0	1	0.7	0	0.9	0	0	0	0	0	1.5	0.6	0	0	0.6	1.4	3.4	1.2	0	1.8	1.2
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	40	40	0	0	0	110	110	0	0	0	180	180	0	0	0	29	29	359
% Pedestrians	0	0	0	100	1.7	0	0	0	100	97.3	0	0	0	100	7.8	0	0	0	100	1	4.7

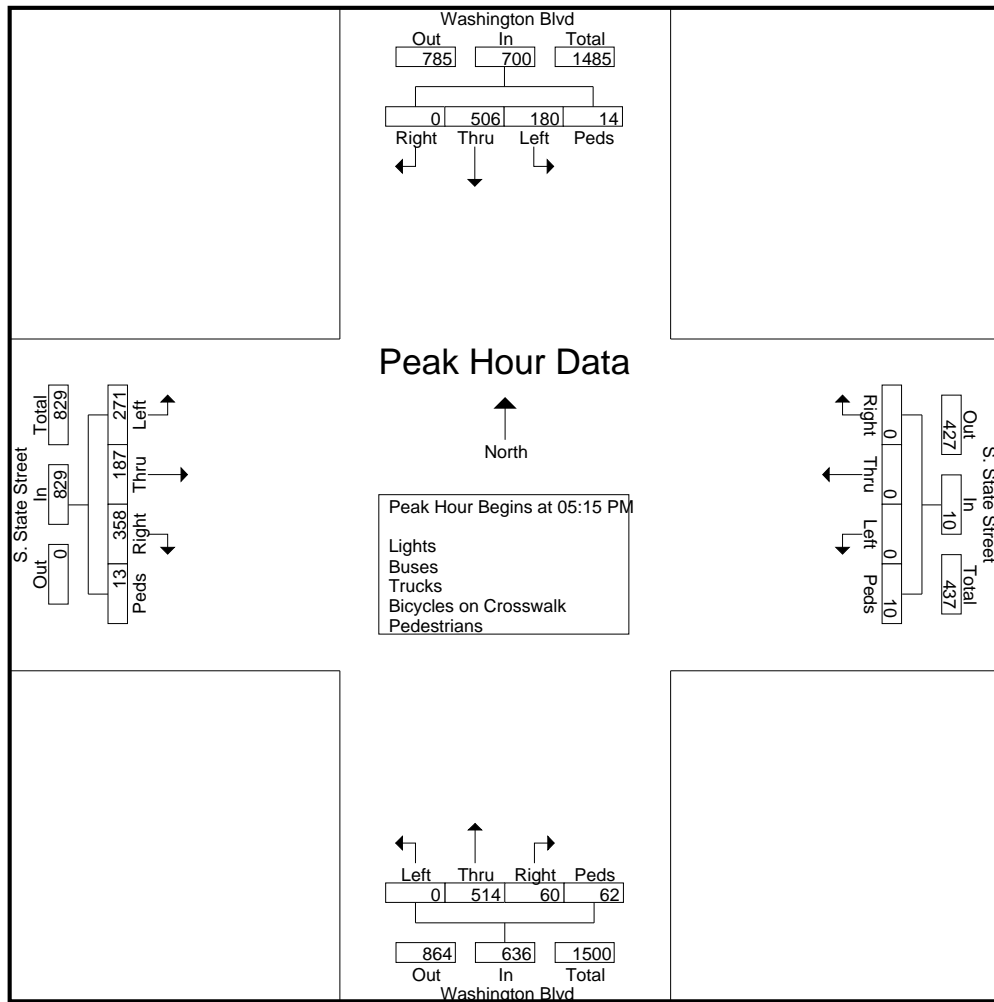
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 16728
 Site Code : 16728
 Start Date : 11/9/2017
 Page No : 2

Start Time	Washington Blvd From North					S. State Street From East					Washington Blvd From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:15 PM																					
05:15 PM	0	110	44	1	155	0	0	0	10	10	9	132	0	39	180	91	52	68	3	214	559
05:30 PM	0	143	48	9	200	0	0	0	0	0	28	134	0	12	174	91	37	49	3	180	554
05:45 PM	0	126	52	2	180	0	0	0	0	0	7	114	0	4	125	87	54	84	4	229	534
06:00 PM	0	127	36	2	165	0	0	0	0	0	16	134	0	7	157	89	44	70	3	206	528
Total Volume	0	506	180	14	700	0	0	0	10	10	60	514	0	62	636	358	187	271	13	829	2175
% App. Total	0	72.3	25.7	2		0	0	0	100		9.4	80.8	0	9.7		43.2	22.6	32.7	1.6		
PHF	.000	.885	.865	.389	.875	.000	.000	.000	.250	.250	.536	.959	.000	.397	.883	.984	.866	.807	.813	.905	.973



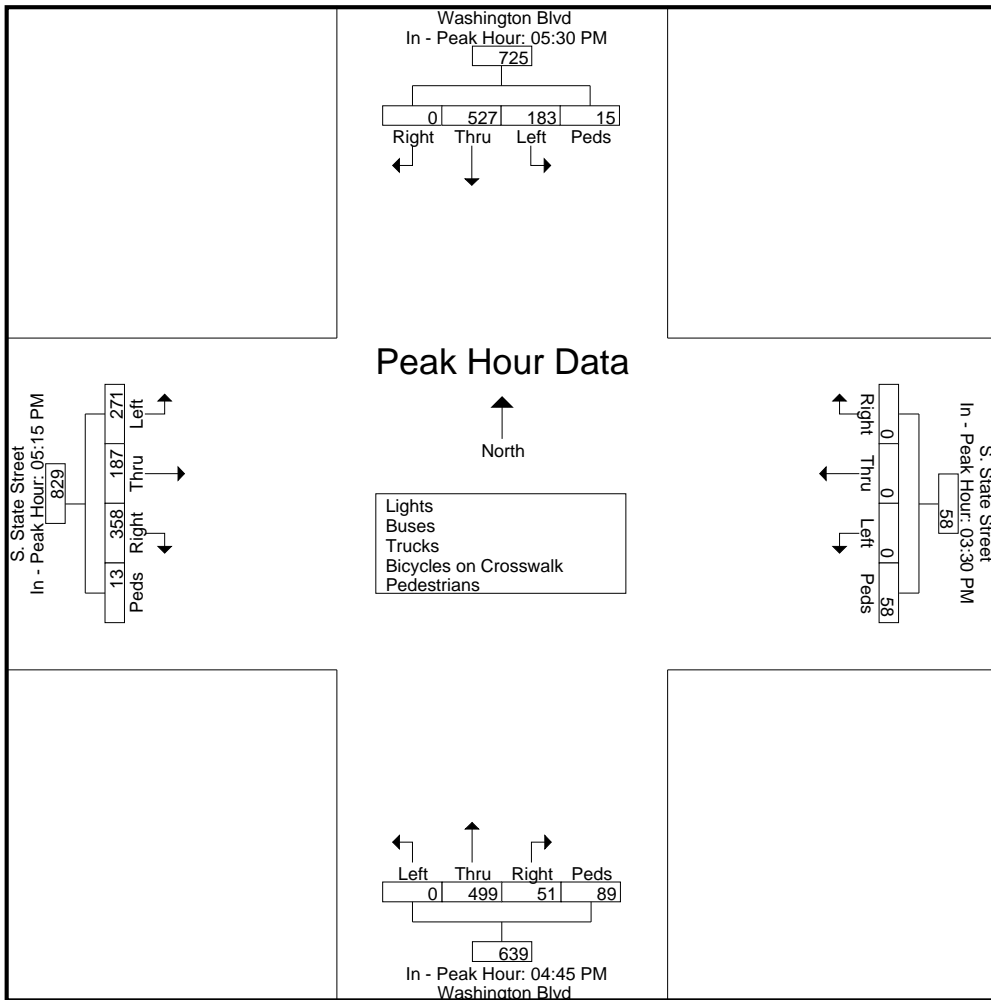
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 16728
 Site Code : 16728
 Start Date : 11/9/2017
 Page No : 3

Start Time	Washington Blvd From North					S. State Street From East					Washington Blvd From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:30 PM to 07:15 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	05:30 PM					03:30 PM					04:45 PM					05:15 PM					
+0 mins.	0	143	48	9	200	0	0	0	20	20	5	127	0	25	157	91	52	68	3	214	
+15 mins.	0	126	52	2	180	0	0	0	12	12	9	106	0	13	128	91	37	49	3	180	
+30 mins.	0	127	36	2	165	0	0	0	11	11	9	132	0	39	180	87	54	84	4	229	
+45 mins.	0	131	47	2	180	0	0	0	15	15	28	134	0	12	174	89	44	70	3	206	
Total Volume	0	527	183	15	725	0	0	0	58	58	51	499	0	89	639	358	187	271	13	829	
% App. Total	0	72.7	25.2	2.1		0	0	0	100		8	78.1	0	13.9		43.2	22.6	32.7	1.6		
PHF	.000	.921	.880	.417	.906	.000	.000	.000	.725	.725	.455	.931	.000	.571	.888	.984	.866	.807	.813	.905	



Connecticut Counts LLC

Kensington, Connecticut 06037
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Greenwich at S. State/I-95 NB/Stamford D
Stamford, Connecticut

File Name : 17046
Site Code : 17046
Start Date : 3/20/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

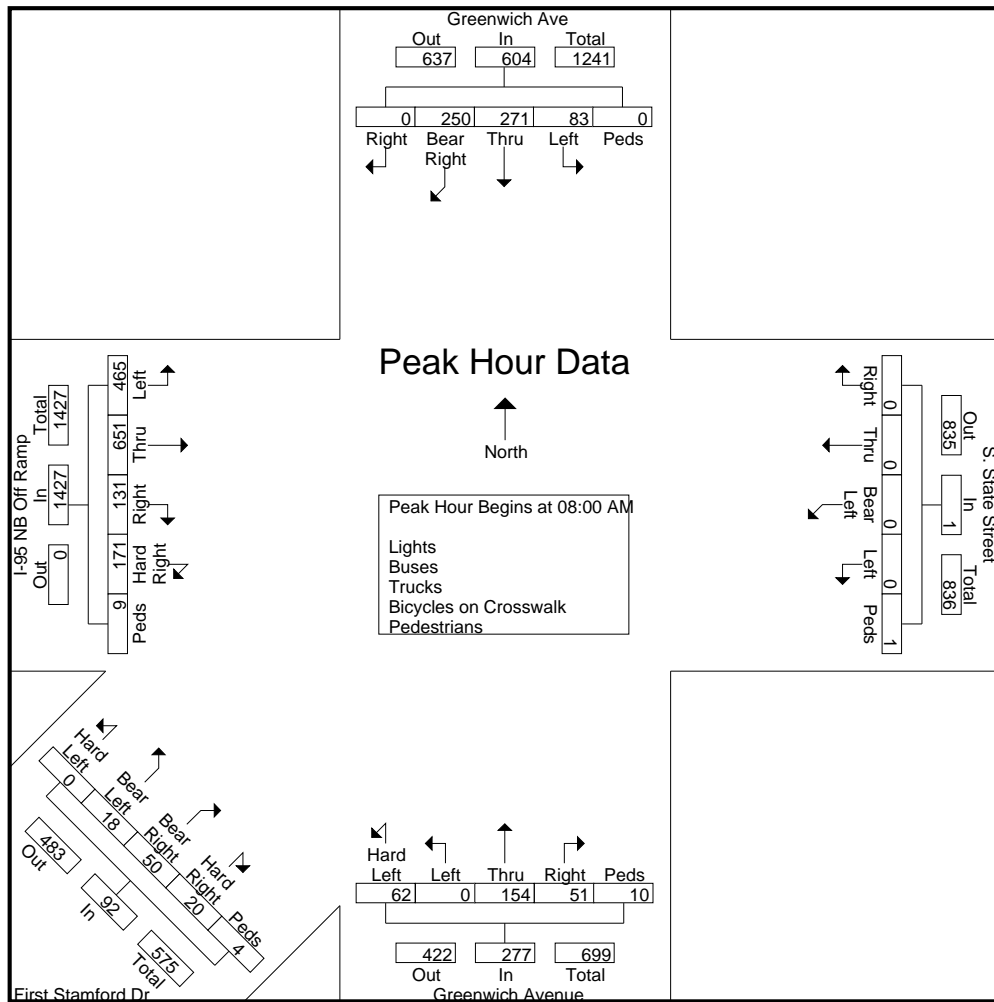
Start Time	Greenwich Ave From North						S. State Street From East						Greenwich Avenue From South						First Stamford Dr From Southwest						I-95 NB Off Ramp From West						Int. Total	
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total		
07:00 AM	0	23	37	27	1	88	0	0	0	0	0	0	13	35	0	7	3	58	6	7	2	0	1	16	35	23	91	46	3	198	360	
07:15 AM	0	24	45	14	0	83	0	0	0	0	1	1	9	41	0	9	3	62	2	11	1	0	3	17	32	28	125	74	2	261	424	
07:30 AM	0	45	77	36	0	158	0	0	0	0	1	1	19	54	0	13	3	89	4	10	7	0	0	21	34	31	130	65	0	260	529	
07:45 AM	0	32	52	33	0	117	0	0	0	0	0	0	16	38	0	12	3	69	4	8	11	0	4	27	52	29	150	118	2	351	564	
Total	0	124	211	110	1	446	0	0	0	0	2	2	57	168	0	41	12	278	16	36	21	0	8	81	153	111	496	303	7	1070	1877	
08:00 AM	0	42	78	28	0	148	0	0	0	0	0	0	15	52	0	10	0	77	4	13	5	0	1	23	41	41	138	110	1	331	579	
08:15 AM	0	73	67	22	0	162	0	0	0	0	1	1	12	26	0	21	6	65	3	13	5	0	1	22	37	25	185	126	2	375	625	
08:30 AM	0	63	57	17	0	137	0	0	0	0	0	0	12	46	0	14	2	74	6	12	4	0	0	22	54	31	166	104	3	358	591	
08:45 AM	0	72	69	16	0	157	0	0	0	0	0	0	12	30	0	17	2	61	7	12	4	0	2	25	39	34	162	125	3	363	606	
Total	0	250	271	83	0	604	0	0	0	0	1	1	51	154	0	62	10	277	20	50	18	0	4	92	171	131	651	465	9	1427	2401	
Grand Total	0	374	482	193	1	1050	0	0	0	0	3	3	108	322	0	103	22	555	36	86	39	0	12	173	324	242	1147	768	16	2497	4278	
Apprch %	0	35.6	45.9	18.4	0.1		0	0	0	0	100		19.5	58	0	18.6	4		20.8	49.7	22.5	0	6.9		13	9.7	45.9	30.8	0.6			
Total %	0	8.7	11.3	4.5	0	24.5	0	0	0	0	0.1	0.1	2.5	7.5	0	2.4	0.5	13	0.8	2	0.9	0	0.3	4	7.6	5.7	26.8	18	0.4	58.4		
Lights	0	370	458	175	0	1003	0	0	0	0	0	0	72	302	0	96	0	470	34	70	36	0	0	140	322	235	1124	759	0	2440	4053	
% Lights	0	98.9	95	90.7	0	95.5	0	0	0	0	0	0	66.7	93.8	0	93.2	0	84.7	94.4	81.4	92.3	0	0	80.9	99.4	97.1	98	98.8	0	97.7	94.7	
Buses	0	2	9	16	0	27	0	0	0	0	0	0	20	11	0	4	0	35	0	9	2	0	0	11	0	1	6	1	0	8	81	
% Buses	0	0.5	1.9	8.3	0	2.6	0	0	0	0	0	0	18.5	3.4	0	3.9	0	6.3	0	10.5	5.1	0	0	6.4	0	0.4	0.5	0.1	0	0.3	1.9	
Trucks	0	2	15	2	0	19	0	0	0	0	0	0	16	9	0	3	0	28	2	7	1	0	0	10	2	6	17	8	0	33	90	
% Trucks	0	0.5	3.1	1	0	1.8	0	0	0	0	0	0	14.8	2.8	0	2.9	0	5	5.6	8.1	2.6	0	0	5.8	0.6	2.5	1.5	1	0	1.3	2.1	
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	1	1	0	0	0	0	3	3	0	0	0	0	22	22	0	0	0	0	12	12	0	0	0	0	16	16	54	
% Pedestrians	0	0	0	0	100	0.1	0	0	0	0	100	100	0	0	0	0	100	4	0	0	0	0	100	6.9	0	0	0	0	100	0.6	1.3	

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17046
 Site Code : 17046
 Start Date : 3/20/2018
 Page No : 2

Start Time	Greenwich Ave From North						S. State Street From East						Greenwich Avenue From South						First Stamford Dr From Southwest						I-95 NB Off Ramp From West						Int. Total
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 08:00 AM																															
08:00 AM	0	42	78	28	0	148	0	0	0	0	0	0	15	52	0	10	0	77	4	13	5	0	1	23	41	41	138	110	1	331	579
08:15 AM	0	73	67	22	0	162	0	0	0	0	1	1	12	26	0	21	6	65	3	13	5	0	1	22	37	25	185	126	2	375	625
08:30 AM	0	63	57	17	0	137	0	0	0	0	0	0	12	46	0	14	2	74	6	12	4	0	0	22	54	31	166	104	3	358	591
08:45 AM	0	72	69	16	0	157	0	0	0	0	0	0	12	30	0	17	2	61	7	12	4	0	2	25	39	34	162	125	3	363	606
Total Volume	0	250	271	83	0	604	0	0	0	0	1	1	51	154	0	62	10	277	20	50	18	0	4	92	171	131	651	465	9	1427	2401
% App. Total	0	41.4	44.9	13.7	0		0	0	0	0	100		18.4	55.6	0	22.4	3.6		21.7	54.3	19.6	0	4.3		12	9.2	45.6	32.6	0.6		
PHF	.000	.856	.869	.741	.000	.932	.000	.000	.000	.000	.250	.250	.850	.740	.000	.738	.417	.899	.714	.962	.900	.000	.500	.920	.792	.799	.880	.923	.750	.951	.960



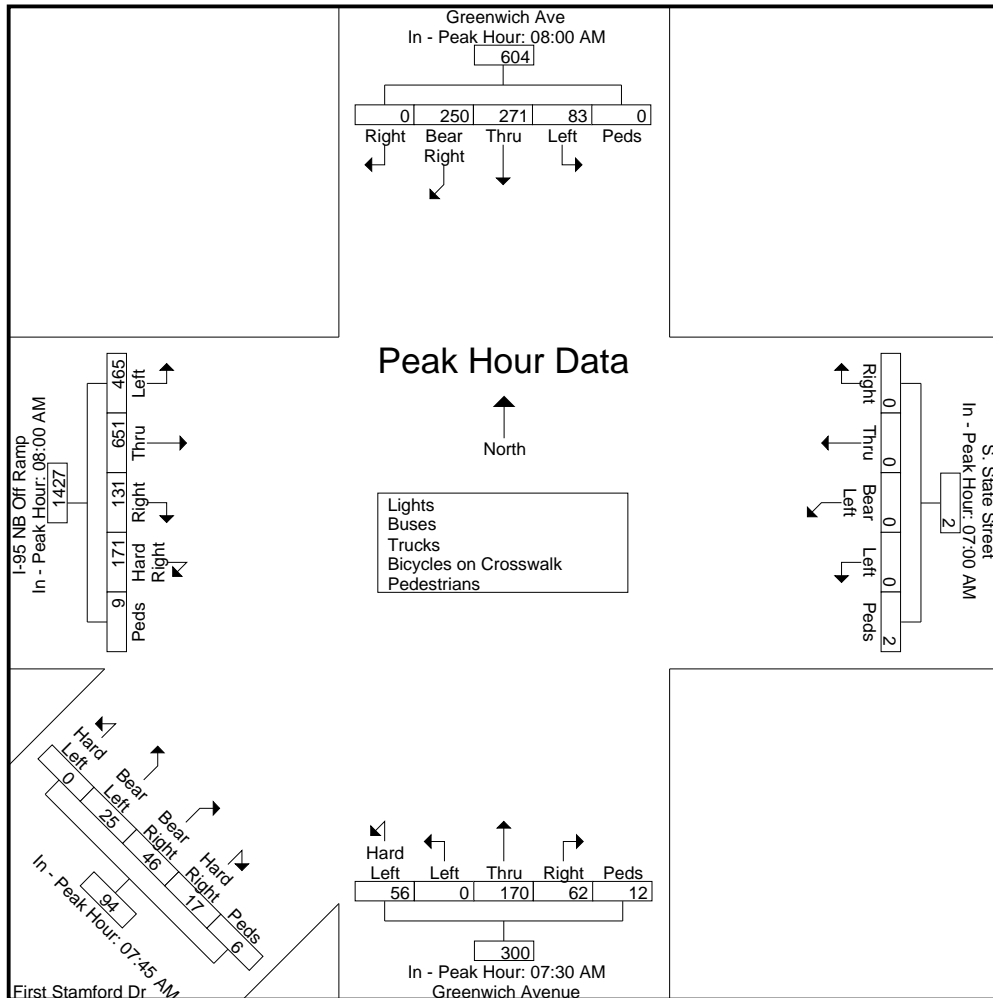
Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17046
 Site Code : 17046
 Start Date : 3/20/2018
 Page No : 3

Start Time	Greenwich Ave From North						S. State Street From East						Greenwich Avenue From South						First Stamford Dr From Southwest						I-95 NB Off Ramp From West						Int. Total
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	
08:00 AM	0	42	78	28	0	148	0	0	0	0	0	0	19	54	0	13	3	89	4	8	11	0	4	27	41	41	138	110	1	331	
+0 mins.	0	42	78	28	0	148	0	0	0	0	0	0	19	54	0	13	3	89	4	8	11	0	4	27	41	41	138	110	1	331	
+15 mins.	0	73	67	22	0	162	0	0	0	0	1	1	16	38	0	12	3	69	4	13	5	0	1	23	37	25	185	126	2	375	
+30 mins.	0	63	57	17	0	137	0	0	0	0	1	1	15	52	0	10	0	77	3	13	5	0	1	22	54	31	166	104	3	358	
+45 mins.	0	72	69	16	0	157	0	0	0	0	0	0	12	26	0	21	6	65	6	12	4	0	0	22	39	34	162	125	3	363	
Total Volume	0	250	271	83	0	604	0	0	0	0	2	2	62	170	0	56	12	300	17	46	25	0	6	94	171	131	651	465	9	1427	
% App. Total	0	41.4	44.9	13.7	0	100	0	0	0	0	100	20.7	56.7	0	18.7	4	100	18.1	48.9	26.6	0	6.4	100	12	9.2	45.6	32.6	0.6	100		
PHF	.000	.856	.869	.741	.000	.932	.000	.000	.000	.000	.500	.500	.816	.787	.000	.667	.500	.843	.708	.885	.568	.000	.375	.870	.792	.799	.880	.923	.750	.951	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:



Connecticut Counts LLC

Kensington, Connecticut 06037 (860) 828-1693

Greenwich at S. State/I-95 NB/Stamford D
Stamford, Connecticut

File Name : 17047
Site Code : 17047
Start Date : 3/20/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

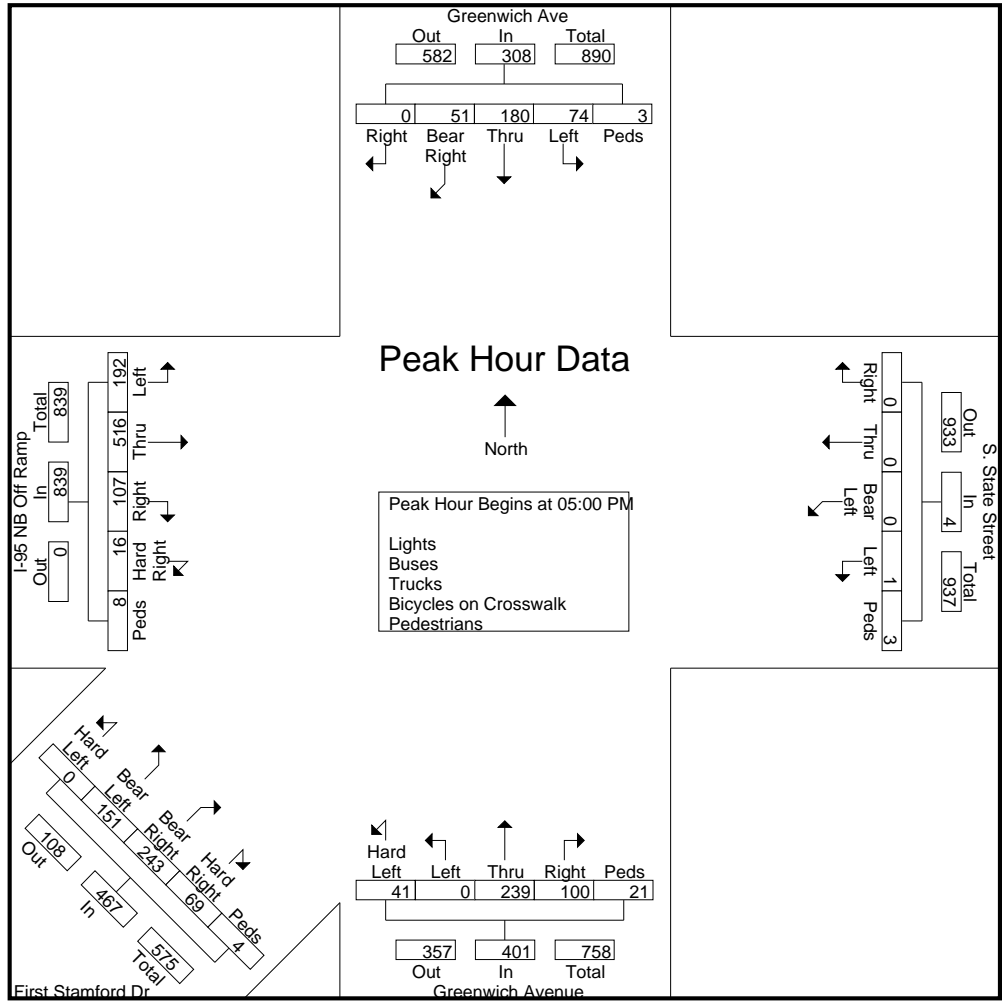
Start Time	Greenwich Ave From North						S. State Street From East						Greenwich Avenue From South						First Stamford Dr From Southwest						I-95 NB Off Ramp From West						Int. Total	
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total		
05:00 PM	0	11	46	21	0	78	0	0	0	0	1	1	31	70	0	4	3	108	14	68	40	0	0	122	4	21	94	38	1	158	467	
05:15 PM	0	18	38	16	0	72	0	0	0	1	1	2	31	53	0	7	1	92	17	60	40	0	1	118	5	25	143	47	3	223	507	
05:30 PM	0	15	50	20	0	85	0	0	0	0	1	1	18	69	0	12	11	110	22	61	36	0	2	121	5	23	119	47	2	196	513	
05:45 PM	0	7	46	17	3	73	0	0	0	0	0	0	20	47	0	18	6	91	16	54	35	0	1	106	2	38	160	60	2	262	532	
Total	0	51	180	74	3	308	0	0	0	1	3	4	100	239	0	41	21	401	69	243	151	0	4	467	16	107	516	192	8	839	2019	
06:00 PM	0	2	44	13	0	59	0	0	0	0	0	0	11	65	0	3	4	83	12	28	28	0	1	69	1	33	148	55	1	238	449	
06:15 PM	0	5	37	14	0	56	0	0	0	0	2	2	18	58	0	2	0	78	11	34	13	0	4	62	5	22	145	49	4	225	423	
06:30 PM	0	2	38	11	0	51	0	0	0	0	0	0	13	47	0	4	1	65	7	27	11	0	7	52	3	31	140	45	6	225	393	
06:45 PM	0	8	44	17	0	69	0	0	0	0	0	0	16	47	0	3	0	66	12	21	12	0	2	47	8	13	143	42	2	208	390	
Total	0	17	163	55	0	235	0	0	0	0	2	2	58	217	0	12	5	292	42	110	64	0	14	230	17	99	576	191	13	896	1655	
Grand Total	0	68	343	129	3	543	0	0	0	1	5	6	158	456	0	53	26	693	111	353	215	0	18	697	33	206	1092	383	21	1735	3674	
Apprch %	0	12.5	63.2	23.8	0.6		0	0	0	16.7	83.3		22.8	65.8	0	7.6	3.8		15.9	50.6	30.8	0	2.6		1.9	11.9	62.9	22.1	1.2			
Total %	0	1.9	9.3	3.5	0.1	14.8	0	0	0	0	0.1	0.2	4.3	12.4	0	1.4	0.7	18.9	3	9.6	5.9	0	0.5	19	0.9	5.6	29.7	10.4	0.6	47.2		
Lights	0	66	337	120	0	523	0	0	0	1	0	1	138	453	0	50	0	641	110	345	213	0	0	668	33	202	1081	380	0	1696	3529	
% Lights	0	97.1	98.3	93	0	96.3	0	0	0	100	0	16.7	87.3	99.3	0	94.3	0	92.5	99.1	97.7	99.1	0	0	95.8	100	98.1	99	99.2	0	97.8	96.1	
Buses	0	2	2	8	0	12	0	0	0	0	0	0	20	0	0	2	0	22	1	7	1	0	0	9	0	0	6	0	0	6	49	
% Buses	0	2.9	0.6	6.2	0	2.2	0	0	0	0	0	0	12.7	0	0	3.8	0	3.2	0.9	2	0.5	0	0	1.3	0	0	0.5	0	0	0.3	1.3	
Trucks	0	0	4	1	0	5	0	0	0	0	0	0	0	3	0	1	0	4	0	1	1	0	0	2	0	4	5	3	0	12	23	
% Trucks	0	0	1.2	0.8	0	0.9	0	0	0	0	0	0	0	0.7	0	1.9	0	0.6	0	0.3	0.5	0	0	0.3	0	1.9	0.5	0.8	0	0.7	0.6	
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.6	0.1	0	0	0	0	4.8	0.1	0.1		
Pedestrians	0	0	0	0	3	3	0	0	0	0	5	5	0	0	0	0	26	26	0	0	0	0	17	17	0	0	0	0	20	20	71	
% Pedestrians	0	0	0	0	100	0.6	0	0	0	0	100	83.3	0	0	0	0	100	3.8	0	0	0	0	94.4	2.4	0	0	0	0	95.2	1.2	1.9	

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17047
Site Code : 17047
Start Date : 3/20/2018
Page No : 2

Start Time	Greenwich Ave From North						S. State Street From East						Greenwich Avenue From South						First Stamford Dr From Southwest						I-95 NB Off Ramp From West						Int. Total	
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total		
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 05:00 PM																																
05:00 PM	0	11	46	21	0	78	0	0	0	0	1	1	31	70	0	4	3	108	14	68	40	0	0	122	4	21	94	38	1	158	467	
05:15 PM	0	18	38	16	0	72	0	0	0	0	1	1	2	31	53	0	7	1	92	17	60	40	0	1	118	5	25	143	47	3	223	507
05:30 PM	0	15	50	20	0	85	0	0	0	0	1	1	1	18	69	0	12	11	110	22	61	36	0	2	121	5	23	119	47	2	196	513
05:45 PM	0	7	46	17	3	73	0	0	0	0	0	0	0	20	47	0	18	6	91	16	54	35	0	1	106	2	38	160	60	2	262	532
Total Volume	0	51	180	74	3	308	0	0	0	1	3	4	4	100	239	0	41	21	401	69	243	151	0	4	467	16	107	516	192	8	839	2019
% App. Total	0	16.6	58.4	24	1		0	0	0	25	75		.500	24.9	59.6	0	10.2	5.2		14.8	52	32.3	0	0.9		1.9	12.8	61.5	22.9	1		
PHF	.000	.708	.900	.881	.250	.906	.000	.000	.000	.250	.750	.500	.806	.854	.000	.569	.477	.911	.784	.893	.944	.000	.500	.957	.800	.704	.806	.800	.667	.801	.949	



Connecticut Counts LLC

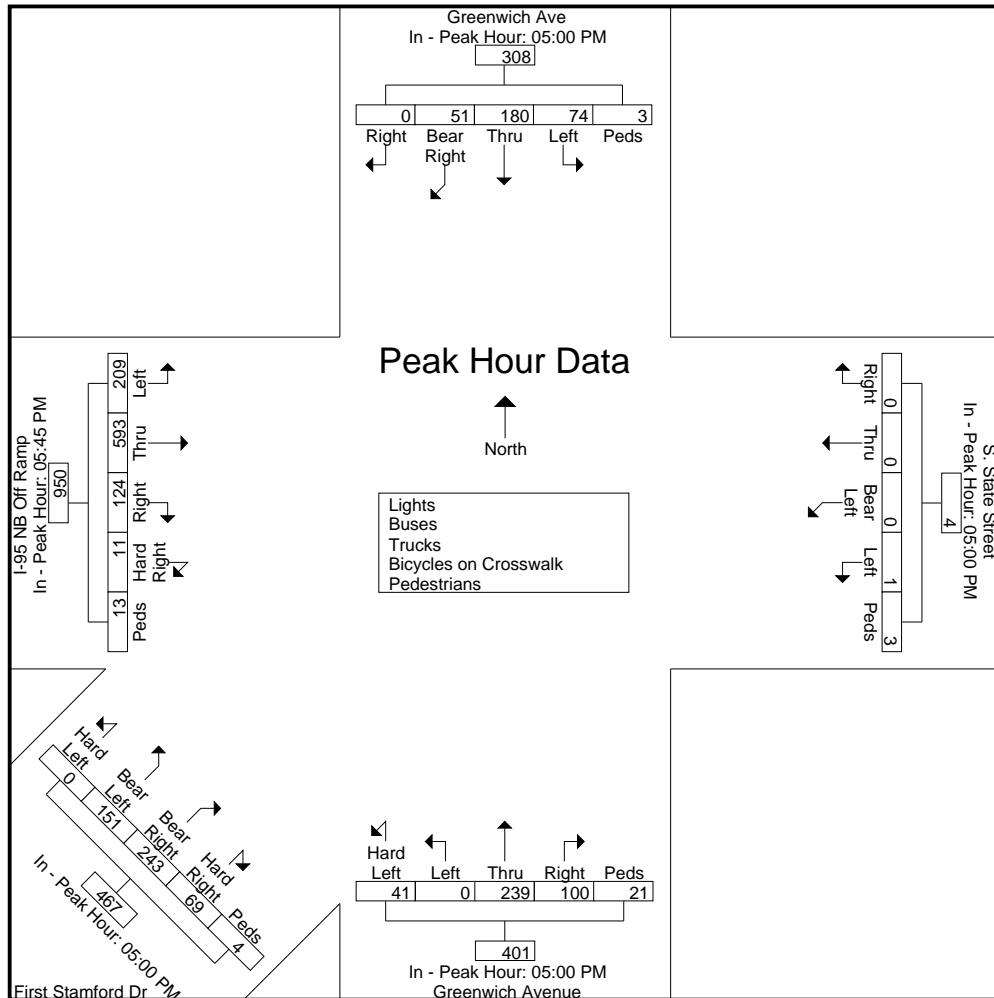
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17047
 Site Code : 17047
 Start Date : 3/20/2018
 Page No : 3

Start Time	Greenwich Ave From North						S. State Street From East						Greenwich Avenue From South						First Stamford Dr From Southwest						I-95 NB Off Ramp From West						Int. Total
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM						05:00 PM						05:00 PM						05:00 PM						05:45 PM					
+0 mins.	0	11	46	21	0	78	0	0	0	0	1	1	31	70	0	4	3	108	14	68	40	0	0	122	2	38	160	60	2	262
+15 mins.	0	18	38	16	0	72	0	0	0	1	1	2	31	53	0	7	1	92	17	60	40	0	1	118	1	33	148	55	1	238
+30 mins.	0	15	50	20	0	85	0	0	0	0	1	1	18	69	0	12	11	110	22	61	36	0	2	121	5	22	145	49	4	225
+45 mins.	0	7	46	17	3	73	0	0	0	0	0	0	20	47	0	18	6	91	16	54	35	0	1	106	3	31	140	45	6	225
Total Volume	0	51	180	74	3	308	0	0	0	1	3	4	100	239	0	41	21	401	69	243	151	0	4	467	11	124	593	209	13	950
% App. Total	0	16.6	58.4	24	1		0	0	0	25	75		24.9	59.6	0	10.2	5.2		14.8	52	32.3	0	0.9		1.2	13.1	62.4	22	1.4	
PHF	.000	.708	.900	.881	.250	.906	.000	.000	.000	.250	.750	.500	.806	.854	.000	.569	.477	.911	.784	.893	.944	.000	.500	.957	.550	.816	.927	.871	.542	.906



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Atlantic Street at N State St/I-95 Sb On
Stamford, Connecticut

File Name : 17058
Site Code : 17058
Start Date : 3/20/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

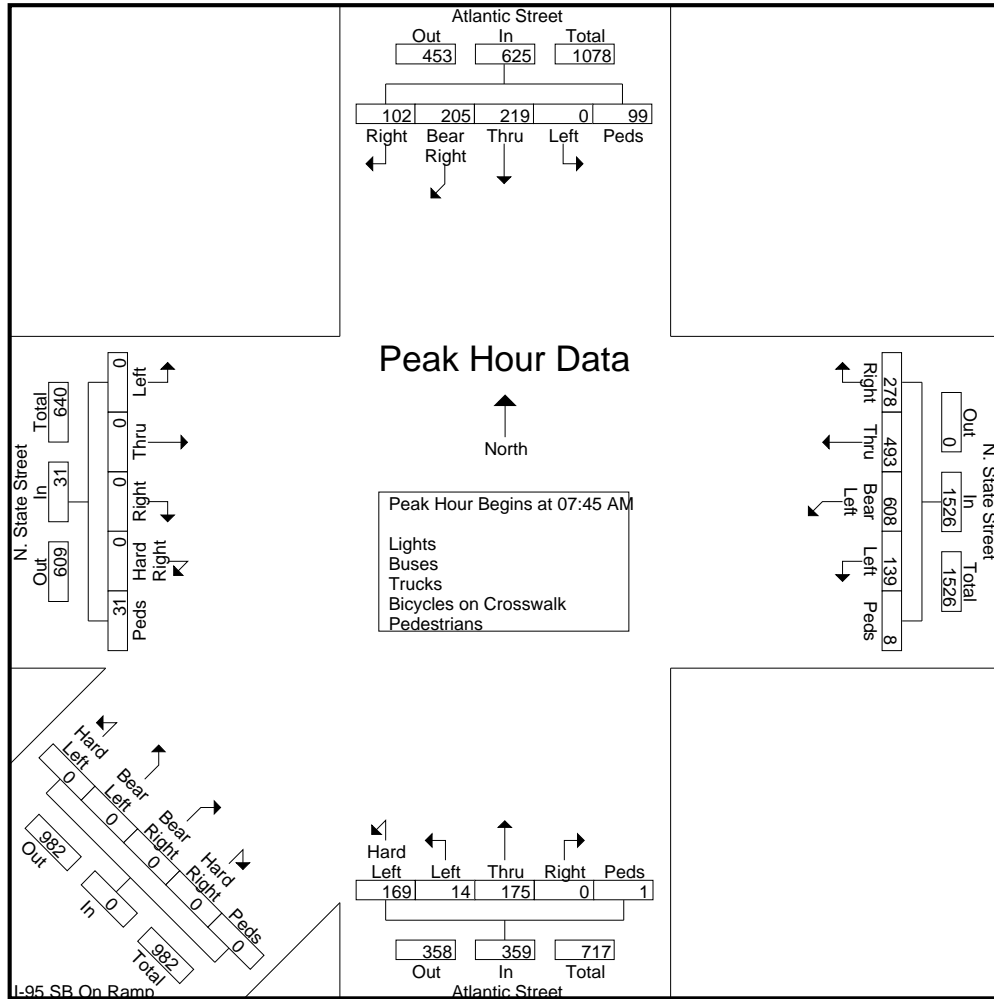
Start Time	Atlantic Street From North						N. State Street From East						Atlantic Street From South						I-95 SB On Ramp From Southwest						N. State Street From West						Int. Total	
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total		
07:00 AM	26	49	55	0	8	138	35	107	126	33	2	303	0	53	1	33	1	88	0	0	0	0	0	0	0	0	0	0	0	4	4	533
07:15 AM	29	44	48	0	10	131	44	107	175	32	1	359	0	45	2	54	0	101	0	0	0	0	0	0	0	0	0	0	0	5	5	596
07:30 AM	24	62	61	0	2	149	45	110	166	35	0	356	0	53	2	43	0	98	0	0	0	0	0	0	0	0	0	0	0	2	2	605
07:45 AM	27	50	60	0	19	156	69	145	150	33	1	398	0	45	4	39	0	88	0	0	0	0	0	0	0	0	0	0	0	9	9	651
Total	106	205	224	0	39	574	193	469	617	133	4	1416	0	196	9	169	1	375	0	0	0	0	0	0	0	0	0	0	0	20	20	2385
08:00 AM	32	51	51	0	27	161	74	114	150	40	1	379	0	28	1	51	0	80	0	0	0	0	0	0	0	0	0	0	5	5	625	
08:15 AM	27	45	63	0	33	168	68	119	144	42	5	378	0	46	6	41	1	94	0	0	0	0	0	0	0	0	0	0	11	11	651	
08:30 AM	16	59	45	0	20	140	67	115	164	24	1	371	0	56	3	38	0	97	0	0	0	0	0	0	0	0	0	0	6	6	614	
08:45 AM	25	49	57	0	22	153	57	118	135	34	5	349	0	48	3	33	3	87	0	0	0	0	0	0	0	0	0	0	15	15	604	
Total	100	204	216	0	102	622	266	466	593	140	12	1477	0	178	13	163	4	358	0	0	0	0	0	0	0	0	0	0	37	37	2494	
Grand Total	206	409	440	0	141	1196	459	935	1210	273	16	2893	0	374	22	332	5	733	0	0	0	0	0	0	0	0	0	0	57	57	4879	
Apprch %	17.2	34.2	36.8	0	11.8		15.9	32.3	41.8	9.4	0.6		0	51	3	45.3	0.7		0	0	0	0	0	0	0	0	0	0	100			
Total %	4.2	8.4	9	0	2.9	24.5	9.4	19.2	24.8	5.6	0.3	59.3	0	7.7	0.5	6.8	0.1	15	0	0	0	0	0	0	0	0	0	0	1.2	1.2		
Lights	99	407	419	0	0	925	440	865	1157	261	0	2723	0	364	14	324	0	702	0	0	0	0	0	0	0	0	0	0	0	0	4350	
% Lights	48.1	99.5	95.2	0	0	77.3	95.9	92.5	95.6	95.6	0	94.1	0	97.3	63.6	97.6	0	95.8	0	0	0	0	0	0	0	0	0	0	0	0	89.2	
Buses	96	1	13	0	0	110	1	50	4	0	0	55	0	5	8	3	0	16	0	0	0	0	0	0	0	0	0	0	0	0	181	
% Buses	46.6	0.2	3	0	0	9.2	0.2	5.3	0.3	0	0	1.9	0	1.3	36.4	0.9	0	2.2	0	0	0	0	0	0	0	0	0	0	0	0	3.7	
Trucks	11	1	8	0	0	20	18	20	49	12	0	99	0	5	0	5	0	10	0	0	0	0	0	0	0	0	0	0	0	0	129	
% Trucks	5.3	0.2	1.8	0	0	1.7	3.9	2.1	4	4.4	0	3.4	0	1.3	0	1.5	0	1.4	0	0	0	0	0	0	0	0	0	0	0	0	2.6	
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	141	141	0	0	0	0	16	16	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	57	57	219	
% Pedestrians	0	0	0	0	100	11.8	0	0	0	0	100	0.6	0	0	0	0	100	0.7	0	0	0	0	0	0	0	0	0	0	100	100	4.5	

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17058
 Site Code : 17058
 Start Date : 3/20/2018
 Page No : 2

Start Time	Atlantic Street From North						N. State Street From East						Atlantic Street From South						I-95 SB On Ramp From Southwest						N. State Street From West						Int. Total
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 07:45 AM																															
07:45 AM	27	50	60	0	19	156	69	145	150	33	1	398	0	45	4	39	0	88	0	0	0	0	0	0	0	0	0	0	9	9	651
08:00 AM	32	51	51	0	27	161	74	114	150	40	1	379	0	28	1	51	0	80	0	0	0	0	0	0	0	0	0	0	5	5	625
08:15 AM	27	45	63	0	33	168	68	119	144	42	5	378	0	46	6	41	1	94	0	0	0	0	0	0	0	0	0	0	11	11	651
08:30 AM	16	59	45	0	20	140	67	115	164	24	1	371	0	56	3	38	0	97	0	0	0	0	0	0	0	0	0	0	6	6	614
Total Volume	102	205	219	0	99	625	278	493	608	139	8	1526	0	175	14	169	1	359	0	0	0	0	0	0	0	0	0	0	31	31	2541
% App. Total	16.3	32.8	35	0	15.8		18.2	32.3	39.8	9.1	0.5		0	48.7	3.9	47.1	0.3		0	0	0	0	0	0	0	0	0	0	100		
PHF	.797	.869	.869	.000	.750	.930	.939	.850	.927	.827	.400	.959	.000	.781	.583	.828	.250	.925	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.705	.976	



Connecticut Counts LLC

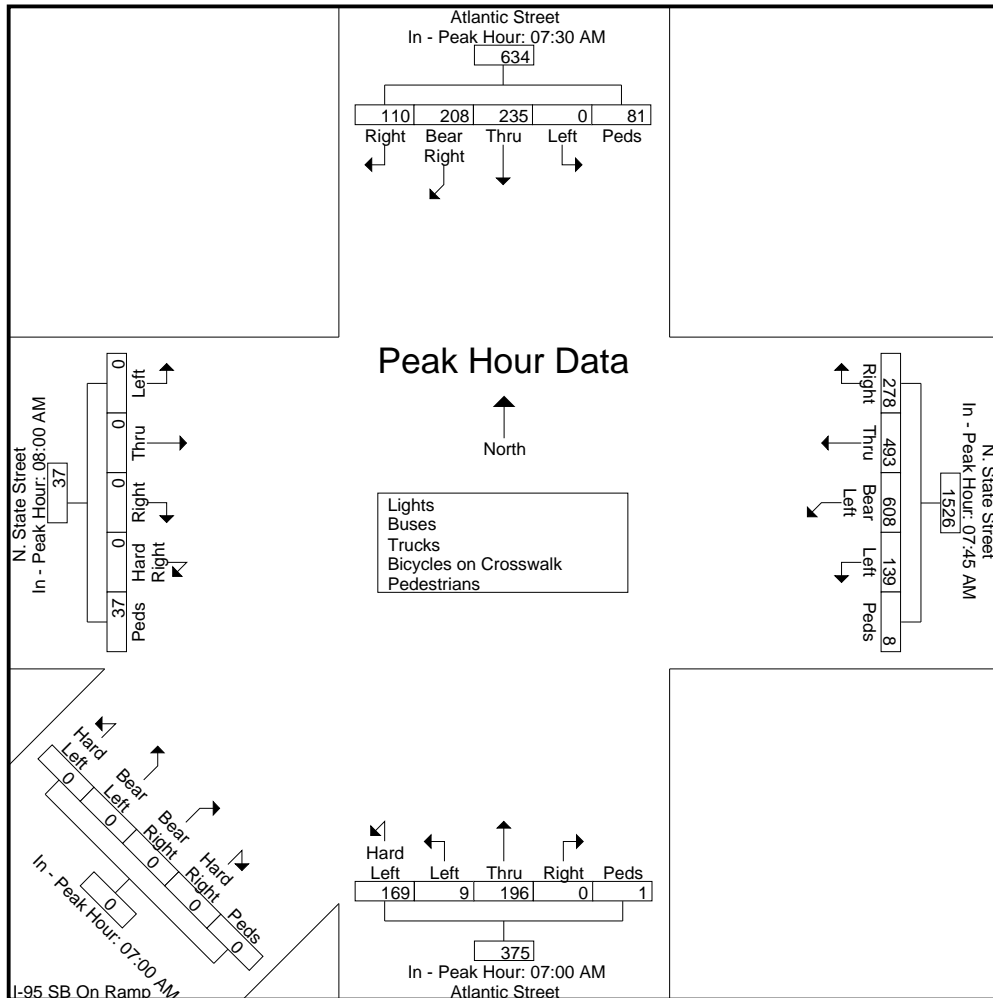
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17058
 Site Code : 17058
 Start Date : 3/20/2018
 Page No : 3

Start Time	Atlantic Street From North						N. State Street From East						Atlantic Street From South						I-95 SB On Ramp From Southwest						N. State Street From West						Int. Total
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM						07:45 AM						07:00 AM						07:00 AM						08:00 AM						
+0 mins.	24	62	61	0	2	149	69	145	150	33	1	398	0	53	1	33	1	88	0	0	0	0	0	0	0	0	0	0	0	5	5
+15 mins.	27	50	60	0	19	156	74	114	150	40	1	379	0	45	2	54	0	101	0	0	0	0	0	0	0	0	0	0	0	11	11
+30 mins.	32	51	51	0	27	161	68	119	144	42	5	378	0	53	2	43	0	98	0	0	0	0	0	0	0	0	0	0	0	6	6
+45 mins.	27	45	63	0	33	168	67	115	164	24	1	371	0	45	4	39	0	88	0	0	0	0	0	0	0	0	0	0	15	15	
Total Volume	110	208	235	0	81	634	278	493	608	139	8	1526	0	196	9	169	1	375	0	0	0	0	0	0	0	0	0	0	37	37	
% App. Total	17.4	32.8	37.1	0	12.8		18.2	32.3	39.8	9.1	0.5		0	52.3	2.4	45.1	0.3		0	0	0	0	0		0	0	0	0	100		
PHF	.859	.839	.933	.000	.614	.943	.939	.850	.927	.827	.400	.959	.000	.925	.563	.782	.250	.928	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.617	.617	



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Atlantic Street at > State St/I-95 SB ON
 Stamford, Connecticut

File Name : 17059
 Site Code : 17059
 Start Date : 3/20/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

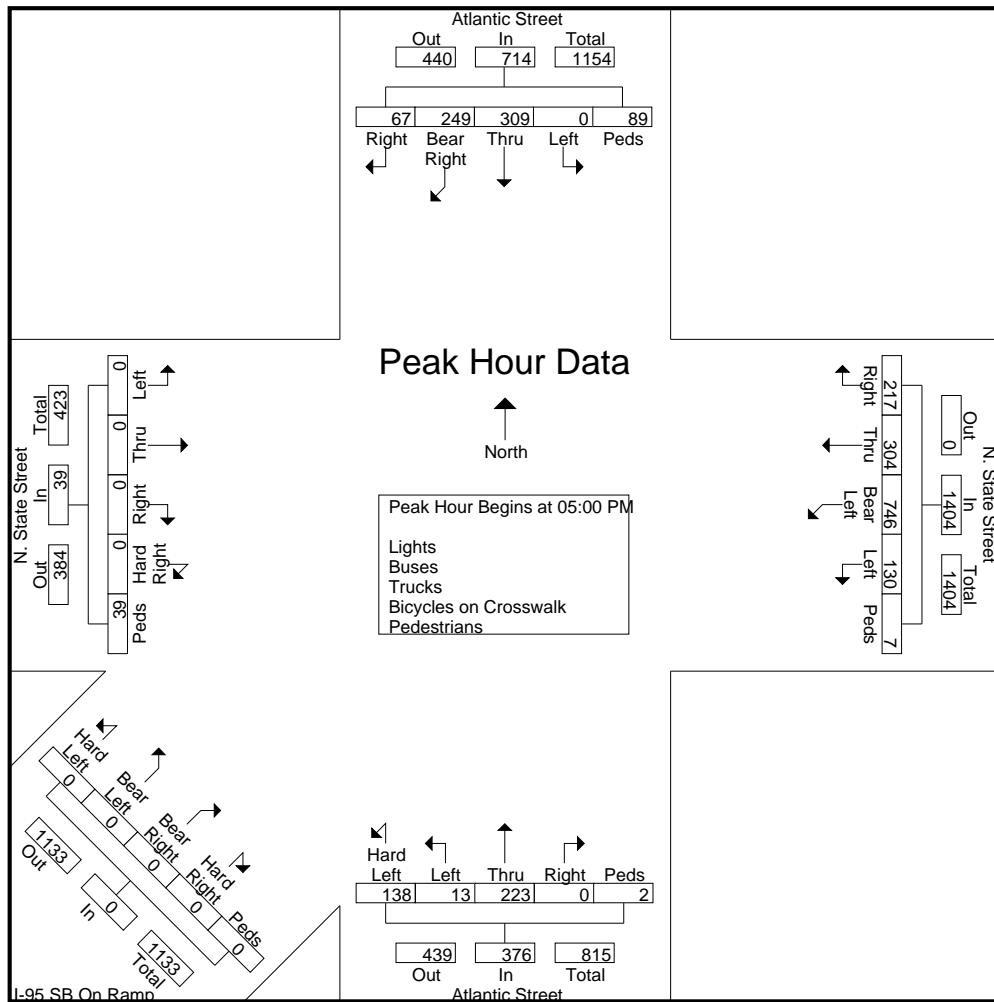
Start Time	Atlantic Street From North						N. State Street From East						Atlantic Street From South						I-95 SB On Ramp From Southwest						N. State Street From West						Int. Total
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	
05:00 PM	17	73	73	0	32	195	52	90	227	39	4	412	0	42	2	34	0	78	0	0	0	0	0	0	0	0	0	0	8	8	693
05:15 PM	12	67	82	0	22	183	63	73	185	31	1	353	0	57	4	50	0	111	0	0	0	0	0	0	0	0	0	0	8	8	655
05:30 PM	22	63	73	0	17	175	50	63	158	29	1	301	0	57	3	24	2	86	0	0	0	0	0	0	0	0	0	12	12	574	
05:45 PM	16	46	81	0	18	161	52	78	176	31	1	338	0	67	4	30	0	101	0	0	0	0	0	0	0	0	0	11	11	611	
Total	67	249	309	0	89	714	217	304	746	130	7	1404	0	223	13	138	2	376	0	0	0	0	0	0	0	0	0	0	39	39	2533
06:00 PM	21	56	72	0	10	159	31	61	147	23	1	263	0	49	5	30	0	84	0	0	0	0	0	0	0	0	0	0	6	6	512
06:15 PM	18	56	75	0	16	165	29	79	132	34	1	275	0	58	11	30	0	99	0	0	0	0	0	0	0	0	0	0	5	5	544
06:30 PM	13	35	54	0	8	110	33	74	143	41	1	292	0	55	3	28	0	86	0	0	0	0	0	0	0	0	0	7	7	495	
06:45 PM	20	43	60	0	7	130	37	53	127	22	1	240	0	71	4	25	1	101	0	0	0	0	0	0	0	0	0	5	5	476	
Total	72	190	261	0	41	564	130	267	549	120	4	1070	0	233	23	113	1	370	0	0	0	0	0	0	0	0	0	23	23	2027	
Grand Total	139	439	570	0	130	1278	347	571	1295	250	11	2474	0	456	36	251	3	746	0	0	0	0	0	0	0	0	0	0	62	62	4560
Apprch %	10.9	34.4	44.6	0	10.2		14	23.1	52.3	10.1	0.4		0	61.1	4.8	33.6	0.4		0	0	0	0	0	0	0	0	0	0	100		
Total %	3	9.6	12.5	0	2.9	28	7.6	12.5	28.4	5.5	0.2	54.3	0	10	0.8	5.5	0.1	16.4	0	0	0	0	0	0	0	0	0	1.4	1.4		
Lights	60	437	562	0	0	1059	344	537	1291	248	0	2420	0	450	33	249	0	732	0	0	0	0	0	0	0	0	0	0	0	0	4211
% Lights	43.2	99.5	98.6	0	0	82.9	99.1	94	99.7	99.2	0	97.8	0	98.7	91.7	99.2	0	98.1	0	0	0	0	0	0	0	0	0	0	0	0	92.3
Buses	76	0	7	0	0	83	1	29	0	0	0	30	0	3	3	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	120
% Buses	54.7	0	1.2	0	0	6.5	0.3	5.1	0	0	0	1.2	0	0.7	8.3	0.4	0	0.9	0	0	0	0	0	0	0	0	0	0	0	0	2.6
Trucks	3	2	1	0	0	6	2	5	4	2	0	13	0	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	23
% Trucks	2.2	0.5	0.2	0	0	0.5	0.6	0.9	0.3	0.8	0	0.5	0	0.7	0	0.4	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0.5
Bicycles on Crosswalk	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	
% Bicycles on Crosswalk	0	0	0	0	0.8	0.1	0	0	0	0	9.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6	1.6	0.1	
Pedestrians	0	0	0	0	129	129	0	0	0	0	10	10	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	61	61	203	
% Pedestrians	0	0	0	0	99.2	10.1	0	0	0	0	90.9	0.4	0	0	0	0	100	0.4	0	0	0	0	0	0	0	0	0	98.4	98.4	4.5	

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17059
 Site Code : 17059
 Start Date : 3/20/2018
 Page No : 2

Start Time	Atlantic Street From North						N. State Street From East						Atlantic Street From South						I-95 SB On Ramp From Southwest						N. State Street From West						Int. Total
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:00 PM																															
05:00 PM	17	73	73	0	32	195	52	90	227	39	4	412	0	42	2	34	0	78	0	0	0	0	0	0	0	0	0	0	8	8	693
05:15 PM	12	67	82	0	22	183	63	73	185	31	1	353	0	57	4	50	0	111	0	0	0	0	0	0	0	0	0	0	8	8	655
05:30 PM	22	63	73	0	17	175	50	63	158	29	1	301	0	57	3	24	2	86	0	0	0	0	0	0	0	0	0	0	12	12	574
05:45 PM	16	46	81	0	18	161	52	78	176	31	1	338	0	67	4	30	0	101	0	0	0	0	0	0	0	0	0	0	11	11	611
Total Volume	67	249	309	0	89	714	217	304	746	130	7	1404	0	223	13	138	2	376	0	0	0	0	0	0	0	0	0	0	39	39	2533
% App. Total	9.4	34.9	43.3	0	12.5	15.5	21.7	53.1	9.3	0.5	0	59.3	3.5	36.7	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
PHF	.761	.853	.942	.000	.695	.861	.844	.822	.833	.438	.852	.000	.832	.813	.690	.250	.847	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.813	.914		



Connecticut Counts LLC

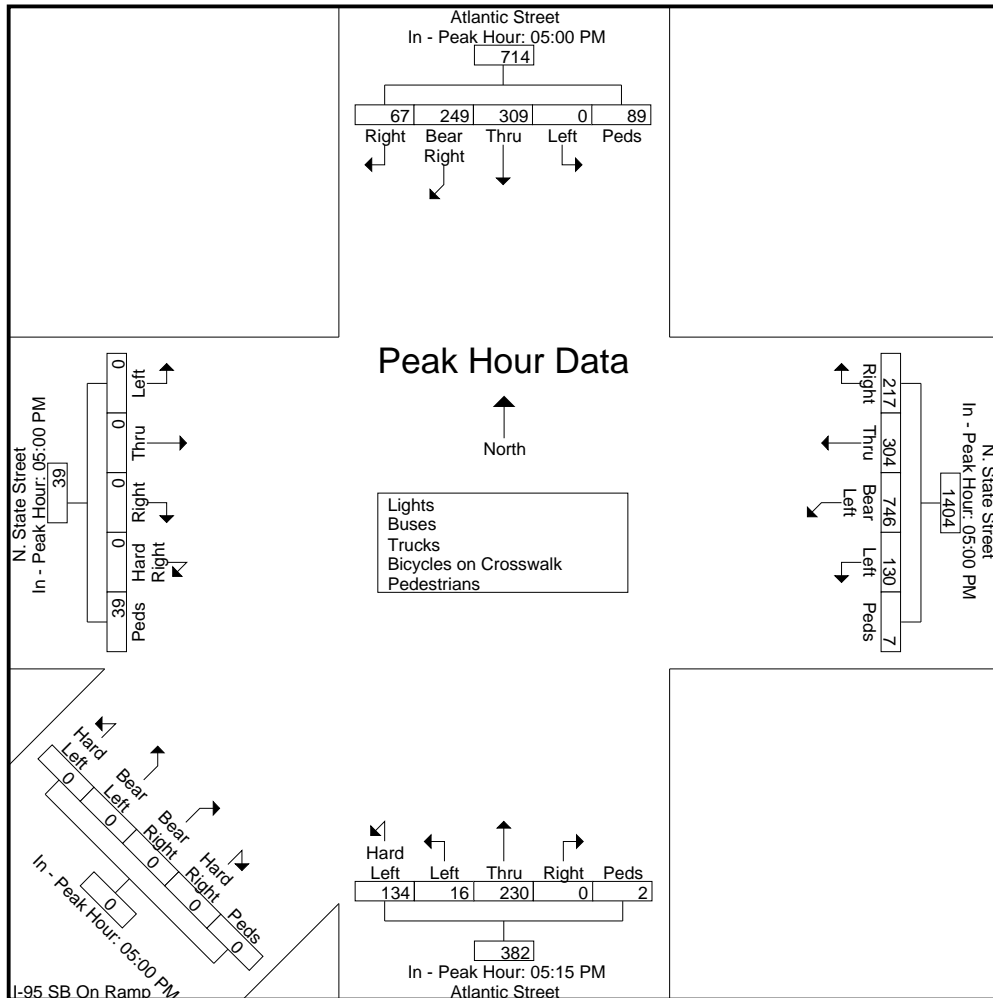
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17059
 Site Code : 17059
 Start Date : 3/20/2018
 Page No : 3

Start Time	Atlantic Street From North						N. State Street From East						Atlantic Street From South						I-95 SB On Ramp From Southwest						N. State Street From West						Int. Total
	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM						05:00 PM						05:15 PM						05:00 PM						05:00 PM						
+0 mins.	17	73	73	0	32	195	52	90	227	39	4	412	0	57	4	50	0	111	0	0	0	0	0	0	0	0	0	0	0	8	8
+15 mins.	12	67	82	0	22	183	63	73	185	31	1	353	0	57	3	24	2	86	0	0	0	0	0	0	0	0	0	0	0	8	8
+30 mins.	22	63	73	0	17	175	50	63	158	29	1	301	0	67	4	30	0	101	0	0	0	0	0	0	0	0	0	0	12	12	
+45 mins.	16	46	81	0	18	161	52	78	176	31	1	338	0	49	5	30	0	84	0	0	0	0	0	0	0	0	0	0	11	11	
Total Volume	67	249	309	0	89	714	217	304	746	130	7	1404	0	230	16	134	2	382	0	0	0	0	0	0	0	0	0	0	39	39	
% App. Total	9.4	34.9	43.3	0	12.5		15.5	21.7	53.1	9.3	0.5		0	60.2	4.2	35.1	0.5		0	0	0	0	0		0	0	0	0	100		
PHF	.761	.853	.942	.000	.695	.915	.861	.844	.822	.833	.438	.852	.000	.858	.800	.670	.250	.860	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.813	.813	



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Atlantic Street at S. State Street
 Stamford, Connecticut

File Name : 17050
 Site Code : 17050
 Start Date : 3/27/2018
 Page No : 1

Groups Printed- Cars - Trucks - Buses

Start Time	Atlantic Street From North					S. State Street From East					Atlantic Street From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	0	66	6	1	73	0	0	0	0	0	11	76	0	0	87	13	40	18	5	76	236
07:15 AM	0	93	7	0	100	0	0	0	0	0	15	83	0	0	98	12	52	18	2	84	282
07:30 AM	0	78	10	0	88	0	0	0	0	0	5	75	0	0	80	12	42	17	4	75	243
07:45 AM	0	70	14	0	84	0	0	0	0	0	11	76	0	2	89	14	42	19	1	76	249
Total	0	307	37	1	345	0	0	0	0	0	42	310	0	2	354	51	176	72	12	311	1010
08:00 AM	0	82	12	1	95	0	0	0	0	0	10	80	0	0	90	13	34	26	2	75	260
08:15 AM	0	87	10	0	97	0	0	0	0	0	7	77	0	0	84	13	55	19	10	97	278
08:30 AM	0	70	20	0	90	0	0	0	1	1	5	96	0	0	101	12	48	17	10	87	279
08:45 AM	0	87	11	0	98	0	0	0	0	0	13	71	0	0	84	14	42	23	15	94	276
Total	0	326	53	1	380	0	0	0	1	1	35	324	0	0	359	52	179	85	37	353	1093
Grand Total	0	633	90	2	725	0	0	0	1	1	77	634	0	2	713	103	355	157	49	664	2103
Apprch %	0	87.3	12.4	0.3		0	0	0	100		10.8	88.9	0	0.3		15.5	53.5	23.6	7.4		
Total %	0	30.1	4.3	0.1	34.5	0	0	0	0	0	3.7	30.1	0	0.1	33.9	4.9	16.9	7.5	2.3	31.6	
Cars	0	603	86	2	691	0	0	0	1	1	74	618	0	2	694	101	309	151	49	610	1996
% Cars	0	95.3	95.6	100	95.3	0	0	0	100	100	96.1	97.5	0	100	97.3	98.1	87	96.2	100	91.9	94.9
Trucks	0	13	3	0	16	0	0	0	0	0	3	7	0	0	10	1	33	2	0	36	62
% Trucks	0	2.1	3.3	0	2.2	0	0	0	0	0	3.9	1.1	0	0	1.4	1	9.3	1.3	0	5.4	2.9
Buses	0	17	1	0	18	0	0	0	0	0	0	9	0	0	9	1	13	4	0	18	45
% Buses	0	2.7	1.1	0	2.5	0	0	0	0	0	0	1.4	0	0	1.3	1	3.7	2.5	0	2.7	2.1

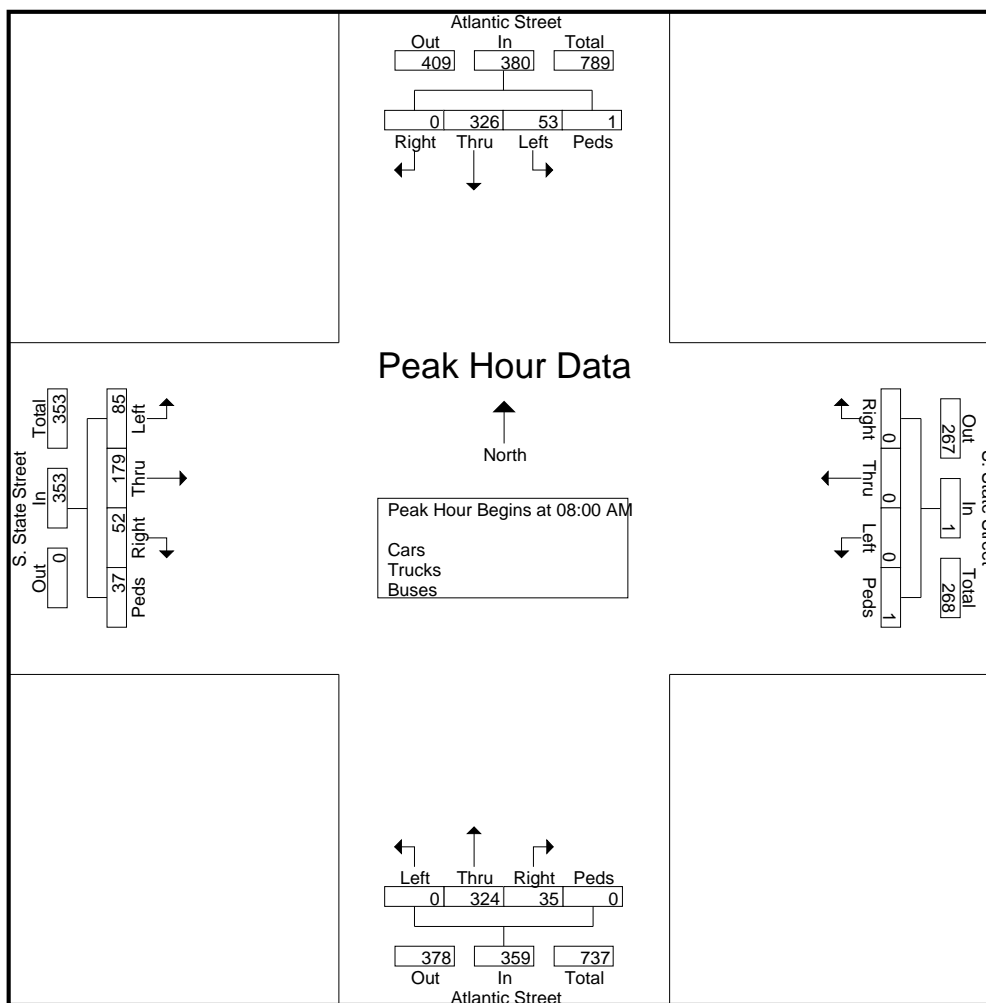
Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Atlantic Street at S. State Street
Stamford, Connecticut

File Name : 17050
Site Code : 17050
Start Date : 3/27/2018
Page No : 2

Start Time	Atlantic Street From North					S. State Street From East					Atlantic Street From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	82	12	1	95	0	0	0	0	0	10	80	0	0	90	13	34	26	2	75	260
08:15 AM	0	87	10	0	97	0	0	0	0	0	7	77	0	0	84	13	55	19	10	97	278
08:30 AM	0	70	20	0	90	0	0	0	1	1	5	96	0	0	101	12	48	17	10	87	279
08:45 AM	0	87	11	0	98	0	0	0	0	0	13	71	0	0	84	14	42	23	15	94	276
Total Volume	0	326	53	1	380	0	0	0	1	1	35	324	0	0	359	52	179	85	37	353	1093
% App. Total	0	85.8	13.9	0.3		0	0	0	100		9.7	90.3	0	0		14.7	50.7	24.1	10.5		
PHF	.000	.937	.663	.250	.969	.000	.000	.000	.250	.250	.673	.844	.000	.000	.889	.929	.814	.817	.617	.910	.979



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Atlantic Street at S. State Street
Stamford, Connecticut

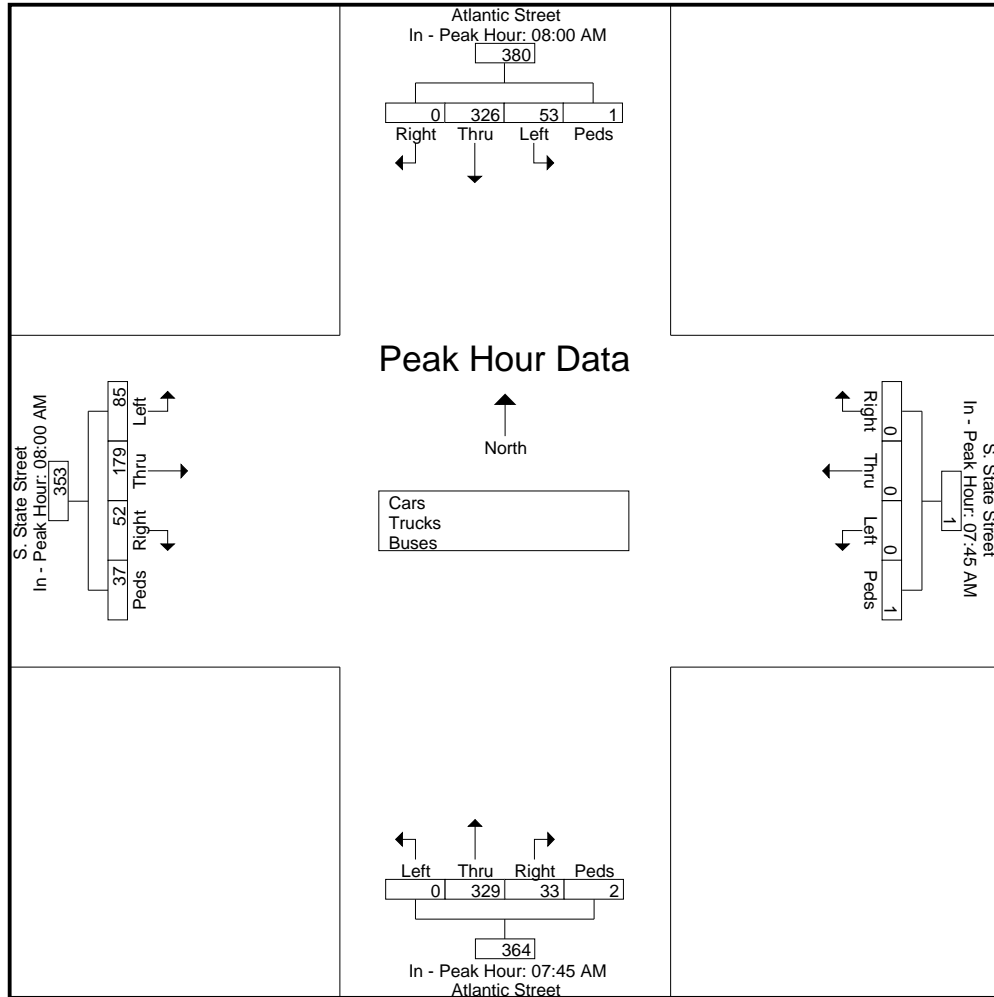
File Name : 17050
Site Code : 17050
Start Date : 3/27/2018
Page No : 3

Start Time	Atlantic Street From North					S. State Street From East					Atlantic Street From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM					07:45 AM					07:45 AM					08:00 AM				
+0 mins.	0	82	12	1	95	0	0	0	0	0	11	76	0	2	89	13	34	26	2	75
+15 mins.	0	87	10	0	97	0	0	0	0	0	10	80	0	0	90	13	55	19	10	97
+30 mins.	0	70	20	0	90	0	0	0	0	0	7	77	0	0	84	12	48	17	10	87
+45 mins.	0	87	11	0	98	0	0	0	1	1	5	96	0	0	101	14	42	23	15	94
Total Volume	0	326	53	1	380	0	0	0	1	1	33	329	0	2	364	52	179	85	37	353
% App. Total	0	85.8	13.9	0.3		0	0	0	100		9.1	90.4	0	0.5		14.7	50.7	24.1	10.5	
PHF	.000	.937	.663	.250	.969	.000	.000	.000	.250	.250	.750	.857	.000	.250	.901	.929	.814	.817	.617	.910



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Atlantic Street at S. State Street
 Stamford, Connecticut

File Name : 17051
 Site Code : 17051
 Start Date : 3/20/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

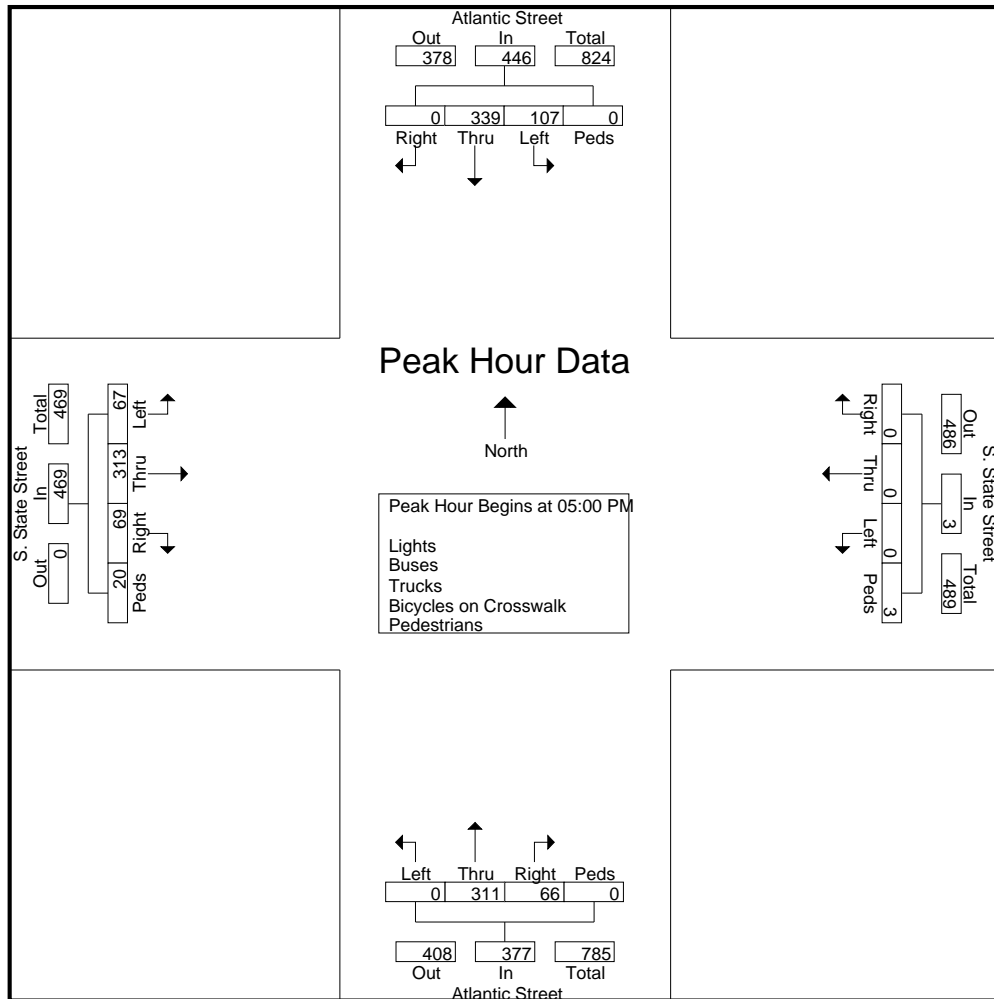
Start Time	Atlantic Street From North					S. State Street From East					Atlantic Street From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	0	81	25	0	106	0	0	0	2	2	20	71	0	0	91	13	90	12	5	120	319
05:15 PM	0	87	30	0	117	0	0	0	0	0	16	83	0	0	99	22	71	20	2	115	331
05:30 PM	0	80	28	0	108	0	0	0	1	1	15	75	0	0	90	16	90	16	8	130	329
05:45 PM	0	91	24	0	115	0	0	0	0	0	15	82	0	0	97	18	62	19	5	104	316
Total	0	339	107	0	446	0	0	0	3	3	66	311	0	0	377	69	313	67	20	469	1295
06:00 PM	0	75	30	0	105	0	0	0	0	0	8	70	0	0	78	15	74	16	4	109	292
06:15 PM	0	86	15	0	101	0	0	0	0	0	17	81	0	0	98	16	73	11	2	102	301
06:30 PM	0	77	21	0	98	0	0	0	2	2	9	84	0	0	93	18	60	12	6	96	289
06:45 PM	0	77	18	0	95	0	0	0	0	0	12	77	0	0	89	14	66	12	2	94	278
Total	0	315	84	0	399	0	0	0	2	2	46	312	0	0	358	63	273	51	14	401	1160
Grand Total	0	654	191	0	845	0	0	0	5	5	112	623	0	0	735	132	586	118	34	870	2455
Apprch %	0	77.4	22.6	0		0	0	0	100		15.2	84.8	0	0		5.4	67.4	13.6	3.9		
Total %	0	26.6	7.8	0	34.4	0	0	0	0.2	0.2	4.6	25.4	0	0	29.9	5.4	23.9	4.8	1.4	35.4	
Lights	0	644	191	0	835	0	0	0	0	0	112	616	0	0	728	132	572	114	0	818	2381
% Lights	0	98.5	100	0	98.8	0	0	0	0	0	100	98.9	0	0	99	100	97.6	96.6	0	94	97
Buses	0	8	0	0	8	0	0	0	0	0	0	3	0	0	3	0	12	4	0	16	27
% Buses	0	1.2	0	0	0.9	0	0	0	0	0	0	0.5	0	0	0.4	0	2	3.4	0	1.8	1.1
Trucks	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	8
% Trucks	0	0.3	0	0	0.2	0	0	0	0	0	0	0.6	0	0	0.5	0	0.3	0	0	0.2	0.3
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.9	0.1	0
Pedestrians	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	33	33	38
% Pedestrians	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	97.1	3.8	1.5

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17051
Site Code : 17051
Start Date : 3/20/2018
Page No : 2

Start Time	Atlantic Street From North					S. State Street From East					Atlantic Street From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	81	25	0	106	0	0	0	2	2	20	71	0	0	91	13	90	12	5	120	319
05:15 PM	0	87	30	0	117	0	0	0	0	0	16	83	0	0	99	22	71	20	2	115	331
05:30 PM	0	80	28	0	108	0	0	0	1	1	15	75	0	0	90	16	90	16	8	130	329
05:45 PM	0	91	24	0	115	0	0	0	0	0	15	82	0	0	97	18	62	19	5	104	316
Total Volume	0	339	107	0	446	0	0	0	3	3	66	311	0	0	377	69	313	67	20	469	1295
% App. Total	0	76	24	0		0	0	0	100		17.5	82.5	0	0		14.7	66.7	14.3	4.3		
PHF	.000	.931	.892	.000	.953	.000	.000	.000	.375	.375	.825	.937	.000	.000	.952	.784	.869	.838	.625	.902	.978



Connecticut Counts LLC

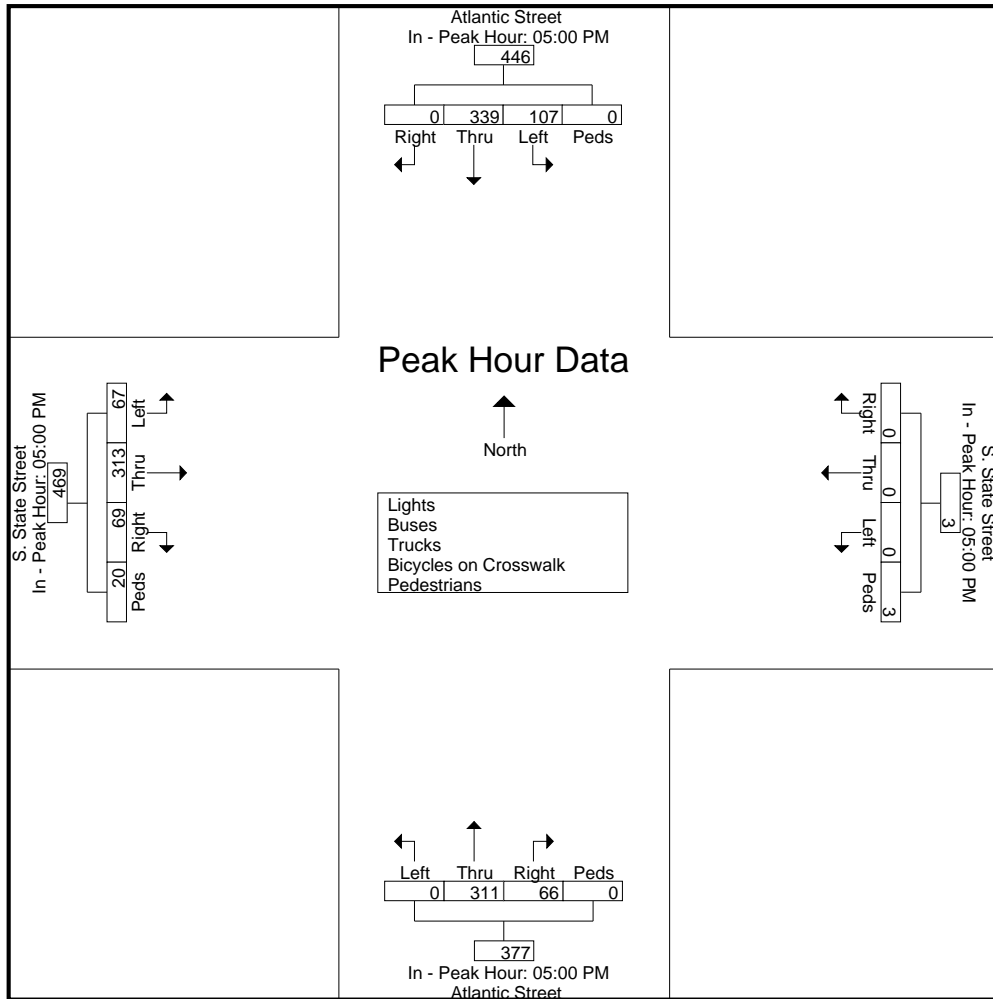
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17051
 Site Code : 17051
 Start Date : 3/20/2018
 Page No : 3

Start Time	Atlantic Street From North					S. State Street From East					Atlantic Street From South					S. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM					05:00 PM					05:00 PM					05:00 PM				
+0 mins.	0	81	25	0	106	0	0	0	2	2	20	71	0	0	91	13	90	12	5	120
+15 mins.	0	87	30	0	117	0	0	0	0	0	16	83	0	0	99	22	71	20	2	115
+30 mins.	0	80	28	0	108	0	0	0	1	1	15	75	0	0	90	16	90	16	8	130
+45 mins.	0	91	24	0	115	0	0	0	0	0	15	82	0	0	97	18	62	19	5	104
Total Volume	0	339	107	0	446	0	0	0	3	3	66	311	0	0	377	69	313	67	20	469
% App. Total	0	76	24	0		0	0	0	100		17.5	82.5	0	0		14.7	66.7	14.3	4.3	
PHF	.000	.931	.892	.000	.953	.000	.000	.000	.375	.375	.825	.937	.000	.000	.952	.784	.869	.838	.625	.902



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Canal Street at N. State Street
 Stamford, Connecticut

File Name : 17060
 Site Code : 17060
 Start Date : 3/20/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Canal Street From North					N. State Street From East					Canal Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	38	101	0	1	140	35	212	70	2	319	0	101	50	0	151	0	0	0	0	0	610
07:15 AM	52	90	0	2	144	57	256	67	1	381	0	109	55	0	164	0	0	0	3	3	692
07:30 AM	53	131	0	2	186	64	287	78	0	429	0	126	49	0	175	0	0	0	3	3	793
07:45 AM	40	111	0	4	155	52	340	68	0	460	0	149	57	0	206	0	0	0	2	2	823
Total	183	433	0	9	625	208	1095	283	3	1589	0	485	211	0	696	0	0	0	8	8	2918
08:00 AM	54	126	0	6	186	61	300	80	0	441	0	130	41	0	171	0	0	0	2	2	800
08:15 AM	53	136	0	13	202	79	304	77	0	460	0	152	55	0	207	0	0	0	1	1	870
08:30 AM	44	117	0	7	168	102	271	73	0	446	0	142	80	0	222	0	0	0	2	2	838
08:45 AM	43	154	0	2	199	76	219	86	0	381	0	134	54	0	188	0	0	0	1	1	769
Total	194	533	0	28	755	318	1094	316	0	1728	0	558	230	0	788	0	0	0	6	6	3277
Grand Total	377	966	0	37	1380	526	2189	599	3	3317	0	1043	441	0	1484	0	0	0	14	14	6195
Apprch %	27.3	70	0	2.7		15.9	66	18.1	0.1		0	70.3	29.7	0		0	0	0	100		
Total %	6.1	15.6	0	0.6	22.3	8.5	35.3	9.7	0	53.5	0	16.8	7.1	0	24	0	0	0	0.2	0.2	
Lights	357	923	0	0	1280	513	2091				0	95.8	90.5	0	94.2	0	0	0	0	0	94.7
% Lights	94.7	95.5	0	0	92.8	97.5	95.5	97.7	0	96.1	0	95.8	90.5	0	94.2	0	0	0	0	0	94.7
Buses	11	19	0	0	30	0	43	0	0	43	0	15	3	0	18	0	0	0	0	0	91
% Buses	2.9	2	0	0	2.2	0	2	0	0	1.3	0	1.4	0.7	0	1.2	0	0	0	0	0	1.5
Trucks	9	24	0	0	33	13	55	14	0	82	0	29	39	0	68	0	0	0	0	0	183
% Trucks	2.4	2.5	0	0	2.4	2.5	2.5	2.3	0	2.5	0	2.8	8.8	0	4.6	0	0	0	0	0	3
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	37	37	0	0	0	3	3	0	0	0	0	0	0	0	0	14	14	54
% Pedestrians	0	0	0	100	2.7	0	0	0	100	0.1	0	0	0	0	0	0	0	0	100	100	0.9

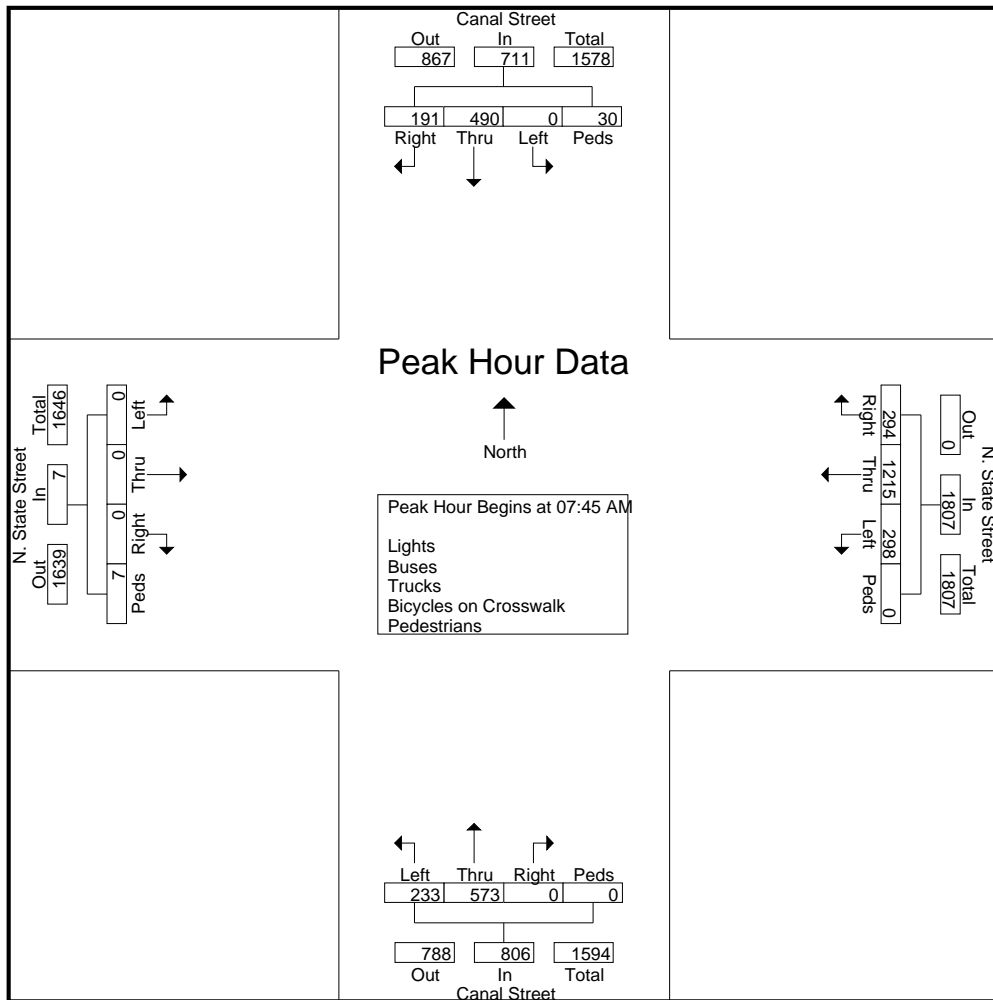
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 17060
 Site Code : 17060
 Start Date : 3/20/2018
 Page No : 2

Start Time	Canal Street From North					N. State Street From East					Canal Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	40	111	0	4	155	52	340	68	0	460	0	149	57	0	206	0	0	0	2	2	823
08:00 AM	54	126	0	6	186	61	300	80	0	441	0	130	41	0	171	0	0	0	2	2	800
08:15 AM	53	136	0	13	202	79	304	77	0	460	0	152	55	0	207	0	0	0	1	1	870
08:30 AM	44	117	0	7	168	102	271	73	0	446	0	142	80	0	222	0	0	0	2	2	838
Total Volume	191	490	0	30	711	294	1215	298	0	1807	0	573	233	0	806	0	0	0	7	7	3331
% App. Total	26.9	68.9	0	4.2		16.3	67.2	16.5	0		0	71.1	28.9	0		0	0	0	100		
PHF	.884	.901	.000	.577	.880	.721	.893	.931	.000	.982	.000	.942	.728	.000	.908	.000	.000	.000	.875	.875	.957

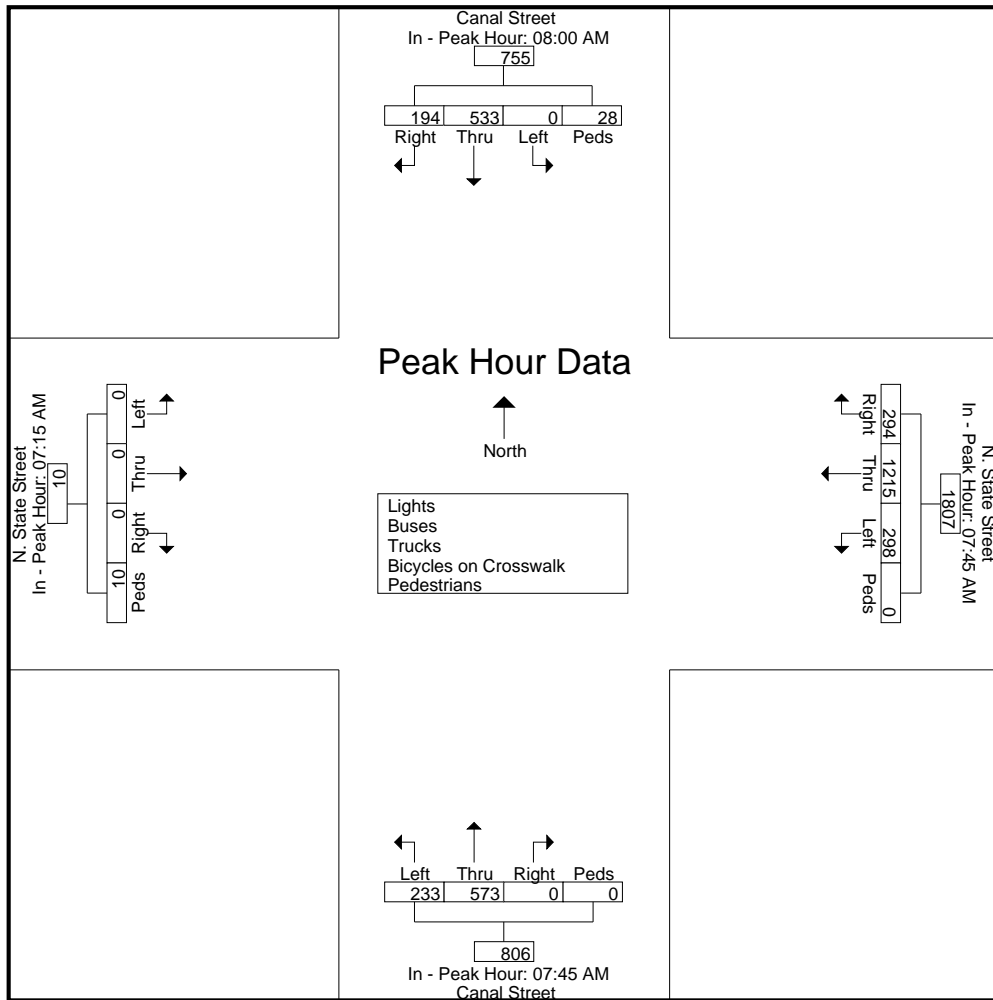


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17060
 Site Code : 17060
 Start Date : 3/20/2018
 Page No : 3

Start Time	Canal Street From North					N. State Street From East					Canal Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:00 AM					07:45 AM					07:45 AM					07:15 AM					
+0 mins.	54	126	0	6	186	52	340	68	0	460	0	149	57	0	206	0	0	0	3	3	
+15 mins.	53	136	0	13	202	61	300	80	0	441	0	130	41	0	171	0	0	0	3	3	
+30 mins.	44	117	0	7	168	79	304	77	0	460	0	152	55	0	207	0	0	0	2	2	
+45 mins.	43	154	0	2	199	102	271	73	0	446	0	142	80	0	222	0	0	0	2	2	
Total Volume	194	533	0	28	755	294	1215	298	0	1807	0	573	233	0	806	0	0	0	10	10	
% App. Total	25.7	70.6	0	3.7		16.3	67.2	16.5	0		0	71.1	28.9	0		0	0	0	100		
PHF	.898	.865	.000	.538	.934	.721	.893	.931	.000	.982	.000	.942	.728	.000	.908	.000	.000	.000	.833	.833	



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Canal Street at N. State Street
Stamford, Connecticut

File Name : 17061
Site Code : 17061
Start Date : 3/20/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Canal Street From North					N. State Street From East					Canal Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	49	126	0	9	184	51	216	70	0	337	0	158	49	0	207	0	0	0	2	2	730
05:15 PM	34	128	0	2	164	46	194	75	3	318	0	161	69	0	230	0	0	0	1	1	713
05:30 PM	37	162	0	9	208	54	186	79	0	319	0	208	47	0	255	0	0	0	3	3	785
05:45 PM	38	150	0	3	191	53	194	88	0	335	0	171	51	0	222	0	0	0	5	5	753
Total	158	566	0	23	747	204	790	312	3	1309	0	698	216	0	914	0	0	0	11	11	2981
06:00 PM	45	113	0	2	160	42	149	63	2	256	0	186	48	0	234	0	0	0	4	4	654
06:15 PM	31	119	0	2	152	53	166	75	0	294	0	181	46	0	227	0	0	0	4	4	677
06:30 PM	38	123	0	2	163	36	176	89	0	301	0	174	48	0	222	0	0	0	3	3	689
06:45 PM	35	109	0	1	145	44	151	71	1	267	0	161	47	0	208	0	0	0	3	3	623
Total	149	464	0	7	620	175	642	298	3	1118	0	702	189	0	891	0	0	0	14	14	2643
Grand Total	307	1030	0	30	1367	379	1432	610	6	2427	0	1400	405	0	1805	0	0	0	25	25	5624
Apprch %	22.5	75.3	0	2.2		15.6	59	25.1	0.2		0	77.6	22.4	0		0	0	0	100		
Total %	5.5	18.3	0	0.5	24.3	6.7	25.5	10.8	0.1	43.2	0	24.9	7.2	0	32.1	0	0	0	0.4	0.4	
Lights	306	1012					1396					1390									
% Lights	99.7	98.3	0	0	96.4	98.7	97.5	98.7	0	97.7	0	99.3	99	0	99.2	0	0	0	0	0	97.5
Buses	0	7	0	0	7	1	28	0	0	29	0	4	1	0	5	0	0	0	0	0	41
% Buses	0	0.7	0	0	0.5	0.3	2	0	0	1.2	0	0.3	0.2	0	0.3	0	0	0	0	0	0.7
Trucks	1	11	0	0	12	4	8	8	0	20	0	6	3	0	9	0	0	0	0	0	41
% Trucks	0.3	1.1	0	0	0.9	1.1	0.6	1.3	0	0.8	0	0.4	0.7	0	0.5	0	0	0	0	0	0.7
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	6.7	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	28	28	0	0	0	6	6	0	0	0	0	0	0	0	0	25	25	59
% Pedestrians	0	0	0	93.3	2	0	0	0	100	0.2	0	0	0	0	0	0	0	0	100	100	1

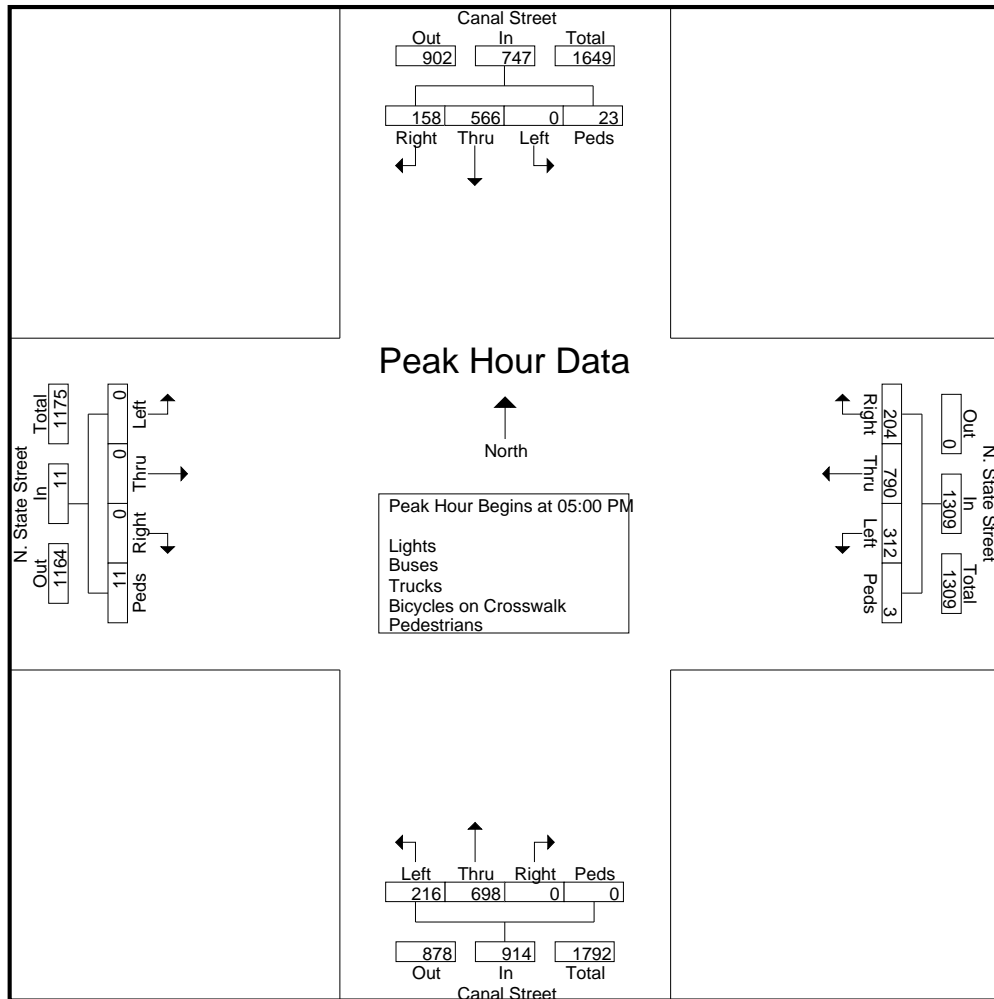
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 17061
 Site Code : 17061
 Start Date : 3/20/2018
 Page No : 2

Start Time	Canal Street From North					N. State Street From East					Canal Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	49	126	0	9	184	51	216	70	0	337	0	158	49	0	207	0	0	0	2	2	730
05:15 PM	34	128	0	2	164	46	194	75	3	318	0	161	69	0	230	0	0	0	1	1	713
05:30 PM	37	162	0	9	208	54	186	79	0	319	0	208	47	0	255	0	0	0	3	3	785
05:45 PM	38	150	0	3	191	53	194	88	0	335	0	171	51	0	222	0	0	0	5	5	753
Total Volume	158	566	0	23	747	204	790	312	3	1309	0	698	216	0	914	0	0	0	11	11	2981
% App. Total	21.2	75.8	0	3.1		15.6	60.4	23.8	0.2		0	76.4	23.6	0		0	0	0	100		
PHF	.806	.873	.000	.639	.898	.944	.914	.886	.250	.971	.000	.839	.783	.000	.896	.000	.000	.000	.550	.550	.949



Connecticut Counts LLC

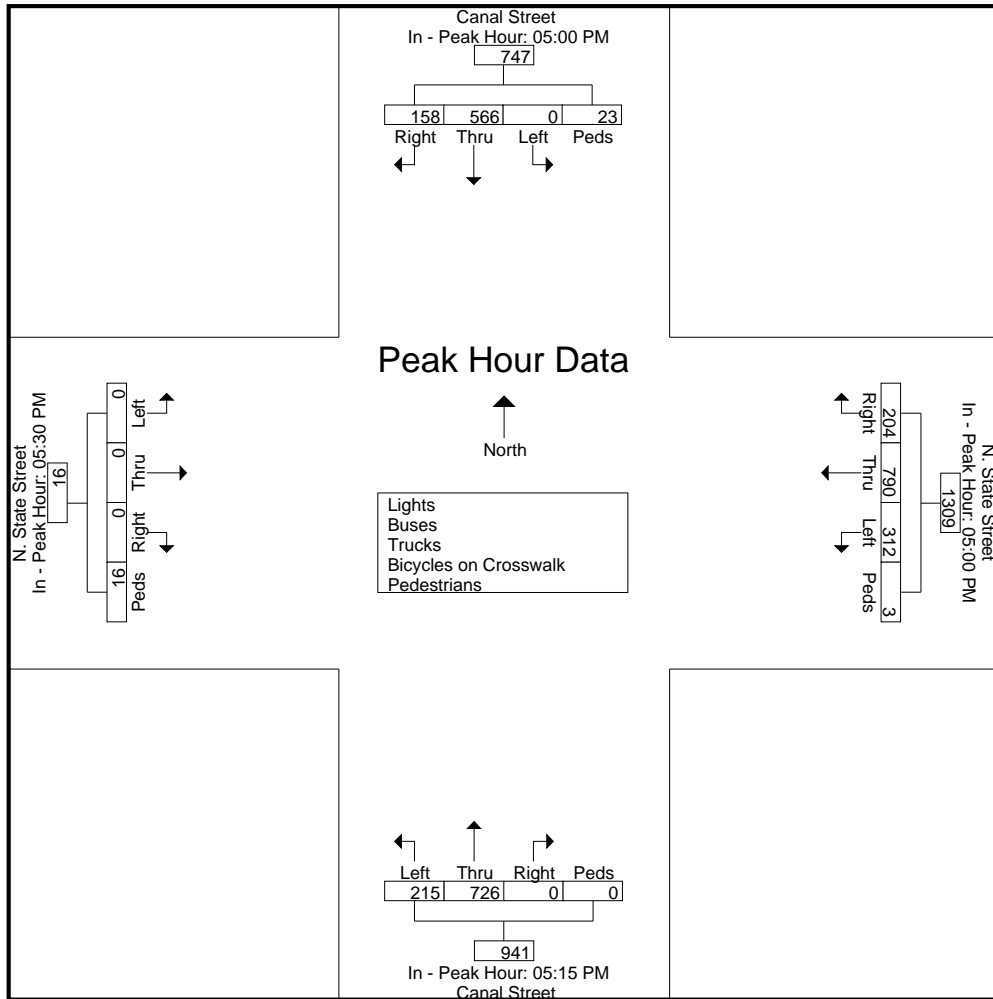
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17061
 Site Code : 17061
 Start Date : 3/20/2018
 Page No : 3

Start Time	Canal Street From North					N. State Street From East					Canal Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	05:00 PM					05:00 PM					05:15 PM					05:30 PM				
+0 mins.	49	126	0	9	184	51	216	70	0	337	0	161	69	0	230	0	0	0	3	3
+15 mins.	34	128	0	2	164	46	194	75	3	318	0	208	47	0	255	0	0	0	5	5
+30 mins.	37	162	0	9	208	54	186	79	0	319	0	171	51	0	222	0	0	0	4	4
+45 mins.	38	150	0	3	191	53	194	88	0	335	0	186	48	0	234	0	0	0	4	4
Total Volume	158	566	0	23	747	204	790	312	3	1309	0	726	215	0	941	0	0	0	16	16
% App. Total	21.2	75.8	0	3.1		15.6	60.4	23.8	0.2		0	77.2	22.8	0		0	0	0	100	
PHF	.806	.873	.000	.639	.898	.944	.914	.886	.250	.971	.000	.873	.779	.000	.923	.000	.000	.000	.800	.800



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Canal Street at S. State St/I-95 NB On
Stamford, Connecticut

File Name : 17054
Site Code : 17054
Start Date : 3/20/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

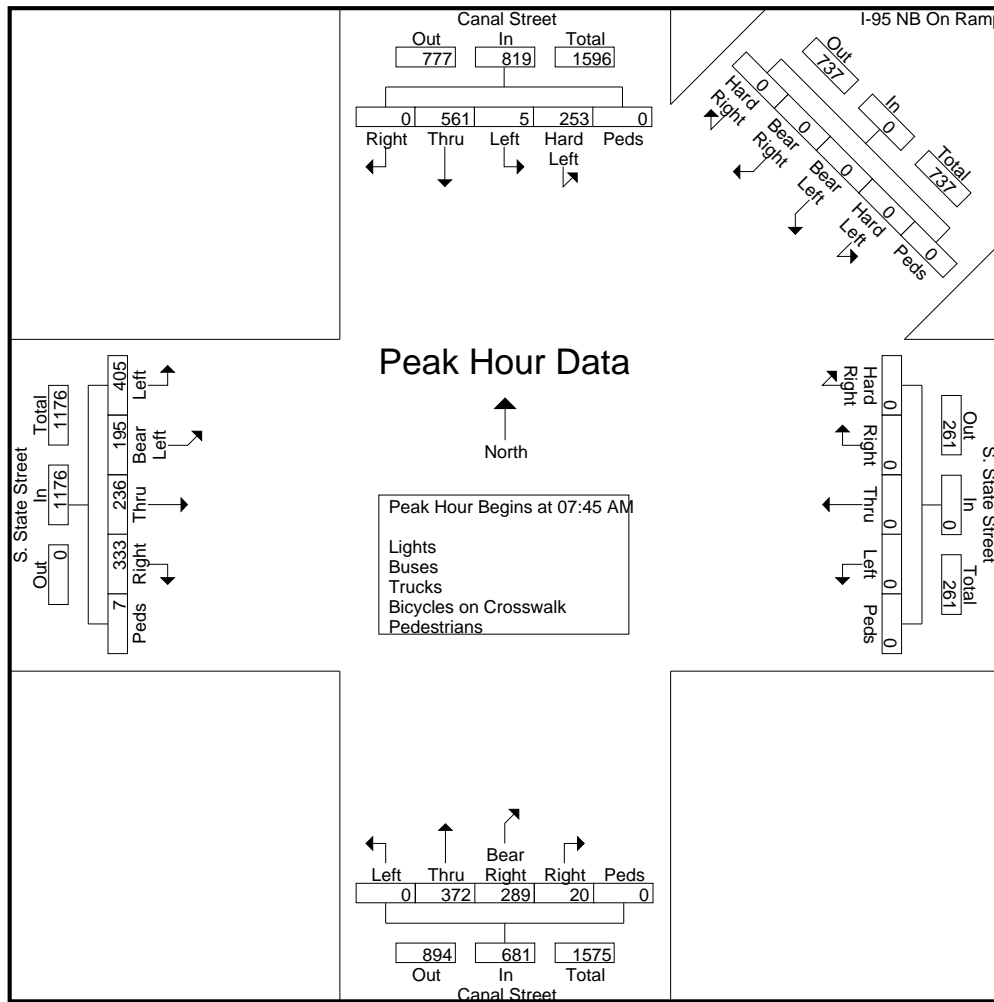
Start Time	Canal Street From North						I-95 NB On Ramp From Northeast						S. State Street From East						Canal Street From South						S. State Street From West						Int. Total
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	
07:00 AM	0	119	1	57	0	177	0	0	0	0	0	0	0	0	0	0	2	2	6	44	79	0	0	129	48	53	36	60	0	197	505
07:15 AM	0	115	1	44	0	160	0	0	0	0	0	0	0	0	0	0	0	0	4	50	90	0	0	144	81	53	49	83	3	269	573
07:30 AM	0	125	2	69	0	196	0	0	0	0	0	0	0	0	0	0	1	1	3	69	95	0	0	167	59	58	47	84	3	251	615
07:45 AM	0	133	2	62	0	197	0	0	0	0	0	0	0	0	0	0	0	0	2	66	93	0	0	161	92	64	42	106	2	306	664
Total	0	492	6	232	0	730	0	0	0	0	0	0	0	0	0	0	3	3	15	229	357	0	0	601	280	228	174	333	8	1023	2357
08:00 AM	0	139	1	75	0	215	0	0	0	0	0	0	0	0	0	0	0	0	3	76	85	0	0	164	76	51	54	90	2	273	652
08:15 AM	0	150	1	60	0	211	0	0	0	0	0	0	0	0	0	0	0	0	3	73	86	0	0	162	79	61	47	108	2	297	670
08:30 AM	0	139	1	56	0	196	0	0	0	0	0	0	0	0	0	0	0	0	12	74	108	0	0	194	86	60	52	101	1	300	690
08:45 AM	0	154	0	72	0	226	0	0	0	0	0	0	0	0	0	0	0	0	5	59	105	0	0	169	89	43	41	83	1	257	652
Total	0	582	3	263	0	848	0	0	0	0	0	0	0	0	0	0	0	0	23	282	384	0	0	689	330	215	194	382	6	1127	2664
Grand Total	0	1074	9	495	0	1578	0	0	0	0	0	0	0	0	0	0	3	3	38	511	741	0	0	1290	610	443	368	715	14	2150	5021
Apprch %	0	68.1	0.6	31.4	0		0	0	0	0	0	0	0	0	0	0	100		2.9	39.6	57.4	0	0		28.4	20.6	17.1	33.3	0.7		
Total %	0	21.4	0.2	9.9	0	31.4	0	0	0	0	0	0	0	0	0	0.1	0.1	0.8	10.2	14.8	0	0	25.7	12.1	8.8	7.3	14.2	0.3	42.8		
Lights	0	1032	8	482	0	1522	0	0	0	0	0	0	0	0	0	0	0	0	30	486	685	0	0	1201	583	424	332	687	0	2026	4749
% Lights	0	96.1	88.9	97.4	0	96.5	0	0	0	0	0	0	0	0	0	0	0	0	78.9	95.1	92.4	0	0	93.1	95.6	95.7	90.2	96.1	0	94.2	94.6
Buses	0	13	0	4	0	17	0	0	0	0	0	0	0	0	0	0	0	0	7	0	6	0	0	13	4	6	5	10	0	25	55
% Buses	0	1.2	0	0.8	0	1.1	0	0	0	0	0	0	0	0	0	0	0	0	18.4	0	0.8	0	0	1	0.7	1.4	1.4	1.4	0	1.2	1.1
Trucks	0	29	1	9	0	39	0	0	0	0	0	0	0	0	0	0	0	0	1	25	50	0	0	76	23	13	31	18	0	85	200
% Trucks	0	2.7	11.1	1.8	0	2.5	0	0	0	0	0	0	0	0	0	0	0	0	2.6	4.9	6.7	0	0	5.9	3.8	2.9	8.4	2.5	0	4	4
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	14	14	17
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	100	0.7	0.3

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17054
 Site Code : 17054
 Start Date : 3/20/2018
 Page No : 2

Start Time	Canal Street From North					I-95 NB On Ramp From Northeast					S. State Street From East					Canal Street From South					S. State Street From West					Int. Total												
	Right	Thru	Left	Hard Left	Peds	Hard Right	Bear Right	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Hard Right	Bear Right	Thru	Left	Peds	Hard Right	Thru	Bear Left	Left	Peds		App. Total	Right	Thru	Bear Left	Left	Peds	App. Total					
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																						
Peak Hour for Entire Intersection Begins at 07:45 AM																																						
07:45 AM	0	133	2	62	0	197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	66	93	0	0	161	92	64	42	106	2	306	664
08:00 AM	0	139	1	75	0	215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	76	85	0	0	164	76	51	54	90	2	273	652
08:15 AM	0	150	1	60	0	211	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	73	86	0	0	162	79	61	47	108	2	297	670
08:30 AM	0	139	1	56	0	196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	74	108	0	0	194	86	60	52	101	1	300	690
Total Volume	0	561	5	253	0	819	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	289	372	0	0	681	333	236	195	405	7	1176	2676
% App. Total	0	68.5	0.6	30.9	0	.952	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.9	42.4	54.6	0	0	.878	.905	.922	.903	.938	.875	.961	.970
PHF	.000	.935	.625	.843	.000	.952	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.417	.951	.861	.000	.000	.878	.905	.922	.903	.938	.875	.961	.970

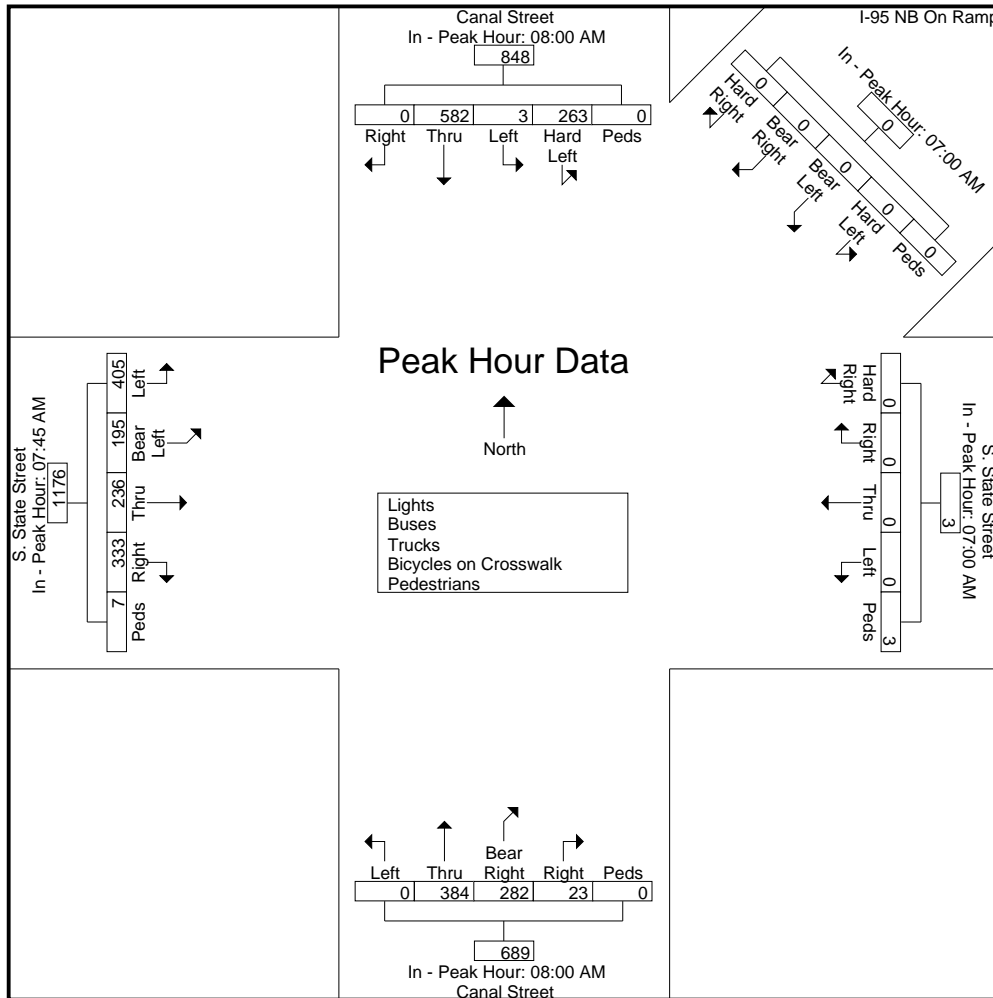


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17054
 Site Code : 17054
 Start Date : 3/20/2018
 Page No : 3

Start Time	Canal Street From North						I-95 NB On Ramp From Northeast						S. State Street From East						Canal Street From South						S. State Street From West						Int. Total
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																															
Peak Hour for Each Approach Begins at:																															
+0 mins.	0	139	1	75	0	215	0	0	0	0	0	0	0	0	0	0	0	2	2	3	76	85	0	0	164	92	64	42	106	2	306
+15 mins.	0	150	1	60	0	211	0	0	0	0	0	0	0	0	0	0	0	0	0	3	73	86	0	0	162	76	51	54	90	2	273
+30 mins.	0	139	1	56	0	196	0	0	0	0	0	0	0	0	0	0	0	1	1	12	74	108	0	0	194	79	61	47	108	2	297
+45 mins.	0	154	0	72	0	226	0	0	0	0	0	0	0	0	0	0	0	0	0	5	59	105	0	0	169	86	60	52	101	1	300
Total Volume	0	582	3	263	0	848	0	0	0	0	0	0	0	0	0	0	3	3	23	282	384	0	0	689	333	236	195	405	7	1176	
% App. Total	0	68.6	0.4	31	0		0	0	0	0	0		0	0	0	0	100		3.3	40.9	55.7	0	0		28.3	20.1	16.6	34.4	0.6		
PHF	.000	.945	.750	.877	.000	.938	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.479	.928	.889	.000	.000	.888	.905	.922	.903	.938	.875	.961	



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Canal Street at S. State St/I-95 Nb On
Stamford, Connecticut

File Name : 17055
Site Code : 17055
Start Date : 3/20/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

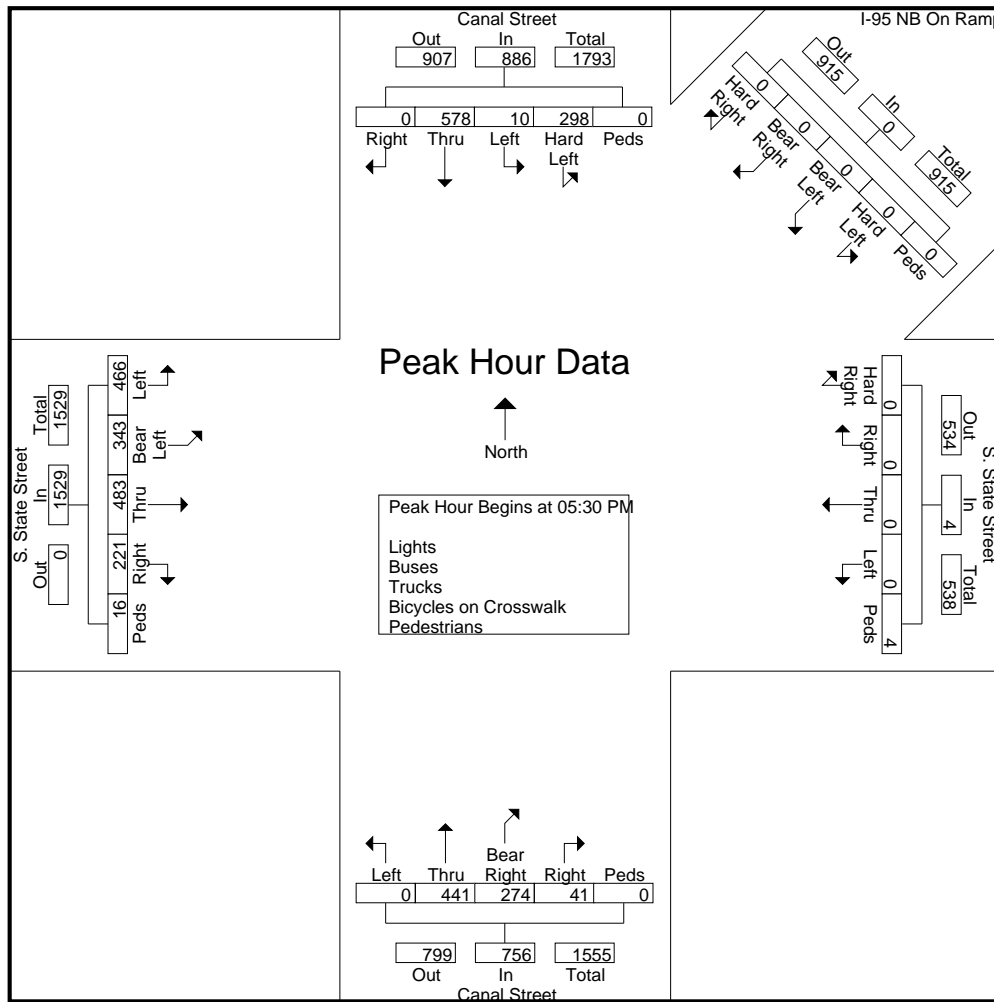
Start Time	Canal Street From North						I-95 NB On Ramp From Northeast						S. State Street From East						Canal Street From South						S. State Street From West						Int. Total
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	
05:00 PM	0	128	3	70	0	201	0	0	0	0	0	0	0	0	0	0	0	0	16	67	106	0	0	189	63	116	100	107	1	387	777
05:15 PM	0	130	2	66	0	198	0	0	0	0	0	0	0	0	0	0	2	2	4	81	118	0	0	203	54	121	84	83	2	344	747
05:30 PM	0	155	2	77	0	234	0	0	0	0	0	0	0	0	0	0	1	1	9	68	105	0	0	182	49	120	95	125	3	392	809
05:45 PM	0	159	5	68	0	232	0	0	0	0	0	0	0	0	0	0	1	1	7	77	100	0	0	184	56	148	91	121	5	421	838
Total	0	572	12	281	0	865	0	0	0	0	0	0	0	0	0	0	4	4	36	293	429	0	0	758	222	505	370	436	11	1544	3171
06:00 PM	0	119	3	73	0	195	0	0	0	0	0	0	0	0	0	0	2	2	11	66	122	0	0	199	60	98	79	109	4	350	746
06:15 PM	0	145	0	80	0	225	0	0	0	0	0	0	0	0	0	0	0	0	14	63	114	0	0	191	56	117	78	111	4	366	782
06:30 PM	0	143	5	68	0	216	0	0	0	0	0	0	0	0	0	0	0	0	7	59	123	0	0	189	63	84	60	105	3	315	720
06:45 PM	0	123	4	72	0	199	0	0	0	0	0	0	0	0	0	0	1	1	6	77	104	0	0	187	45	78	79	92	1	295	682
Total	0	530	12	293	0	835	0	0	0	0	0	0	0	0	0	0	3	3	38	265	463	0	0	766	224	377	296	417	12	1326	2930
Grand Total	0	1102	24	574	0	1700	0	0	0	0	0	0	0	0	0	0	7	7	74	558	892	0	0	1524	446	882	666	853	23	2870	6101
Apprch %	0	64.8	1.4	33.8	0		0	0	0	0	0	0	0	0	0	0	100		4.9	36.6	58.5	0	0		15.5	30.7	23.2	29.7	0.8		
Total %	0	18.1	0.4	9.4	0	27.9	0	0	0	0	0	0	0	0	0	0	0.1	0.1	1.2	9.1	14.6	0	0	25	7.3	14.5	10.9	14	0.4	47	
Lights	0	1079	24	568	0	1671	0	0	0	0	0	0	0	0	0	0	0	0	69	555	885	0	0	1509	433	879	660	847	0	2819	5999
% Lights	0	97.9	100	99	0	98.3	0	0	0	0	0	0	0	0	0	0	0	0	93.2	99.5	99.2	0	0	99	97.1	99.7	99.1	99.3	0	98.2	98.3
Buses	0	6	0	2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	6	5	1	5	4	0	15	29
% Buses	0	0.5	0	0.3	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	6.8	0	0.1	0	0	0.4	1.1	0.1	0.8	0.5	0	0.5	0.5
Trucks	0	17	0	4	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	0	0	9	8	2	1	2	0	13	43
% Trucks	0	1.5	0	0.7	0	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.7	0	0	0.6	1.8	0.2	0.2	0.2	0	0.5	0.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	2	3
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.3	14.3	0	0	0	0	0	0	0	0	0	0	8.7	0.1	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	21	21	27
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85.7	85.7	0	0	0	0	0	0	0	0	0	0	91.3	0.7	0.4

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17055
 Site Code : 17055
 Start Date : 3/20/2018
 Page No : 2

Start Time	Canal Street From North					I-95 NB On Ramp From Northeast					S. State Street From East					Canal Street From South					S. State Street From West					Int. Total					
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru		Bear Left	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 05:30 PM																															
05:30 PM	0	155	2	77	0	234	0	0	0	0	0	0	0	0	0	0	1	1	9	68	105	0	0	182	49	120	95	125	3	392	809
05:45 PM	0	159	5	68	0	232	0	0	0	0	0	0	0	0	0	0	1	1	7	77	100	0	0	184	56	148	91	121	5	421	838
06:00 PM	0	119	3	73	0	195	0	0	0	0	0	0	0	0	0	0	2	2	11	66	122	0	0	199	60	98	79	109	4	350	746
06:15 PM	0	145	0	80	0	225	0	0	0	0	0	0	0	0	0	0	0	0	14	63	114	0	0	191	56	117	78	111	4	366	782
Total Volume	0	578	10	298	0	886	0	0	0	0	0	0	0	0	0	0	4	4	41	274	441	0	0	756	221	483	343	466	16	1529	3175
% App. Total	0	65.2	1.1	33.6	0		0	0	0	0	0		0	0	0	0	100		5.4	36.2	58.3	0	0		14.5	31.6	22.4	30.5	1		
PHF	.000	.909	.500	.931	.000	.947	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.732	.890	.904	.000	.000	.950	.921	.816	.903	.932	.800	.947		

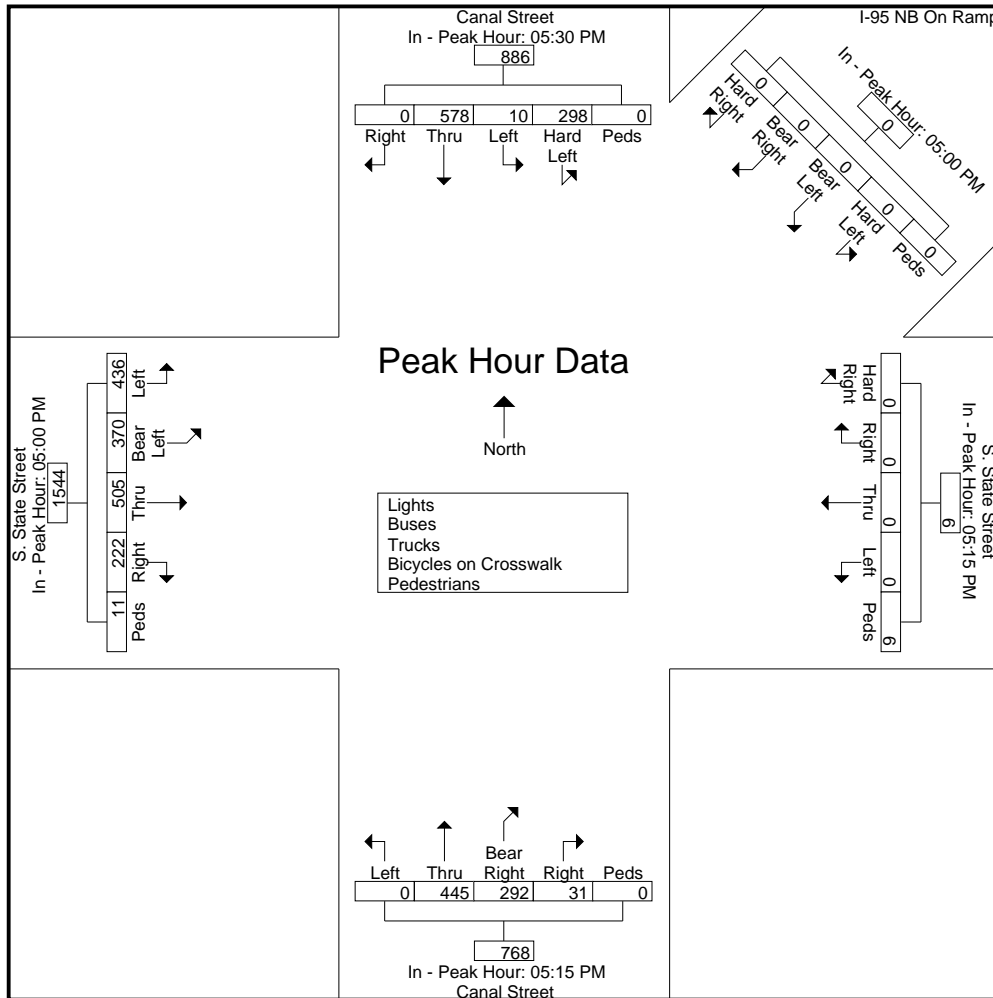


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17055
 Site Code : 17055
 Start Date : 3/20/2018
 Page No : 3

Start Time	Canal Street From North						I-95 NB On Ramp From Northeast						S. State Street From East						Canal Street From South						S. State Street From West						Int. Total
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																															
Peak Hour for Each Approach Begins at:																															
+0 mins.	0	155	2	77	0	234	0	0	0	0	0	0	0	0	0	0	0	2	2	4	81	118	0	0	203	63	116	100	107	1	387
+15 mins.	0	159	5	68	0	232	0	0	0	0	0	0	0	0	0	0	1	1	9	68	105	0	0	182	54	121	84	83	2	344	
+30 mins.	0	119	3	73	0	195	0	0	0	0	0	0	0	0	0	0	1	1	7	77	100	0	0	184	49	120	95	125	3	392	
+45 mins.	0	145	0	80	0	225	0	0	0	0	0	0	0	0	0	0	2	2	11	66	122	0	0	199	56	148	91	121	5	421	
Total Volume	0	578	10	298	0	886	0	0	0	0	0	0	0	0	0	0	6	6	31	292	445	0	0	768	222	505	370	436	11	1544	
% App. Total	0	65.2	1.1	33.6	0		0	0	0	0	0		0	0	0	0	100		4	38	57.9	0	0		14.4	32.7	24	28.2	0.7		
PHF	.000	.909	.500	.931	.000	.947	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.750	.705	.901	.912	.000	.000	.946	.881	.853	.925	.872	.550	.917	



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

N State St/I-95 Sb Off at Elm Street
Stamford, Connecticut

File Name : 17062
Site Code : 17062
Start Date : 3/20/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Elm Street From North					I-95 SB Off Ramp From East					Elm Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	26	115	0	0	141	152	64	80	0	296	0	154	62	0	216	0	0	0	2	2	655
07:15 AM	37	172	0	1	210	155	82	73	0	310	0	148	61	0	209	0	0	0	3	3	732
07:30 AM	39	212	0	0	251	149	148	61	0	358	0	141	92	0	233	0	0	0	0	0	842
07:45 AM	62	179	0	0	241	194	179	72	0	445	0	141	68	0	209	0	0	0	1	1	896
Total	164	678	0	1	843	650	473	286	0	1409	0	584	283	0	867	0	0	0	6	6	3125
08:00 AM	48	226	2	3	279	182	141	77	0	400	0	148	78	0	226	0	0	0	5	5	910
08:15 AM	51	217	0	0	268	201	154	99	0	454	0	123	63	0	186	0	0	0	3	3	911
08:30 AM	62	242	0	0	304	197	115	68	0	380	0	174	64	0	238	0	0	0	9	9	931
08:45 AM	31	201	0	1	233	188	112	91	0	391	0	121	64	0	185	0	0	0	1	1	810
Total	192	886	2	4	1084	768	522	335	0	1625	0	566	269	0	835	0	0	0	18	18	3562
Grand Total	356	1564	2	5	1927	1418	995	621	0	3034	0	1150	552	0	1702	0	0	0	24	24	6687
Apprch %	18.5	81.2	0.1	0.3		46.7	32.8	20.5	0		0	67.6	32.4	0		0	0	0	100		
Total %	5.3	23.4	0	0.1	28.8	21.2	14.9	9.3	0	45.4	0	17.2	8.3	0	25.5	0	0	0	0.4	0.4	
Lights	349	1490				1390					1101										
% Lights	98	95.3	100	0	95.5	98	97.2	96.1	0	97.4	0	95.7	94.9	0	95.5	0	0	0	0	0	96
Buses	0	39	0	0	39	9	15	0	0	24	0	27	8	0	35	0	0	0	0	0	98
% Buses	0	2.5	0	0	2	0.6	1.5	0	0	0.8	0	2.3	1.4	0	2.1	0	0	0	0	0	1.5
Trucks	7	35	0	0	42	19	13	24	0	56	0	22	20	0	42	0	0	0	0	0	140
% Trucks	2	2.2	0	0	2.2	1.3	1.3	3.9	0	1.8	0	1.9	3.6	0	2.5	0	0	0	0	0	2.1
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24	29
% Pedestrians	0	0	0	100	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0.4

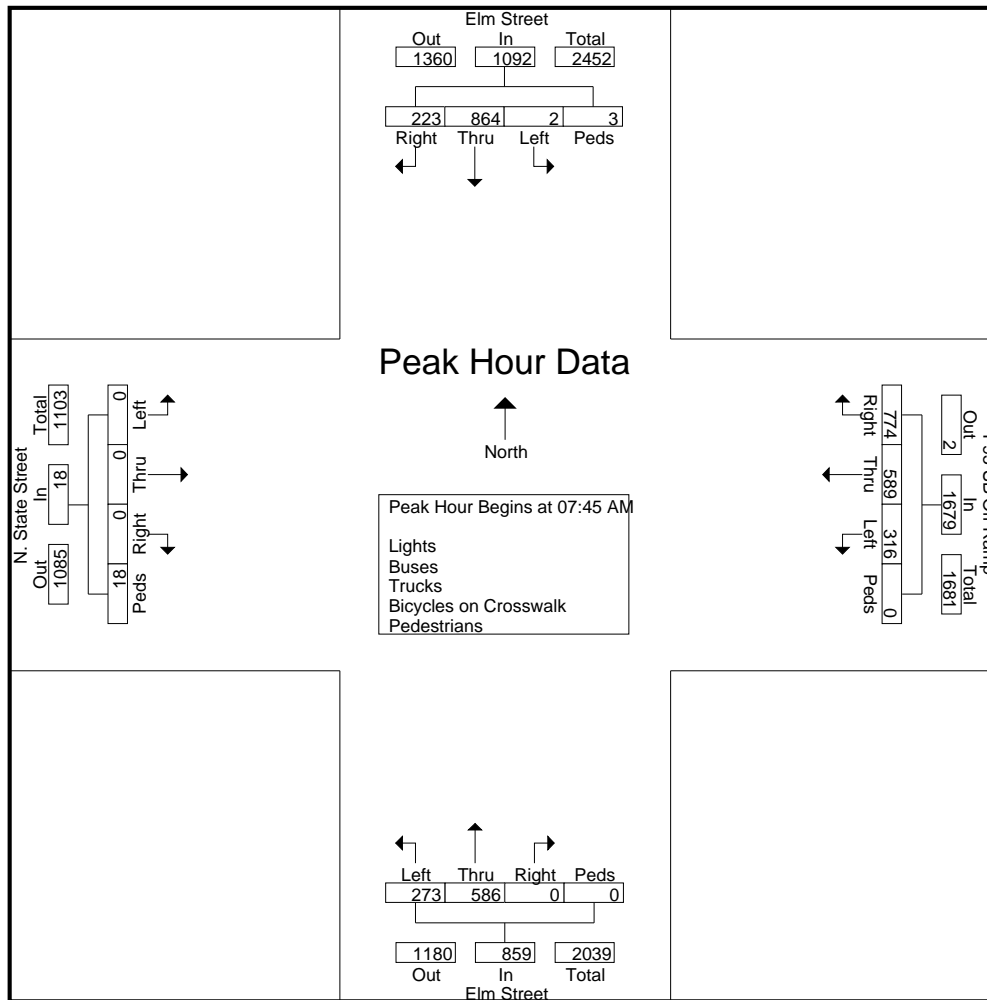
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 17062
 Site Code : 17062
 Start Date : 3/20/2018
 Page No : 2

Start Time	Elm Street From North					I-95 SB Off Ramp From East					Elm Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	62	179	0	0	241	194	179	72	0	445	0	141	68	0	209	0	0	0	1	1	896
08:00 AM	48	226	2	3	279	182	141	77	0	400	0	148	78	0	226	0	0	0	5	5	910
08:15 AM	51	217	0	0	268	201	154	99	0	454	0	123	63	0	186	0	0	0	3	3	911
08:30 AM	62	242	0	0	304	197	115	68	0	380	0	174	64	0	238	0	0	0	9	9	931
Total Volume	223	864	2	3	1092	774	589	316	0	1679	0	586	273	0	859	0	0	0	18	18	3648
% App. Total	20.4	79.1	0.2	0.3		46.1	35.1	18.8	0		0	68.2	31.8	0		0	0	0	100		
PHF	.899	.893	.250	.250	.898	.963	.823	.798	.000	.925	.000	.842	.875	.000	.902	.000	.000	.000	.500	.500	.980



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

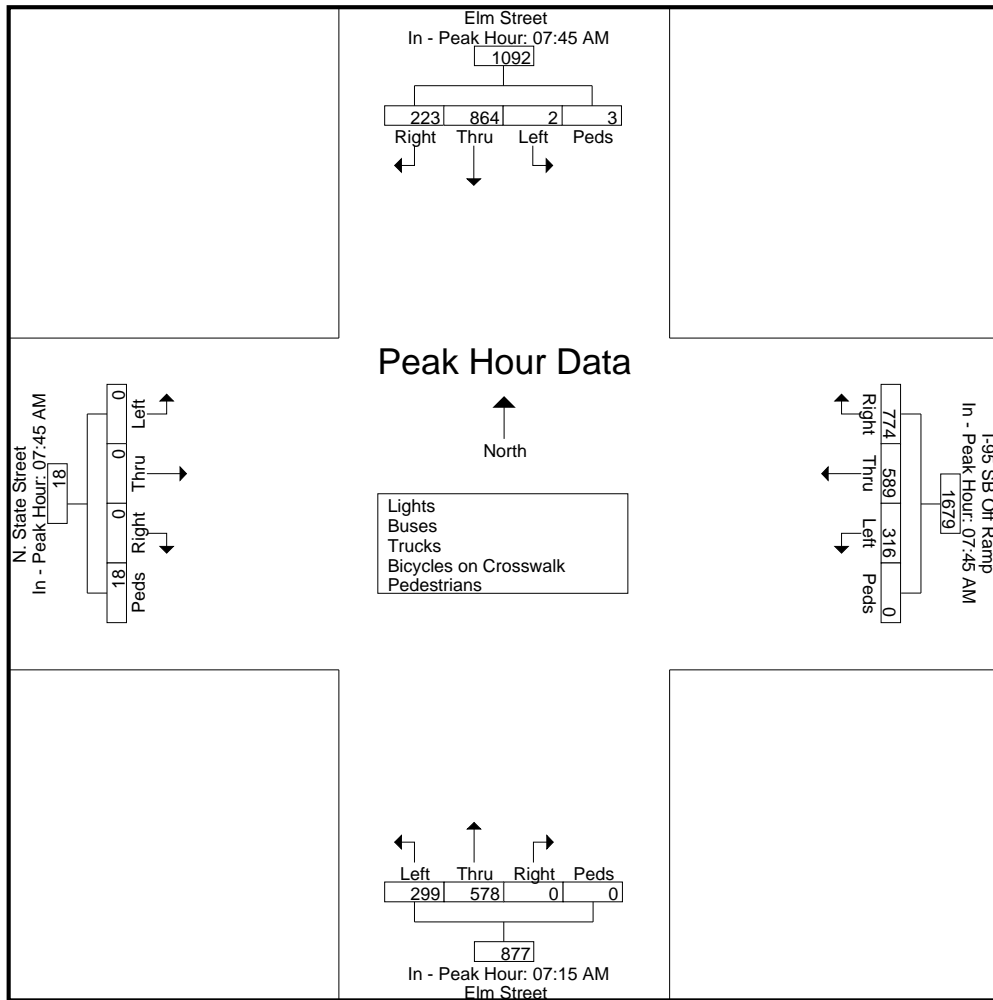
File Name : 17062
 Site Code : 17062
 Start Date : 3/20/2018
 Page No : 3

Start Time	Elm Street From North					I-95 SB Off Ramp From East					Elm Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM					07:45 AM					07:15 AM					07:45 AM				
+0 mins.	62	179	0	0	241	194	179	72	0	445	0	148	61	0	209	0	0	0	1	1
+15 mins.	48	226	2	3	279	182	141	77	0	400	0	141	92	0	233	0	0	0	5	5
+30 mins.	51	217	0	0	268	201	154	99	0	454	0	141	68	0	209	0	0	0	3	3
+45 mins.	62	242	0	0	304	197	115	68	0	380	0	148	78	0	226	0	0	0	9	9
Total Volume	223	864	2	3	1092	774	589	316	0	1679	0	578	299	0	877	0	0	0	18	18
% App. Total	20.4	79.1	0.2	0.3		46.1	35.1	18.8	0		0	65.9	34.1	0		0	0	0	100	
PHF	.899	.893	.250	.250	.898	.963	.823	.798	.000	.925	.000	.976	.813	.000	.941	.000	.000	.000	.500	.500



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

N State St/I-95 SB Off at Elm Street
Stamford, Connecticut

File Name : 17063
Site Code : 17063
Start Date : 3/20/2018
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Elm Street From North					I-95 SB Off Ramp From East					Elm Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	21	324	0	1	346	130	27	50	0	207	0	140	36	0	176	0	0	0	4	4	733
05:15 PM	22	285	0	1	308	151	31	53	0	235	0	150	36	0	186	0	0	0	2	2	731
05:30 PM	18	280	0	1	299	148	35	44	1	228	0	130	45	0	175	0	0	0	3	3	705
05:45 PM	40	287	0	0	327	167	27	61	0	255	0	132	33	0	165	0	0	0	5	5	752
Total	101	1176	0	3	1280	596	120	208	1	925	0	552	150	0	702	0	0	0	14	14	2921
06:00 PM	26	344	0	2	372	122	36	51	0	209	0	140	30	0	170	0	0	0	4	4	755
06:15 PM	25	303	0	0	328	145	30	43	1	219	0	128	31	0	159	0	0	0	7	7	713
06:30 PM	26	260	0	0	286	114	24	50	0	188	0	120	37	0	157	0	0	0	3	3	634
06:45 PM	17	225	0	0	242	119	33	49	0	201	0	102	25	0	127	0	0	0	5	5	575
Total	94	1132	0	2	1228	500	123	193	1	817	0	490	123	0	613	0	0	0	19	19	2677
Grand Total	195	2308	0	5	2508	1096	243	401	2	1742	0	1042	273	0	1315	0	0	0	33	33	5598
Apprch %	7.8	92	0	0.2		62.9	13.9	23	0.1		0	79.2	20.8	0		0	0	0	100		
Total %	3.5	41.2	0	0.1	44.8	19.6	4.3	7.2	0	31.1	0	18.6	4.9	0	23.5	0	0	0	0.6	0.6	
Lights	191	2242				1093					1022										
% Lights	97.9	97.1	0	0	97	99.7	99.2	98	0	99.1	0	98.1	98.5	0	98.2	0	0	0	0	0	97.4
Buses	3	58	0	0	61	0	1	2	0	3	0	10	4	0	14	0	0	0	0	0	78
% Buses	1.5	2.5	0	0	2.4	0	0.4	0.5	0	0.2	0	1	1.5	0	1.1	0	0	0	0	0	1.4
Trucks	1	8	0	0	9	3	1	6	0	10	0	10	0	0	10	0	0	0	0	0	29
% Trucks	0.5	0.3	0	0	0.4	0.3	0.4	1.5	0	0.6	0	1	0	0	0.8	0	0	0	0	0	0.5
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0
Pedestrians	0	0	0	5	5	0	0	0	2	2	0	0	0	0	0	0	0	0	32	32	39
% Pedestrians	0	0	0	100	0.2	0	0	0	100	0.1	0	0	0	0	0	0	0	0	97	97	0.7

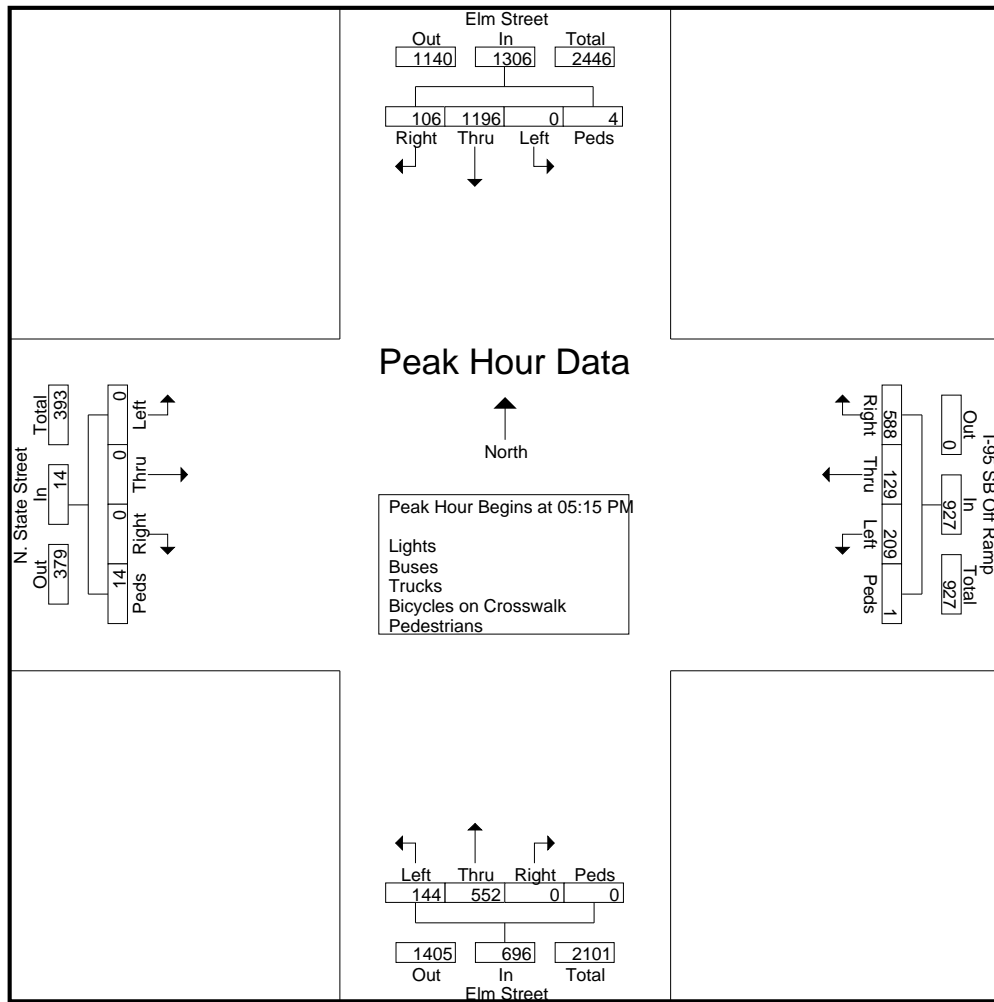
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 17063
 Site Code : 17063
 Start Date : 3/20/2018
 Page No : 2

Start Time	Elm Street From North					I-95 SB Off Ramp From East					Elm Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:15 PM																					
05:15 PM	22	285	0	1	308	151	31	53	0	235	0	150	36	0	186	0	0	0	2	2	731
05:30 PM	18	280	0	1	299	148	35	44	1	228	0	130	45	0	175	0	0	0	3	3	705
05:45 PM	40	287	0	0	327	167	27	61	0	255	0	132	33	0	165	0	0	0	5	5	752
06:00 PM	26	344	0	2	372	122	36	51	0	209	0	140	30	0	170	0	0	0	4	4	755
Total Volume	106	1196	0	4	1306	588	129	209	1	927	0	552	144	0	696	0	0	0	14	14	2943
% App. Total	8.1	91.6	0	0.3		63.4	13.9	22.5	0.1		0	79.3	20.7	0		0	0	0	100		
PHF	.663	.869	.000	.500	.878	.880	.896	.857	.250	.909	.000	.920	.800	.000	.935	.000	.000	.000	.700	.700	.975



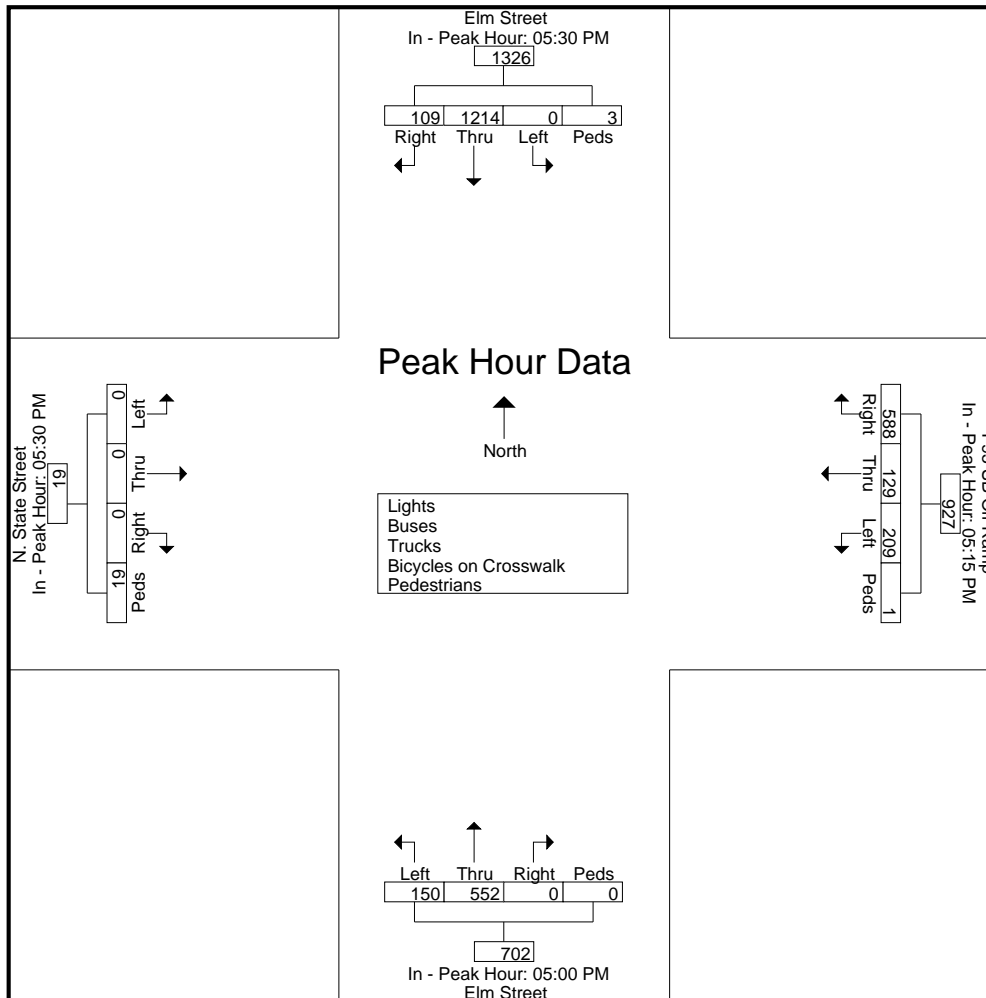
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 17063
 Site Code : 17063
 Start Date : 3/20/2018
 Page No : 3

Start Time	Elm Street From North					I-95 SB Off Ramp From East					Elm Street From South					N. State Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	05:30 PM					05:15 PM					05:00 PM					05:30 PM					
+0 mins.	18	280	0	1	299	151	31	53	0	235	0	140	36	0	176	0	0	0	3	3	
+15 mins.	40	287	0	0	327	148	35	44	1	228	0	150	36	0	186	0	0	0	5	5	
+30 mins.	26	344	0	2	372	167	27	61	0	255	0	130	45	0	175	0	0	0	4	4	
+45 mins.	25	303	0	0	328	122	36	51	0	209	0	132	33	0	165	0	0	0	7	7	
Total Volume	109	1214	0	3	1326	588	129	209	1	927	0	552	150	0	702	0	0	0	19	19	
% App. Total	8.2	91.6	0	0.2		63.4	13.9	22.5	0.1		0	78.6	21.4	0		0	0	0	100		
PHF	.681	.882	.000	.375	.891	.880	.896	.857	.250	.909	.000	.920	.833	.000	.944	.000	.000	.000	.679	.679	



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Guemsey Avenue at S. State Street
 Stamford, Connecticut

File Name : 17064
 Site Code : 17064
 Start Date : 3/20/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

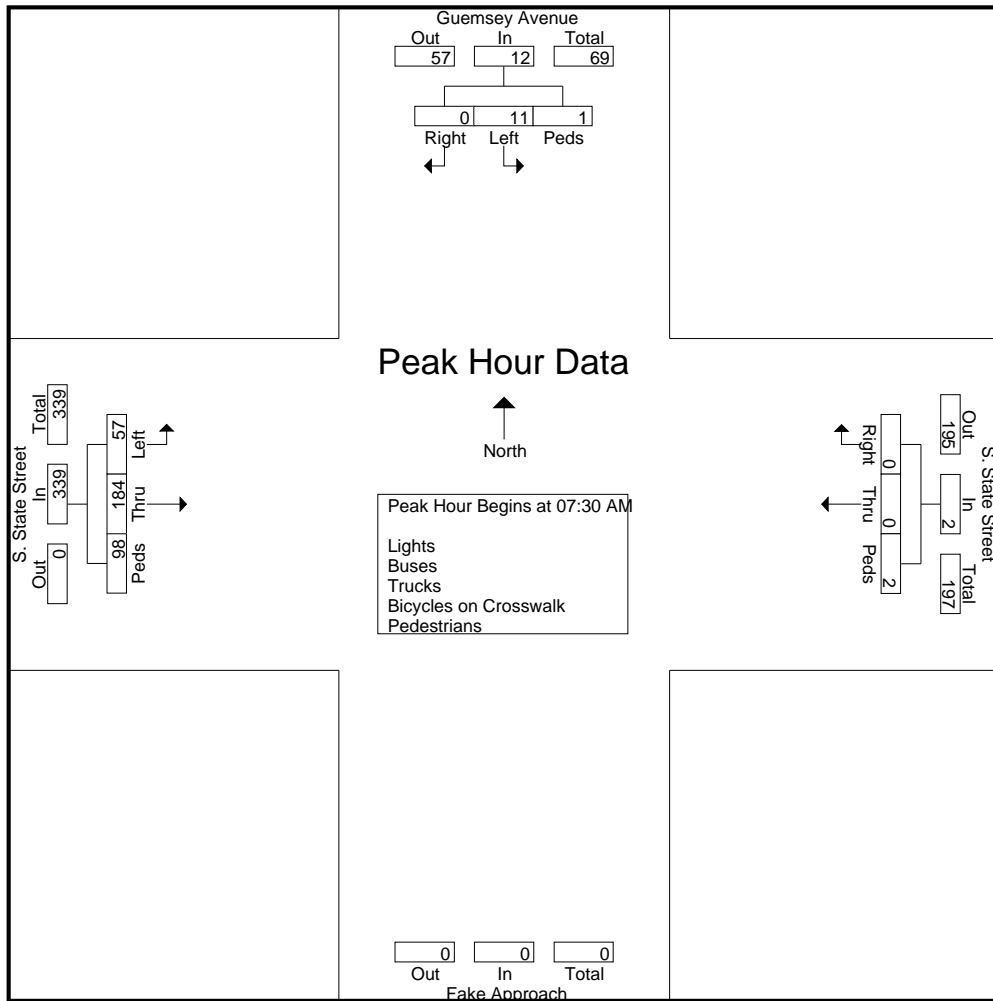
Start Time	Guemsey Avenue From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
07:00 AM	0	7	0	7	0	0	0	0	36	16	8	60	67
07:15 AM	0	1	1	2	0	0	0	0	40	11	12	63	65
07:30 AM	0	3	0	3	0	0	0	0	58	19	9	86	89
07:45 AM	0	4	0	4	0	0	0	0	33	12	30	75	79
Total	0	15	1	16	0	0	0	0	167	58	59	284	300
08:00 AM	0	3	1	4	0	0	2	2	51	13	32	96	102
08:15 AM	0	1	0	1	0	0	0	0	42	13	27	82	83
08:30 AM	0	1	0	1	0	0	0	0	49	8	20	77	78
08:45 AM	0	2	0	2	0	0	0	0	38	7	27	72	74
Total	0	7	1	8	0	0	2	2	180	41	106	327	337
Grand Total	0	22	2	24	0	0	2	2	347	99	165	611	637
Apprch %	0	91.7	8.3		0	0	100		56.8	16.2	27		
Total %	0	3.5	0.3	3.8	0	0	0.3	0.3	54.5	15.5	25.9	95.9	
Lights	0	18	0	18	0	0	0	0	310	76	0	386	404
% Lights	0	81.8	0	75	0	0	0	0	89.3	76.8	0	63.2	63.4
Buses	0	4	0	4	0	0	0	0	13	22	0	35	39
% Buses	0	18.2	0	16.7	0	0	0	0	3.7	22.2	0	5.7	6.1
Trucks	0	0	0	0	0	0	0	0	24	1	0	25	25
% Trucks	0	0	0	0	0	0	0	0	6.9	1	0	4.1	3.9
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	2	2	0	0	2	2	0	0	165	165	169
% Pedestrians	0	0	100	8.3	0	0	100	100	0	0	100	27	26.5

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17064
Site Code : 17064
Start Date : 3/20/2018
Page No : 2

Start Time	Guemsey Avenue From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	3	0	3	0	0	0	0	58	19	9	86	89
07:45 AM	0	4	0	4	0	0	0	0	33	12	30	75	79
08:00 AM	0	3	1	4	0	0	2	2	51	13	32	96	102
08:15 AM	0	1	0	1	0	0	0	0	42	13	27	82	83
Total Volume	0	11	1	12	0	0	2	2	184	57	98	339	353
% App. Total	0	91.7	8.3		0	0	100		54.3	16.8	28.9		
PHF	.000	.688	.250	.750	.000	.000	.250	.250	.793	.750	.766	.883	.865



Connecticut Counts LLC

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(860) 828-1693

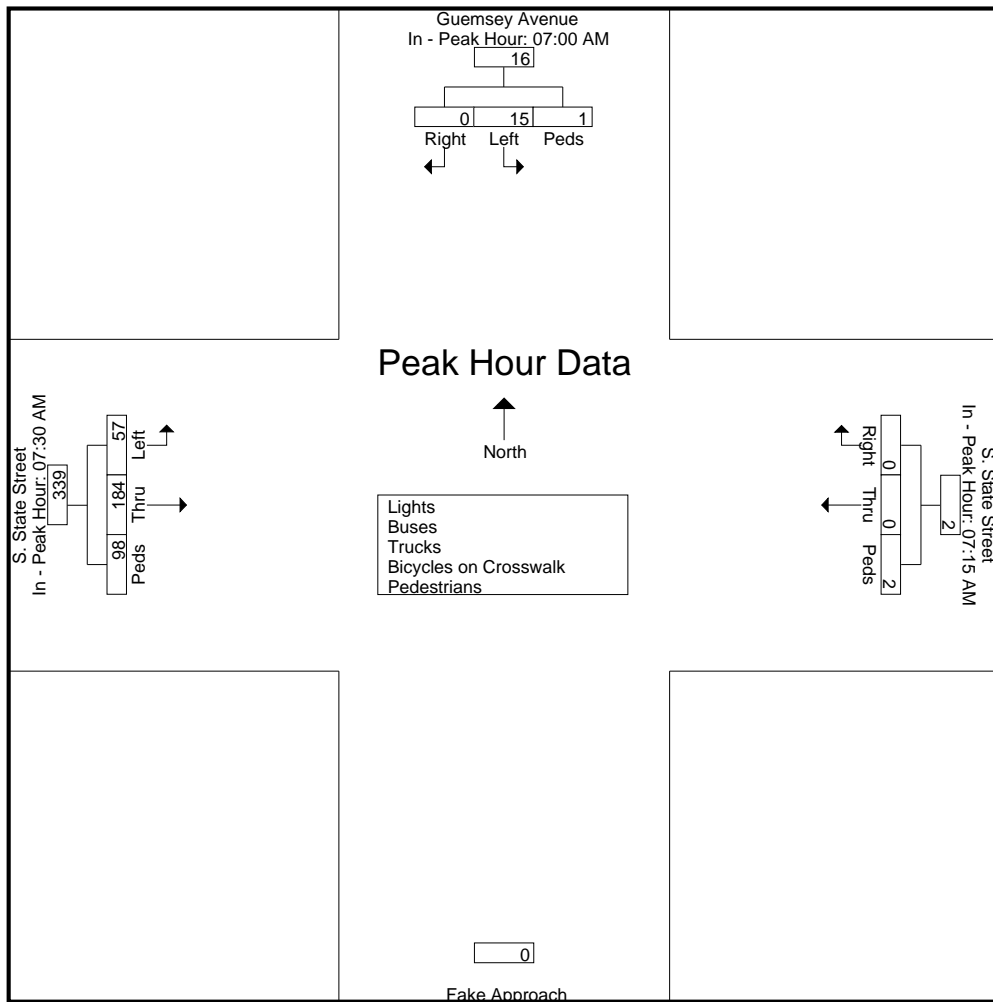
File Name : 17064
Site Code : 17064
Start Date : 3/20/2018
Page No : 3

Start Time	Guemsey Avenue From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:30 AM			
+0 mins.	0	7	0	7	0	0	0	0	58	19	9	86
+15 mins.	0	1	1	2	0	0	0	0	33	12	30	75
+30 mins.	0	3	0	3	0	0	0	0	51	13	32	96
+45 mins.	0	4	0	4	0	0	2	2	42	13	27	82
Total Volume	0	15	1	16	0	0	2	2	184	57	98	339
% App. Total	0	93.8	6.2		0	0	100		54.3	16.8	28.9	
PHF	.000	.536	.250	.571	.000	.000	.250	.250	.793	.750	.766	.883



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Guemsey Avenue at S. State Street
 Stamford, Connecticut

File Name : 17065
 Site Code : 17065
 Start Date : 3/20/2018
 Page No : 1

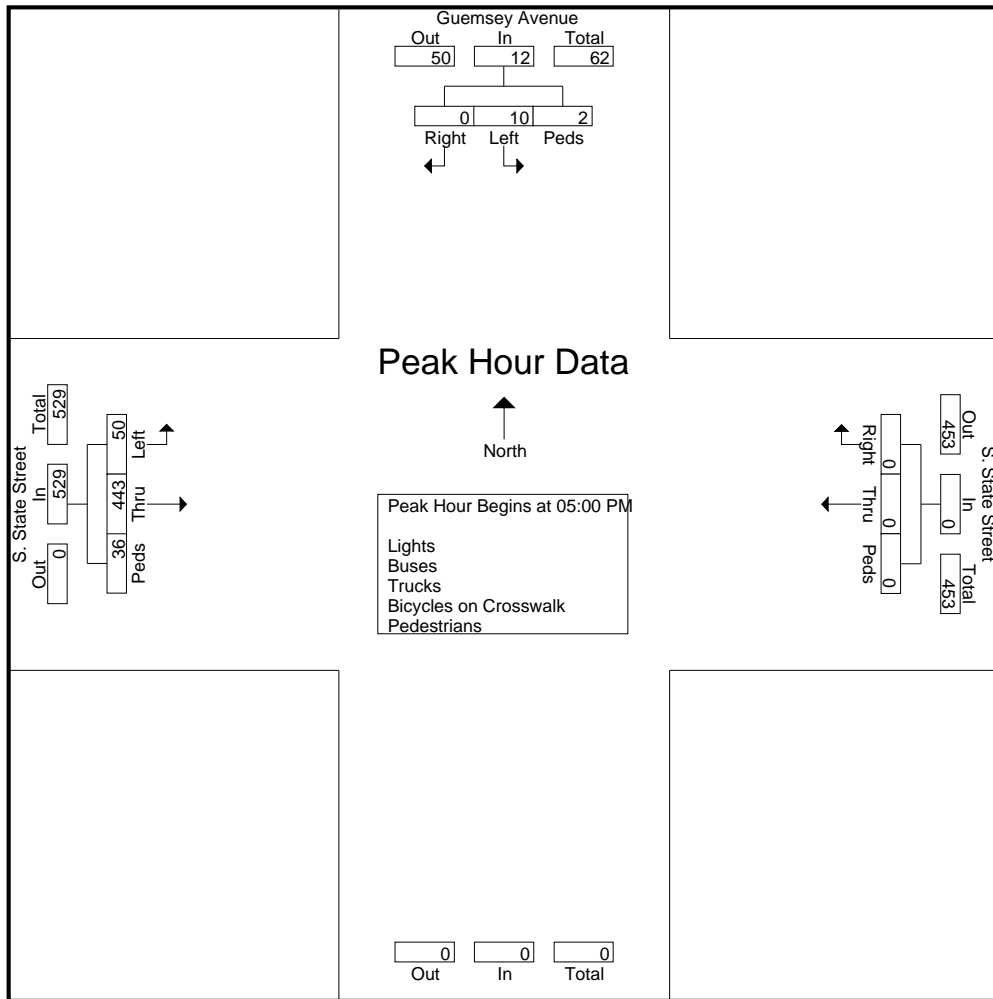
Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Guemsey Avenue From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
05:00 PM	0	0	1	1	0	0	0	0	115	9	9	133	134
05:15 PM	0	6	0	6	0	0	0	0	114	14	9	137	143
05:30 PM	0	2	0	2	0	0	0	0	109	13	9	131	133
05:45 PM	0	2	1	3	0	0	0	0	105	14	9	128	131
Total	0	10	2	12	0	0	0	0	443	50	36	529	541
06:00 PM	0	3	1	4	0	0	0	0	105	10	10	125	129
06:15 PM	0	3	0	3	0	0	0	0	89	7	7	103	106
06:30 PM	0	3	0	3	0	0	0	0	85	11	8	104	107
06:45 PM	0	0	0	0	0	0	0	0	99	9	4	112	112
Total	0	9	1	10	0	0	0	0	378	37	29	444	454
Grand Total	0	19	3	22	0	0	0	0	821	87	65	973	995
Apprch %	0	86.4	13.6		0	0	0	0	84.4	8.9	6.7		
Total %	0	1.9	0.3	2.2	0	0	0	0	82.5	8.7	6.5	97.8	
Lights	0	16	0	16	0	0	0	0	806	66	0	872	888
% Lights	0	84.2	0	72.7	0	0	0	0	98.2	75.9	0	89.6	89.2
Buses	0	3	0	3	0	0	0	0	13	21	0	34	37
% Buses	0	15.8	0	13.6	0	0	0	0	1.6	24.1	0	3.5	3.7
Trucks	0	0	0	0	0	0	0	0	2	0	0	2	2
% Trucks	0	0	0	0	0	0	0	0	0.2	0	0	0.2	0.2
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	3	3	0	0	0	0	0	0	65	65	68
% Pedestrians	0	0	100	13.6	0	0	0	0	0	0	100	6.7	6.8

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17065
 Site Code : 17065
 Start Date : 3/20/2018
 Page No : 2

Start Time	Guemsey Avenue From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	0	1	1	0	0	0	0	115	9	9	133	134
05:15 PM	0	6	0	6	0	0	0	0	114	14	9	137	143
05:30 PM	0	2	0	2	0	0	0	0	109	13	9	131	133
05:45 PM	0	2	1	3	0	0	0	0	105	14	9	128	131
Total Volume	0	10	2	12	0	0	0	0	443	50	36	529	541
% App. Total	0	83.3	16.7		0	0	0		83.7	9.5	6.8		
PHF	.000	.417	.500	.500	.000	.000	.000	.000	.963	.893	1.00	.965	.946



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

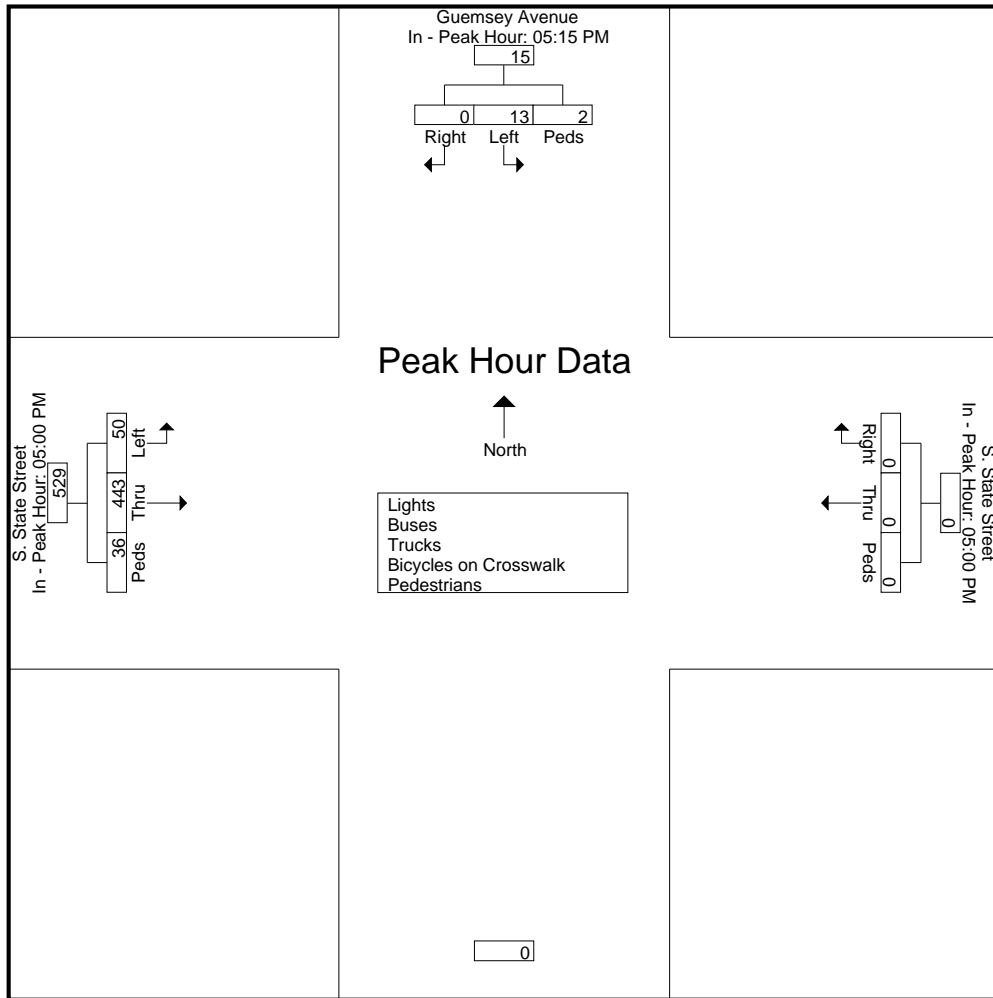
File Name : 17065
Site Code : 17065
Start Date : 3/20/2018
Page No : 3

Start Time	Guemsey Avenue From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:15 PM				05:00 PM				05:00 PM			
+0 mins.	0	6	0	6	0	0	0	0	115	9	9	133
+15 mins.	0	2	0	2	0	0	0	0	114	14	9	137
+30 mins.	0	2	1	3	0	0	0	0	109	13	9	131
+45 mins.	0	3	1	4	0	0	0	0	105	14	9	128
Total Volume	0	13	2	15	0	0	0	0	443	50	36	529
% App. Total	0	86.7	13.3		0	0	0		83.7	9.5	6.8	
PHF	.000	.542	.500	.625	.000	.000	.000	.000	.963	.893	1.000	.965

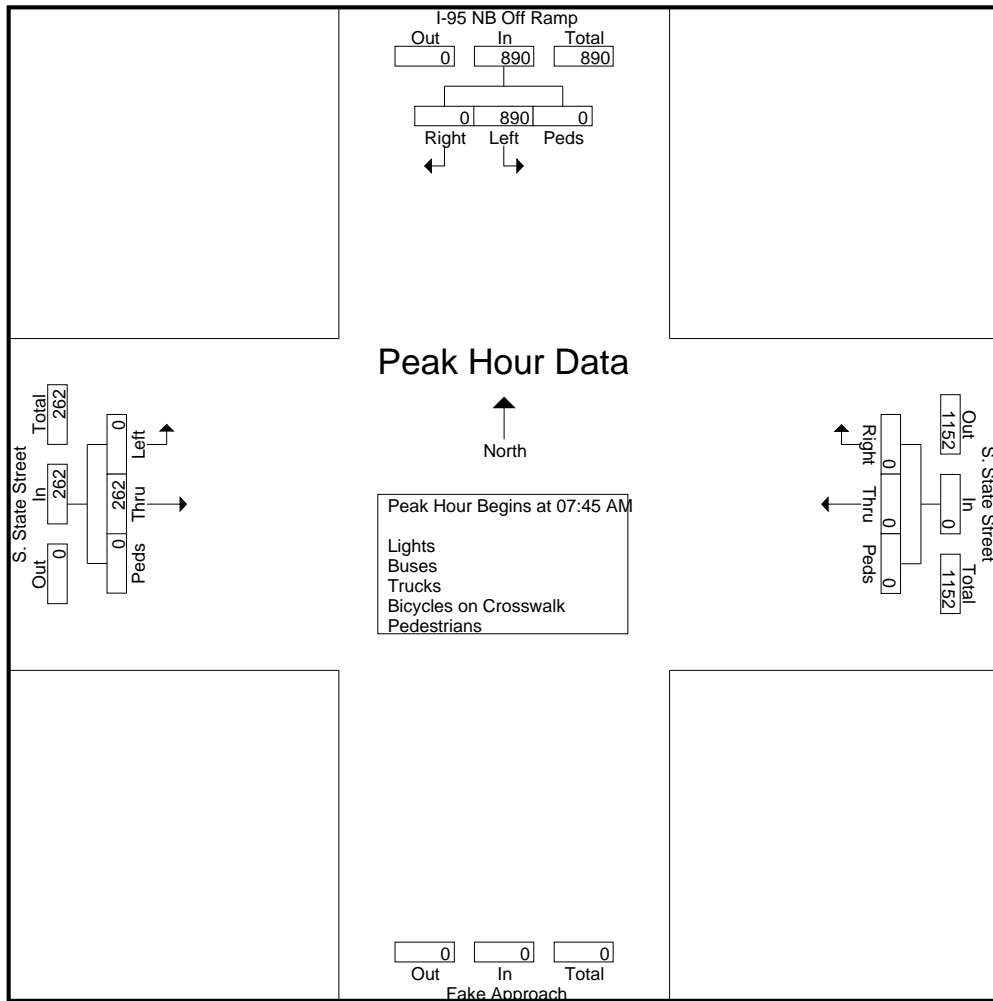


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17052
Site Code : 17052
Start Date : 3/20/2018
Page No : 2

Start Time	I-95 NB Off Ramp From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	234	0	234	0	0	0	0	55	0	0	55	289
08:00 AM	0	208	0	208	0	0	0	0	74	0	0	74	282
08:15 AM	0	232	0	232	0	0	0	0	56	0	0	56	288
08:30 AM	0	216	0	216	0	0	0	0	77	0	0	77	293
Total Volume	0	890	0	890	0	0	0	0	262	0	0	262	1152
% App. Total	0	100	0		0	0	0		100	0	0		
PHF	.000	.951	.000	.951	.000	.000	.000	.000	.851	.000	.000	.851	.983



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

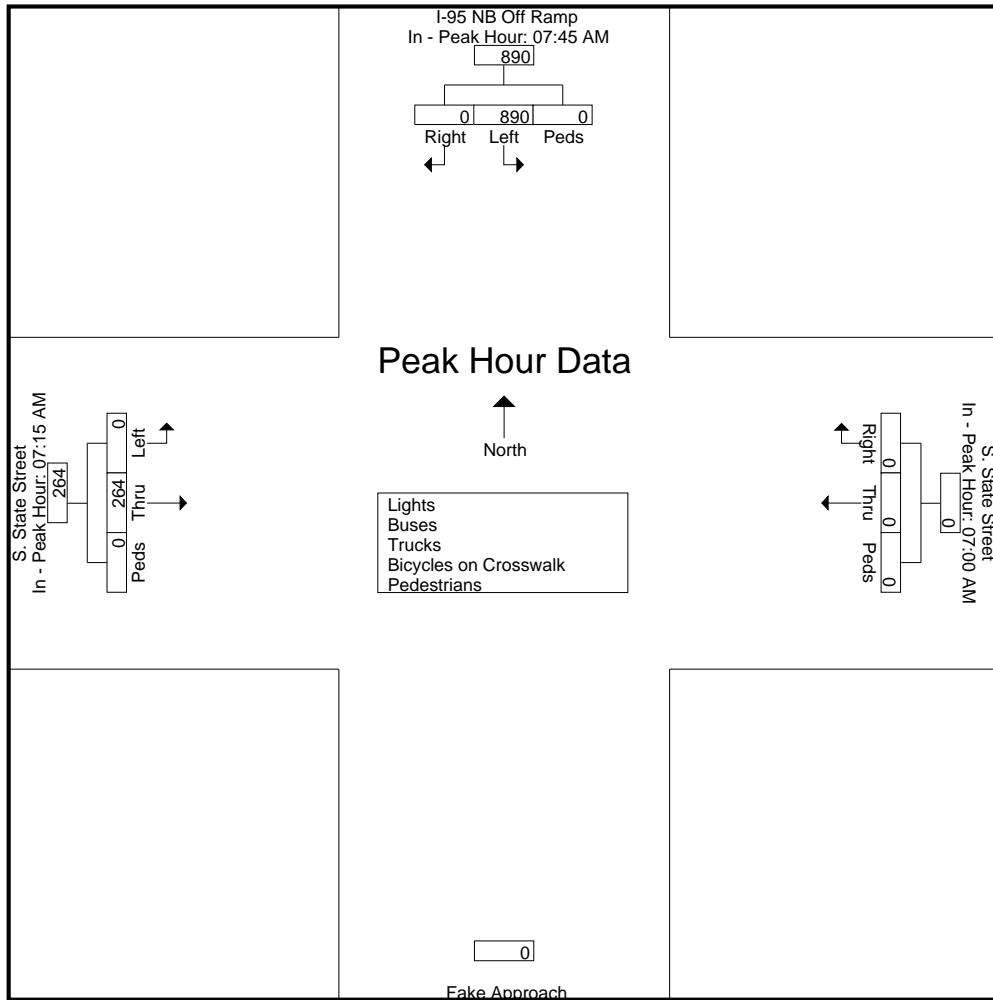
File Name : 17052
Site Code : 17052
Start Date : 3/20/2018
Page No : 3

Start Time	I-95 NB Off Ramp From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:15 AM			
+0 mins.	0	234	0	234	0	0	0	0	63	0	0	63
+15 mins.	0	208	0	208	0	0	0	0	72	0	0	72
+30 mins.	0	232	0	232	0	0	0	0	55	0	0	55
+45 mins.	0	216	0	216	0	0	0	0	74	0	0	74
Total Volume	0	890	0	890	0	0	0	0	264	0	0	264
% App. Total	0	100	0		0	0	0		100	0	0	
PHF	.000	.951	.000	.951	.000	.000	.000	.000	.892	.000	.000	.892

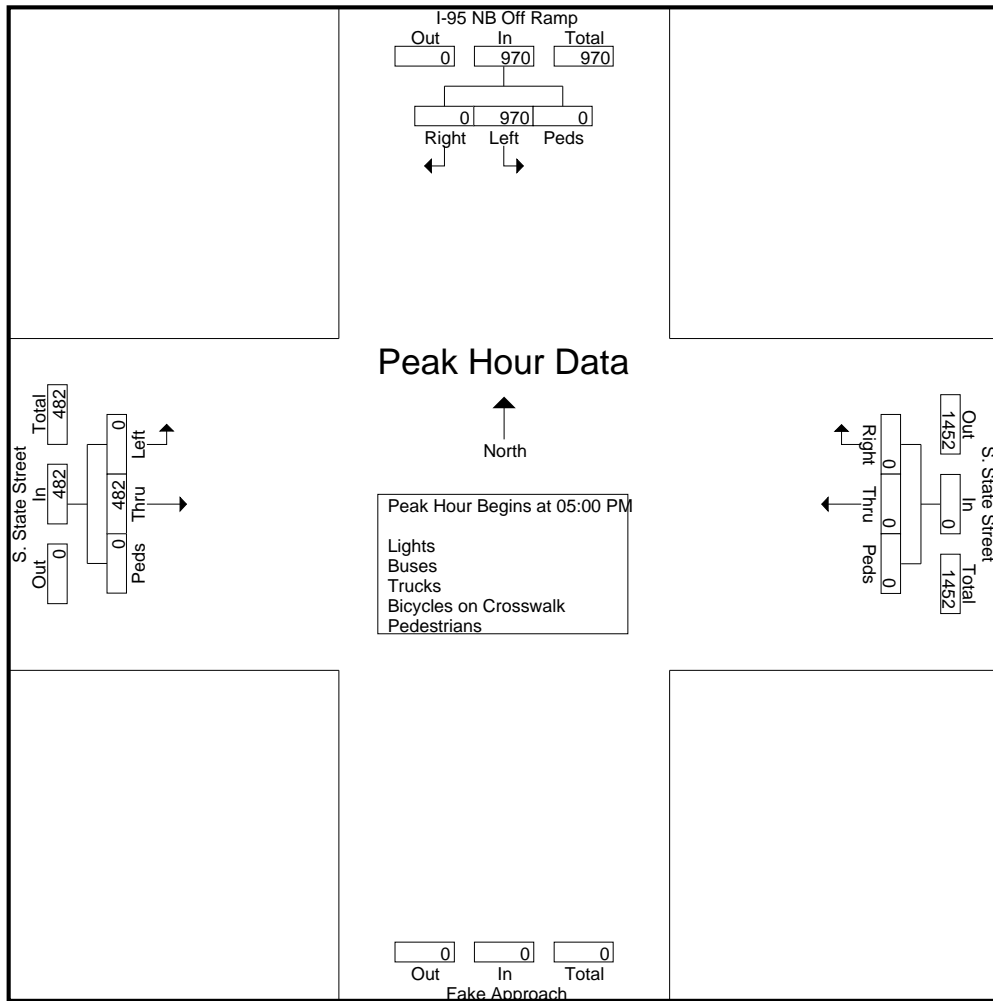


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17053
Site Code : 17053
Start Date : 3/20/2018
Page No : 2

Start Time	I-95 NB Off Ramp From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	0	247	0	247	0	0	0	0	116	0	0	116	363
05:15 PM	0	257	0	257	0	0	0	0	113	0	0	113	370
05:30 PM	0	246	0	246	0	0	0	0	125	0	0	125	371
05:45 PM	0	220	0	220	0	0	0	0	128	0	0	128	348
Total Volume	0	970	0	970	0	0	0	0	482	0	0	482	1452
% App. Total	0	100	0		0	0	0		100	0	0		
PHF	.000	.944	.000	.944	.000	.000	.000	.000	.941	.000	.000	.941	.978



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

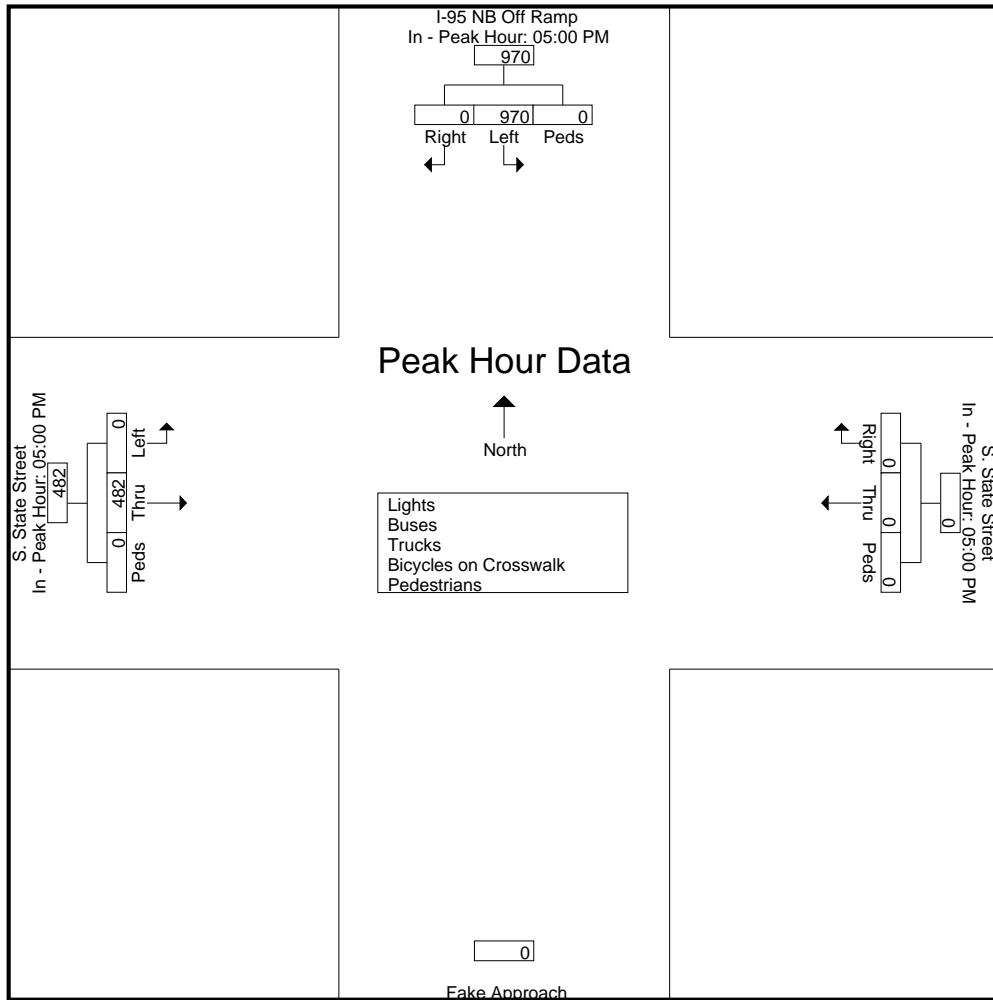
File Name : 17053
Site Code : 17053
Start Date : 3/20/2018
Page No : 3

Start Time	I-95 NB Off Ramp From North				S. State Street From East				S. State Street From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1

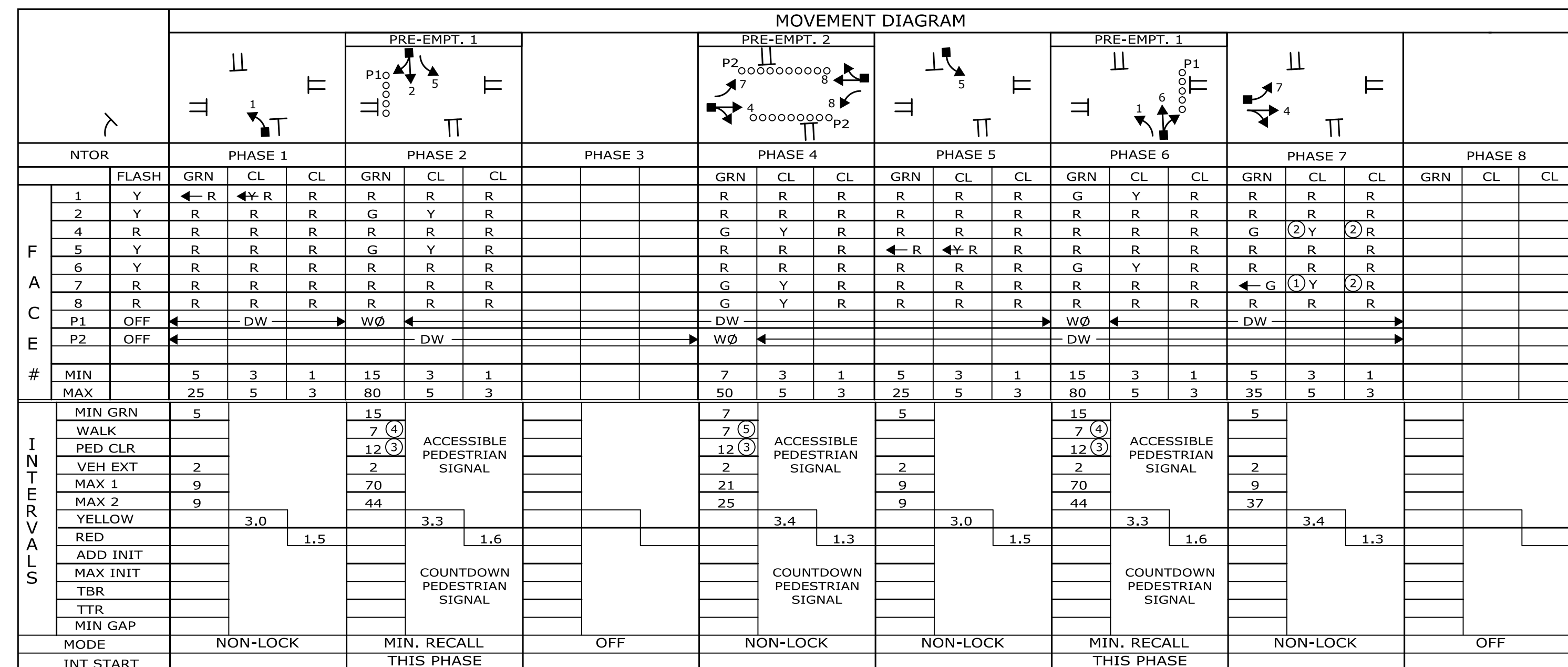
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	247	0	247	0	0	0	0	116	0	0	116
+15 mins.	0	257	0	257	0	0	0	0	113	0	0	113
+30 mins.	0	246	0	246	0	0	0	0	125	0	0	125
+45 mins.	0	220	0	220	0	0	0	0	128	0	0	128
Total Volume	0	970	0	970	0	0	0	0	482	0	0	482
% App. Total	0	100	0		0	0	0		100	0	0	
PHF	.000	.944	.000	.944	.000	.000	.000	.000	.941	.000	.000	.941



APPENDIX D

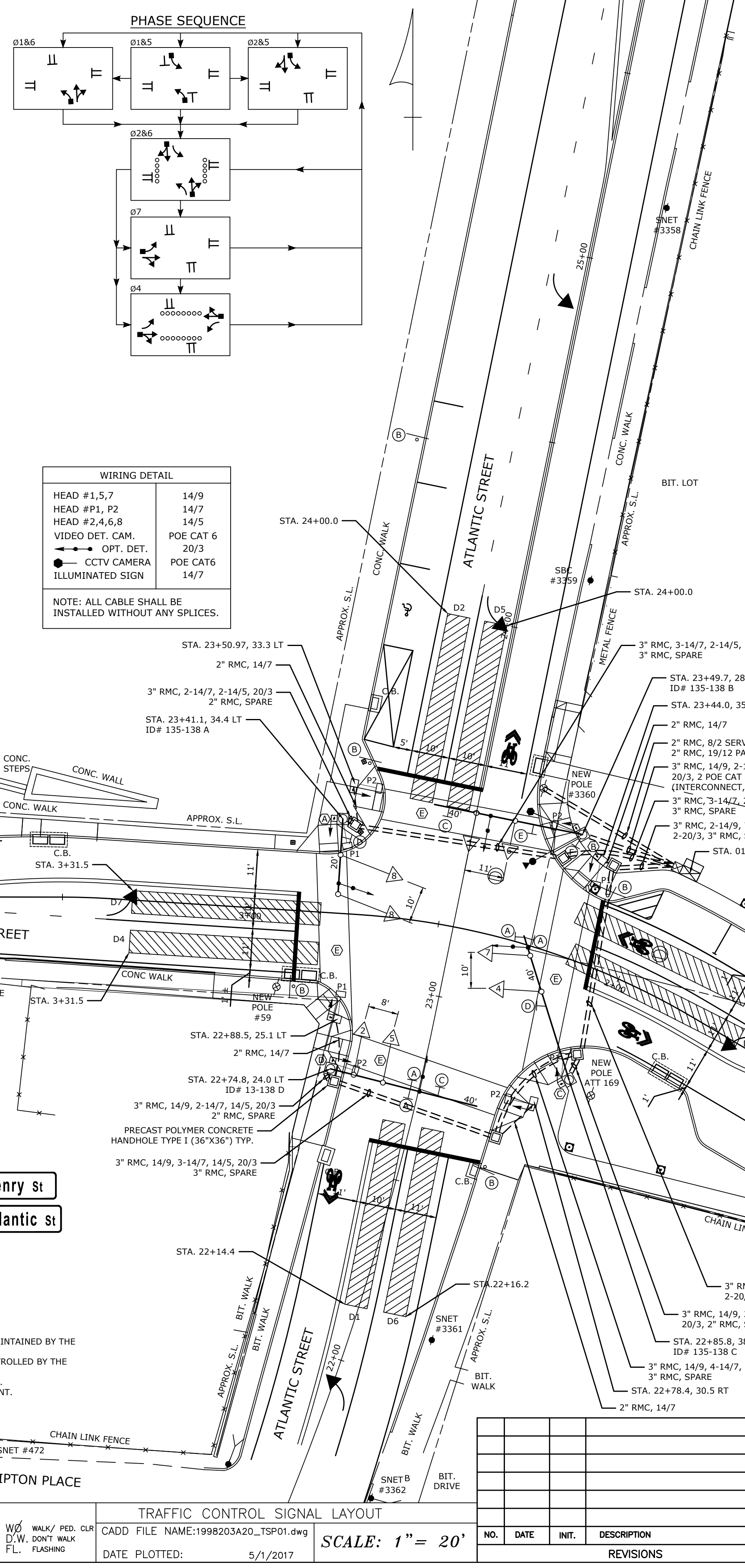
No Action Condition Intersection Improvement Projects



F A C E	NTOR	PHASE 1			PHASE 2			PHASE 3			PHASE 4			PHASE 5			PHASE 6			PHASE 7			PHASE 8			
		FLASH	GRN	CL	CL	GRN	CL	CL				GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL
1	Y	←	R	←	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
2	Y	R	←	R	←	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
4	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
5	Y	R	←	R	←	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
6	Y	R	←	R	←	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
7	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
8	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
P1	OFF	←	DW	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←
P2	OFF	←	DW	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←	WØ	←
#	MIN	5	3	1	15	3	1				7	3	1	5	3	1	15	3	1	5	3	1	5	3	1	
	MAX	25	5	3	80	5	3				50	5	3	25	5	3	80	5	3	35	5	3	35	5	3	

IDENT	SIZE (WxL)	TURNS	MODE	PROGRAM			COORDINATION TYPE - U.T.C.S.			PERMIS PERIOD	SYSTEM LOC	TECHNICAL NOTES
				FUNCTION	T I M E	DAYS	CYCLE	OFFSET SEC	PHASE SPLITS			
D1	6'X50'	VIDEO	PRESENCE	FLASH	NONE						STANDARD OVERLAP SKIP FEATURES APPLY PRE-EMPTION TO BE INOPERATIVE DURING FLASHING OPERATION. PHASE 2 ON TO OMIT PHASE 1 PHASE 6 ON TO OMIT PHASE 5 PHASE 4 ON TO OMIT PHASE 7 PHASES 1 & 5 TO DRIVE FACES 1 & 5 ← AND ← ONLY PHASES 2 & 6 TO DRIVE FACES 1 & 5 R, Y & G (1) TO BE ← Y G IF PHASE 4 NEXT (2) TO BE G IF PHASE 4 NEXT (3) COUNTDOWN ONLY DURING FLASHING PEDESTRIAN CHANGE INTERVAL MANUAL AND INTERVAL ADVANCE TO BE DISCONNECTED DURING PEDESTRIAN PHASE 2, 4 & 6 CLEARANCE INTERVAL. (4) SPEECH MESSAGE "HENRY, WALK SIGNAL IS ON TO CROSS HENRY." DURING PEDESTRIAN WALK INTERVAL ONLY. (5) SPEECH MESSAGE "ATLANTIC, WALK SIGNAL IS ON TO CROSS ATLANTIC." DURING PEDESTRIAN WALK INTERVAL ONLY.	
D2	6'X50'	VIDEO	PRESENCE									
D4	6'X50'	VIDEO	PRESENCE									
D4A	6'X50'	VIDEO	PRESENCE									
D4B	6'X50'	VIDEO	PRESENCE									
D5	6'X50'	VIDEO	PRESENCE									
D6	6'X50'	VIDEO	PRESENCE									

ENERGY BY	CITY	ADDRESS #	MAINT LEVEL	SERVICE POLE	NEW POLE	INTERSECTION #
						138



CONSTRUCTION NOTES :

ALL TRAFFIC EQUIPMENT IS NEW, EXCEPT AS NOTED.

STAKE ALL R.O.W. PRIOR TO EXCAVATION.

ALL PEDESTRIAN PUSH BUTTONS TO BE "ACCESSIBLE PEDESTRIAN SIGNAL AND DETECTOR (TYPE A)". INSTALL SIGN NO. 31-0845 WITH APPROPRIATE ARROW AT PEDESTRIAN PUSH BUTTON LOCATIONS. INSTALL PEDESTRIAN PUSH BUTTONS AT LOCATIONS SHOWN. ALL PUSH BUTTONS TO BE ACCESSIBLE FROM SIDEWALK RAMP LANDING AREA. IF THE LOCATION IS UNAVAILABLE, NOTIFY THE ENGINEER AND CONTACT THE DESIGNERS.

ALL WORK, EQUIPMENT, AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST STANDARD DETAILS AND SPECIFICATIONS OF THE CITY OF STAMFORD AND CTDOT.

THE CONTRACTOR SHALL CONTACT THE CITY OF STAMFORD PUBLIC WORKS DEPARTMENT AT (203) 977-4863 IN ORDER TO MARK OUT THE LOCATION OF EXISTING SANITARY SEWER AND LATERALS.

THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE CITY OF STAMFORD PRIOR TO COMMENCING CONSTRUCTION.

ALL HANDHOLES ARE QUARTZITE 36" X 36" AND TO BE PAID UNDER ITEM NO. 1010038A

THE LOCATION OF TRAFFIC SIGNAL FOUNDATIONS WHEN IN OR ADJACENT TO SIDEWALKS SHALL BE VERIFIED PRIOR TO INSTALLATION TO PROVIDE A FREE PATH OF NOT LESS THAN 4 FEET. IF A MINIMUM 4 FOOT FREE PATH IS UNAVAILABLE NOTIFY THE ENGINEER AND CONTACT THE CITY OF STAMFORD. ANY PROPOSED REVISIONS TO THE LOCATION OF THE APPURTENANCES SHOWN ON THE PLAN MUST BE SUBMITTED FOR REVIEW AND APPROVAL BY THE CITY OF STAMFORD PRIOR TO INSTALLATION.

REMOVE ALL ABANDONED TRAFFIC SIGNAL EQUIPMENT PER SPECIAL PROVISIONS.

COORDINATE WITH UTILITY COMPANY REPRESENTATIVE LISTED IN THE SPECIAL PROVISION 1.07 - LEGAL RELATIONS AND RESPONSIBILITIES

COORDINATE AND SCHEDULE THE FOLLOWING WORK BY UTILITY COMPANIES: TWO WEEKS PRIOR TO INSTALLATION CONTRACT FRONTIER REPRESENTATIVE STEVE DOYLE AT (203) 238-5653 AND EVERSOURCE REPRESENTATIVE JOHN SICLARI AT (203) 352-5456

VIDEO DETECTOR LOCATIONS ARE FOR ILLUSTRATION ONLY. ACTUAL LOCATIONS TO BE DETERMINED BY THE MANUFACTURER OR HIS DESIGNATED REPRESENTATIVE. CAMERA CABLES ARE TO BE INSTALLED CONTINUOUS BETWEEN EACH CAMERA ASSEMBLY AND THE CONTROLLER CABINET.

INTERNALLY ILLUMINATED STREET SIGNS SHALL BE RELOCATED FROM THE EXISTING MAST ARMS TO THE LOCATIONS SHOWN ON THIS PLAN.

INSTALL TWO RISERS BY USING STAND-OFFS ON NEW POLE #3360 NEAR MAST ARM 135-138-B.

PER SPECIAL PROVISIONS, ALL SIGNAL EQUIPMENT IS TO BE FURNISHED WITH FEDERAL STANDARD NO. 595A, BLACK MATTED FINISH, 37038.

CONTRACTOR TO INSTALL CITY SIGN (F) ON MAST ARM (E) 12 FEET HIGH.

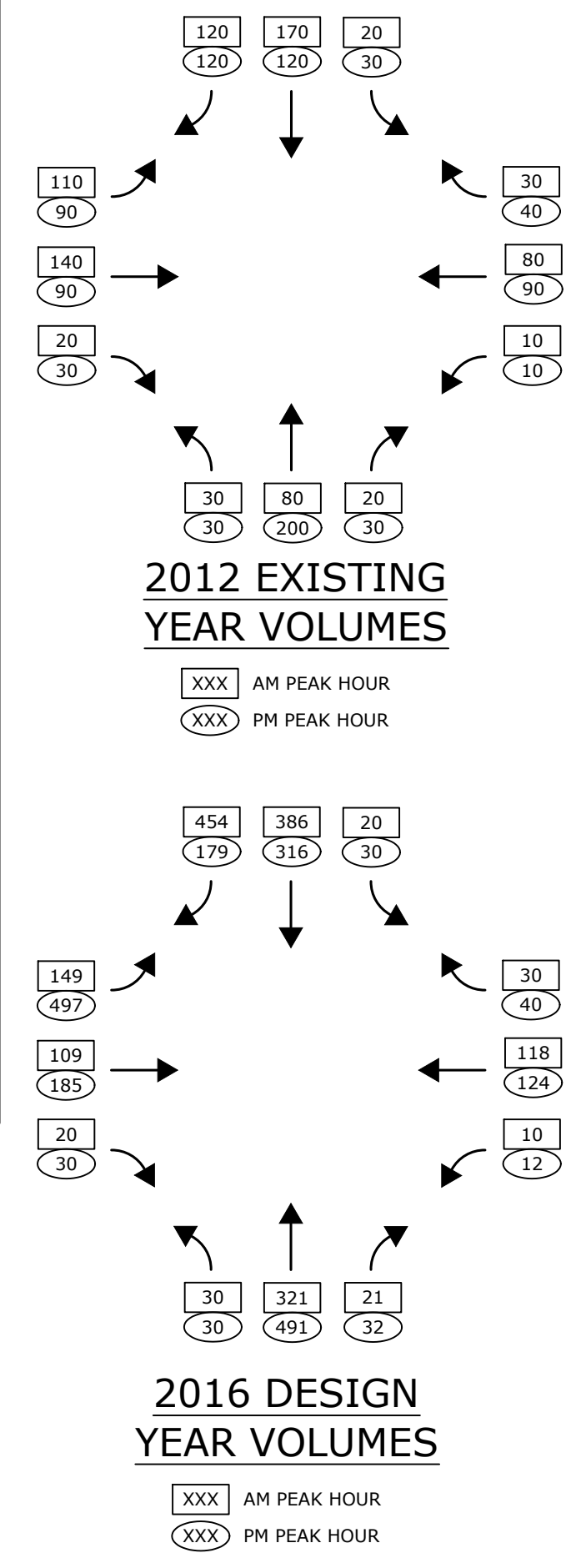
PRE-EMPTION NOTES :

CONTRACTOR TO INSTALL A SWITCH IN THE SIGNAL CABINET TO EFFECTIVELY DISCONNECT THE PRE-EMPTION EQUIPMENT FORM THE TRAFFIC SIGNAL CONTROLLER.

CONTRACTOR TO INSTALL AUXILIARY EQUIPMENT CABINET ON THE LEFT SIDE OF CONTROLLER CABINET. INSTALL PRE-EMPTION EQUIPMENT IN AEC.

PRE-EMPTION DETECTOR LOCATIONS ARE FOR ILLUSTRATION ONLY. EXACT LOCATIONS SHALL BE DETERMINED BY THE MANUFACTURER OR HIS DESIGNATED REPRESENTATIVE. DETECTOR CABLES ARE TO BE INSTALLED CONTINUOUS BETWEEN EACH DETECTOR AND THE CONTROLLER.

PRE-EMPTION IS TO OPERATE THROUGH THE INTERNAL PRE-EMPTION OF THE SIGNAL CONTROLLER.



- SIGN LEGEND:**
- (A) INSTALL MAST MOUNT 31-0183 (LEFT ONLY)
 - (B) INSTALL 31-0282
 - (C) INSTALL HENRY STREET SIGN - INTERNALLY ILLUMINATED
 - (D) INSTALL ATLANTIC STREET SIGN - INTERNALLY ILLUMINATED
 - (E) INSTALL MAST MOUNT 31-0816
 - (F) INSTALL CITY SIGN
- NOTES:**
- EMERGENCY PRE-EMPTION EQUIPMENT TO BE OWNED AND MAINTAINED BY THE CITY OF STAMFORD.
 - ALL TIMING PLANS, CYCLE LENGTHS, AND SPLITS TO BE CONTROLLED BY THE CITY'S CENTRAL SIGNAL SYSTEM.
 - SEE SEPARATE PLAN FOR SIGNING AND PAVEMENT MARKINGS.
 - CITY OF STAMFORD TO MAINTAIN PAINT ON SIGNAL EQUIPMENT.

Figure D-1 Stamford Parking Garage

CITY SIGNAL REFER TO MAST ARM DETAILS, DRAWING NO. XSC-01

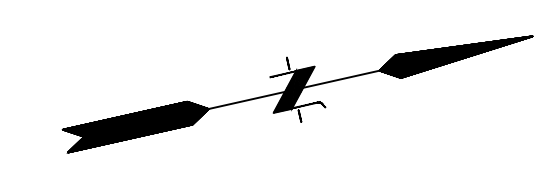
CITY OF STAMFORD

ATLANTIC STREET AT HENRY STREET

FUSS & O'NEILL
146 HARTFORD ROAD
MIDDLETOWN, CONNECTICUT 06020
860.446.2800
www.fussandoneill.com

PROJECT NO.: 135-320
DRAWING NO.: TCS-001
SHEET NO.: 04.02

LIMIT OF ROADWAY CONSTRUCTION
 Greenwich Ave. WB Align
 STA 36+36.00
 N 577570.986
 E 779885.247



LEGEND:

	TURF ESTABLISHMENT & TOPSOIL
	MILL AND OVERLAY
	FULL DEPTH RECONSTRUCTION
	STAMPED BITUMINOUS CONCRETE
	STAMPED CONCRETE

EXC-01
 HOR-01
 ALN-01
 HPN-01
 GRA-01
 UTL-01
 LUM-01
 ELE-01
 PVT-01
 MPT-01

LIMIT OF ROADWAY CONSTRUCTION
 Greenwich Ave. SB Align
 STA 43+47.00
 N 578118.854
 E 780401.605

STA. 09+00.92 & STA. 32+12.57

MATCH LINE

LIMIT OF ROADWAY CONSTRUCTION
 Davenport St. Align
 STA 6+25.00
 N 577521.454
 E 780137.040

EXC-02
 HOR-02
 ALN-02
 HPN-02
 GRA-02
 UTL-02
 LUM-02
 ELE-02
 PVT-02
 MPT-02

LIMIT OF ROADWAY CONSTRUCTION
 Pulaski St. Align
 STA 22+34.50
 N 577796.754
 E 780599.052

**Figure D-2 Stamford
 Parking Garage**

NOT FOR CONSTRUCTION

File Path: J:\DWG\2002477A70\Civil\Plan\2002477A70_IND01.dwg Layout: IND-01 Plotted: Tue, April 17, 2018 - 10:50 AM User: kradzwon
 MS VIEW: LAYER STATE: Plotter: NONE CTB File: FO.STB

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SEAL

SEAL

SCALE:

HORIZ.: 1"= 50'
VERT.:
DATUM:
HORIZ.:
VERT.:

GRAPHIC SCALE

FUSS & O'NEILL
 146 HARTFORD ROAD
 MANCHESTER, CONNECTICUT 06040
 860.646.2469
 www.fando.com

CITY OF STAMFORD
 INDEX PLAN
 GREENWICH AVENUE CORRIDOR IMPROVEMENTS
 GREENWICH AVE ROUNDABOUT
 STAMFORD CONNECTICUT

PROJ. No.: 20020477A70
 DATE: APRIL 17, 2018
IND-01

Proposed Construction



Figure D-3 Stamford Parking Garage



Connecticut Department of Transportation

APPENDIX E

Capacity Analysis Worksheets

Lanes, Volumes, Timings

1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	440	40	170	470	100	40	200	210	100	270	90
Future Volume (vph)	60	440	40	170	470	100	40	200	210	100	270	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	15	12	11	11	11	10	10	10	10	10	9
Storage Length (ft)	0		0	165		0	60		75	75		35
Storage Lanes	1		0	1		0	0		2	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99			0.99		0.99		0.95	0.98		0.98
Frt		0.987			0.974				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	1511	0	1540	2850	0	1223	1535	1317	1444	1535	1140
Flt Permitted	0.359			0.170			0.493			0.496		
Satd. Flow (perm)	566	1511	0	276	2850	0	631	1535	1252	737	1535	1113
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			23				172			60
Link Speed (mph)		30			30			25				25
Link Distance (ft)		906			553			931				521
Travel Time (s)		20.6			12.6			25.4				14.2
Confl. Peds. (#/hr)	14		13	13		14	6		20	20		6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	8%	3%	2%	7%	2%	24%	4%	3%	5%	4%	1%
Parking (#/hr)		4										4
Adj. Flow (vph)	65	473	43	183	505	108	43	215	226	108	290	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	516	0	183	613	0	43	215	226	108	290	97
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	20.0		4.0	20.0		4.0	40.0	40.0	4.0	4.0	4.0
Minimum Split (s)	7.0	24.0		7.0	24.0		7.0	44.0	44.0	7.0	24.0	24.0
Total Split (s)	15.0	54.0		15.0	54.0		15.0	44.0	44.0	15.0	44.0	44.0
Total Split (%)	11.7%	42.2%		11.7%	42.2%		11.7%	34.4%	34.4%	11.7%	34.4%	34.4%
Maximum Green (s)	12.0	50.0		12.0	50.0		12.0	40.0	40.0	12.0	40.0	40.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	0.2		1.0	0.2		1.0	3.0	3.0	1.0	3.0	3.0
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Walk Time (s)		10.0			10.0			10.0	10.0		10.0	10.0
Flash Dont Walk (s)		10.0			10.0			10.0	10.0		10.0	10.0
Pedestrian Calls (#/hr)		6			7			10	10		3	3
Act Effect Green (s)	48.3	41.1		55.4	46.9		47.7	40.6	40.6	52.9	44.7	44.7

Lanes, Volumes, Timings

1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018

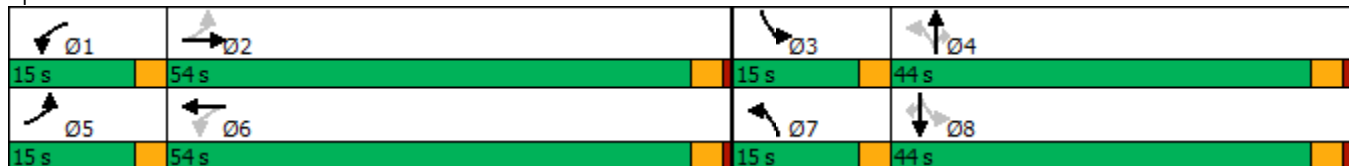


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.42	0.36		0.48	0.41		0.42	0.35	0.35	0.46	0.39	0.39
v/c Ratio	0.22	0.95		0.74	0.52		0.15	0.40	0.41	0.28	0.48	0.21
Control Delay	17.8	63.8		36.5	26.6		21.6	33.7	11.5	22.4	33.3	14.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	63.8		36.5	26.6		21.6	33.7	11.5	22.4	33.3	14.2
LOS	B	E		D	C		C	C	B	C	C	B
Approach Delay		58.7			28.9			22.3				27.2
Approach LOS		E			C			C				C
Queue Length 50th (ft)	25	368		76	172		19	127	29	49	175	19
Queue Length 95th (ft)	52	#597		#139	245		45	220	105	94	292	65
Internal Link Dist (ft)		826			473			851			441	
Turn Bay Length (ft)				165			60		75	75		35
Base Capacity (vph)	366	672		267	1313		350	544	555	416	599	471
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.77		0.69	0.47		0.12	0.40	0.41	0.26	0.48	0.21

Intersection Summary

Area Type:	CBD
Cycle Length:	128
Actuated Cycle Length:	114.6
Natural Cycle:	95
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.95
Intersection Signal Delay:	34.5
Intersection LOS:	C
Intersection Capacity Utilization:	91.8%
ICU Level of Service:	F
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: Greenwich Ave & W. Main St/Tresser Blvd



Lanes, Volumes, Timings

2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	580	30	150	680	150	70	660	250	200	1030	110
Future Volume (vph)	120	580	30	150	680	150	70	660	250	200	1030	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	11	11	11
Storage Length (ft)	325		0	200		0	200		375	330		260
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.98	0.99		0.96	0.99		0.98		0.71	0.89		0.90
Frt		0.993			0.973				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1391	4231	0	1510	4172	0	1441	2829	1171	1468	3049	1351
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1364	4231	0	1448	4172	0	1410	2829	830	1305	3049	1210
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		667			769			581			703	
Travel Time (s)		15.2			17.5			15.8			19.2	
Confl. Peds. (#/hr)	26		40	40		26	52		157	157		52
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	9%	5%	12%	4%	4%	3%	9%	11%	20%	7%	3%	4%
Adj. Flow (vph)	124	598	31	155	701	155	72	680	258	206	1062	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	629	0	155	856	0	72	680	258	206	1062	113
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	15.0	15.0	4.0	15.0	15.0
Minimum Split (s)	8.0	21.0		8.0	21.0		8.0	27.0	27.0	8.0	27.0	27.0
Total Split (s)	18.0	54.0		18.0	54.0		18.0	49.0	49.0	18.0	49.0	49.0
Total Split (%)	12.9%	38.8%		12.9%	38.8%		12.9%	35.3%	35.3%	12.9%	35.3%	35.3%
Maximum Green (s)	14.0	50.0		14.0	50.0		14.0	45.0	45.0	14.0	45.0	45.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes								
Vehicle Extension (s)	1.0	3.0		3.0	3.0		1.0	0.2	0.2	1.0	0.2	0.2
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		10.0			10.0			16.0	16.0		16.0	16.0
Pedestrian Calls (#/hr)		20			13			75	75		25	25
Act Effect Green (s)	13.2	31.0		14.2	32.0		9.2	41.7	41.7	14.2	48.8	48.8
Actuated g/C Ratio	0.11	0.26		0.12	0.27		0.08	0.36	0.36	0.12	0.42	0.42

Lanes, Volumes, Timings
2: Washington Blvd & Tresser Blvd

06/07/2018

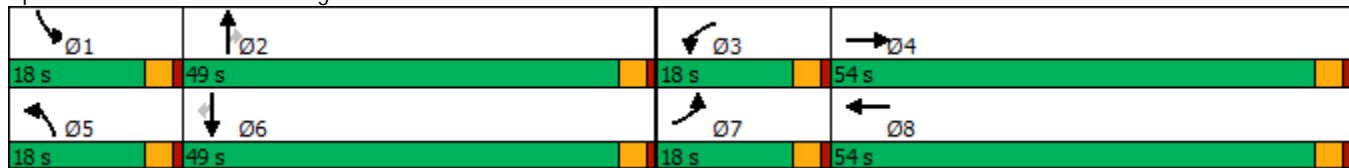


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.79	0.56		0.85	0.75		0.64	0.68	0.87	1.16	0.84	0.22
Control Delay	86.7	39.2		90.0	43.9		79.8	36.7	66.1	165.6	40.1	27.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.7	39.2		90.0	43.9		79.8	36.7	66.1	165.6	40.1	27.5
LOS	F	D		F	D		E	D	E	F	D	C
Approach Delay		47.1			51.0			47.3			57.8	
Approach LOS		D			D			D			E	
Queue Length 50th (ft)	96	156		121	227		56	229	182	-197	390	57
Queue Length 95th (ft)	#216	195		#273	276		110	331	#374	#382	#629	120
Internal Link Dist (ft)		587			689			501			623	
Turn Bay Length (ft)	325			200			200		375	330		260
Base Capacity (vph)	168	1827		182	1801		174	1099	322	177	1270	504
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.34		0.85	0.48		0.41	0.62	0.80	1.16	0.84	0.22

Intersection Summary

Area Type: CBD
 Cycle Length: 139
 Actuated Cycle Length: 117.2
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.16
 Intersection Signal Delay: 51.6
 Intersection LOS: D
 Intersection Capacity Utilization 75.4%
 ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Washington Blvd & Tresser Blvd



Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	900	70	260	800	70	150	270	240	190	260	30
Future Volume (vph)	110	900	70	260	800	70	150	270	240	190	260	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	10	10	10
Storage Length (ft)	96		0	118		0	304		0	106		106
Storage Lanes	1		0	1		0	1		0	1		2
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	0.99		0.99	1.00		0.92	0.93		0.95		0.87
Frt		0.989			0.988			0.929				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1274	4135	0	1496	4307	0	1496	2691	0	1486	2708	1245
Flt Permitted	0.267			0.151			0.587			0.284		
Satd. Flow (perm)	355	4135	0	236	4307	0	847	2691	0	424	2708	1082
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25				25
Link Distance (ft)		769			474			771				641
Travel Time (s)		17.5			10.8			21.0				17.5
Confl. Peds. (#/hr)	27		40	40		27	88		98	98		88
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	19%	7%	12%	5%	3%	4%	5%	2%	0%	2%	12%	9%
Adj. Flow (vph)	113	928	72	268	825	72	155	278	247	196	268	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	113	1000	0	268	897	0	155	525	0	196	268	31
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	10.0		4.0	10.0	10.0
Minimum Split (s)	8.0	27.0		8.0	27.0		8.0	30.0		8.0	30.0	30.0
Total Split (s)	24.0	27.0		24.0	27.0		24.0	35.0		29.0	40.0	40.0
Total Split (%)	20.9%	23.5%		20.9%	23.5%		20.9%	30.4%		25.2%	34.8%	34.8%
Maximum Green (s)	20.0	22.0		20.0	22.0		20.0	30.0		25.0	35.0	35.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)		7.0			7.0			10.0			10.0	10.0
Flash Dont Walk (s)		15.0			15.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)		20			15			50			44	44
Act Effect Green (s)	33.4	22.5		43.7	28.7		34.6	22.7		38.0	24.4	24.4
Actuated g/C Ratio	0.36	0.24		0.47	0.31		0.37	0.25		0.41	0.26	0.26

Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018

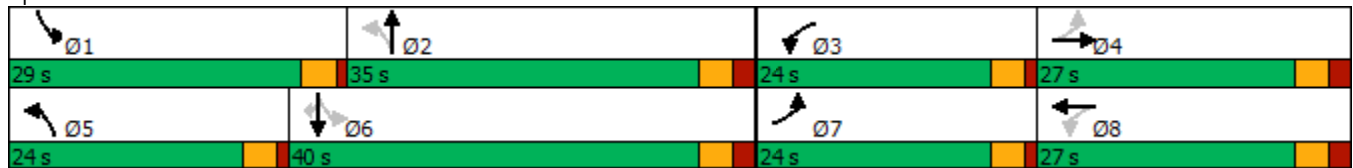


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.50	0.99		0.81	0.67		0.39	0.79		0.61	0.37	0.11
Control Delay	25.2	64.8		41.5	32.9		19.6	42.8		25.6	29.8	27.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	25.2	64.8		41.5	32.9		19.6	42.8		25.6	29.8	27.7
LOS	C	E		D	C		B	D		C	C	C
Approach Delay		60.7			34.9			37.5			28.0	
Approach LOS		E			C			D			C	
Queue Length 50th (ft)	39	~243		109	171		56	153		73	67	14
Queue Length 95th (ft)	87	#397		#265	#277		100	234		126	112	39
Internal Link Dist (ft)		689			394			691			561	
Turn Bay Length (ft)	96			118			304			106		106
Base Capacity (vph)	364	1006		390	1338		511	893		479	1048	418
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.31	0.99		0.69	0.67		0.30	0.59		0.41	0.26	0.07

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 92.3
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 42.8
 Intersection LOS: D
 Intersection Capacity Utilization 84.8%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Atlantic St & Tresser Blvd



Lanes, Volumes, Timings
 4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	650	170	190	960	40	280	390	200	130	430	130
Future Volume (vph)	80	650	170	190	960	40	280	390	200	130	430	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	10	12	10	11	9	10	10	11
Storage Length (ft)	200		0	300		0	160		0	171		148
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00	0.98		0.98	1.00		0.99	0.99		1.00		0.97
Frt		0.969			0.994			0.949				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1402	4041	0	1444	4151	0	1486	2781	0	1516	2861	1351
Flt Permitted	0.194			0.166			0.310			0.295		
Satd. Flow (perm)	285	4041	0	247	4151	0	482	2781	0	469	2861	1316
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		70			7							
Link Speed (mph)		30			30			25				25
Link Distance (ft)		557			937			520				749
Travel Time (s)		12.7			21.3			14.2				20.4
Confl. Peds. (#/hr)	18		68	68		18	13		11	11		13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	12%	6%	7%	5%	4%	9%	2%	8%	3%	0%	6%	4%
Adj. Flow (vph)	83	677	177	198	1000	42	292	406	208	135	448	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	854	0	198	1042	0	292	614	0	135	448	135
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		8
Detector Phase	1	6		5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	11.0	29.0		11.0	29.0		11.0	31.0		11.0	31.0	31.0
Total Split (s)	16.0	34.0		16.0	34.0		16.0	31.0		16.0	31.0	31.0
Total Split (%)	16.5%	35.1%		16.5%	35.1%		16.5%	32.0%		16.5%	32.0%	32.0%
Maximum Green (s)	12.0	30.0		12.0	30.0		12.0	27.0		12.0	27.0	27.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min		None	None		None	None	None
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Dont Walk (s)		18.0			18.0			20.0			20.0	20.0
Pedestrian Calls (#/hr)		34			9			5			7	7
Act Effct Green (s)	28.8	20.5		35.1	26.4		34.1	22.1		28.3	19.1	19.1
Actuated g/C Ratio	0.36	0.26		0.44	0.33		0.43	0.28		0.36	0.24	0.24

Lanes, Volumes, Timings
4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018

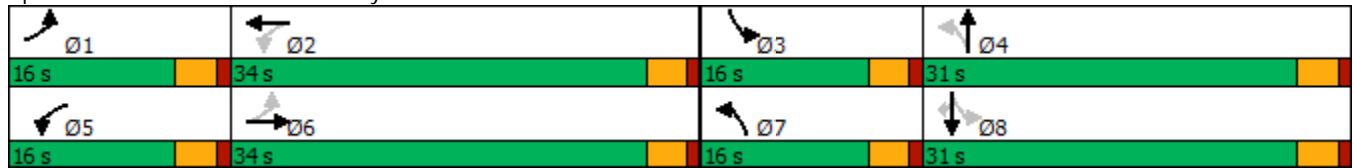


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.38	0.78		0.72	0.75		0.81	0.79		0.47	0.65	0.43
Control Delay	19.5	31.1		33.2	29.4		38.1	36.5		20.8	32.7	31.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	19.5	31.1		33.2	29.4		38.1	36.5		20.8	32.7	31.4
LOS	B	C		C	C		D	D		C	C	C
Approach Delay		30.1			30.0			37.1			30.2	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	24	138		63	178		109	162		44	114	62
Queue Length 95th (ft)	56	199		#175	264		#236	247		87	172	120
Internal Link Dist (ft)		477			857			440			669	
Turn Bay Length (ft)	200			300			160			171		148
Base Capacity (vph)	293	1627		297	1632		364	981		350	1010	464
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.28	0.52		0.67	0.64		0.80	0.63		0.39	0.44	0.29

Intersection Summary

Area Type: CBD
 Cycle Length: 97
 Actuated Cycle Length: 79.6
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 31.8
 Intersection LOS: C
 Intersection Capacity Utilization 79.4%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Canal St/Greyrock Pl & Tresser Blvd



Lanes, Volumes, Timings

5: Greenwich Ave & Richmond Hill Ave

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	40	120	40	120	110	20	20	370	240	20	420	50
Future Volume (vph)	40	120	40	120	110	20	20	370	240	20	420	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	11	12	12	11	12
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		0.98			0.99			0.99			1.00	
Frt		0.973			0.989			0.949			0.986	
Flt Protected		0.990			0.977			0.998			0.998	
Satd. Flow (prot)	0	1535	0	0	1611	0	0	1493	0	0	1548	0
Flt Permitted		0.910			0.756			0.979			0.967	
Satd. Flow (perm)	0	1406	0	0	1233	0	0	1464	0	0	1500	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			363			811			931	
Travel Time (s)		12.3			9.9			22.1			25.4	
Confl. Peds. (#/hr)	16		23	23		16	8		4	4		8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	5%	15%	4%	16%	0%	15%	5%	1%	7%	4%	10%
Adj. Flow (vph)	43	130	43	130	120	22	22	402	261	22	457	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	272	0	0	685	0	0	533	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		8.0	22.0		23.0	23.0		23.0	23.0	
Total Split (s)	23.0	23.0		8.0	31.0		34.0	34.0		34.0	34.0	
Total Split (%)	35.4%	35.4%		12.3%	47.7%		52.3%	52.3%		52.3%	52.3%	
Maximum Green (s)	19.0	19.0		4.0	27.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	11	11		8	8		2	2		4	4	
Act Effct Green (s)		18.0			18.0			30.3			30.3	
Actuated g/C Ratio		0.32			0.32			0.54			0.54	
v/c Ratio		0.48			0.69			0.87			0.66	
Control Delay		18.7			26.3			29.3			16.8	
Queue Delay		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
 5: Greenwich Ave & Richmond Hill Ave

06/07/2018

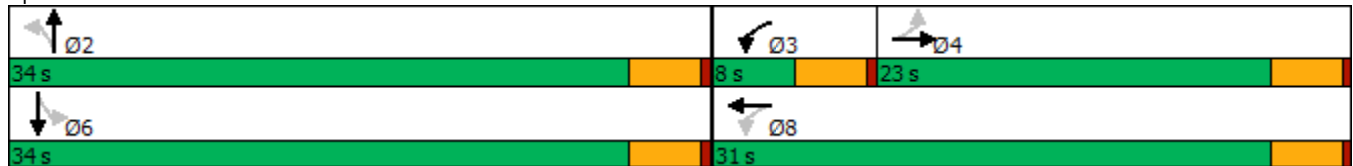


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		18.7			26.3			29.3			16.8	
LOS		B			C			C			B	
Approach Delay		18.7			26.3			29.3			16.8	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)		57			78			180			115	
Queue Length 95th (ft)		106			145			#481			#329	
Internal Link Dist (ft)		372			283			731			851	
Turn Bay Length (ft)												
Base Capacity (vph)		529			597			787			807	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.46			0.87			0.66	

Intersection Summary





















Area Type:	CBD
Cycle Length:	65
Actuated Cycle Length:	56.4
Natural Cycle:	70
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	23.6
Intersection LOS:	C
Intersection Capacity Utilization:	85.2%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 5: Greenwich Ave & Richmond Hill Ave



Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	180	110	460	280	770	0	0	670	620
Future Volume (vph)	0	0	0	180	110	460	280	770	0	0	670	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	11	16	12	12	12	11	11	11
Storage Length (ft)	0		0	0		780	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor				1.00		0.94						0.95
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1444	1605	1297	1547	3124	0	0	2963	1391
Flt Permitted				0.950			0.156					
Satd. Flow (perm)	0	0	0	1438	1605	1220	254	3124	0	0	2963	1324
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						69						582
Link Speed (mph)		25			25			25				25
Link Distance (ft)		677			1043			258				338
Travel Time (s)		18.5			28.4			7.0				9.2
Confl. Peds. (#/hr)				2		25	9		56	56		9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	20%	3%	27%	5%	4%	2%	2%	6%	1%
Adj. Flow (vph)	0	0	0	184	112	469	286	786	0	0	684	633
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	184	112	469	286	786	0	0	684	633
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2				6
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2				6
Switch Phase												
Minimum Initial (s)				20.0	20.0	20.0	5.0	20.0				5.0
Minimum Split (s)				29.0	29.0	29.0	10.0	25.0				22.0
Total Split (s)				60.0	60.0	60.0	25.0	50.0				25.0
Total Split (%)				54.5%	54.5%	54.5%	22.7%	45.5%				22.7%
Maximum Green (s)				55.0	55.0	55.0	20.0	45.0				20.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0				2.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0				0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0				5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0	0.2				2.0
Recall Mode				None	None	None	None	Min				Min
Walk Time (s)				7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)				10.0	10.0	10.0		10.0				10.0
Pedestrian Calls (#/hr)				13	13	13		28				5
Act Effect Green (s)				36.2	36.2	36.2	43.6	43.6				20.6
Actuated g/C Ratio				0.40	0.40	0.40	0.48	0.48				0.23

Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

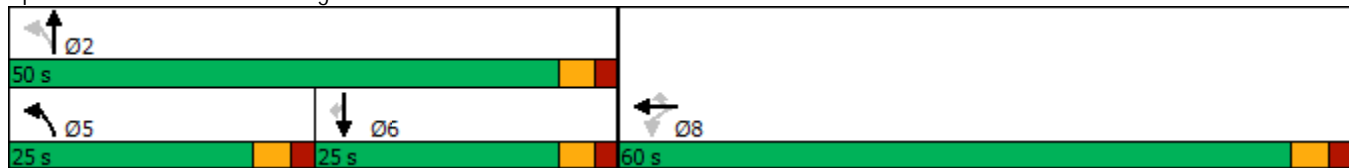


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.32	0.17	0.88	0.76	0.52			1.01	0.84
Control Delay				19.3	17.2	39.9	35.6	19.9			75.5	17.2
Queue Delay				0.0	0.0	0.0	1.9	2.7			0.0	0.0
Total Delay				19.3	17.2	39.9	37.5	22.6			75.5	17.2
LOS				B	B	D	D	C			E	B
Approach Delay					31.6			26.5			47.5	
Approach LOS					C			C			D	
Queue Length 50th (ft)				72	41	216	107	157			~233	24
Queue Length 95th (ft)				119	74	358	#299	292			#440	#263
Internal Link Dist (ft)		597			963			178			258	
Turn Bay Length (ft)						780						
Base Capacity (vph)				904	1009	792	418	1607			677	751
Starvation Cap Reductn				0	0	0	46	676			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.20	0.11	0.59	0.77	0.84			1.01	0.84

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 90.2
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 36.5
 Intersection LOS: D
 Intersection Capacity Utilization 116.3%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Washington Blvd & N. State St



Lanes, Volumes, Timings

7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	140	610	490	280	190	10	350	260	210	100
Future Volume (vph)	140	610	490	280	190	10	350	260	210	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	11	11	10	11	11
Storage Length (ft)		0		0		0			75	
Storage Lanes		2		0		1			1	
Taper Length (ft)		25				25				
Lane Util. Factor	0.95	0.97	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor			0.96			0.96			0.92	
Frt			0.945						0.850	
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	2935	2717	0	0	1537	3141	2861	1213	0
Flt Permitted		0.950				0.491				
Satd. Flow (perm)	0	2935	2717	0	0	762	3141	2861	1119	0
Right Turn on Red				No						No
Satd. Flow (RTOR)										
Link Speed (mph)			25				25	28		
Link Distance (ft)			1150				217	771		
Travel Time (s)			31.4				5.9	18.8		
Confl. Peds. (#/hr)				99	31	31			31	31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	4%	1%	11%	1%	25%	0%	6%	2%	45%
Adj. Flow (vph)	143	622	500	286	194	10	357	265	214	102
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	765	786	0	0	204	357	265	316	0
Turn Type	Split	Split	NA		pm+pt	pm+pt	NA	NA	Perm	
Protected Phases	8	8	8		5	5	2	6		
Permitted Phases					2	2			6	
Detector Phase	8	8	8		5	5	2	6	6	
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0		5.0	5.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0	24.0		9.0	9.0	24.0	24.0	24.0	
Total Split (s)	38.0	38.0	38.0		9.0	9.0	33.0	24.0	24.0	
Total Split (%)	53.5%	53.5%	53.5%		12.7%	12.7%	46.5%	33.8%	33.8%	
Maximum Green (s)	34.0	34.0	34.0		5.0	5.0	29.0	20.0	20.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0			4.0	4.0	4.0	4.0	
Lead/Lag					Lead	Lead		Lag	Lag	
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None		None	None	Max	Max	Max	
Walk Time (s)	5.0	5.0	5.0				5.0	5.0	5.0	
Flash Dont Walk (s)	15.0	15.0	15.0				15.0	15.0	15.0	
Pedestrian Calls (#/hr)	50	50	50				4	15	15	
Act Effect Green (s)		30.3	30.3			29.2	29.2	20.1	20.1	
Actuated g/C Ratio		0.45	0.45			0.43	0.43	0.30	0.30	

Lanes, Volumes, Timings
 7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018

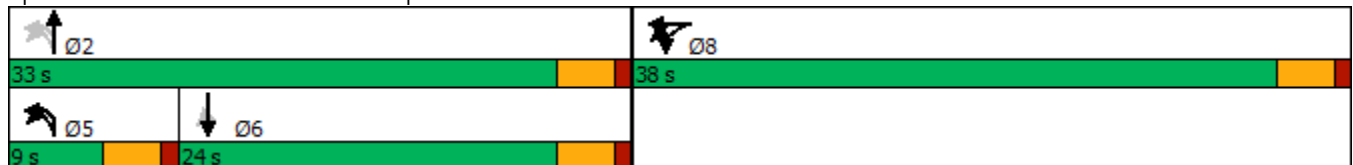


Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
v/c Ratio		0.58	0.64			0.53	0.26	0.31	0.95	
Control Delay		15.7	17.1			20.2	13.9	20.7	66.8	
Queue Delay		0.0	0.0			5.4	0.7	0.0	0.0	
Total Delay		15.7	17.1			25.5	14.6	20.7	66.8	
LOS		B	B			C	B	C	E	
Approach Delay			16.4				18.6	45.8		
Approach LOS			B				B	D		
Queue Length 50th (ft)		114	125			59	53	47	~138	
Queue Length 95th (ft)		163	180			107	82	78	#293	
Internal Link Dist (ft)			1070				137	691		
Turn Bay Length (ft)									75	
Base Capacity (vph)		1486	1376			386	1356	852	333	
Starvation Cap Reductn		0	0			125	672	0	0	
Spillback Cap Reductn		0	0			0	0	0	0	
Storage Cap Reductn		0	0			0	0	0	0	
Reduced v/c Ratio		0.51	0.57			0.78	0.52	0.31	0.95	

Intersection Summary

Area Type: CBD
 Cycle Length: 71
 Actuated Cycle Length: 67.5
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 23.2
 Intersection LOS: C
 Intersection Capacity Utilization 73.6%
 ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 7: I-95 SB On-Ramp & Atlantic St & N. State St



Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (vph)	0	0	0	330	1220	300	230	570	0	0	600	190
Future Volume (vph)	0	0	0	330	1220	300	230	570	0	0	600	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99		1.00				1.00	
Frt					0.976						0.964	
Flt Protected					0.991		0.950					
Satd. Flow (prot)	0	0	0	0	5204	0	1490	3065	0	0	2865	0
Flt Permitted					0.991		0.118					
Satd. Flow (perm)	0	0	0	0	5204	0	185	3065	0	0	2865	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		1150			792			189			520	
Travel Time (s)		31.4			21.6			5.2			14.2	
Confl. Peds. (#/hr)	30					30	7					7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	8%	5%	2%	9%	6%	0%	0%	5%	6%
Adj. Flow (vph)	0	0	0	344	1271	313	240	594	0	0	625	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1928	0	240	594	0	0	823	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Detector Phase				8	8		5	2			6	
Switch Phase												
Minimum Initial (s)				10.0	10.0		5.0	25.0			25.0	
Minimum Split (s)				49.0	49.0		9.0	49.0			49.0	
Total Split (s)				49.0	49.0		29.0	78.0			49.0	
Total Split (%)				38.6%	38.6%		22.8%	61.4%			38.6%	
Maximum Green (s)				45.0	45.0		25.0	74.0			45.0	
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					4.0		4.0	4.0			4.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				5.0	5.0		0.5	0.2			0.2	
Recall Mode				None	None		None	Min			Min	
Walk Time (s)				20.0	20.0			25.0			25.0	
Flash Dont Walk (s)				25.0	25.0			20.0			20.0	
Pedestrian Calls (#/hr)				15	15			0			4	
Act Effect Green (s)					45.7		54.2	54.2			32.4	
Actuated g/C Ratio					0.42		0.50	0.50			0.30	
v/c Ratio					0.88		0.78	0.39			0.93	
Control Delay					36.1		42.1	16.7			52.9	
Queue Delay					0.0		6.8	0.5			0.0	

Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018

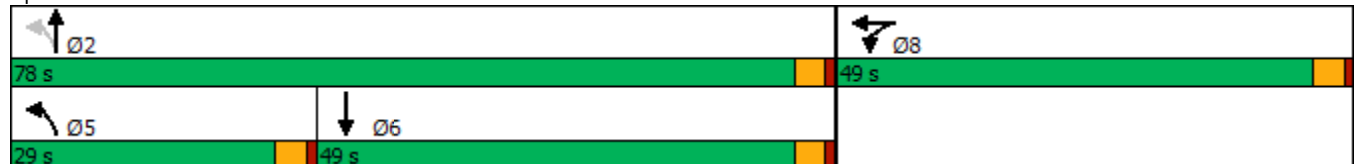


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay					36.1		48.9	17.3			53.0	
LOS					D		D	B			D	
Approach Delay					36.1			26.4			53.0	
Approach LOS					D			C			D	
Queue Length 50th (ft)					340		109	126			278	
Queue Length 95th (ft)					#576		210	163			388	
Internal Link Dist (ft)		1070			712			109			440	
Turn Bay Length (ft)												
Base Capacity (vph)					2199		399	2130			1232	
Starvation Cap Reductn					0		113	1068			11	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.88		0.84	0.56			0.67	

Intersection Summary

Area Type:	CBD
Cycle Length:	127
Actuated Cycle Length:	108
Natural Cycle:	110
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	37.7
Intersection LOS:	D
Intersection Capacity Utilization:	87.2%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 8: Canal St & N. State St



Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	460	640	310	0	0	0	0	190	100	100	460	0
Future Volume (vph)	460	640	310	0	0	0	0	190	100	100	460	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	16	10	12	12
Storage Length (ft)	210		240	0		0	0		0	200		200
Storage Lanes	1		1	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor			0.97						0.99	1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1555	3079	1405	0	0	0	0	1513	1287	1378	3154	0
Flt Permitted	0.950									0.576		
Satd. Flow (perm)	1555	3079	1357	0	0	0	0	1513	1269	834	3154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			323						104			
Link Speed (mph)		30			25			25				25
Link Distance (ft)		711			384			138				811
Travel Time (s)		16.2			10.5			3.8				22.1
Confl. Peds. (#/hr)			10						1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	2%	0%	2%	2%	2%	2%	13%	28%	10%	3%	2%
Adj. Flow (vph)	479	667	323	0	0	0	0	198	104	104	479	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	479	667	323	0	0	0	0	198	104	104	479	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		3						2			6	
Permitted Phases	3		3						2	6		
Detector Phase	3	3	3					2	2	6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	24.0	24.0	24.0					24.0	24.0	24.0	24.0	
Total Split (s)	54.0	54.0	54.0					54.0	54.0	44.0	44.0	
Total Split (%)	35.5%	35.5%	35.5%					35.5%	35.5%	28.9%	28.9%	
Maximum Green (s)	50.0	50.0	50.0					50.0	50.0	40.0	40.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Min	Min	Min	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0	13.0					13.0	13.0	13.0	13.0	
Pedestrian Calls (#/hr)	5	5	5					1	1	2	2	
Act Effect Green (s)	43.2	43.2	43.2					43.1	43.1	43.1	43.1	
Actuated g/C Ratio	0.40	0.40	0.40					0.40	0.40	0.40	0.40	

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

Lane Group	Ø4	Ø5
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	4	5
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	8.0	5.0
Minimum Split (s)	19.0	10.0
Total Split (s)	44.0	10.0
Total Split (%)	29%	7%
Maximum Green (s)	40.0	6.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	1.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	8.0	
Pedestrian Calls (#/hr)	0	
Act Effect Green (s)		
Actuated g/C Ratio		

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

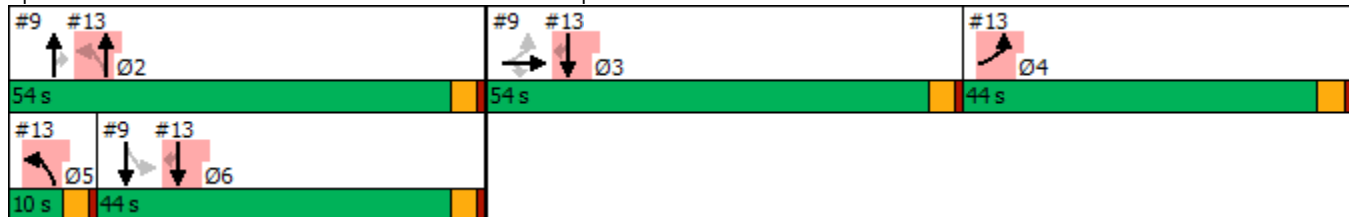


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.77	0.54	0.44					0.33	0.18	0.31	0.38	
Control Delay	37.9	26.8	4.5					5.9	1.8	26.2	24.0	
Queue Delay	0.0	0.0	0.0					1.1	1.0	0.0	0.0	
Total Delay	37.9	26.8	4.5					6.9	2.8	26.2	24.0	
LOS	D	C	A					A	A	C	C	
Approach Delay		25.5						5.5			24.4	
Approach LOS		C						A			C	
Queue Length 50th (ft)	302	195	0					38	0	50	125	
Queue Length 95th (ft)	453	261	56					62	0	101	180	
Internal Link Dist (ft)		631			304			58			731	
Turn Bay Length (ft)	210		240							200		
Base Capacity (vph)	746	1478	819					726	663	361	1367	
Starvation Cap Reductn	0	0	0					330	387	0	0	
Spillback Cap Reductn	0	0	2					0	0	0	22	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.64	0.45	0.40					0.50	0.38	0.29	0.36	

Intersection Summary

Area Type:	CBD
Cycle Length:	152
Actuated Cycle Length:	107.2
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	22.7
Intersection LOS:	C
Intersection Capacity Utilization	59.6%
ICU Level of Service	B
Analysis Period (min)	15


















Splits and Phases: 9: Greenwich Ave & I-95 NB Off Ramp/S. State St



Lane Group	Ø4	Ø5
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	410	170	240	0	0	0	0	640	80	170	680	0
Future Volume (vph)	410	170	240	0	0	0	0	640	80	170	680	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	12	10	10	10
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00
Fr't		0.933						0.983				
Flt Protected	0.950	0.988								0.950		
Satd. Flow (prot)	1374	2525	0	0	0	0	0	4276	0	2451	2861	0
Flt Permitted	0.950	0.988								0.950		
Satd. Flow (perm)	1374	2525	0	0	0	0	0	4276	0	2451	2861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		164						18				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		522			566			287				258
Travel Time (s)		14.2			15.4			7.8				7.0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	24%	3%	0%	0%	0%	0%	5%	26%	20%	6%	0%
Adj. Flow (vph)	432	179	253	0	0	0	0	674	84	179	716	0
Shared Lane Traffic (%)	32%											
Lane Group Flow (vph)	294	570	0	0	0	0	0	758	0	179	716	0
Turn Type	Split	NA						NA		Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	9.0	9.0						15.0		7.0	15.0	
Minimum Split (s)	14.0	14.0						20.0		11.0	20.0	
Total Split (s)	33.0	33.0						34.0		17.0	51.0	
Total Split (%)	28.4%	28.4%						29.3%		14.7%	44.0%	
Maximum Green (s)	28.0	28.0						29.0		13.0	46.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0		4.0	5.0	
Lead/Lag	Lag	Lag						Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						0.2		2.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	25.3	25.3						22.3		11.3	38.0	
Actuated g/C Ratio	0.26	0.26						0.23		0.12	0.39	
v/c Ratio	0.82	0.73						0.76		0.63	0.64	
Control Delay	57.7	31.8						42.8		56.7	30.4	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	28%
Maximum Green (s)	30.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	60
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

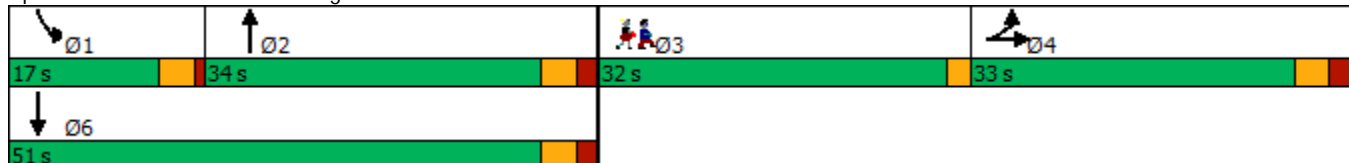


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0						0.1		0.0	0.7	
Total Delay	57.7	31.8						42.9		56.7	31.1	
LOS	E	C						D		E	C	
Approach Delay		40.6						42.9			36.2	
Approach LOS		D						D			D	
Queue Length 50th (ft)	209	142						183		61	223	
Queue Length 95th (ft)	#409	232						232		106	290	
Internal Link Dist (ft)		442			486			207			178	
Turn Bay Length (ft)	100											
Base Capacity (vph)	435	912						1416		360	1490	
Starvation Cap Reductn	0	0						109		0	424	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.68	0.63						0.58		0.50	0.67	

Intersection Summary

Area Type: CBD
 Cycle Length: 116
 Actuated Cycle Length: 97.3
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 39.7
 Intersection LOS: D
 Intersection Capacity Utilization 116.3%
 ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

















Splits and Phases: 10: Washington Blvd & S. State St



Lane Group	Ø3
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	290	50	0	0	0	0	470	30	60	340	0
Future Volume (vph)	80	290	50	0	0	0	0	470	30	60	340	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
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		
Frt		0.984						0.992				
Flt Protected		0.991								0.950		
Satd. Flow (prot)	0	1428	0	0	0	0	0	1608	0	1533	1644	0
Flt Permitted		0.991								0.271		
Satd. Flow (perm)	0	1428	0	0	0	0	0	1608	0	437	1644	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		543			708			126			217	
Travel Time (s)		14.8			19.3			3.4			5.9	
Confl. Peds. (#/hr)	1						1	37		1	1	37
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	13%	0%	2%	2%	2%	2%	5%	11%	6%	4%	2%
Adj. Flow (vph)	82	296	51	0	0	0	0	480	31	61	347	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	429	0	0	0	0	0	511	0	61	347	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4									6		
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	12.0	12.0						33.0		6.0	33.0	
Minimum Split (s)	29.0	29.0						37.0		10.0	37.0	
Total Split (s)	29.0	29.0						38.0		17.0	55.0	
Total Split (%)	34.5%	34.5%						45.2%		20.2%	65.5%	
Maximum Green (s)	25.0	25.0						34.0		13.0	51.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0						1.0		1.0	1.0	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		4.0						4.0		4.0	4.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5						0.2		1.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)	7.0	7.0						7.0			7.0	
Flash Dont Walk (s)	18.0	18.0						14.0			14.0	
Pedestrian Calls (#/hr)	0	0						1			17	
Act Effct Green (s)		25.1						33.4		39.1	39.1	
Actuated g/C Ratio		0.35						0.46		0.54	0.54	
v/c Ratio		0.86						0.69		0.19	0.39	
Control Delay		43.8						22.4		8.9	11.0	
Queue Delay		0.0						4.5		0.0	0.8	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018

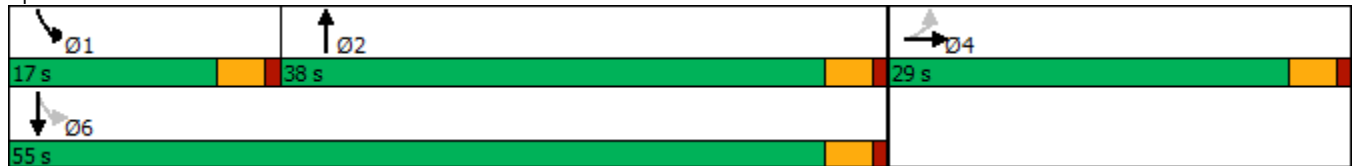


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		43.8						26.9		8.9	11.8	
LOS		D						C		A	B	
Approach Delay		43.8						26.9			11.3	
Approach LOS		D						C			B	
Queue Length 50th (ft)		192						193		12	83	
Queue Length 95th (ft)		#372						314		28	135	
Internal Link Dist (ft)		463			628			46			137	
Turn Bay Length (ft)												
Base Capacity (vph)		496						760		434	1166	
Starvation Cap Reductn		0						177		0	529	
Spillback Cap Reductn		0						0		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.86						0.88		0.14	0.54	

Intersection Summary



















Area Type:	CBD
Cycle Length:	84
Actuated Cycle Length:	72.3
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	27.6
Intersection LOS:	C
Intersection Capacity Utilization:	76.4%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 11: Atlatnic St/Atlantic St & S. State St



Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	430	510	330	0	0	0	0	370	310	260	670	0	
Future Volume (vph)	430	510	330	0	0	0	0	370	310	260	670	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Ped Bike Factor													
Frt	0.941					0.932							
Flt Protected	0.950										0.986		
Satd. Flow (prot)	1547	2863	0	0	0	0	0	2816	0	0	3054	0	
Flt Permitted	0.950										0.573		
Satd. Flow (perm)	1547	2863	0	0	0	0	0	2816	0	0	1775	0	
Right Turn on Red						No			Yes			Yes	
Satd. Flow (RTOR)													
Link Speed (mph)	25				25				25				30
Link Distance (ft)	454				543				446				189
Travel Time (s)	12.4				14.8				12.2				4.3
Confl. Peds. (#/hr)								7				7	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Heavy Vehicles (%)	5%	6%	8%	2%	2%	2%	2%	8%	7%	2%	6%	0%	
Adj. Flow (vph)	443	526	340	0	0	0	0	381	320	268	691	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	443	866	0	0	0	0	0	701	0	0	959	0	
Turn Type	Split	NA						NA	pm+pt	NA			
Protected Phases	4	4						2	1	6			
Permitted Phases											6		
Detector Phase	4	4						2	1	1	6		
Switch Phase													
Minimum Initial (s)	5.0	5.0						20.0	1.0	20.0			
Minimum Split (s)	31.0	31.0						35.0	5.0	35.0			
Total Split (s)	31.0	31.0						41.0	41.0	82.0			
Total Split (%)	27.4%	27.4%						36.3%	36.3%	72.6%			
Maximum Green (s)	27.0	27.0						37.0	37.0	78.0			
Yellow Time (s)	3.0	3.0						3.0	3.0	3.0			
All-Red Time (s)	1.0	1.0						1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0			
Total Lost Time (s)	4.0	4.0						4.0	4.0	4.0			
Lead/Lag								Lag	Lead				
Lead-Lag Optimize?													
Vehicle Extension (s)	2.0	2.0						0.2	0.2	0.2			
Recall Mode	None	None						Max	None	Max			
Walk Time (s)	7.0	7.0						7.0	7.0	7.0			
Flash Dont Walk (s)	20.0	20.0						24.0	24.0	24.0			
Pedestrian Calls (#/hr)	0	0						0	4	4			
Act Effct Green (s)	27.0	27.0						54.7	78.0	78.0			
Actuated g/C Ratio	0.24	0.24						0.48	0.69	0.69			
v/c Ratio	1.20	1.27						0.51	0.66	0.66			
Control Delay	151.8	168.0						22.6	10.5	10.5			
Queue Delay	0.0	0.0						0.6	3.8	3.8			
Total Delay	151.8	168.0						23.2	14.3	14.3			

Lanes, Volumes, Timings
 12: Canal St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	F						C			B	
Approach Delay		162.5						23.2			14.3	
Approach LOS		F						C			B	
Queue Length 50th (ft)	~391	~417						176			148	
Queue Length 95th (ft)	#589	#544						262			187	
Internal Link Dist (ft)		374			463			366			109	
Turn Bay Length (ft)												
Base Capacity (vph)	369	684						1362			1644	
Starvation Cap Reductn	0	0						314			581	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	1.20	1.27						0.67			0.90	

Intersection Summary

Area Type:	CBD
Cycle Length:	113
Actuated Cycle Length:	113
Natural Cycle:	75
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.27
Intersection Signal Delay:	81.7
Intersection LOS:	F
Intersection Capacity Utilization:	88.8%
ICU Level of Service:	E
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 12: Canal St & S. State St



Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
Lane Configurations								
Traffic Volume (vph)	70	20	60	220	380	390		
Future Volume (vph)	70	20	60	220	380	390		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	11	13	12		
Storage Length (ft)	0	100	0			0		
Storage Lanes	2	1	0			1		
Taper Length (ft)	25		25					
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.98			1.00		0.97		
Frt	0.966					0.850		
Flt Protected	0.963			0.989				
Satd. Flow (prot)	2765	0	0	1398	1716	1439		
Flt Permitted	0.963			0.847				
Satd. Flow (perm)	2765	0	0	1196	1716	1389		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	21					406		
Link Speed (mph)	25			25	25			
Link Distance (ft)	260			506	138			
Travel Time (s)	7.1			13.8	3.8			
Confl. Peds. (#/hr)		10	4			4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Heavy Vehicles (%)	11%	6%	2%	21%	3%	1%		
Adj. Flow (vph)	73	21	63	229	396	406		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	94	0	0	292	396	406		
Turn Type	Prot		pm+pt	NA	NA	Perm		
Protected Phases	4		5	2	3 6		3	6
Permitted Phases			2			3 6		
Detector Phase	4		5	2	3 6	3 6		
Switch Phase								
Minimum Initial (s)	8.0		5.0	12.0			8.0	12.0
Minimum Split (s)	19.0		10.0	24.0			24.0	24.0
Total Split (s)	44.0		10.0	54.0			54.0	44.0
Total Split (%)	28.9%		6.6%	35.5%			36%	29%
Maximum Green (s)	40.0		6.0	50.0			50.0	40.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0			0.0				
Total Lost Time (s)	4.0			4.0				
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Vehicle Extension (s)	1.0		3.0	3.0			0.2	3.0
Recall Mode	None		None	Min			None	Min
Walk Time (s)	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	8.0			13.0			13.0	13.0
Pedestrian Calls (#/hr)	0			1			5	2
Act Effect Green (s)	8.5			43.1	90.5	90.5		
Actuated g/C Ratio	0.08			0.40	0.84	0.84		

Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018

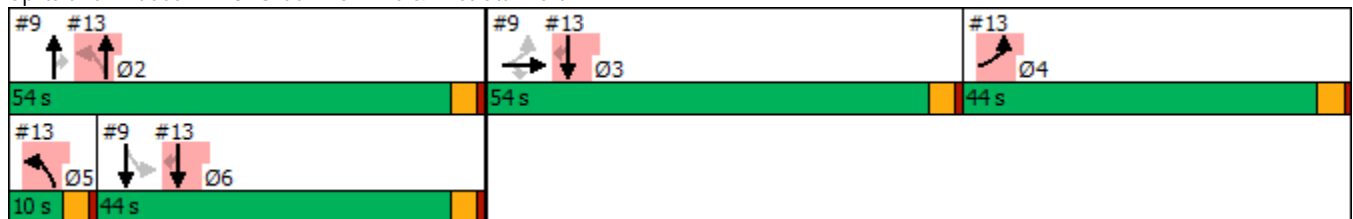


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
v/c Ratio	0.40			0.61	0.27	0.33		
Control Delay	46.6			32.5	1.0	1.6		
Queue Delay	0.0			0.0	0.4	0.3		
Total Delay	46.6			32.5	1.3	1.9		
LOS	D			C	A	A		
Approach Delay	46.6			32.5	1.6			
Approach LOS	D			C	A			
Queue Length 50th (ft)	27			164	12	22		
Queue Length 95th (ft)	56			274	15	38		
Internal Link Dist (ft)	180			426	58			
Turn Bay Length (ft)								
Base Capacity (vph)	1075			574	1558	1298		
Starvation Cap Reductn	0			0	664	404		
Spillback Cap Reductn	36			1	0	0		
Storage Cap Reductn	0			0	0	0		
Reduced v/c Ratio	0.09			0.51	0.44	0.45		

Intersection Summary















Area Type:	CBD
Cycle Length:	152
Actuated Cycle Length:	107.2
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	12.8
Intersection LOS:	B
Intersection Capacity Utilization:	57.1%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 13: Greenwich Ave & First Stamford Pl



Lanes, Volumes, Timings
14: Washington Blvd & Station Pl

06/07/2018

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Lane Configurations		 	 			 	
Traffic Volume (vph)	130	240	480	70	420	500	
Future Volume (vph)	130	240	480	70	420	500	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	8	12	11	11	11	11	
Storage Length (ft)	0	40		0	0		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	0.88	0.95	0.95	1.00	0.95	
Fr _t		0.850	0.981				
Fl _t Protected	0.950				0.950		
Satd. Flow (prot)	1380	2484	2866	0	1540	2963	
Fl _t Permitted	0.950				0.290		
Satd. Flow (perm)	1380	2484	2866	0	470	2963	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)			19				
Link Speed (mph)	25		25			25	
Link Distance (ft)	385		386			287	
Travel Time (s)	10.5		10.5			7.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Heavy Vehicles (%)	2%	3%	8%	4%	2%	6%	
Adj. Flow (vph)	140	258	516	75	452	538	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	140	258	591	0	452	538	
Turn Type	Prot	pt+ov	NA		pm+pt	NA	
Protected Phases	4	4 1	2		1	6	3
Permitted Phases					6		
Detector Phase	4	4 1	2		1	6	
Switch Phase							
Minimum Initial (s)	9.0		15.0		7.0	15.0	1.0
Minimum Split (s)	13.0		20.0		11.0	20.0	20.0
Total Split (s)	20.0		26.0		16.0	42.0	20.0
Total Split (%)	24.4%		31.7%		19.5%	51.2%	24%
Maximum Green (s)	16.0		21.0		12.0	37.0	18.0
Yellow Time (s)	3.0		3.0		3.0	3.0	2.0
All-Red Time (s)	1.0		2.0		1.0	2.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	4.0		5.0		4.0	5.0	
Lead/Lag	Lag		Lag		Lead		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0		0.2		2.0	0.2	0.2
Recall Mode	None		Max		None	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							11.0
Pedestrian Calls (#/hr)							20
Act Effct Green (s)	11.6	28.2	21.8		39.4	38.3	
Actuated g/C Ratio	0.18	0.43	0.33		0.60	0.58	
v/c Ratio	0.58	0.24	0.61		0.93	0.31	
Control Delay	37.2	14.5	24.2		45.8	10.3	

Lanes, Volumes, Timings
 14: Washington Blvd & Station PI

06/07/2018

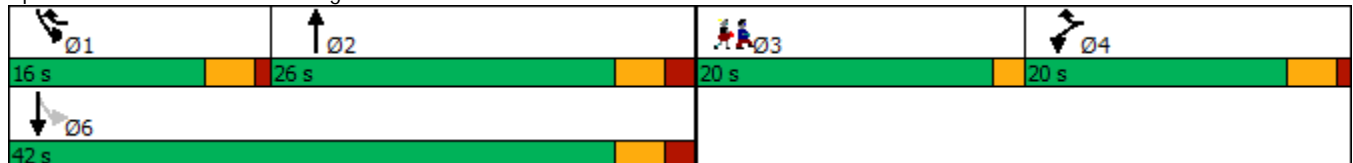


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Queue Delay	0.0	0.0	0.0		1.0	0.4	
Total Delay	37.2	14.5	24.2		46.8	10.7	
LOS	D	B	C		D	B	
Approach Delay	22.5		24.2			27.2	
Approach LOS	C		C			C	
Queue Length 50th (ft)	43	27	75		53	31	
Queue Length 95th (ft)	122	80	#222		#387	133	
Internal Link Dist (ft)	305		306			207	
Turn Bay Length (ft)		40					
Base Capacity (vph)	348	1047	961		484	1728	
Starvation Cap Reductn	0	0	0		4	668	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.40	0.25	0.61		0.94	0.51	

Intersection Summary

Area Type: CBD
 Cycle Length: 82
 Actuated Cycle Length: 65.7
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 25.4
 Intersection LOS: C
 Intersection Capacity Utilization 61.9%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Washington Blvd & Station PI



Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	150	30	210	280	280	30	170	140	80	150	160
Future Volume (vph)	50	150	30	210	280	280	30	170	140	80	150	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	11	12	12	14	12	12	16
Storage Length (ft)	80		0	175		0	100		125	75		100
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.98	0.96		0.85		0.94	0.99		0.97	0.99		0.97
Frt		0.975				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1492	0	1510	1589	1313	1624	2981	1409	1490	3154	1631
Flt Permitted	0.578			0.485			0.651			0.506		
Satd. Flow (perm)	933	1492	0	658	1589	1240	1103	2981	1371	784	3154	1580
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						298			149			170
Link Speed (mph)		25			25			25				30
Link Distance (ft)		271			522			362				194
Travel Time (s)		7.4			14.2			9.9				4.4
Confl. Peds. (#/hr)	35		182	182		35	6		9	9		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	0%	4%	4%	7%	0%	9%	10%	9%	3%	1%
Adj. Flow (vph)	53	160	32	223	298	298	32	181	149	85	160	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	192	0	223	298	298	32	181	149	85	160	170
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	3	8		7	4	5	1	6	7	5	2	3
Permitted Phases	8			4		4	6		6	2		2
Detector Phase	3	8		7	4	5	1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	5.0	5.0	15.0	5.0	5.0	15.0	5.0
Minimum Split (s)	10.0	34.0		10.0	31.0	10.0	10.0	24.0	10.0	10.0	34.0	10.0
Total Split (s)	20.0	35.0		20.0	35.0	20.0	20.0	35.0	20.0	20.0	35.0	20.0
Total Split (%)	18.2%	31.8%		18.2%	31.8%	18.2%	18.2%	31.8%	18.2%	18.2%	31.8%	18.2%
Maximum Green (s)	15.0	30.0		15.0	30.0	15.0	15.0	30.0	15.0	15.0	30.0	15.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	0.2	3.0	3.0	0.2	3.0
Recall Mode	None	None		None	None	None	None	Min	None	None	Min	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		22.0			19.0			12.0			22.0	
Pedestrian Calls (#/hr)		90			17			5			3	
Act Effect Green (s)	33.0	25.9		43.8	32.1	41.2	23.8	17.0	30.3	30.2	24.4	31.4
Actuated g/C Ratio	0.39	0.30		0.51	0.37	0.48	0.28	0.20	0.35	0.35	0.28	0.37

Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018

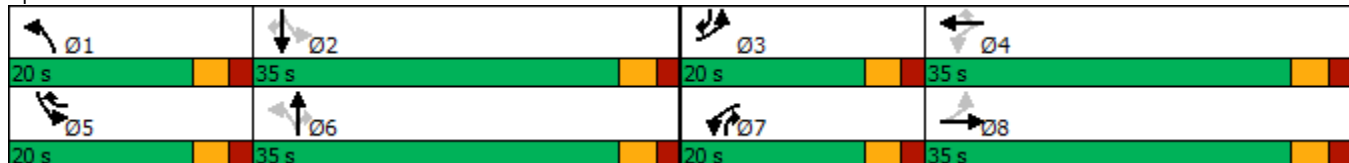


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.13	0.43		0.48	0.50	0.39	0.09	0.31	0.25	0.24	0.18	0.25
Control Delay	12.8	28.5		16.0	24.9	3.1	20.0	32.7	4.2	21.8	27.4	4.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	28.5		16.0	24.9	3.1	20.0	32.7	4.2	21.8	27.4	4.1
LOS	B	C		B	C	A	C	C	A	C	C	A
Approach Delay		25.1			14.6			19.8			16.7	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)	13	81		60	114	0	12	47	0	33	40	0
Queue Length 95th (ft)	39	169		137	240	40	31	80	35	65	67	38
Internal Link Dist (ft)		191			442			282			114	
Turn Bay Length (ft)	80			175			100		125	75		100
Base Capacity (vph)	559	534		492	654	832	488	1067	617	411	1129	831
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	36
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.36		0.45	0.46	0.36	0.07	0.17	0.24	0.21	0.14	0.21

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 85.7
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.50
 Intersection Signal Delay: 17.5
 Intersection LOS: B
 Intersection Capacity Utilization 72.5%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 15: Atlantic St/Atlantic St & Station Pl/Dock St



Lanes, Volumes, Timings
 16: Parking Garage & Station Pl

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↘	
Traffic Volume (vph)	260	170	0	450	10	10
Future Volume (vph)	260	170	0	450	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.932	
Flt Protected					0.976	
Satd. Flow (prot)	1863	1615	0	1863	1728	0
Flt Permitted					0.976	
Satd. Flow (perm)	1863	1615	0	1863	1728	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	385			158	174	
Travel Time (s)	10.5			4.3	4.7	
Confl. Peds. (#/hr)		118	118		10	107
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	274	179	0	474	11	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	274	179	0	474	22	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
17: Canal St & Dock St/Jefferson St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	370	20	120	450	200	10	190	90	330	380	260
Future Volume (vph)	240	370	20	120	450	200	10	190	90	330	380	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	11	12	12	11	12	11	11	16
Storage Length (ft)	275		0	170		0	0		120	0		180
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00	1.00		0.98	1.00			1.00	0.99	1.00	0.99	
Frt		0.992			0.954				0.850		0.939	
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	1496	2836	0	1378	2731	0	0	2802	1346	1390	2807	0
Flt Permitted	0.176			0.511				0.911		0.621		
Satd. Flow (perm)	277	2836	0	726	2731	0	0	2557	1326	907	2807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			63				94		188	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		855			803			934			446	
Travel Time (s)		23.3			21.9			25.5			12.2	
Confl. Peds. (#/hr)	2		33	33		2	11		2	2		11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	9%	20%	10%	8%	12%	29%	11%	8%	13%	3%	6%
Adj. Flow (vph)	250	385	21	125	469	208	10	198	94	344	396	271
Shared Lane Traffic (%)												
Lane Group Flow (vph)	250	406	0	125	677	0	0	208	94	344	667	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pm+ov	D.P+P	NA	
Protected Phases	1	6		5	2			4	5	3	3 4	
Permitted Phases	6			2			4		4	4		
Detector Phase	1	6		5	2		4	4	5	3	3 4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		15.0	15.0	5.0	5.0		
Minimum Split (s)	10.0	33.0		10.0	33.0		30.0	30.0	10.0	10.0		
Total Split (s)	20.0	40.0		20.0	40.0		35.0	35.0	20.0	20.0		
Total Split (%)	17.4%	34.8%		17.4%	34.8%		30.4%	30.4%	17.4%	17.4%		
Maximum Green (s)	15.0	35.0		15.0	35.0		30.0	30.0	15.0	15.0		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		3.0	3.0	3.0	3.0		
Recall Mode	None	Min		None	Min		None	None	None	None		
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		21.0			21.0		18.0	18.0				
Pedestrian Calls (#/hr)		16			1		6	6				
Act Effect Green (s)	41.7	27.4		34.5	23.9			18.1	28.8	33.4	38.5	
Actuated g/C Ratio	0.45	0.30		0.38	0.26			0.20	0.31	0.36	0.42	

Lanes, Volumes, Timings
 17: Canal St & Dock St/Jefferson St

06/07/2018

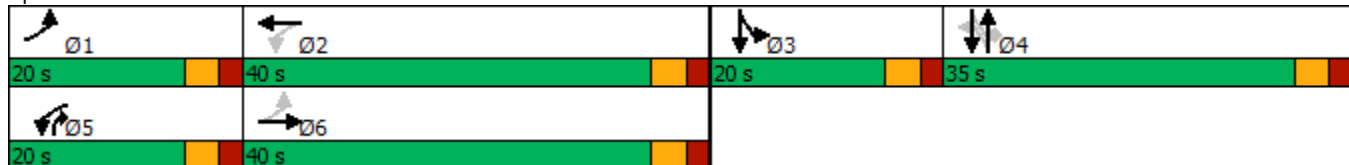


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.80	0.48		0.36	0.89			0.41	0.20	0.84	0.52	
Control Delay	39.2	28.6		17.8	45.1			36.1	5.4	44.1	16.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	39.2	28.6		17.8	45.1			36.1	5.4	44.1	16.2	
LOS	D	C		B	D			D	A	D	B	
Approach Delay		32.6			40.9			26.5			25.7	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	85	95		39	178			55	0	151	103	
Queue Length 95th (ft)	#249	166		84	277			101	32	#359	185	
Internal Link Dist (ft)		775			723			854			366	
Turn Bay Length (ft)	275			170					120			
Base Capacity (vph)	328	1101		417	1096			848	545	409	1637	
Starvation Cap Reductn	0	0		0	0			0	0	0	66	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.76	0.37		0.30	0.62			0.25	0.17	0.84	0.42	

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 91.8
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 31.8
 Intersection LOS: C
 Intersection Capacity Utilization 87.0%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Canal St & Dock St/Jefferson St



Lanes, Volumes, Timings
18: Atlantic St & 2004 Parking Garage

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	20	0	10	320	250	140
Future Volume (vph)	20	0	10	320	250	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	11	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			1.00		0.94
Fr _t						0.850
Fl _t Protected	0.950			0.998		
Satd. Flow (prot)	1624	0	0	1718	1545	1647
Fl _t Permitted	0.950			0.991		
Satd. Flow (perm)	1621	0	0	1704	1545	1546
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						151
Link Speed (mph)	25			25	25	
Link Distance (ft)	195			538	362	
Travel Time (s)	5.3			14.7	9.9	
Confl. Peds. (#/hr)	2	5	25			25
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	13%	7%	0%
Adj. Flow (vph)	22	0	11	344	269	151
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	355	269	151
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases			2			6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	20.0	20.0	20.0
Minimum Split (s)	24.0		9.0	25.0	25.0	25.0
Total Split (s)	25.0		14.0	39.0	25.0	25.0
Total Split (%)	39.1%		21.9%	60.9%	39.1%	39.1%
Maximum Green (s)	20.0		10.0	34.0	20.0	20.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.0			5.0	5.0	5.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		None	Max	Max	Max
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	12.0				12.0	12.0
Pedestrian Calls (#/hr)	3				12	12
Act Effect Green (s)	8.3			50.7	50.7	50.7
Actuated g/C Ratio	0.15			0.91	0.91	0.91
v/c Ratio	0.09			0.23	0.19	0.11
Control Delay	19.4			3.3	3.3	1.3
Queue Delay	0.0			0.0	0.0	0.0

Lanes, Volumes, Timings
 18: Atlantic St & 2004 Parking Garage

06/07/2018

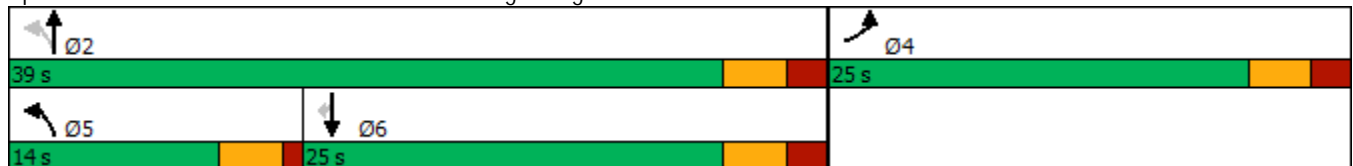


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	19.4			3.3	3.3	1.3
LOS	B			A	A	A
Approach Delay	19.4			3.3	2.6	
Approach LOS	B			A	A	
Queue Length 50th (ft)	6			0	0	0
Queue Length 95th (ft)	20			123	94	21
Internal Link Dist (ft)	115			458	282	
Turn Bay Length (ft)						
Base Capacity (vph)	584			1547	1403	1417
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.04			0.23	0.19	0.11

Intersection Summary

Area Type:	CBD
Cycle Length:	64
Actuated Cycle Length:	55.8
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.23
Intersection Signal Delay:	3.4
Intersection LOS:	A
Intersection Capacity Utilization	44.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 18: Atlantic St & 2004 Parking Garage



Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	0	180	30	120	10	420	120	100	290	240
Future Volume (vph)	10	10	0	180	30	120	10	420	120	100	290	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	9	10	10	10	10	11	11	11
Storage Length (ft)	0		0	0		85	0		0	0		142
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor	1.00	1.00			0.99	0.98		0.98			0.99	0.96
Frt						0.850		0.967				0.850
Flt Protected	0.950	0.996			0.959			0.999			0.987	
Satd. Flow (prot)	1595	1672	0	0	1404	1105	0	2647	0	0	2837	1405
Flt Permitted	0.950	0.996			0.959			0.945			0.641	
Satd. Flow (perm)	1588	1671	0	0	1389	1086	0	2503	0	0	1830	1346
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						131		36				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		312			842			315				386
Travel Time (s)		8.5			23.0			8.6				10.5
Confl. Peds. (#/hr)	4		9	9		4	13		49	49		13
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	6%	0%	8%	0%	7%	13%	13%	8%	0%
Parking (#/hr)						4						
Adj. Flow (vph)	11	11	0	202	34	135	11	472	135	112	326	270
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	10	12	0	0	236	135	0	618	0	0	438	270
Turn Type	Split	NA		Split	NA	pm+ov	Perm	NA		pm+pt	NA	Perm
Protected Phases	7	7		8	8	1		2		1	6	
Permitted Phases						8	2			6		6
Detector Phase	7	7		8	8	8	2	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	20.0	20.0		5.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0	9.0	34.0	34.0		9.0	34.0	34.0
Total Split (s)	27.0	27.0		27.0	27.0	12.0	34.0	34.0		12.0	46.0	46.0
Total Split (%)	27.0%	27.0%		27.0%	27.0%	12.0%	34.0%	34.0%		12.0%	46.0%	46.0%
Maximum Green (s)	22.0	22.0		22.0	22.0	8.0	29.0	29.0		8.0	41.0	41.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0	2.0	2.0		1.0	2.0	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	4.0		5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Recall Mode	None	None		None	None	None	Min	Min		None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		22.0	22.0			22.0	22.0
Pedestrian Calls (#/hr)	5	5		2	2		25	25			6	6
Act Effect Green (s)	12.4	12.4			16.9	26.4		24.4			37.2	37.2

Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018

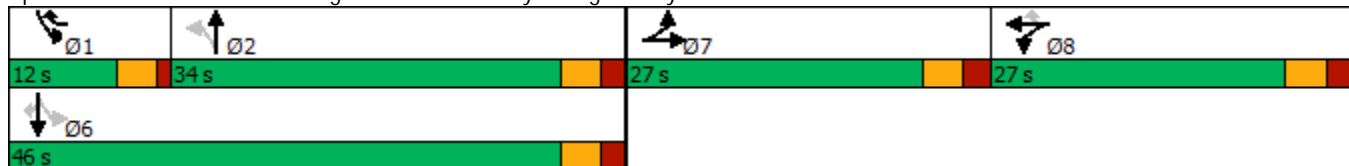


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.17	0.17			0.24	0.37		0.34			0.52	0.52
v/c Ratio	0.04	0.04			0.71	0.28		0.70			0.41	0.38
Control Delay	31.0	31.0			41.0	6.1		26.8			14.3	16.1
Queue Delay	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Delay	31.0	31.0			41.0	6.1		26.8			14.3	16.2
LOS	C	C			D	A		C			B	B
Approach Delay		31.0			28.3			26.8			15.0	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	3	4			73	1		91			38	48
Queue Length 95th (ft)	18	22			#254	41		#266			139	198
Internal Link Dist (ft)		232			762			235			306	
Turn Bay Length (ft)						85						142
Base Capacity (vph)	529	555			466	531		1116			1239	833
Starvation Cap Reductn	0	0			0	0		17			0	40
Spillback Cap Reductn	0	0			0	0		0			0	0
Storage Cap Reductn	0	0			0	0		0			0	0
Reduced v/c Ratio	0.02	0.02			0.51	0.25		0.56			0.35	0.34

Intersection Summary

Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 71
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 22.3
 Intersection LOS: C
 Intersection Capacity Utilization 74.3%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: Washington Blvd & Gateway Garage/Henry St



Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Volume (vph)	110	120	20	10	120	20	20	130	30	20	120	170
Future Volume (vph)	110	120	20	10	120	20	20	130	30	20	120	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	10	10	10
Storage Length (ft)	0		0	0		0	0		0	0		340
Storage Lanes	0		0	0		0	0		0	0		1
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			0.96			0.98	0.93
Frt		0.989			0.982			0.977				0.850
Flt Protected		0.978			0.997			0.994			0.993	
Satd. Flow (prot)	0	1424	0	0	1311	0	0	1260	0	0	1297	1245
Flt Permitted		0.978			0.997			0.955			0.944	
Satd. Flow (perm)	0	1409	0	0	1311	0	0	1206	0	0	1210	1160
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			9			11				185
Link Speed (mph)		25			25			25				25
Link Distance (ft)		842			669			1254				538
Travel Time (s)		23.0			18.2			34.2				14.7
Confl. Peds. (#/hr)	12		1	1		12	19		84	84		19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	20%	12%	17%	11%	9%	0%	6%	15%	0%	5%	8%	9%
Parking (#/hr)					4			4				4
Adj. Flow (vph)	120	130	22	11	130	22	22	141	33	22	130	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	272	0	0	163	0	0	196	0	0	152	185
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	Perm
Protected Phases	4	4		3	3			2				6
Permitted Phases							2			6		6
Detector Phase	4	4		3	3		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	32.0	32.0		32.0	32.0		28.0	28.0		28.0	28.0	28.0
Total Split (%)	34.8%	34.8%		34.8%	34.8%		30.4%	30.4%		30.4%	30.4%	30.4%
Maximum Green (s)	27.5	27.5		27.5	27.5		23.5	23.5		23.5	23.5	23.5
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Max	Max		Max	Max		Min	Min		Min	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	1	1		6	6		42	42		10	10	10
Act Effect Green (s)		27.6			27.6			17.6			17.6	17.6

Lanes, Volumes, Timings
 20: Atlantic St & Henry St

06/07/2018

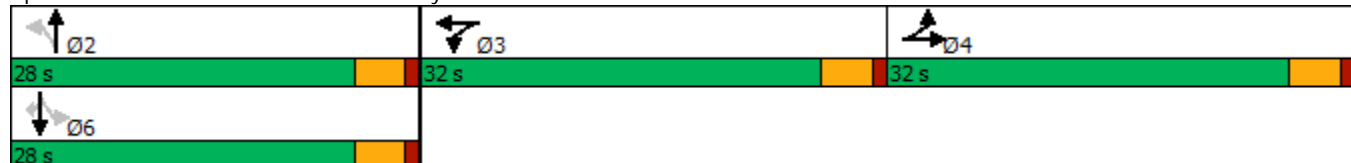


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.32			0.32			0.20			0.20	0.20
v/c Ratio		0.59			0.38			0.77			0.62	0.48
Control Delay		31.7			26.0			50.7			42.4	9.1
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		31.7			26.0			50.7			42.4	9.1
LOS		C			C			D			D	A
Approach Delay		31.7			26.0			50.7			24.1	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)		122			65			95			76	0
Queue Length 95th (ft)		222			130			171			138	53
Internal Link Dist (ft)		762			589			1174			458	
Turn Bay Length (ft)												340
Base Capacity (vph)		458			425			337			330	451
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.59			0.38			0.58			0.46	0.41

Intersection Summary

Area Type:	CBD
Cycle Length:	92
Actuated Cycle Length:	86.3
Natural Cycle:	70
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	31.9
Intersection LOS:	C
Intersection Capacity Utilization	59.8%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 20: Atlantic St & Henry St



Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	0	190	0	0	0	130	330	0	0	170	330
Future Volume (vph)	220	0	190	0	0	0	130	330	0	0	170	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	12	12	12	12	11	12	12	10	10
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.95					0.99				0.95
Frt			0.850									0.850
Flt Protected	0.950							0.986				
Satd. Flow (prot)	1415	0	1301	0	1710	0	0	2937	0	0	1451	1268
Flt Permitted	0.950							0.803				
Satd. Flow (perm)	1410	0	1241	0	1710	0	0	2376	0	0	1451	1198
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)												363
Link Speed (mph)		25			25			25				25
Link Distance (ft)		369			194			789				315
Travel Time (s)		10.1			5.3			21.5				8.6
Confl. Peds. (#/hr)	2		9	9		2	12		80	80		12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	11%	0%	8%	0%	0%	0%	4%	6%	0%	0%	10%	7%
Adj. Flow (vph)	242	0	209	0	0	0	143	363	0	0	187	363
Shared Lane Traffic (%)												
Lane Group Flow (vph)	242	0	209	0	0	0	0	506	0	0	187	363
Turn Type	Prot		Perm				Perm	NA			NA	pm+ov
Protected Phases	4				3			2			6	4
Permitted Phases			4	3			2					6
Detector Phase	4		4	3	3		2	2			6	4
Switch Phase												
Minimum Initial (s)	7.0		7.0	4.0	4.0		20.0	20.0			20.0	7.0
Minimum Split (s)	24.0		24.0	22.0	22.0		27.0	27.0			27.0	24.0
Total Split (s)	30.0		30.0	22.0	22.0		55.0	55.0			55.0	30.0
Total Split (%)	28.0%		28.0%	20.6%	20.6%		51.4%	51.4%			51.4%	28.0%
Maximum Green (s)	24.0		24.0	18.0	18.0		49.0	49.0			49.0	24.0
Yellow Time (s)	4.0		4.0	3.5	3.5		4.0	4.0			4.0	4.0
All-Red Time (s)	2.0		2.0	0.5	0.5		2.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)	6.0		6.0		4.0			6.0			6.0	6.0
Lead/Lag	Lag		Lag	Lead	Lead							Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes							Yes
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode	None		None	None	None		Min	Min			Min	None
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		14.0	14.0			14.0	11.0
Pedestrian Calls (#/hr)	4		4	1	1		40	40			6	4
Act Effect Green (s)	15.8		15.8					23.3			23.3	39.1
Actuated g/C Ratio	0.29		0.29					0.43			0.43	0.71

Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018

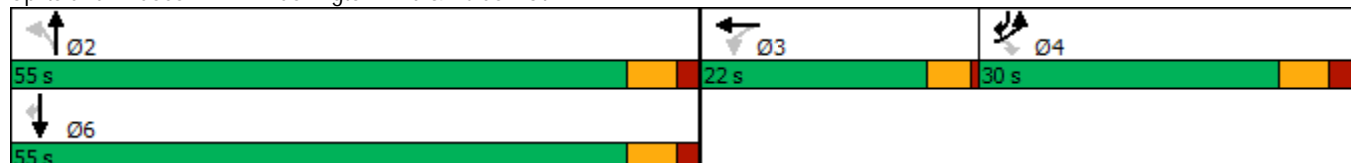


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.59		0.58					0.50			0.30	0.37
Control Delay	25.7		26.5					16.1			15.3	1.6
Queue Delay	0.0		0.0					0.0			0.0	0.0
Total Delay	25.7		26.5					16.1			15.3	1.6
LOS	C		C					B			B	A
Approach Delay		26.1						16.1			6.3	
Approach LOS		C						B			A	
Queue Length 50th (ft)	53		45					50			32	0
Queue Length 95th (ft)	204		182					175			134	25
Internal Link Dist (ft)		289			114			709			235	
Turn Bay Length (ft)	140											
Base Capacity (vph)	670		588					2142			1308	1080
Starvation Cap Reductn	0		0					0			41	12
Spillback Cap Reductn	0		0					0			0	0
Storage Cap Reductn	0		0					0			0	0
Reduced v/c Ratio	0.36		0.36					0.24			0.15	0.34

Intersection Summary


















Area Type:	CBD
Cycle Length:	107
Actuated Cycle Length:	54.7
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	15.5
Intersection LOS:	B
Intersection Capacity Utilization:	67.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 21: Washington Blvd & Pulaski St



Lanes, Volumes, Timings
 22: Greenwich Ave & Pulaski St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	250	0	0	360	110	0	0	0	180	0	240
Future Volume (vph)	160	250	0	0	360	110	0	0	0	180	0	240
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	10
Storage Length (ft)	0		0	0		0	0		0	0		150
Storage Lanes	0		0	0		0	0		0	0		1
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												
Frt						0.968						0.850
Flt Protected	0.981							0.950				
Satd. Flow (prot)	0	1653	0	0	1536	0	0	1676	0	0	1593	1280
Flt Permitted	0.981							0.950				
Satd. Flow (perm)	0	1653	0	0	1536	0	0	1676	0	0	1593	1280
Link Speed (mph)	25							30				
Link Distance (ft)	474							224				
Travel Time (s)	12.9							5.1				
Confl. Peds. (#/hr)	1											
Peak Hour Factor	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.92	0.92	0.95	0.92	0.95
Heavy Vehicles (%)	11%	12%	2%	2%	8%	7%	2%	2%	2%	2%	2%	6%
Adj. Flow (vph)	168	263	0	0	379	116	0	0	0	189	0	253
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	431	0	0	495	0	0	0	0	0	189	253
Sign Control	Stop							Stop				

Intersection Summary

Area Type:	CBD
Control Type:	Unsignalized
Intersection Capacity Utilization	74.0%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings
23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔		↔	↔	↔	↔	
Traffic Volume (vph)	20	10	10	40	40	170	10	260	30	130	200	60
Future Volume (vph)	20	10	10	40	40	170	10	260	30	130	200	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	11	11	11	12	11	10	11	11	11
Storage Length (ft)	0		0	0		120	0		220	250		0
Storage Lanes	0		0	0		1	0		1	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	0.98		1.00	0.92	0.96	0.98	
Frt		0.966				0.850			0.850		0.965	
Flt Protected		0.976			0.976			0.998		0.950		
Satd. Flow (prot)	0	1354	0	0	1487	1266	0	1541	1304	1390	1445	0
Flt Permitted		0.868			0.856			0.985		0.557		
Satd. Flow (perm)	0	1202	0	0	1301	1244	0	1519	1198	783	1445	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		12				198			35			
Link Speed (mph)		25			25			25				25
Link Distance (ft)		355			1254			478				789
Travel Time (s)		9.7			34.2			13.0				21.5
Confl. Peds. (#/hr)	5		3	3		5	47		36	36		47
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	25%	20%	50%	11%	6%	11%	33%	6%	4%	13%	10%	2%
Adj. Flow (vph)	23	12	12	47	47	198	12	302	35	151	233	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	94	198	0	314	35	151	303	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2				6
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	20.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	29.0	29.0	
Total Split (s)	25.0	25.0		25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0	
Total Split (%)	35.7%	35.7%		35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%	
Maximum Green (s)	20.0	20.0		20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Recall Mode	None	None		None	None	None	Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	17.0	17.0	
Pedestrian Calls (#/hr)	1	1		2	2	2	18	18	18	23	23	
Act Effct Green (s)		16.0			16.0	16.0		22.3	22.3	22.3	22.3	
Actuated g/C Ratio		0.33			0.33	0.33		0.46	0.46	0.46	0.46	

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.12			0.22	0.36		0.45	0.06	0.42	0.45	
Control Delay		9.6			12.8	4.4		11.9	3.9	13.8	12.1	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		9.6			12.8	4.4		11.9	3.9	13.8	12.1	
LOS		A			B	A		B	A	B	B	
Approach Delay		9.6			7.1			11.1			12.7	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		6			17	0		53	0	25	51	
Queue Length 95th (ft)		23			44	30		115	11	70	113	
Internal Link Dist (ft)		275			1174			398			709	
Turn Bay Length (ft)						120			220	250		
Base Capacity (vph)		507			541	633		1366	1081	704	1299	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.09			0.17	0.31		0.23	0.03	0.21	0.23	

Intersection Summary

Area Type:	CBD
Cycle Length:	70
Actuated Cycle Length:	48.4
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	10.6
Intersection LOS:	B
Intersection Capacity Utilization:	61.6%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 23: Washington Blvd & Atlantic St



Lanes, Volumes, Timings

24: Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	30	400	0	0	470	0	10	0	10	0	0	0
Future Volume (vph)	30	400	0	0	470	0	10	0	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.932				
Flt Protected		0.996						0.976				
Satd. Flow (prot)	0	1858	0	0	1863	0	0	1694	0	0	1900	0
Flt Permitted		0.996						0.976				
Satd. Flow (perm)	0	1858	0	0	1863	0	0	1694	0	0	1900	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		594			369			245			153	
Travel Time (s)		16.2			10.1			5.6			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	2%	2%	0%	2%	0%	2%	0%	0%	0%
Adj. Flow (vph)	33	435	0	0	511	0	11	0	11	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	468	0	0	511	0	0	22	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.8%
ICU Level of Service	B
Analysis Period (min)	15

Lanes, Volumes, Timings
 25: S. State St & S. State Lot

06/07/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↑			↕	
Traffic Volume (vph)	5	819	0	0	1	0
Future Volume (vph)	5	819	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	3185	0	0	1593	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3185	0	0	1593	0
Link Speed (mph)		25	25		30	
Link Distance (ft)		384	522		171	
Travel Time (s)		10.5	14.2		3.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	862	0	0	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	867	0	0	1	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	CBD
Control Type:	Unsignalized
Intersection Capacity Utilization	35.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 26: Parking Garage & Station PI

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	230	40	30	450	0	0
Future Volume (vph)	230	40	30	450	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.980					
Flt Protected				0.997		
Satd. Flow (prot)	1831	0	0	1859	0	0
Flt Permitted				0.997		
Satd. Flow (perm)	1831	0	0	1859	0	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	158			343	181	
Travel Time (s)	4.3			9.4	4.9	
Confl. Peds. (#/hr)	44		44			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	0%	0%	2%	2%	2%
Adj. Flow (vph)	242	42	32	474	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	284	0	0	506	0	0
Sign Control	Free			Free	Stop	
















Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	47.1% ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings

27: Station PI

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	230	0	0	290	180	0	0	0	0	0	0
Future Volume (vph)	0	230	0	0	290	180	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.948											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1779	0	0	1900	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1779	0	0	1900	0	0	0	0
Link Speed (mph)	25				25				25		25	
Link Distance (ft)	343				271				93		77	
Travel Time (s)	9.4				7.4				2.5		2.1	
Confl. Peds. (#/hr)							105			119		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%
Adj. Flow (vph)	0	247	0	0	312	194	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	0	0	506	0	0	0	0	0	0	0
Sign Control	Stop				Free				Stop		Stop	

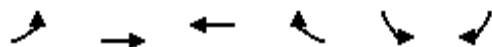
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.1%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

36: S. State St

06/07/2018

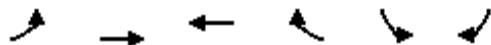


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↓	
Traffic Volume (vph)	0	380	0	0	890	0
Future Volume (vph)	0	380	0	0	890	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	1712	0	0	1752	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1712	0	0	1752	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					254	
Link Speed (mph)		30	30		30	
Link Distance (ft)		708	454		415	
Travel Time (s)		16.1	10.3		9.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	11%	2%	2%	3%	2%
Adj. Flow (vph)	0	388	0	0	908	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	388	0	0	908	0
Turn Type		NA			Prot	
Protected Phases		4			6	
Permitted Phases						
Minimum Split (s)		30.0			30.0	
Total Split (s)		30.0			45.0	
Total Split (%)		40.0%			60.0%	
Maximum Green (s)		26.0			41.0	
Yellow Time (s)		3.0			3.0	
All-Red Time (s)		1.0			1.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.0			4.0	
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)		26.0			41.0	
Actuated g/C Ratio		0.35			0.55	
v/c Ratio		0.65			0.85	
Control Delay		27.0			19.7	
Queue Delay		0.0			0.0	
Total Delay		27.0			19.7	
LOS		C			B	
Approach Delay		27.0			19.7	
Approach LOS		C			B	
Queue Length 50th (ft)		150			242	
Queue Length 95th (ft)		243			#523	
Internal Link Dist (ft)		628	374		335	
Turn Bay Length (ft)						
Base Capacity (vph)		593			1072	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	

Lanes, Volumes, Timings

36: S. State St

06/07/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.65			0.85	

Intersection Summary

Area Type:	Other
Cycle Length:	75
Actuated Cycle Length:	75
Offset:	0 (0%), Referenced to phase 2: and 6:SBL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	21.9
Intersection LOS:	C
Intersection Capacity Utilization	77.6%
ICU Level of Service	D
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 36: S. State St



Lanes, Volumes, Timings

1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	630	70	90	630	110	70	210	220	60	110	110
Future Volume (vph)	90	630	70	90	630	110	70	210	220	60	110	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	15	12	11	11	11	10	10	10	10	10	9
Storage Length (ft)	0		0	165		0	60		75	75		35
Storage Lanes	1		0	1		0	0		2	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99			0.99		0.97		0.94	0.97		0.95
Frt		0.985			0.978				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	1560	0	1540	2930	0	1516	1596	1343	1444	1565	1118
Flt Permitted	0.251			0.079			0.656			0.521		
Satd. Flow (perm)	395	1560	0	128	2930	0	1016	1596	1259	768	1565	1064
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			18				171			98
Link Speed (mph)		30			30			25				25
Link Distance (ft)		906			553			931				521
Travel Time (s)		20.6			12.6			25.4				14.2
Confl. Peds. (#/hr)	23		31	31		23	19		27	27		19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	6%	2%	4%	0%	0%	0%	1%	5%	2%	3%
Parking (#/hr)		4										4
Adj. Flow (vph)	94	656	73	94	656	115	73	219	229	63	115	115
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	729	0	94	771	0	73	219	229	63	115	115
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	20.0		4.0	20.0		4.0	40.0	40.0	4.0	4.0	4.0
Minimum Split (s)	7.0	24.0		7.0	24.0		7.0	44.0	44.0	7.0	24.0	24.0
Total Split (s)	15.0	54.0		15.0	54.0		15.0	44.0	44.0	15.0	44.0	44.0
Total Split (%)	11.7%	42.2%		11.7%	42.2%		11.7%	34.4%	34.4%	11.7%	34.4%	34.4%
Maximum Green (s)	12.0	50.0		12.0	50.0		12.0	40.0	40.0	12.0	40.0	40.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	0.2		1.0	0.2		1.0	3.0	3.0	1.0	3.0	3.0
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Walk Time (s)		10.0			10.0			10.0	10.0		10.0	10.0
Flash Dont Walk (s)		10.0			10.0			10.0	10.0		10.0	10.0
Pedestrian Calls (#/hr)		15			11			14	14		10	10
Act Effect Green (s)	58.4	50.2		58.9	50.4		47.2	40.2	40.2	46.5	39.8	39.8

Lanes, Volumes, Timings
 1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018

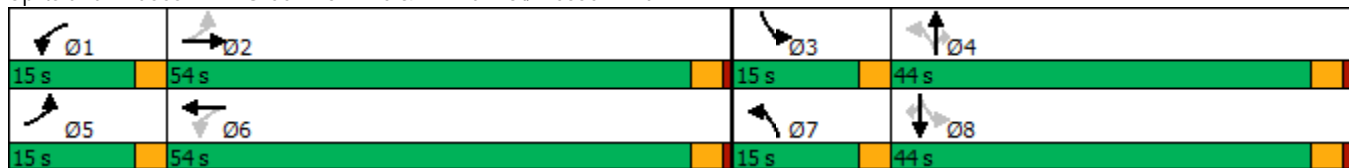


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.50	0.43		0.50	0.43		0.40	0.34	0.34	0.40	0.34	0.34
v/c Ratio	0.35	1.08		0.61	0.61		0.17	0.40	0.42	0.18	0.22	0.27
Control Delay	18.6	93.1		35.0	28.3		22.0	33.3	11.6	22.3	30.5	10.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	93.1		35.0	28.3		22.0	33.3	11.6	22.3	30.5	10.0
LOS	B	F		C	C		C	C	B	C	C	A
Approach Delay		84.6			29.0			22.2			20.7	
Approach LOS		F			C			C			C	
Queue Length 50th (ft)	35	-624		35	230		33	126	30	28	62	9
Queue Length 95th (ft)	67	#949		83	324		67	217	106	60	119	56
Internal Link Dist (ft)		826			473			851			441	
Turn Bay Length (ft)				165			60		75	75		35
Base Capacity (vph)	321	672		212	1275		477	548	544	391	537	429
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.29	1.08		0.44	0.60		0.15	0.40	0.42	0.16	0.21	0.27

Intersection Summary

Area Type:	CBD
Cycle Length:	128
Actuated Cycle Length:	116.9
Natural Cycle:	105
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.08
Intersection Signal Delay:	44.9
Intersection LOS:	D
Intersection Capacity Utilization:	97.7%
ICU Level of Service:	F
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Greenwich Ave & W. Main St/Tresser Blvd



Lanes, Volumes, Timings
2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	740	40	150	680	210	80	820	400	220	840	70
Future Volume (vph)	130	740	40	150	680	210	80	820	400	220	840	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	11	11	11
Storage Length (ft)	325		0	200		0	200		375	330		260
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.99	1.00		0.98	0.99		0.99		0.79	0.94		0.94
Frt		0.992			0.965				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	4374	0	1570	4253	0	1481	2991	1277	1570	2963	1405
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1506	4374	0	1532	4253	0	1461	2991	1015	1477	2963	1323
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		667			769			581			703	
Travel Time (s)		15.2			17.5			15.8			19.2	
Confl. Peds. (#/hr)	10		31	31		10	26		109	109		26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	6%	5%	10%	0%	6%	0%
Adj. Flow (vph)	137	779	42	158	716	221	84	863	421	232	884	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	821	0	158	937	0	84	863	421	232	884	74
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	15.0	15.0	4.0	15.0	15.0
Minimum Split (s)	8.0	21.0		8.0	21.0		8.0	27.0	27.0	8.0	27.0	27.0
Total Split (s)	18.0	54.0		18.0	54.0		18.0	49.0	49.0	18.0	49.0	49.0
Total Split (%)	12.9%	38.8%		12.9%	38.8%		12.9%	35.3%	35.3%	12.9%	35.3%	35.3%
Maximum Green (s)	14.0	50.0		14.0	50.0		14.0	45.0	45.0	14.0	45.0	45.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes								
Vehicle Extension (s)	1.0	3.0		3.0	3.0		1.0	0.2	0.2	1.0	0.2	0.2
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		10.0			10.0			16.0	16.0		16.0	16.0
Pedestrian Calls (#/hr)		15			5			55	55		13	13
Act Effect Green (s)	13.3	34.5		14.1	35.2		10.0	45.2	45.2	14.1	49.2	49.2
Actuated g/C Ratio	0.11	0.28		0.11	0.28		0.08	0.37	0.37	0.11	0.40	0.40

Lanes, Volumes, Timings
2: Washington Blvd & Tresser Blvd

06/07/2018

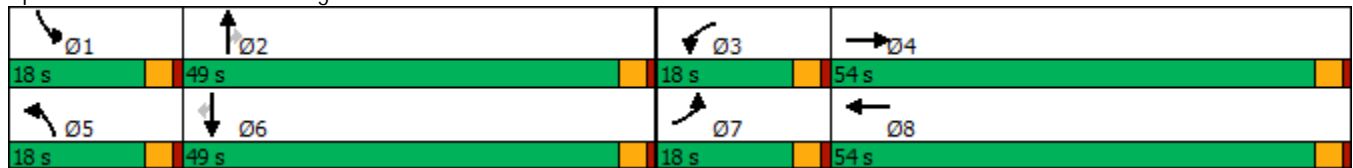


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.84	0.67		0.89	0.78		0.71	0.79	1.14	1.30	0.75	0.14
Control Delay	93.6	42.3		98.8	45.4		86.3	42.5	127.1	214.9	38.8	28.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.6	42.3		98.8	45.4		86.3	42.5	127.1	214.9	38.8	28.3
LOS	F	D		F	D		F	D	F	F	D	C
Approach Delay		49.6			53.1			71.2			72.5	
Approach LOS		D			D			E			E	
Queue Length 50th (ft)	109	213		127	253		67	325	~397	~240	321	38
Queue Length 95th (ft)	#241	259		#283	305		128	456	#659	#440	#498	84
Internal Link Dist (ft)		587			689			501			623	
Turn Bay Length (ft)	325			200			200		375	330		260
Base Capacity (vph)	172	1773		178	1724		168	1091	370	178	1178	526
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.46		0.89	0.54		0.50	0.79	1.14	1.30	0.75	0.14

Intersection Summary

Area Type: CBD
 Cycle Length: 139
 Actuated Cycle Length: 123.8
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.30
 Intersection Signal Delay: 62.8 Intersection LOS: E
 Intersection Capacity Utilization 80.1% ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Washington Blvd & Tresser Blvd



Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	1110	70	220	770	160	170	300	100	190	280	60
Future Volume (vph)	130	1110	70	220	770	160	170	300	100	190	280	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	10	10	10
Storage Length (ft)	96		0	118		0	304		0	106		106
Storage Lanes	1		0	1		0	1		0	1		2
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	1.00		0.99	0.99		0.85	0.97		0.96		0.76
Frt		0.991			0.974			0.963				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1354	4315	0	1454	4305	0	1540	2929	0	1501	2808	1304
Flt Permitted	0.195			0.152			0.559			0.389		
Satd. Flow (perm)	276	4315	0	231	4305	0	766	2929	0	589	2808	991
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		769			474			771			641	
Travel Time (s)		17.5			10.8			21.0			17.5	
Confl. Peds. (#/hr)	27		42	42		27	169		70	70		169
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	12%	3%	6%	8%	1%	2%	2%	0%	2%	1%	8%	4%
Adj. Flow (vph)	137	1168	74	232	811	168	179	316	105	200	295	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	1242	0	232	979	0	179	421	0	200	295	63
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	10.0		4.0	10.0	10.0
Minimum Split (s)	8.0	27.0		8.0	27.0		8.0	30.0		8.0	30.0	30.0
Total Split (s)	24.0	27.0		24.0	27.0		24.0	35.0		29.0	40.0	40.0
Total Split (%)	20.9%	23.5%		20.9%	23.5%		20.9%	30.4%		25.2%	34.8%	34.8%
Maximum Green (s)	20.0	22.0		20.0	22.0		20.0	30.0		25.0	35.0	35.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)		7.0			7.0			10.0			10.0	10.0
Flash Dont Walk (s)		15.0			15.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)		20			14			35			85	85
Act Effect Green (s)	34.1	22.5		41.3	26.3		34.5	21.8		36.2	22.6	22.6
Actuated g/C Ratio	0.38	0.25		0.46	0.29		0.39	0.24		0.40	0.25	0.25

Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018

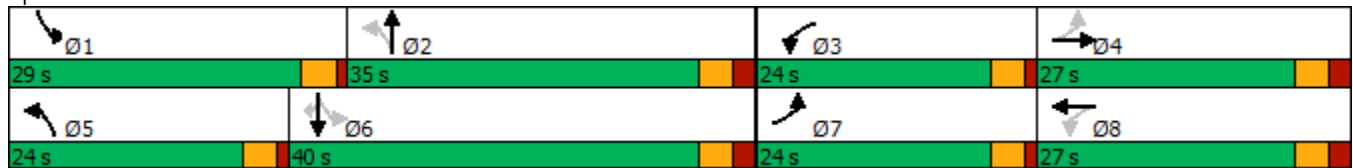


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.59	1.14		0.77	0.78		0.45	0.59		0.55	0.42	0.25
Control Delay	28.4	110.2		37.7	36.2		20.1	34.5		22.4	30.6	31.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	28.4	110.2		37.7	36.2		20.1	34.5		22.4	30.6	31.3
LOS	C	F		D	D		C	C		C	C	C
Approach Delay		102.1			36.5			30.2			27.8	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)	47	~328		86	194		62	110		70	72	28
Queue Length 95th (ft)	99	#487		#186	#315		116	182		129	126	71
Internal Link Dist (ft)		689			394			691			561	
Turn Bay Length (ft)	96			118			304			106		106
Base Capacity (vph)	372	1085		387	1263		510	1004		522	1123	396
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.37	1.14		0.60	0.78		0.35	0.42		0.38	0.26	0.16

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 89.6
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 58.3
 Intersection LOS: E
 Intersection Capacity Utilization 86.2%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Atlantic St & Tresser Blvd



Lanes, Volumes, Timings
4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕↕↕		↖	↕↕↕		↖	↕↕		↖	↕↕	↖
Traffic Volume (vph)	190	1160	320	100	640	50	190	610	100	100	330	180
Future Volume (vph)	190	1160	320	100	640	50	190	610	100	100	330	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	10	12	10	11	9	10	10	11
Storage Length (ft)	200		0	300		0	160		0	171		148
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	0.98			1.00		0.97	0.99		0.99		0.94
Frt		0.968			0.989			0.979				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1496	4190	0	1501	4175	0	1501	3031	0	1501	2973	1351
Flt Permitted	0.246			0.145			0.388			0.209		
Satd. Flow (perm)	382	4190	0	229	4175	0	597	3031	0	328	2973	1272
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		74			13							
Link Speed (mph)		30			30			25				25
Link Distance (ft)		557			937			520				749
Travel Time (s)		12.7			21.3			14.2				20.4
Confl. Peds. (#/hr)	40		77	77		40	44		28	28		44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	2%	1%	3%	0%	1%	1%	0%	1%	2%	4%
Adj. Flow (vph)	202	1234	340	106	681	53	202	649	106	106	351	191
Shared Lane Traffic (%)												
Lane Group Flow (vph)	202	1574	0	106	734	0	202	755	0	106	351	191
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		8
Detector Phase	1	6		5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	11.0	29.0		11.0	29.0		11.0	31.0		11.0	31.0	31.0
Total Split (s)	16.0	34.0		16.0	34.0		16.0	31.0		16.0	31.0	31.0
Total Split (%)	16.5%	35.1%		16.5%	35.1%		16.5%	32.0%		16.5%	32.0%	32.0%
Maximum Green (s)	12.0	30.0		12.0	30.0		12.0	27.0		12.0	27.0	27.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min		None	None		None	None	None
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Dont Walk (s)		18.0			18.0			20.0			20.0	20.0
Pedestrian Calls (#/hr)		38			20			14			22	22
Act Effect Green (s)	39.6	31.1		35.6	26.5		34.4	25.8		29.5	20.7	20.7
Actuated g/C Ratio	0.47	0.37		0.42	0.31		0.40	0.30		0.35	0.24	0.24

Lanes, Volumes, Timings
4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018

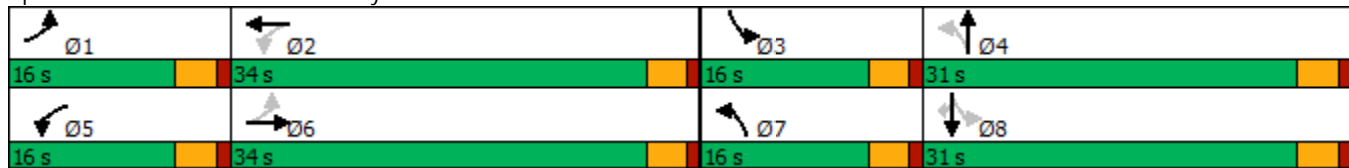


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.64	1.00		0.46	0.56		0.57	0.82		0.45	0.49	0.62
Control Delay	25.5	51.5		21.2	27.2		24.0	38.1		22.5	30.3	38.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	25.5	51.5		21.2	27.2		24.0	38.1		22.5	30.3	38.8
LOS	C	D		C	C		C	D		C	C	D
Approach Delay		48.6			26.4			35.1			31.5	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	67	~363		33	126		73	210		36	88	95
Queue Length 95th (ft)	#128	#513		67	176		130	#343		72	135	172
Internal Link Dist (ft)		477			857			440			669	
Turn Bay Length (ft)	200			300			160			171		148
Base Capacity (vph)	342	1581		290	1536		374	1013		298	979	419
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.59	1.00		0.37	0.48		0.54	0.75		0.36	0.36	0.46

Intersection Summary

Area Type: CBD
 Cycle Length: 97
 Actuated Cycle Length: 85
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 38.5
 Intersection LOS: D
 Intersection Capacity Utilization 84.8%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Canal St/Greyrock Pl & Tresser Blvd



Lanes, Volumes, Timings
5: Greenwich Ave & Richmond Hill Ave

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	80	180	60	60	150	40	30	420	110	20	170	80
Future Volume (vph)	80	180	60	60	150	40	30	420	110	20	170	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	11	12	12	11	12
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			0.99			0.99	
Frt		0.975			0.978			0.974			0.960	
Flt Protected		0.988			0.988			0.997			0.996	
Satd. Flow (prot)	0	1603	0	0	1691	0	0	1592	0	0	1520	0
Flt Permitted		0.864			0.855			0.975			0.949	
Satd. Flow (perm)	0	1395	0	0	1461	0	0	1555	0	0	1447	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			363			811			931	
Travel Time (s)		12.3			9.9			22.1			25.4	
Confl. Peds. (#/hr)	15		9	9		15	12		8	8		12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	8%	2%	5%	0%	0%	0%	1%	0%	3%	3%
Adj. Flow (vph)	86	194	65	65	161	43	32	452	118	22	183	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	345	0	0	269	0	0	602	0	0	291	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		8.0	22.0		23.0	23.0		23.0	23.0	
Total Split (s)	23.0	23.0		8.0	31.0		34.0	34.0		34.0	34.0	
Total Split (%)	35.4%	35.4%		12.3%	47.7%		52.3%	52.3%		52.3%	52.3%	
Maximum Green (s)	19.0	19.0		4.0	27.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	4	4		8	8		4	4		6	6	
Act Effct Green (s)		18.4			18.4			30.1			30.1	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
v/c Ratio		0.76			0.57			0.73			0.38	
Control Delay		29.1			20.9			18.0			10.3	
Queue Delay		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
 5: Greenwich Ave & Richmond Hill Ave

06/07/2018

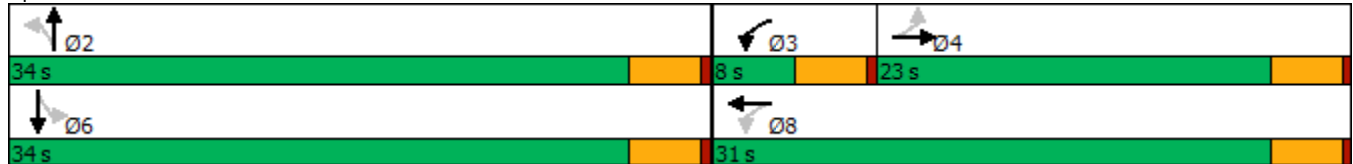


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		29.1			20.9			18.0			10.3	
LOS		C			C			B			B	
Approach Delay		29.1			20.9			18.0			10.3	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		102			73			143			53	
Queue Length 95th (ft)		#186			135			#345			114	
Internal Link Dist (ft)		372			283			731			851	
Turn Bay Length (ft)												
Base Capacity (vph)		487			700			828			770	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.71			0.38			0.73			0.38	

Intersection Summary

Area Type:	CBD
Cycle Length:	65
Actuated Cycle Length:	56.5
Natural Cycle:	65
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	19.6
Intersection LOS:	B
Intersection Capacity Utilization:	74.4%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 5: Greenwich Ave & Richmond Hill Ave



Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑	↗	↙	↑↑			↑↑	↗
Traffic Volume (vph)	0	0	0	120	60	320	260	860	0	0	590	660
Future Volume (vph)	0	0	0	120	60	320	260	860	0	0	590	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	11	16	12	12	12	11	11	11
Storage Length (ft)	0		0	0		780	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor				0.96		0.91						0.85
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1494	1621	1373	1624	3217	0	0	2935	1391
Flt Permitted				0.950			0.231					
Satd. Flow (perm)	0	0	0	1436	1621	1249	395	3217	0	0	2935	1178
Right Turn on Red				Yes		Yes			Yes			Yes
Satd. Flow (RTOR)						69						624
Link Speed (mph)		25			25			25				25
Link Distance (ft)		677			1043			258				338
Travel Time (s)		18.5			28.4			7.0				9.2
Confl. Peds. (#/hr)	41		20	20		41	42		56	56		42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	16%	2%	20%	0%	1%	2%	2%	7%	1%
Adj. Flow (vph)	0	0	0	122	61	327	265	878	0	0	602	673
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	122	61	327	265	878	0	0	602	673
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2				6
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2				6
Switch Phase												
Minimum Initial (s)				20.0	20.0	20.0	5.0	20.0				5.0
Minimum Split (s)				29.0	29.0	29.0	10.0	25.0				22.0
Total Split (s)				60.0	60.0	60.0	25.0	50.0				25.0
Total Split (%)				54.5%	54.5%	54.5%	22.7%	45.5%				22.7%
Maximum Green (s)				55.0	55.0	55.0	20.0	45.0				20.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0				2.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0				0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0				5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0	0.2				2.0
Recall Mode				None	None	None	None	Min				Min
Walk Time (s)				7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)				10.0	10.0	10.0		10.0				10.0
Pedestrian Calls (#/hr)				20	20	20		28				21
Act Effect Green (s)				23.9	23.9	23.9	40.6	40.6				20.3
Actuated g/C Ratio				0.32	0.32	0.32	0.54	0.54				0.27

Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

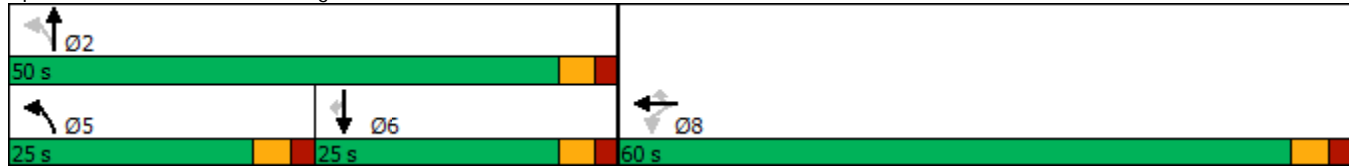


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.27	0.12	0.73	0.57	0.50			0.75	0.87
Control Delay				21.1	19.1	28.7	15.5	12.6			34.4	18.1
Queue Delay				0.0	0.0	0.0	0.3	1.0			0.0	0.0
Total Delay				21.1	19.1	28.7	15.8	13.6			34.4	18.1
LOS				C	B	C	B	B			C	B
Approach Delay					25.7			14.1			25.8	
Approach LOS					C			B			C	
Queue Length 50th (ft)				41	20	104	53	106			123	16
Queue Length 95th (ft)				85	47	209	139	227			#279	#267
Internal Link Dist (ft)		597			963			178			258	
Turn Bay Length (ft)						780						
Base Capacity (vph)				1074	1212	951	549	1968			798	774
Starvation Cap Reductn				0	0	0	51	774			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.11	0.05	0.34	0.53	0.74			0.75	0.87

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 74.6
 Natural Cycle: 65
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 21.2 Intersection LOS: C
 Intersection Capacity Utilization 118.7% ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Washington Blvd & N. State St



Lanes, Volumes, Timings

7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	130	750	300	220	140	10	230	320	250	70
Future Volume (vph)	130	750	300	220	140	10	230	320	250	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	11	11	10	11	11
Storage Length (ft)		0		0		0			75	
Storage Lanes		2		0		1			1	
Taper Length (ft)		25				25				
Lane Util. Factor	0.95	0.97	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor		1.00	0.96			0.96			0.91	
Frt			0.937						0.850	
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	2991	2727	0	0	1556	3141	2973	1276	0
Flt Permitted		0.950				0.417				
Satd. Flow (perm)	0	2980	2727	0	0	653	3141	2973	1157	0
Right Turn on Red				No						No
Satd. Flow (RTOR)										
Link Speed (mph)			25				25	28		
Link Distance (ft)			1150				217	771		
Travel Time (s)			31.4				5.9	18.8		
Confl. Peds. (#/hr)	2			89	39	39			39	39
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	2%	1%	6%	1%	0%	0%	2%	2%	39%
Adj. Flow (vph)	143	824	330	242	154	11	253	352	275	77
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	967	572	0	0	165	253	352	352	0
Turn Type	Split	Split	NA		pm+pt	pm+pt	NA	NA	Perm	
Protected Phases	8	8	8		5	5	2	6		
Permitted Phases					2	2			6	
Detector Phase	8	8	8		5	5	2	6	6	
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0		5.0	5.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0	24.0		9.0	9.0	24.0	24.0	24.0	
Total Split (s)	38.0	38.0	38.0		9.0	9.0	33.0	24.0	24.0	
Total Split (%)	53.5%	53.5%	53.5%		12.7%	12.7%	46.5%	33.8%	33.8%	
Maximum Green (s)	34.0	34.0	34.0		5.0	5.0	29.0	20.0	20.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0				0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0				4.0	4.0	4.0	
Lead/Lag					Lead	Lead		Lag	Lag	
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None		None	None	Max	Max	Max	
Walk Time (s)	5.0	5.0	5.0				5.0	5.0	5.0	
Flash Dont Walk (s)	15.0	15.0	15.0				15.0	15.0	15.0	
Pedestrian Calls (#/hr)	45	45	45				3	20	20	
Act Effect Green (s)		31.3	31.3			29.1	29.1	20.1	20.1	
Actuated g/C Ratio		0.46	0.46			0.42	0.42	0.29	0.29	

Lanes, Volumes, Timings
 7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018

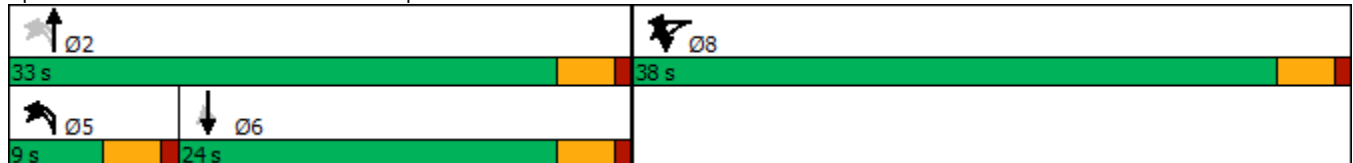


Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
v/c Ratio		0.71	0.46			0.48	0.19	0.40	1.04	
Control Delay		18.1	14.0			19.3	13.5	21.9	88.7	
Queue Delay		0.0	0.0			3.9	0.0	0.0	0.0	
Total Delay		18.1	14.0			23.2	13.5	21.9	88.7	
LOS		B	B			C	B	C	F	
Approach Delay			16.6				17.3	55.3		
Approach LOS			B				B	E		
Queue Length 50th (ft)		158	82			46	36	65	~176	
Queue Length 95th (ft)		222	121			87	59	102	#328	
Internal Link Dist (ft)			1070				137	691		
Turn Bay Length (ft)									75	
Base Capacity (vph)		1491	1359			344	1335	872	339	
Starvation Cap Reductn		0	0			110	0	0	0	
Spillback Cap Reductn		0	0			0	0	0	0	
Storage Cap Reductn		0	0			0	0	0	0	
Reduced v/c Ratio		0.65	0.42			0.71	0.19	0.40	1.04	

Intersection Summary


















Area Type: CBD
 Cycle Length: 71
 Actuated Cycle Length: 68.5
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 26.9
 Intersection LOS: C
 Intersection Capacity Utilization 72.5%
 ICU Level of Service C
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 7: I-95 SB On-Ramp & Atlantic St & N. State St



Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	310	790	200	220	700	0	0	590	160
Future Volume (vph)	0	0	0	310	790	200	220	700	0	0	590	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					1.00		1.00					1.00
Frt					0.977							0.968
Flt Protected					0.988		0.950					
Satd. Flow (prot)	0	0	0	0	5340	0	1624	3217	0	0	2967	0
Flt Permitted					0.988		0.136					
Satd. Flow (perm)	0	0	0	0	5340	0	232	3217	0	0	2967	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												30
Link Speed (mph)		25			25			25				25
Link Distance (ft)		1150			792			189				520
Travel Time (s)		31.4			21.6			5.2				14.2
Confl. Peds. (#/hr)	23					23	11		3	3		11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	0%	1%	0%	0%	2%	2%
Adj. Flow (vph)	0	0	0	326	832	211	232	737	0	0	621	168
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1369	0	232	737	0	0	789	0
Turn Type				Split	NA		pm+pt	NA				NA
Protected Phases				8	8		5	2				6
Permitted Phases							2					
Detector Phase				8	8		5	2				6
Switch Phase												
Minimum Initial (s)				10.0	10.0		5.0	25.0				25.0
Minimum Split (s)				49.0	49.0		9.0	49.0				49.0
Total Split (s)				49.0	49.0		29.0	78.0				49.0
Total Split (%)				38.6%	38.6%		22.8%	61.4%				38.6%
Maximum Green (s)				45.0	45.0		25.0	74.0				45.0
Yellow Time (s)				3.0	3.0		3.0	3.0				3.0
All-Red Time (s)				1.0	1.0		1.0	1.0				1.0
Lost Time Adjust (s)					0.0		0.0	0.0				0.0
Total Lost Time (s)					4.0		4.0	4.0				4.0
Lead/Lag							Lead					Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				5.0	5.0		0.5	0.2				0.2
Recall Mode				None	None		None	Min				Min
Walk Time (s)				20.0	20.0			25.0				25.0
Flash Dont Walk (s)				25.0	25.0			20.0				20.0
Pedestrian Calls (#/hr)				11	11			1				6
Act Effect Green (s)					43.7		50.3	50.3				30.8
Actuated g/C Ratio					0.43		0.49	0.49				0.30
v/c Ratio					0.60		0.71	0.46				0.86
Control Delay					25.5		32.3	17.8				43.8
Queue Delay					0.0		1.8	0.4				0.0

Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay					25.5		34.1	18.2				43.9
LOS					C		C	B				D
Approach Delay					25.5			22.0				43.9
Approach LOS					C			C				D
Queue Length 50th (ft)					182		88	164				250
Queue Length 95th (ft)					320		176	207				357
Internal Link Dist (ft)		1070			712			109				440
Turn Bay Length (ft)												
Base Capacity (vph)					2401		461	2379				1350
Starvation Cap Reductn					0		111	1016				19
Spillback Cap Reductn					0		0	0				0
Storage Cap Reductn					0		0	0				0
Reduced v/c Ratio					0.57		0.66	0.54				0.59

Intersection Summary

Area Type:	CBD
Cycle Length:	127
Actuated Cycle Length:	102.2
Natural Cycle:	110
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	29.0
Intersection LOS:	C
Intersection Capacity Utilization:	82.0%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 8: Canal St & N. State St



Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	570	120	0	0	0	0	390	340	70	240	0
Future Volume (vph)	190	570	120	0	0	0	0	390	340	70	240	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	16	10	12	12
Storage Length (ft)	210		240	0		0	0		0	200		200
Storage Lanes	1		1	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor	0.99		0.94						0.98	1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1555	3079	1351	0	0	0	0	1710	1540	1444	3185	0
Flt Permitted	0.950									0.332		
Satd. Flow (perm)	1537	3079	1271	0	0	0	0	1710	1511	503	3185	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			126						338			
Link Speed (mph)		30			25			25				25
Link Distance (ft)		711			384			138				811
Travel Time (s)		16.2			10.5			3.8				22.1
Confl. Peds. (#/hr)	3		21						3	3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	4%	2%	2%	2%	2%	0%	7%	5%	2%	2%
Adj. Flow (vph)	200	600	126	0	0	0	0	411	358	74	253	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	600	126	0	0	0	0	411	358	74	253	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		3						2			6	
Permitted Phases	3		3						2	6		
Detector Phase	3	3	3					2	2	6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	24.0	24.0	24.0					24.0	24.0	24.0	24.0	
Total Split (s)	54.0	54.0	54.0					54.0	54.0	44.0	44.0	
Total Split (%)	35.5%	35.5%	35.5%					35.5%	35.5%	28.9%	28.9%	
Maximum Green (s)	50.0	50.0	50.0					50.0	50.0	40.0	40.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Min	Min	Min	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0	13.0					13.0	13.0	13.0	13.0	
Pedestrian Calls (#/hr)	10	10	10					1	1	2	2	
Act Effect Green (s)	26.4	26.4	26.4					39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.26	0.26	0.26					0.39	0.39	0.39	0.39	

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

Lane Group	Ø4	Ø5
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	4	5
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	8.0	5.0
Minimum Split (s)	19.0	10.0
Total Split (s)	44.0	10.0
Total Split (%)	29%	7%
Maximum Green (s)	40.0	6.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	1.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	8.0	
Pedestrian Calls (#/hr)	10	
Act Effect Green (s)		
Actuated g/C Ratio		

Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.50	0.75	0.30					0.62	0.45	0.38	0.21	
Control Delay	40.1	43.4	8.3					19.5	8.7	33.9	23.4	
Queue Delay	0.0	0.0	0.0					2.2	1.6	0.0	0.0	
Total Delay	40.1	43.4	8.3					21.6	10.3	33.9	23.4	
LOS	D	D	A					C	B	C	C	
Approach Delay		37.9						16.3			25.8	
Approach LOS		D						B			C	
Queue Length 50th (ft)	115	196	0					198	88	34	57	
Queue Length 95th (ft)	223	314	49					378	165	99	114	
Internal Link Dist (ft)		631			304			58			731	
Turn Bay Length (ft)	210		240							200		
Base Capacity (vph)	811	1625	730					902	957	229	1457	
Starvation Cap Reductn	0	0	0					345	414	0	0	
Spillback Cap Reductn	0	0	0					0	0	0	19	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.25	0.37	0.17					0.74	0.66	0.32	0.18	

Intersection Summary

Area Type: CBD

Cycle Length: 152

Actuated Cycle Length: 102.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 27.7

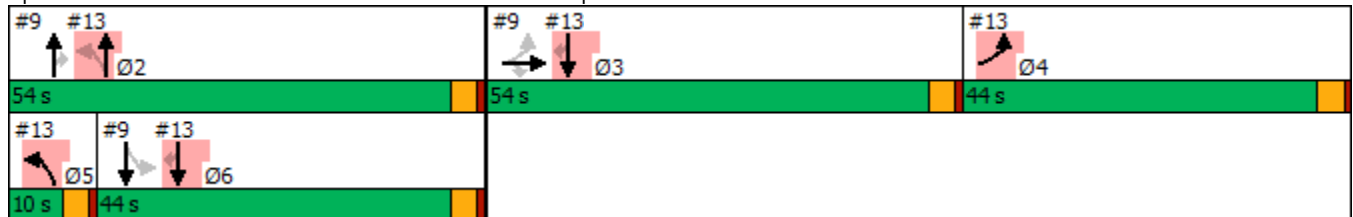
Intersection LOS: C

Intersection Capacity Utilization 61.2%

ICU Level of Service B

Analysis Period (min) 15




















Splits and Phases: 9: Greenwich Ave & I-95 NB Off Ramp/S. State St



Lane Group	Ø4	Ø5
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
10: Washington Blvd & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	280	340	0	0	0	0	760	60	170	540	0
Future Volume (vph)	360	280	340	0	0	0	0	760	60	170	540	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	12	10	10	10
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00
Fr't		0.922						0.989				
Flt Protected	0.950	0.997								0.950		
Satd. Flow (prot)	1429	2652	0	0	0	0	0	4506	0	2472	2916	0
Flt Permitted	0.950	0.997								0.950		
Satd. Flow (perm)	1429	2652	0	0	0	0	0	4506	0	2472	2916	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		223						10				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		522			566			287				258
Travel Time (s)		14.2			15.4			7.8				7.0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	10%	0%	0%	0%	0%	0%	1%	21%	19%	4%	0%
Adj. Flow (vph)	364	283	343	0	0	0	0	768	61	172	545	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	328	662	0	0	0	0	0	829	0	172	545	0
Turn Type	Split	NA						NA		Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	9.0	9.0						15.0		7.0	15.0	
Minimum Split (s)	14.0	14.0						20.0		11.0	20.0	
Total Split (s)	33.0	33.0						34.0		17.0	51.0	
Total Split (%)	28.4%	28.4%						29.3%		14.7%	44.0%	
Maximum Green (s)	28.0	28.0						29.0		13.0	46.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0		4.0	5.0	
Lead/Lag	Lag	Lag						Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						0.2		2.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	26.9	26.9						22.9		11.1	38.3	
Actuated g/C Ratio	0.27	0.27						0.23		0.11	0.39	
v/c Ratio	0.85	0.75						0.79		0.62	0.48	
Control Delay	59.6	30.3						44.0		57.0	27.1	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	28%
Maximum Green (s)	30.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	55
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

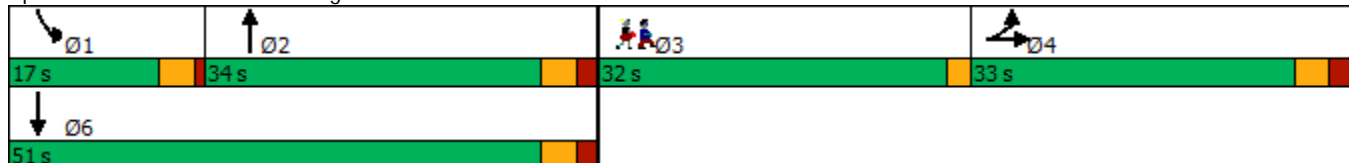


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0						0.3		0.0	0.5	
Total Delay	59.6	30.3						44.3		57.0	27.5	
LOS	E	C						D		E	C	
Approach Delay		40.0						44.3			34.6	
Approach LOS		D						D			C	
Queue Length 50th (ft)	241	159						204		59	156	
Queue Length 95th (ft)	#465	256						256		102	208	
Internal Link Dist (ft)		442			486			207			178	
Turn Bay Length (ft)	100											
Base Capacity (vph)	437	967						1436		351	1467	
Starvation Cap Reductn	0	0						170		0	488	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.75	0.68						0.65		0.49	0.56	

Intersection Summary

Area Type: CBD
 Cycle Length: 116
 Actuated Cycle Length: 99.1
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 39.9
 Intersection LOS: D
 Intersection Capacity Utilization 118.7%
 ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Washington Blvd & S. State St



Lane Group	Ø3
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Volume (vph)	70	370	70	0	0	0	0	310	70	110	340	0
Future Volume (vph)	70	370	70	0	0	0	0	310	70	110	340	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
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		
Frt		0.982						0.975				
Flt Protected		0.993								0.950		
Satd. Flow (prot)	0	1504	0	0	0	0	0	1646	0	1624	1676	0
Flt Permitted		0.993								0.366		
Satd. Flow (perm)	0	1504	0	0	0	0	0	1646	0	624	1676	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		543			708			126			217	
Travel Time (s)		14.8			19.3			3.4			5.9	
Confl. Peds. (#/hr)							20		3	3		20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	0%	2%	2%	2%	2%	1%	0%	0%	2%	2%
Adj. Flow (vph)	71	378	71	0	0	0	0	316	71	112	347	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	520	0	0	0	0	0	387	0	112	347	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4									6		
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	12.0	12.0						33.0		6.0	33.0	
Minimum Split (s)	29.0	29.0						37.0		10.0	37.0	
Total Split (s)	29.0	29.0						38.0		17.0	55.0	
Total Split (%)	34.5%	34.5%						45.2%		20.2%	65.5%	
Maximum Green (s)	25.0	25.0						34.0		13.0	51.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0						1.0		1.0	1.0	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		4.0						4.0		4.0	4.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5						0.2		1.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)	7.0	7.0						7.0			7.0	
Flash Dont Walk (s)	18.0	18.0						14.0			14.0	
Pedestrian Calls (#/hr)	0	0						1			10	
Act Effct Green (s)		25.1						33.1		41.5	41.5	
Actuated g/C Ratio		0.34						0.44		0.56	0.56	
v/c Ratio		1.03						0.53		0.26	0.37	
Control Delay		76.2						19.2		9.2	10.5	
Queue Delay		0.0						1.6		0.6	1.0	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018

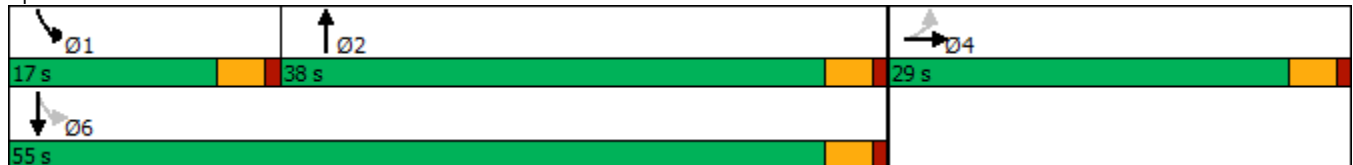


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		76.2						20.9		9.9	11.5	
LOS		E						C		A	B	
Approach Delay		76.2						20.9			11.1	
Approach LOS		E						C			B	
Queue Length 50th (ft)		-273						130		23	82	
Queue Length 95th (ft)		#471						222		45	134	
Internal Link Dist (ft)		463			628			46			137	
Turn Bay Length (ft)												
Base Capacity (vph)		505						753		521	1150	
Starvation Cap Reductn		0						209		203	548	
Spillback Cap Reductn		0						0		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		1.03						0.71		0.35	0.58	

Intersection Summary



















Area Type:	CBD
Cycle Length:	84
Actuated Cycle Length:	74.6
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.03
Intersection Signal Delay:	38.7
Intersection LOS:	D
Intersection Capacity Utilization:	74.9%
ICU Level of Service:	D
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 11: Atlatnic St/Atlantic St & S. State St



Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	440	860	220	0	0	0	0	480	330	290	610	0
Future Volume (vph)	440	860	220	0	0	0	0	480	330	290	610	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor								0.99			1.00	
Frt		0.969						0.939				
Flt Protected	0.950										0.984	
Satd. Flow (prot)	1547	3080	0	0	0	0	0	3018	0	0	3144	0
Flt Permitted	0.950										0.529	
Satd. Flow (perm)	1547	3080	0	0	0	0	0	3018	0	0	1690	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		454			543			446			189	
Travel Time (s)		12.4			14.8			12.2			4.3	
Confl. Peds. (#/hr)								16	4	4		16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	1%	7%	2%	2%	2%	0%	0%	1%	1%	2%	0%
Adj. Flow (vph)	463	905	232	0	0	0	0	505	347	305	642	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	463	1137	0	0	0	0	0	852	0	0	947	0
Turn Type	Split	NA						NA	pm+pt		NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phase	4	4						2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0						20.0		1.0	20.0	
Minimum Split (s)	31.0	31.0						35.0		5.0	35.0	
Total Split (s)	31.0	31.0						41.0		41.0	82.0	
Total Split (%)	27.4%	27.4%						36.3%		36.3%	72.6%	
Maximum Green (s)	27.0	27.0						37.0		37.0	78.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0						1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	4.0	4.0						4.0			4.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						0.2		0.2	0.2	
Recall Mode	None	None						Max		None	Max	
Walk Time (s)	7.0	7.0						7.0			7.0	
Flash Dont Walk (s)	20.0	20.0						24.0			24.0	
Pedestrian Calls (#/hr)	0	0						2			8	
Act Effct Green (s)	27.0	27.0						55.6			78.0	
Actuated g/C Ratio	0.24	0.24						0.49			0.69	
v/c Ratio	1.25	1.55						0.57			0.68	
Control Delay	172.2	284.5						23.0			10.5	
Queue Delay	0.0	0.0						1.2			2.5	
Total Delay	172.2	284.5						24.2			13.0	

Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	F	F						C				B
Approach Delay		252.0						24.2				13.0
Approach LOS		F						C				B
Queue Length 50th (ft)	~421	~613						220				143
Queue Length 95th (ft)	#624	#746						318				182
Internal Link Dist (ft)		374			463			366				109
Turn Bay Length (ft)												
Base Capacity (vph)	369	735						1486				1642
Starvation Cap Reductn	0	0						386				545
Spillback Cap Reductn	0	0						0				0
Storage Cap Reductn	0	0						0				0
Reduced v/c Ratio	1.25	1.55						0.77				0.86

Intersection Summary

Area Type:	CBD
Cycle Length:	113
Actuated Cycle Length:	113
Natural Cycle:	90
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.55
Intersection Signal Delay:	128.3
Intersection LOS:	F
Intersection Capacity Utilization:	99.0%
ICU Level of Service:	F
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 12: Canal St & S. State St



Lanes, Volumes, Timings
13: Greenwich Ave & First Stamford Pl

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
Lane Configurations								
Traffic Volume (vph)	390	120	40	340	290	70		
Future Volume (vph)	390	120	40	340	290	70		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	11	13	12		
Storage Length (ft)	0	100	0			0		
Storage Lanes	2	1	0			1		
Taper Length (ft)	25		25					
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.97			1.00		0.97		
Frt	0.965					0.850		
Flt Protected	0.963			0.995				
Satd. Flow (prot)	2904	0	0	1602	1716	1425		
Flt Permitted	0.963			0.939				
Satd. Flow (perm)	2904	0	0	1510	1716	1375		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	27					74		
Link Speed (mph)	25			25	25			
Link Distance (ft)	260			506	138			
Travel Time (s)	7.1			13.8	3.8			
Confl. Peds. (#/hr)		21	4			4		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Heavy Vehicles (%)	4%	0%	0%	3%	3%	2%		
Adj. Flow (vph)	411	126	42	358	305	74		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	537	0	0	400	305	74		
Turn Type	Prot		pm+pt	NA	NA	Perm		
Protected Phases	4		5	2	3 6		3	6
Permitted Phases			2			3 6		
Detector Phase	4		5	2	3 6	3 6		
Switch Phase								
Minimum Initial (s)	8.0		5.0	12.0			8.0	12.0
Minimum Split (s)	19.0		10.0	24.0			24.0	24.0
Total Split (s)	44.0		10.0	54.0			54.0	44.0
Total Split (%)	28.9%		6.6%	35.5%			36%	29%
Maximum Green (s)	40.0		6.0	50.0			50.0	40.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0			0.0				
Total Lost Time (s)	4.0			4.0				
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Vehicle Extension (s)	1.0		3.0	3.0			0.2	3.0
Recall Mode	None		None	Min			None	Min
Walk Time (s)	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	8.0			13.0			13.0	13.0
Pedestrian Calls (#/hr)	10			1			10	2
Act Effect Green (s)	23.5			39.4	70.1	70.1		
Actuated g/C Ratio	0.23			0.39	0.69	0.69		

Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018

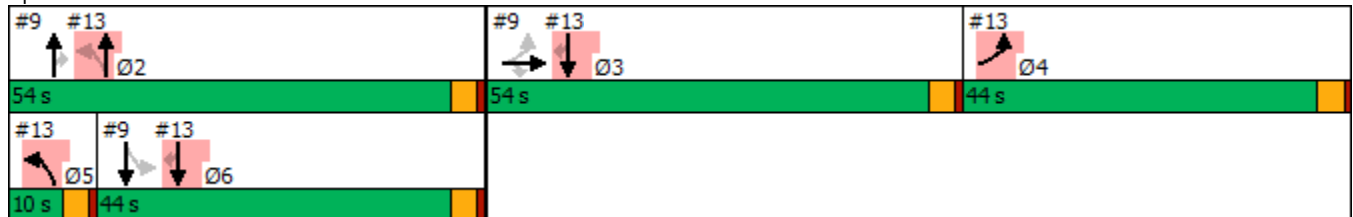


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
v/c Ratio	0.78			0.69	0.26	0.08		
Control Delay	46.1			35.8	3.0	0.2		
Queue Delay	0.5			0.0	0.2	0.2		
Total Delay	46.6			35.8	3.2	0.3		
LOS	D			D	A	A		
Approach Delay	46.6			35.8	2.6			
Approach LOS	D			D	A			
Queue Length 50th (ft)	168			215	19	0		
Queue Length 95th (ft)	279			431	51	0		
Internal Link Dist (ft)	180			426	58			
Turn Bay Length (ft)								
Base Capacity (vph)	1242			797	1556	1253		
Starvation Cap Reductn	0			0	571	762		
Spillback Cap Reductn	335			2	0	0		
Storage Cap Reductn	0			0	0	0		
Reduced v/c Ratio	0.59			0.50	0.31	0.15		

Intersection Summary















Area Type:	CBD
Cycle Length:	152
Actuated Cycle Length:	102.2
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	30.6
Intersection LOS:	C
Intersection Capacity Utilization	66.3%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 13: Greenwich Ave & First Stamford Pl



Lanes, Volumes, Timings
14: Washington Blvd & Station Pl

06/07/2018

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Lane Configurations		 	 			 	
Traffic Volume (vph)	100	360	460	90	310	570	
Future Volume (vph)	100	360	460	90	310	570	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	8	12	11	11	11	11	
Storage Length (ft)	0	40		0	0		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	0.88	0.95	0.95	1.00	0.95	
Fr _t		0.850	0.975				
Fl _t Protected	0.950				0.950		
Satd. Flow (prot)	1354	2533	3022	0	1540	3020	
Fl _t Permitted	0.950				0.316		
Satd. Flow (perm)	1354	2533	3022	0	512	3020	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)			27				
Link Speed (mph)	25		25			25	
Link Distance (ft)	385		386			287	
Travel Time (s)	10.5		10.5			7.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	4%	1%	1%	3%	2%	4%	
Adj. Flow (vph)	104	375	479	94	323	594	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	104	375	573	0	323	594	
Turn Type	Prot	pt+ov	NA		pm+pt	NA	
Protected Phases	4	4 1	2		1	6	3
Permitted Phases					6		
Detector Phase	4	4 1	2		1	6	
Switch Phase							
Minimum Initial (s)	9.0		15.0		7.0	15.0	1.0
Minimum Split (s)	13.0		20.0		11.0	20.0	20.0
Total Split (s)	20.0		26.0		16.0	42.0	20.0
Total Split (%)	24.4%		31.7%		19.5%	51.2%	24%
Maximum Green (s)	16.0		21.0		12.0	37.0	18.0
Yellow Time (s)	3.0		3.0		3.0	3.0	2.0
All-Red Time (s)	1.0		2.0		1.0	2.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	4.0		5.0		4.0	5.0	
Lead/Lag	Lag		Lag		Lead		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0		0.2		2.0	0.2	0.2
Recall Mode	None		Max		None	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							11.0
Pedestrian Calls (#/hr)							18
Act Effct Green (s)	10.8	26.9	21.8		38.9	37.9	
Actuated g/C Ratio	0.18	0.44	0.36		0.64	0.62	
v/c Ratio	0.43	0.33	0.52		0.61	0.32	
Control Delay	30.2	13.2	18.8		15.2	7.9	

Lanes, Volumes, Timings
 14: Washington Blvd & Station PI

06/07/2018

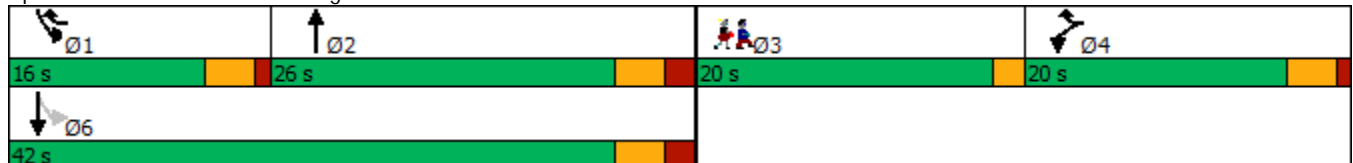


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Queue Delay	0.0	0.0	0.0		0.6	0.3	
Total Delay	30.2	13.2	18.8		15.8	8.2	
LOS	C	B	B		B	A	
Approach Delay	16.9		18.8			10.9	
Approach LOS	B		B			B	
Queue Length 50th (ft)	31	42	70		33	34	
Queue Length 95th (ft)	94	115	193		#233	148	
Internal Link Dist (ft)	305		306			207	
Turn Bay Length (ft)		40					
Base Capacity (vph)	364	1131	1098		534	1879	
Starvation Cap Reductn	0	0	0		46	681	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.29	0.33	0.52		0.66	0.50	

Intersection Summary

Area Type: CBD
 Cycle Length: 82
 Actuated Cycle Length: 60.9
 Natural Cycle: 70
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 14.6
 Intersection LOS: B
 Intersection Capacity Utilization 54.7%
 ICU Level of Service A
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Washington Blvd & Station PI



Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗	↗	↖	↗	↗
Traffic Volume (vph)	130	290	50	180	180	150	60	110	330	110	200	100
Future Volume (vph)	130	290	50	180	180	150	60	110	330	110	200	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	11	12	12	14	12	12	16
Storage Length (ft)	80		0	175		0	100		125	75		100
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.98	0.98		0.95		0.96	0.99		0.96	0.97		0.97
Frt		0.978				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1560	0	1510	1605	1391	1624	3249	1535	1593	3185	1631
Flt Permitted	0.634			0.279			0.616			0.557		
Satd. Flow (perm)	1029	1560	0	421	1605	1338	1042	3249	1467	908	3185	1574
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						163			273			109
Link Speed (mph)		25			25			25				30
Link Distance (ft)		271			522			362				194
Travel Time (s)		7.4			14.2			9.9				4.4
Confl. Peds. (#/hr)	21		102	102		21	8		19	19		8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	4%	3%	1%	0%	0%	1%	2%	2%	1%
Adj. Flow (vph)	141	315	54	196	196	163	65	120	359	120	217	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	369	0	196	196	163	65	120	359	120	217	109
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	3	8		7	4	5	1	6	7	5	2	3
Permitted Phases	8			4		4	6		6	2		2
Detector Phase	3	8		7	4	5	1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	5.0	5.0	15.0	5.0	5.0	15.0	5.0
Minimum Split (s)	10.0	34.0		10.0	31.0	10.0	10.0	24.0	10.0	10.0	34.0	10.0
Total Split (s)	20.0	35.0		20.0	35.0	20.0	20.0	35.0	20.0	20.0	35.0	20.0
Total Split (%)	18.2%	31.8%		18.2%	31.8%	18.2%	18.2%	31.8%	18.2%	18.2%	31.8%	18.2%
Maximum Green (s)	15.0	30.0		15.0	30.0	15.0	15.0	30.0	15.0	15.0	30.0	15.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	0.2	3.0	3.0	0.2	3.0
Recall Mode	None	None		None	None	None	None	Min	None	None	Min	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		22.0			19.0			12.0			22.0	
Pedestrian Calls (#/hr)		50			10			10			4	
Act Effect Green (s)	35.2	25.4		41.0	28.3	38.6	24.9	17.0	29.8	30.7	22.2	32.0
Actuated g/C Ratio	0.41	0.30		0.48	0.33	0.45	0.29	0.20	0.35	0.36	0.26	0.37

Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018

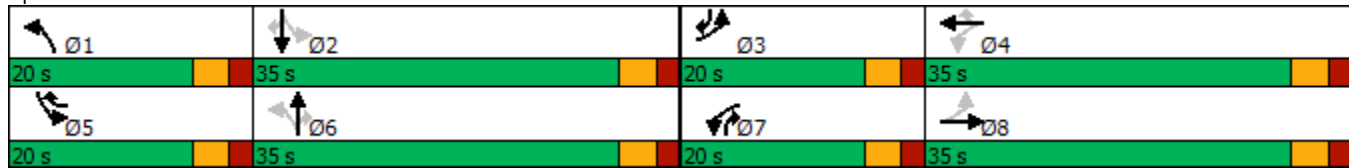


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.29	0.80		0.54	0.37	0.23	0.18	0.19	0.52	0.30	0.26	0.16
Control Delay	14.5	43.7		18.9	25.9	3.2	20.7	31.8	8.2	21.6	29.4	4.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	43.7		18.9	25.9	3.2	20.7	31.8	8.2	21.6	29.4	4.2
LOS	B	D		B	C	A	C	C	A	C	C	A
Approach Delay		35.6			16.8			14.9			21.1	
Approach LOS		D			B			B			C	
Queue Length 50th (ft)	37	179		54	76	0	25	30	31	47	55	0
Queue Length 95th (ft)	91	#385		125	173	34	53	57	100	87	91	29
Internal Link Dist (ft)		191			442			282			114	
Turn Bay Length (ft)	80			175			100		125	75		100
Base Capacity (vph)	579	557		401	602	769	483	1161	735	464	1138	759
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.66		0.49	0.33	0.21	0.13	0.10	0.49	0.26	0.19	0.14

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 85.9
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 21.9
 Intersection LOS: C
 Intersection Capacity Utilization 72.7%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 15: Atlantic St/Atlantic St & Station Pl/Dock St



Lanes, Volumes, Timings
16: Parking Garage & Station Pl

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↘	
Traffic Volume (vph)	380	10	0	190	170	30
Future Volume (vph)	380	10	0	190	170	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.980	
Flt Protected					0.959	
Satd. Flow (prot)	1863	1615	0	1863	1786	0
Flt Permitted					0.959	
Satd. Flow (perm)	1863	1615	0	1863	1786	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	385			158	174	
Travel Time (s)	10.5			4.3	4.7	
Confl. Peds. (#/hr)		112			1	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	396	10	0	198	177	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	396	10	0	198	208	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.0%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
17: Canal St & Dock St/Jefferson St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕	↗	↖	↕	
Traffic Volume (vph)	260	470	20	130	370	250	20	350	210	270	260	260
Future Volume (vph)	260	470	20	130	370	250	20	350	210	270	260	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	11	12	12	11	12	11	11	16
Storage Length (ft)	275		0	170		0	0		120	0		180
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00	1.00		0.98	0.99			1.00	0.98	1.00	0.99	
Frt		0.994			0.940				0.850		0.925	
Flt Protected	0.950			0.950				0.997		0.950		
Satd. Flow (prot)	1555	3057	0	1501	2878	0	0	3131	1439	1496	2854	0
Flt Permitted	0.157			0.377				0.902		0.416		
Satd. Flow (perm)	257	3057	0	587	2878	0	0	2832	1412	653	2854	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			148				134		277	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		855			803			934			446	
Travel Time (s)		23.3			21.9			25.5			12.2	
Confl. Peds. (#/hr)	2		31	31		2	5		5	5		5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	0%	1%	2%	2%	0%	0%	1%	5%	1%	1%
Adj. Flow (vph)	280	505	22	140	398	269	22	376	226	290	280	280
Shared Lane Traffic (%)												
Lane Group Flow (vph)	280	527	0	140	667	0	0	398	226	290	560	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pm+ov	D.P+P	NA	
Protected Phases	1	6		5	2			4	5	3	3 4	
Permitted Phases	6			2			4		4	4		
Detector Phase	1	6		5	2		4	4	5	3	3 4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		15.0	15.0	5.0	5.0		
Minimum Split (s)	10.0	33.0		10.0	33.0		30.0	30.0	10.0	10.0		
Total Split (s)	20.0	40.0		20.0	40.0		35.0	35.0	20.0	20.0		
Total Split (%)	17.4%	34.8%		17.4%	34.8%		30.4%	30.4%	17.4%	17.4%		
Maximum Green (s)	15.0	35.0		15.0	35.0		30.0	30.0	15.0	15.0		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		3.0	3.0	3.0	3.0		
Recall Mode	None	Min		None	Min		None	None	None	None		
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		21.0			21.0		18.0	18.0				
Pedestrian Calls (#/hr)		15			1		5	5				
Act Effect Green (s)	39.9	25.4		32.8	21.7			22.5	33.6	37.3	42.4	
Actuated g/C Ratio	0.42	0.27		0.35	0.23			0.24	0.36	0.40	0.45	

Lanes, Volumes, Timings
 17: Canal St & Dock St/Jefferson St

06/07/2018

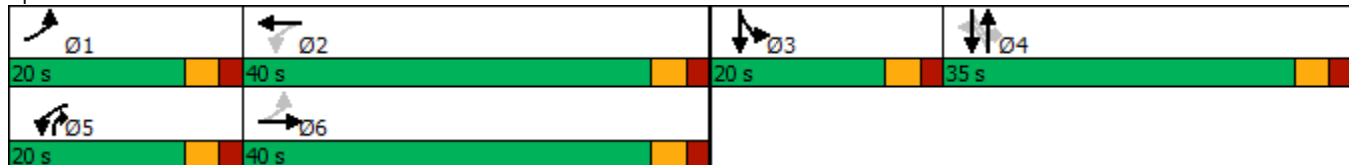


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.90	0.64		0.45	0.86			0.59	0.38	0.74	0.39	
Control Delay	56.7	35.1		22.3	39.2			36.2	9.9	32.9	9.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	56.7	35.1		22.3	39.2			36.2	9.9	32.9	9.4	
LOS	E	D		C	D			D	A	C	A	
Approach Delay		42.6			36.3			26.6			17.4	
Approach LOS		D			D			C			B	
Queue Length 50th (ft)	118	145		50	160			109	33	112	51	
Queue Length 95th (ft)	#323	230		100	248			177	90	#238	106	
Internal Link Dist (ft)		775			723			854			366	
Turn Bay Length (ft)	275			170					120			
Base Capacity (vph)	319	1159		378	1181			918	651	399	1636	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.88	0.45		0.37	0.56			0.43	0.35	0.73	0.34	

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 94.2
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 30.8
 Intersection LOS: C
 Intersection Capacity Utilization 84.5%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Canal St & Dock St/Jefferson St



Lanes, Volumes, Timings
18: Atlantic St & 2004 Parking Garage

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	110	20	20	390	400	30
Future Volume (vph)	110	20	20	390	400	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	11	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99			1.00		0.95
Frt	0.980					0.850
Flt Protected	0.959			0.998		
Satd. Flow (prot)	1601	0	0	1916	1605	1647
Flt Permitted	0.959			0.976		
Satd. Flow (perm)	1599	0	0	1873	1605	1571
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	15					31
Link Speed (mph)	25			25	25	
Link Distance (ft)	195			538	362	
Travel Time (s)	5.3			14.7	9.9	
Confl. Peds. (#/hr)	2	2	16			16
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	3%	0%
Adj. Flow (vph)	112	20	20	398	408	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	132	0	0	418	408	31
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases			2			6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	20.0	20.0	20.0
Minimum Split (s)	24.0		9.0	25.0	25.0	25.0
Total Split (s)	25.0		14.0	39.0	25.0	25.0
Total Split (%)	39.1%		21.9%	60.9%	39.1%	39.1%
Maximum Green (s)	20.0		10.0	34.0	20.0	20.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.0			5.0	5.0	5.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		None	Max	Max	Max
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	12.0				12.0	12.0
Pedestrian Calls (#/hr)	1				8	8
Act Effct Green (s)	10.2			38.2	38.2	38.2
Actuated g/C Ratio	0.18			0.69	0.69	0.69
v/c Ratio	0.43			0.32	0.37	0.03
Control Delay	21.2			6.4	7.0	2.7
Queue Delay	0.0			0.0	0.0	0.0

Lanes, Volumes, Timings
 18: Atlantic St & 2004 Parking Garage

06/07/2018

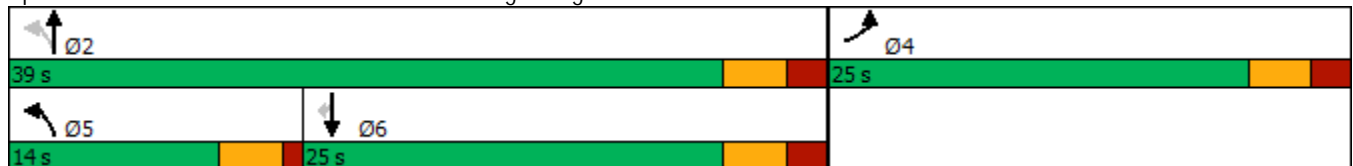


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	21.2			6.4	7.0	2.7
LOS	C			A	A	A
Approach Delay	21.2			6.4	6.7	
Approach LOS	C			A	A	
Queue Length 50th (ft)	33			50	50	0
Queue Length 95th (ft)	72			143	150	10
Internal Link Dist (ft)	115			458	282	
Turn Bay Length (ft)						
Base Capacity (vph)	591			1295	1110	1096
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.22			0.32	0.37	0.03

Intersection Summary

Area Type:	CBD
Cycle Length:	64
Actuated Cycle Length:	55.3
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	8.5
Intersection LOS:	A
Intersection Capacity Utilization	57.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 18: Atlantic St & 2004 Parking Garage



Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	40	10	180	10	120	10	340	270	220	430	20
Future Volume (vph)	90	40	10	180	10	120	10	340	270	220	430	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	9	10	10	10	10	11	11	11
Storage Length (ft)	0		0	0		85	0		0	0		142
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor	0.99	0.99			0.99	0.97		0.95			0.99	0.94
Frt		0.979				0.850		0.935				0.850
Flt Protected	0.950	0.986			0.955			0.999			0.983	
Satd. Flow (prot)	1595	1616	0	0	1416	1137	0	2616	0	0	2950	1405
Flt Permitted	0.950	0.986			0.955			0.942			0.558	
Satd. Flow (perm)	1573	1610	0	0	1406	1104	0	2466	0	0	1657	1327
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						122		197				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		312			842			315				386
Travel Time (s)		8.5			23.0			8.6				10.5
Confl. Peds. (#/hr)	13		6	6		13	21		59	59		21
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	4%	0%	5%	0%	4%	1%	4%	5%	0%
Parking (#/hr)						4						
Adj. Flow (vph)	92	41	10	184	10	122	10	347	276	224	439	20
Shared Lane Traffic (%)	23%											
Lane Group Flow (vph)	71	72	0	0	194	122	0	633	0	0	663	20
Turn Type	Split	NA		Split	NA	pm+ov	Perm	NA		pm+pt	NA	Perm
Protected Phases	7	7		8	8	1		2		1	6	
Permitted Phases						8	2			6		6
Detector Phase	7	7		8	8	8	2	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	20.0	20.0		5.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0	9.0	34.0	34.0		9.0	34.0	34.0
Total Split (s)	27.0	27.0		27.0	27.0	12.0	34.0	34.0		12.0	46.0	46.0
Total Split (%)	27.0%	27.0%		27.0%	27.0%	12.0%	34.0%	34.0%		12.0%	46.0%	46.0%
Maximum Green (s)	22.0	22.0		22.0	22.0	8.0	29.0	29.0		8.0	41.0	41.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0	2.0	2.0		1.0	2.0	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	4.0		5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Recall Mode	None	None		None	None	None	Min	Min		None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		22.0	22.0			22.0	22.0
Pedestrian Calls (#/hr)	3	3		6	6		30	30			10	10
Act Effect Green (s)	12.4	12.4			15.8	25.2		26.1			38.7	38.7

Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018

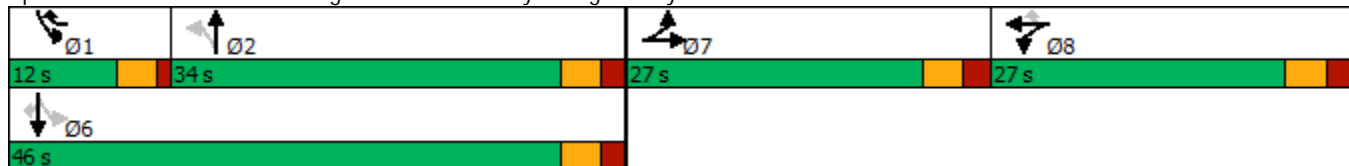


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.16	0.16			0.20	0.32		0.33			0.50	0.50
v/c Ratio	0.28	0.28			0.68	0.28		0.66			0.70	0.03
Control Delay	35.8	35.8			44.5	6.1		20.6			22.1	14.6
Queue Delay	0.0	0.0			0.0	0.0		0.1			0.0	0.0
Total Delay	35.8	35.8			44.5	6.1		20.8			22.1	14.6
LOS	D	D			D	A		C			C	B
Approach Delay		35.8			29.7			20.8			21.9	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	35	35			94	0		94			108	5
Queue Length 95th (ft)	80	81			189	38		202			#246	22
Internal Link Dist (ft)		232			762			235			306	
Turn Bay Length (ft)						85						142
Base Capacity (vph)	470	477			418	485		1080			1033	730
Starvation Cap Reductn	0	0			0	0		54			0	0
Spillback Cap Reductn	0	0			0	0		0			0	0
Storage Cap Reductn	0	0			0	0		0			0	0
Reduced v/c Ratio	0.15	0.15			0.46	0.25		0.62			0.64	0.03

Intersection Summary

Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 78.1
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 24.0
 Intersection LOS: C
 Intersection Capacity Utilization 77.0%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: Washington Blvd & Gateway Garage/Henry St



Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↗
Traffic Volume (vph)	220	240	20	10	120	20	30	160	40	20	120	220
Future Volume (vph)	220	240	20	10	120	20	30	160	40	20	120	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	10	10	10
Storage Length (ft)	0		0	0		0	0		0	0		340
Storage Lanes	0		0	0		0	0		0	0		1
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		0.97			0.99			0.98			1.00	0.90
Frt		0.994			0.982			0.976				0.850
Flt Protected		0.978			0.997			0.993			0.993	
Satd. Flow (prot)	0	1609	0	0	1343	0	0	1413	0	0	1383	1343
Flt Permitted		0.978			0.997			0.945			0.938	
Satd. Flow (perm)	0	1568	0	0	1339	0	0	1334	0	0	1301	1212
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			8			11				224
Link Speed (mph)		25			25			25				25
Link Distance (ft)		842			669			1254				538
Travel Time (s)		23.0			18.2			34.2				14.7
Confl. Peds. (#/hr)	27		34	34		27	31		21	21		31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	3%	0%	0%	6%	0%	0%	2%	3%	0%	1%	1%
Parking (#/hr)					4			4				4
Adj. Flow (vph)	224	245	20	10	122	20	31	163	41	20	122	224
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	489	0	0	152	0	0	235	0	0	142	224
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	Perm
Protected Phases	4	4		3	3			2				6
Permitted Phases							2			6		6
Detector Phase	4	4		3	3		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	22.5
Total Split (s)	32.0	32.0		32.0	32.0		28.0	28.0		28.0	28.0	28.0
Total Split (%)	34.8%	34.8%		34.8%	34.8%		30.4%	30.4%		30.4%	30.4%	30.4%
Maximum Green (s)	27.5	27.5		27.5	27.5		23.5	23.5		23.5	23.5	23.5
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)		4.5			4.5			4.5			4.5	4.5
Lead/Lag	Lag	Lag		Lead	Lead							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Max	Max		Max	Max		Min	Min		Min	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	3	3		6	6		30	30		10	10	10
Act Effect Green (s)		27.6			27.6			18.8			18.8	18.8

Lanes, Volumes, Timings
 20: Atlantic St & Henry St

06/07/2018

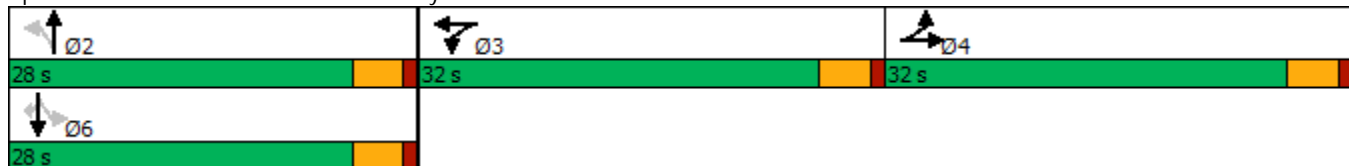


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio		0.32			0.32			0.21			0.21	0.21
v/c Ratio		0.96			0.36			0.80			0.51	0.51
Control Delay		63.9			25.9			51.1			36.7	8.6
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		63.9			25.9			51.1			36.7	8.6
LOS		E			C			D			D	A
Approach Delay		63.9			25.9			51.1			19.5	
Approach LOS		E			C			D			B	
Queue Length 50th (ft)		268			62			117			69	0
Queue Length 95th (ft)		#497			121			#207			127	57
Internal Link Dist (ft)		762			589			1174			458	
Turn Bay Length (ft)												340
Base Capacity (vph)		508			428			367			350	490
Starvation Cap Reductn		0			0			0			0	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.96			0.36			0.64			0.41	0.46

Intersection Summary

Area Type: CBD
 Cycle Length: 92
 Actuated Cycle Length: 87.5
 Natural Cycle: 75
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 43.7
 Intersection LOS: D
 Intersection Capacity Utilization 76.2%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 20: Atlantic St & Henry St



Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	0	320	10	10	10	100	270	0	0	290	330
Future Volume (vph)	340	0	320	10	10	10	100	270	0	0	290	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	12	12	12	12	11	12	12	10	10
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		0.85		0.95			0.99				0.90
Frt			0.850		0.955							0.850
Flt Protected	0.950				0.984			0.987				
Satd. Flow (prot)	1540	0	1364	0	1592	0	0	3092	0	0	1520	1292
Flt Permitted	0.950				0.984			0.724				
Satd. Flow (perm)	1516	0	1158	0	1521	0	0	2245	0	0	1520	1168
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					10							344
Link Speed (mph)		25			25			25				25
Link Distance (ft)		369			194			789				315
Travel Time (s)		10.1			5.3			21.5				8.6
Confl. Peds. (#/hr)	9		45	45		9	26		176	176		26
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	3%	0%	0%	0%	1%	0%	4%	0%	5%	5%
Adj. Flow (vph)	354	0	333	10	10	10	104	281	0	0	302	344
Shared Lane Traffic (%)												
Lane Group Flow (vph)	354	0	333	0	30	0	0	385	0	0	302	344
Turn Type	Prot		Perm	Perm	NA		Perm	NA			NA	pm+ov
Protected Phases	4				3			2			6	4
Permitted Phases			4	3			2					6
Detector Phase	4		4	3	3		2	2			6	4
Switch Phase												
Minimum Initial (s)	7.0		7.0	4.0	4.0		20.0	20.0			20.0	7.0
Minimum Split (s)	24.0		24.0	22.0	22.0		27.0	27.0			27.0	24.0
Total Split (s)	30.0		30.0	22.0	22.0		55.0	55.0			55.0	30.0
Total Split (%)	28.0%		28.0%	20.6%	20.6%		51.4%	51.4%			51.4%	28.0%
Maximum Green (s)	24.0		24.0	18.0	18.0		49.0	49.0			49.0	24.0
Yellow Time (s)	4.0		4.0	3.5	3.5		4.0	4.0			4.0	4.0
All-Red Time (s)	2.0		2.0	0.5	0.5		2.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)	6.0		6.0		4.0			6.0			6.0	6.0
Lead/Lag	Lag		Lag	Lead	Lead							Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes							Yes
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode	None		None	None	None		Min	Min			Min	None
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		14.0	14.0			14.0	11.0
Pedestrian Calls (#/hr)	22		22	5	5		88	88			13	22
Act Effct Green (s)	24.7		24.7		8.0			22.4			22.4	47.2
Actuated g/C Ratio	0.38		0.38		0.12			0.35			0.35	0.73

Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018

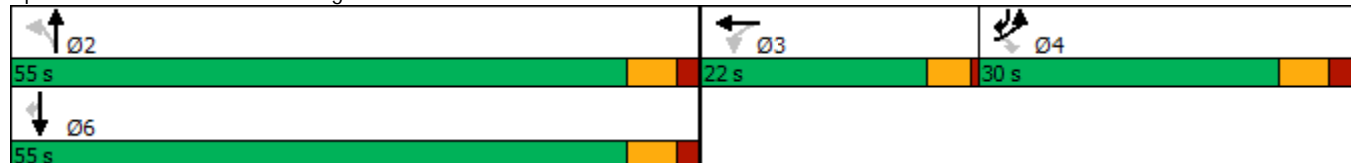


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.60		0.76		0.15			0.50			0.58	0.35
Control Delay	25.5		34.8		23.0			20.9			24.3	1.6
Queue Delay	0.0		0.0		0.0			0.0			0.0	0.0
Total Delay	25.5		34.8		23.0			20.9			24.3	1.6
LOS	C		C		C			C			C	A
Approach Delay		30.0			23.0			20.9			12.2	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	86		88		6			51			79	0
Queue Length 95th (ft)	#332		#364		32			133			222	24
Internal Link Dist (ft)		289			114			709			235	
Turn Bay Length (ft)	140											
Base Capacity (vph)	586		441		441			1746			1182	989
Starvation Cap Reductn	0		0		0			0			33	4
Spillback Cap Reductn	0		0		0			0			0	0
Storage Cap Reductn	0		0		0			0			0	0
Reduced v/c Ratio	0.60		0.76		0.07			0.22			0.26	0.35

Intersection Summary

Area Type: CBD
 Cycle Length: 107
 Actuated Cycle Length: 64.9
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 21.3 Intersection LOS: C
 Intersection Capacity Utilization 75.7% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 21: Washington Blvd & Pulaski St



Lanes, Volumes, Timings
 22: Greenwich Ave & Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Traffic Volume (vph)	250	400	0	0	340	120	0	0	0	270	0	160
Future Volume (vph)	250	400	0	0	340	120	0	0	0	270	0	160
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	10
Storage Length (ft)	0		0	0		0	0		0	0		150
Storage Lanes	0		0	0		0	0		0	0		1
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												
Frt						0.965						0.850
Flt Protected	0.981									0.950		
Satd. Flow (prot)	0	1806	0	0	1587	0	0	1676	0	0	1593	1330
Flt Permitted	0.981									0.950		
Satd. Flow (perm)	0	1806	0	0	1587	0	0	1676	0	0	1593	1330
Link Speed (mph)	25							30		25		
Link Distance (ft)	474							251		506		
Travel Time (s)	12.9							5.7		13.8		
Confl. Peds. (#/hr)	19									1		1
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96
Heavy Vehicles (%)	4%	1%	2%	2%	5%	1%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	260	417	0	0	354	125	0	0	0	281	0	167
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	677	0	0	479	0	0	0	0	0	281	167
Sign Control	Stop							Stop		Stop		

Intersection Summary

Area Type:	CBD
Control Type:	Unsignalized
Intersection Capacity Utilization	93.4%
ICU Level of Service	F
Analysis Period (min)	15

Lanes, Volumes, Timings
23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕	↕	↕	↕	
Traffic Volume (vph)	80	40	10	70	20	100	10	190	50	230	280	30
Future Volume (vph)	80	40	10	70	20	100	10	190	50	230	280	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	11	11	11	12	11	10	11	11	11
Storage Length (ft)	0		0	0		120	0		220	250		0
Storage Lanes	0		0	0		1	0		1	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	0.98		1.00	0.92	0.95	0.98	
Frt		0.989				0.850			0.850		0.985	
Flt Protected		0.970			0.963			0.997		0.950		
Satd. Flow (prot)	0	1800	0	0	1592	1338	0	1573	1330	1510	1517	0
Flt Permitted		0.755			0.747			0.981		0.622		
Satd. Flow (perm)	0	1395	0	0	1224	1312	0	1542	1219	941	1517	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6				109			54			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		355			1254			478			789	
Travel Time (s)		9.7			34.2			13.0			21.5	
Confl. Peds. (#/hr)	7		8	8		7	94		37	37		94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%	0%	5%	2%	4%	6%	3%
Adj. Flow (vph)	87	43	11	76	22	109	11	207	54	250	304	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	98	109	0	218	54	250	337	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2				6
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	20.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	29.0	29.0	
Total Split (s)	25.0	25.0		25.0	25.0	25.0	45.0	45.0	45.0	45.0	45.0	
Total Split (%)	35.7%	35.7%		35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%	64.3%	
Maximum Green (s)	20.0	20.0		20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Recall Mode	None	None		None	None	None	Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	17.0	17.0	
Pedestrian Calls (#/hr)	4	4		3	3	3	18	18	18	47	47	
Act Effct Green (s)		16.1			16.1	16.1		27.8	27.8	27.8	27.8	
Actuated g/C Ratio		0.33			0.33	0.33		0.58	0.58	0.58	0.58	

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.30			0.24	0.21		0.24	0.07	0.46	0.38	
Control Delay		15.2			15.2	4.9		8.8	2.9	12.8	10.1	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		15.2			15.2	4.9		8.8	2.9	12.8	10.1	
LOS		B			B	A		A	A	B	B	
Approach Delay		15.2			9.8			7.6			11.3	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)		25			18	0		34	0	45	57	
Queue Length 95th (ft)		77			59	29		80	14	118	129	
Internal Link Dist (ft)		275			1174			398			709	
Turn Bay Length (ft)						120			220	250		
Base Capacity (vph)		595			519	619		1377	1095	841	1355	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.24			0.19	0.18		0.16	0.05	0.30	0.25	

Intersection Summary

Area Type:	CBD
Cycle Length:	70
Actuated Cycle Length:	48.1
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	10.7
Intersection LOS:	B
Intersection Capacity Utilization:	64.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 23: Washington Blvd & Atlantic St



Lanes, Volumes, Timings

24: Pulaski St

06/07/2018



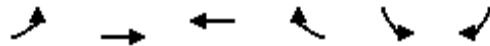
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	0	660	10	10	430	0	0	0	0	0	0	30
Future Volume (vph)	0	660	10	10	430	0	0	0	0	0	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998										0.865
Flt Protected					0.999							
Satd. Flow (prot)	0	1859	0	0	1861	0	0	1900	0	0	1644	0
Flt Permitted					0.999							
Satd. Flow (perm)	0	1859	0	0	1861	0	0	1900	0	0	1644	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		594			369			245			153	
Travel Time (s)		16.2			10.1			5.6			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	2%	2%	0%	2%	0%	2%	0%	0%	0%
Adj. Flow (vph)	0	717	11	11	467	0	0	0	0	0	0	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	728	0	0	478	0	0	0	0	0	33	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	45.3%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 25: S. State St & S. State Lot

06/07/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↑			↕	
Traffic Volume (vph)	0	965	0	0	15	0
Future Volume (vph)	0	965	0	0	15	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	3185	0	0	1593	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3185	0	0	1593	0
Link Speed (mph)		25	25		30	
Link Distance (ft)		384	522		171	
Travel Time (s)		10.5	14.2		3.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1016	0	0	16	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1016	0	0	16	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	CBD
Control Type:	Unsignalized
Intersection Capacity Utilization	39.6%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 26: Parking Garage & Station Pl

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	410	0	20	190	0	0
Future Volume (vph)	410	0	20	190	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected				0.995		
Satd. Flow (prot)	1863	0	0	1857	0	0
Flt Permitted				0.995		
Satd. Flow (perm)	1863	0	0	1857	0	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	158			343	181	
Travel Time (s)	4.3			9.4	4.9	
Confl. Peds. (#/hr)		123	123			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	427	0	21	198	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	427	0	0	219	0	0
Sign Control	Free			Free	Stop	













Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.0%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

27: Station PI

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑				
Traffic Volume (vph)	0	410	0	0	210	130	0	0	60	0	0	0
Future Volume (vph)	0	410	0	0	210	130	0	0	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.948					0.865						
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1779	0	0	1644	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1779	0	0	1644	0	0	0	0
Link Speed (mph)	25		25				25			25		
Link Distance (ft)	343		271				93			77		
Travel Time (s)	9.4		7.4				2.5			2.1		
Confl. Peds. (#/hr)						2	17	84				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%
Adj. Flow (vph)	0	436	0	0	223	138	0	0	64	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	436	0	0	361	0	0	64	0	0	0	0
Sign Control	Stop		Free				Stop			Stop		

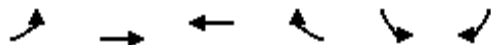
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.3%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

36: S. State St

06/07/2018

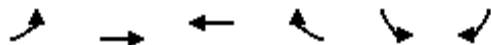


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑			↓	
Traffic Volume (vph)	0	550	0	0	970	0
Future Volume (vph)	0	550	0	0	970	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	1712	0	0	1752	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1712	0	0	1752	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					129	
Link Speed (mph)		30	30		30	
Link Distance (ft)		708	454		415	
Travel Time (s)		16.1	10.3		9.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	11%	2%	2%	3%	2%
Adj. Flow (vph)	0	561	0	0	990	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	561	0	0	990	0
Turn Type		NA			Prot	
Protected Phases		4			6	
Permitted Phases						
Minimum Split (s)		30.0			30.0	
Total Split (s)		30.0			45.0	
Total Split (%)		40.0%			60.0%	
Maximum Green (s)		26.0			41.0	
Yellow Time (s)		3.0			3.0	
All-Red Time (s)		1.0			1.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.0			4.0	
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)		26.0			41.0	
Actuated g/C Ratio		0.35			0.55	
v/c Ratio		0.95			0.97	
Control Delay		52.1			39.3	
Queue Delay		0.0			0.0	
Total Delay		52.1			39.3	
LOS		D			D	
Approach Delay		52.1			39.3	
Approach LOS		D			D	
Queue Length 50th (ft)		249			373	
Queue Length 95th (ft)		#445			#672	
Internal Link Dist (ft)		628	374		335	
Turn Bay Length (ft)						
Base Capacity (vph)		593			1016	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	

Lanes, Volumes, Timings

36: S. State St

06/07/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.95			0.97	

Intersection Summary

Area Type:	Other
Cycle Length:	75
Actuated Cycle Length:	75
Offset:	0 (0%), Referenced to phase 2: and 6:SBL, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.97
Intersection Signal Delay:	44.0
Intersection LOS:	D
Intersection Capacity Utilization	89.4%
ICU Level of Service	E
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 36: S. State St



Lanes, Volumes, Timings

1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	450	40	180	500	100	40	220	230	100	280	90
Future Volume (vph)	60	450	40	180	500	100	40	220	230	100	280	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	15	12	11	11	11	10	10	10	10	10	9
Storage Length (ft)	0		0	165		0	60		75	75		35
Storage Lanes	1		0	1		0	0		2	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00			0.99		1.00		0.96	0.98		0.98
Frt		0.988			0.975				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	1513	0	1540	2857	0	1223	1535	1317	1444	1535	1140
Flt Permitted	0.337			0.163			0.478			0.503		
Satd. Flow (perm)	531	1513	0	264	2857	0	612	1535	1259	749	1535	1115
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			26				214			69
Link Speed (mph)		30			30			25				25
Link Distance (ft)		906			553			931				521
Travel Time (s)		20.6			12.6			25.4				14.2
Confl. Peds. (#/hr)	14		13	13		14	6		20	20		6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	8%	3%	2%	7%	2%	24%	4%	3%	5%	4%	1%
Parking (#/hr)		4										4
Adj. Flow (vph)	65	484	43	194	538	108	43	237	247	108	301	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	527	0	194	646	0	43	237	247	108	301	97
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	20.0		4.0	20.0		4.0	40.0	40.0	4.0	4.0	4.0
Minimum Split (s)	7.0	24.0		7.0	24.0		7.0	44.0	44.0	7.0	24.0	24.0
Total Split (s)	9.0	47.0		12.0	50.0		7.0	44.0	44.0	7.0	44.0	44.0
Total Split (%)	8.2%	42.7%		10.9%	45.5%		6.4%	40.0%	40.0%	6.4%	40.0%	40.0%
Maximum Green (s)	6.0	43.0		9.0	46.0		4.0	40.0	40.0	4.0	40.0	40.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	0.2		1.0	0.2		1.0	3.0	3.0	1.0	3.0	3.0
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Walk Time (s)		10.0			10.0			10.0	10.0		10.0	10.0
Flash Dont Walk (s)		10.0			10.0			10.0	10.0		10.0	10.0
Pedestrian Calls (#/hr)		6			7			10	10		3	3
Act Effect Green (s)	44.5	38.1		50.8	43.1		45.2	40.2	40.2	46.5	43.2	43.2

Lanes, Volumes, Timings

1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018

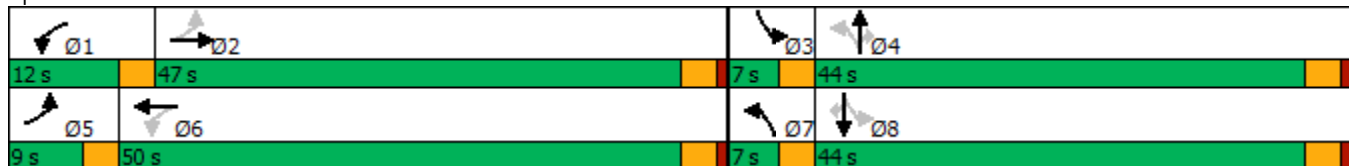


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.42	0.36		0.48	0.41		0.43	0.38	0.38	0.44	0.41	0.41
v/c Ratio	0.24	0.96		0.83	0.55		0.15	0.40	0.40	0.30	0.48	0.19
Control Delay	16.4	61.7		46.8	24.8		19.5	27.7	7.3	21.9	28.2	10.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	61.7		46.8	24.8		19.5	27.7	7.3	21.9	28.2	10.2
LOS	B	E		D	C		B	C	A	C	C	B
Approach Delay		56.7			29.9			17.5			23.4	
Approach LOS		E			C			B			C	
Queue Length 50th (ft)	23	339		74	168		17	125	15	45	167	13
Queue Length 95th (ft)	46	#547		#166	225		40	197	76	83	255	50
Internal Link Dist (ft)		826			473			851			441	
Turn Bay Length (ft)				165			60		75	75		35
Base Capacity (vph)	284	624		237	1271		286	587	613	357	631	499
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.84		0.82	0.51		0.15	0.40	0.40	0.30	0.48	0.19

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 105.1
 Natural Cycle: 95
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 32.3
 Intersection LOS: C
 Intersection Capacity Utilization 93.0%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Greenwich Ave & W. Main St/Tresser Blvd



Lanes, Volumes, Timings

2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	610	30	150	710	170	70	730	270	210	1060	110
Future Volume (vph)	120	610	30	150	710	170	70	730	270	210	1060	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	11	11	11
Storage Length (ft)	325		0	200		0	200		375	330		260
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.99	1.00		0.97	0.99		0.98		0.77	0.92		0.91
Frt		0.993			0.971				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1391	4237	0	1510	4171	0	1441	2829	1171	1468	3049	1351
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1371	4237	0	1463	4171	0	1417	2829	898	1351	3049	1236
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		667			769			581			703	
Travel Time (s)		15.2			17.5			15.8			19.2	
Confl. Peds. (#/hr)	26		40	40		26	52		157	157		52
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	9%	5%	12%	4%	4%	3%	9%	11%	20%	7%	3%	4%
Adj. Flow (vph)	124	629	31	155	732	175	72	753	278	216	1093	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	660	0	155	907	0	72	753	278	216	1093	113
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	15.0	15.0	4.0	15.0	15.0
Minimum Split (s)	8.0	21.0		8.0	21.0		8.0	27.0	27.0	8.0	27.0	27.0
Total Split (s)	15.0	25.0		19.0	29.0		12.0	43.0	43.0	23.0	54.0	54.0
Total Split (%)	13.6%	22.7%		17.3%	26.4%		10.9%	39.1%	39.1%	20.9%	49.1%	49.1%
Maximum Green (s)	11.0	21.0		15.0	25.0		8.0	39.0	39.0	19.0	50.0	50.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes								
Vehicle Extension (s)	1.0	3.0		3.0	3.0		1.0	0.2	0.2	1.0	0.2	0.2
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		10.0			10.0			16.0	16.0		16.0	16.0
Pedestrian Calls (#/hr)		20			13			75	75		25	25
Act Effect Green (s)	10.6	21.8		13.7	24.9		7.1	33.9	33.9	17.1	46.0	46.0
Actuated g/C Ratio	0.10	0.21		0.13	0.24		0.07	0.33	0.33	0.17	0.45	0.45

Lanes, Volumes, Timings
 2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.87	0.73		0.78	0.90		0.73	0.81	0.94	0.89	0.80	0.20
Control Delay	95.0	45.2		70.6	52.0		87.4	39.0	73.8	78.7	30.3	19.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.0	45.2		70.6	52.0		87.4	39.0	73.8	78.7	30.3	19.2
LOS	F	D		E	D		F	D	E	E	C	B
Approach Delay		53.1			54.7			51.0			36.7	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	88	165		107	233		51	243	182	149	336	47
Queue Length 95th (ft)	#201	#213		#209	#321		#125	318	#343	#283	426	85
Internal Link Dist (ft)		587			689			501			623	
Turn Bay Length (ft)	325			200			200		375	330		260
Base Capacity (vph)	151	899		223	1030		113	1090	346	275	1506	610
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.73		0.70	0.88		0.64	0.69	0.80	0.79	0.73	0.19

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 102.7
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 47.6
 Intersection LOS: D
 Intersection Capacity Utilization 77.5%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Washington Blvd & Tresser Blvd



Lanes, Volumes, Timings 3: Atlantic St & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↖↗		↖	↗↖↗		↖	↗↖		↖	↗↖	↗
Traffic Volume (vph)	120	960	70	290	820	70	190	290	250	190	270	30
Future Volume (vph)	120	960	70	290	820	70	190	290	250	190	270	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	10	10	10
Storage Length (ft)	96		0	118		0	304		0	106		106
Storage Lanes	1		0	1		0	1		0	1		2
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	1.00		0.99	1.00		0.93	0.94		0.95		0.87
Frt		0.990			0.988			0.931				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1274	4142	0	1496	4308	0	1496	2707	0	1486	2708	1245
Flt Permitted	0.299			0.119			0.511			0.272		
Satd. Flow (perm)	397	4142	0	186	4308	0	747	2707	0	405	2708	1088
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		769			474			771			641	
Travel Time (s)		17.5			10.8			21.0			17.5	
Confl. Peds. (#/hr)	27		40	40		27	88		98	98		88
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	19%	7%	12%	5%	3%	4%	5%	2%	0%	2%	12%	9%
Adj. Flow (vph)	124	990	72	299	845	72	196	299	258	196	278	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	1062	0	299	917	0	196	557	0	196	278	31
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	10.0		4.0	10.0	10.0
Minimum Split (s)	8.0	27.0		8.0	27.0		8.0	30.0		8.0	30.0	30.0
Total Split (s)	16.0	37.0		26.0	47.0		17.0	32.0		15.0	30.0	30.0
Total Split (%)	14.5%	33.6%		23.6%	42.7%		15.5%	29.1%		13.6%	27.3%	27.3%
Maximum Green (s)	12.0	32.0		22.0	42.0		13.0	27.0		11.0	25.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)		7.0			7.0			10.0			10.0	10.0
Flash Dont Walk (s)		15.0			15.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)		20			15			50			44	44
Act Effect Green (s)	40.2	29.7		53.8	39.2		37.1	24.4		35.1	23.4	23.4
Actuated g/C Ratio	0.39	0.29		0.53	0.38		0.36	0.24		0.34	0.23	0.23

Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018

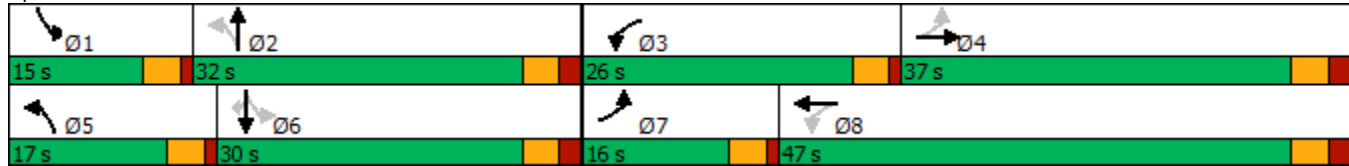


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.52	0.88		0.88	0.55		0.55	0.86		0.78	0.45	0.12
Control Delay	22.9	45.1		52.5	26.6		29.5	52.6		46.9	37.8	35.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	22.9	45.1		52.5	26.6		29.5	52.6		46.9	37.8	35.3
LOS	C	D		D	C		C	D		D	D	D
Approach Delay		42.7			32.9			46.6			41.2	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	43	261		153	177		96	197		96	89	17
Queue Length 95th (ft)	77	#339		#300	228		156	#285		#181	132	44
Internal Link Dist (ft)		689			394			691			561	
Turn Bay Length (ft)	96			118			304			106		106
Base Capacity (vph)	272	1320		384	1822		379	728		259	674	271
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.46	0.80		0.78	0.50		0.52	0.77		0.76	0.41	0.11

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 102.1
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 40.1
 Intersection LOS: D
 Intersection Capacity Utilization 87.9%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Atlantic St & Tresser Blvd



Lanes, Volumes, Timings
4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕↕↕		↖	↕↕↕		↖	↕↕		↖	↕↕	↖
Traffic Volume (vph)	90	700	170	220	1010	40	280	410	200	130	460	140
Future Volume (vph)	90	700	170	220	1010	40	280	410	200	130	460	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	10	12	10	11	9	10	10	11
Storage Length (ft)	200		0	300		0	160		0	171		148
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00	0.98		0.98	1.00		0.99	0.99		0.99		0.97
Frt		0.971			0.994			0.951				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1402	4046	0	1444	4151	0	1486	2785	0	1516	2861	1351
Flt Permitted	0.207			0.145			0.246			0.354		
Satd. Flow (perm)	304	4046	0	217	4151	0	383	2785	0	562	2861	1314
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		50			6							
Link Speed (mph)		30			30			25				25
Link Distance (ft)		557			937			520				749
Travel Time (s)		12.7			21.3			14.2				20.4
Confl. Peds. (#/hr)	18		68	68		18	13		11	11		13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	12%	6%	7%	5%	4%	9%	2%	8%	3%	0%	6%	4%
Adj. Flow (vph)	94	729	177	229	1052	42	292	427	208	135	479	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	906	0	229	1094	0	292	635	0	135	479	146
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		8
Detector Phase	1	6		5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	11.0	29.0		11.0	29.0		11.0	31.0		11.0	31.0	31.0
Total Split (s)	14.0	32.0		23.0	41.0		24.0	40.0		15.0	31.0	31.0
Total Split (%)	12.7%	29.1%		20.9%	37.3%		21.8%	36.4%		13.6%	28.2%	28.2%
Maximum Green (s)	10.0	28.0		19.0	37.0		20.0	36.0		11.0	27.0	27.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min		None	None		None	None	None
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Dont Walk (s)		18.0			18.0			20.0			20.0	20.0
Pedestrian Calls (#/hr)		34			9			5			7	7
Act Effect Green (s)	31.0	22.4		42.3	32.8		41.6	28.1		29.6	20.3	20.3
Actuated g/C Ratio	0.34	0.24		0.46	0.35		0.45	0.30		0.32	0.22	0.22

Lanes, Volumes, Timings
 4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018

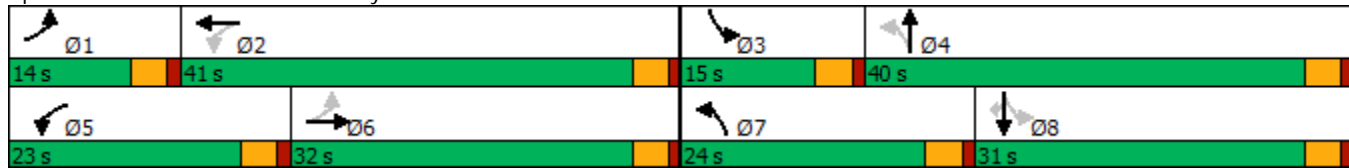


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.46	0.89		0.74	0.74		0.77	0.75		0.49	0.76	0.51
Control Delay	25.1	44.7		37.5	31.7		33.9	36.0		24.0	43.9	40.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	25.1	44.7		37.5	31.7		33.9	36.0		24.0	43.9	40.9
LOS	C	D		D	C		C	D		C	D	D
Approach Delay		42.9			32.7			35.3			39.8	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	33	193		93	225		123	187		50	152	83
Queue Length 95th (ft)	70	#268		#214	308		#241	272		95	221	152
Internal Link Dist (ft)		477			857			440			669	
Turn Bay Length (ft)	200			300			160			171		148
Base Capacity (vph)	232	1320		364	1747		423	1138		312	876	402
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.41	0.69		0.63	0.63		0.69	0.56		0.43	0.55	0.36

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 92.4
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 37.2
 Intersection LOS: D
 Intersection Capacity Utilization 82.0%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Canal St/Greyrock Pl & Tresser Blvd



Lanes, Volumes, Timings
5: Greenwich Ave & Richmond Hill Ave

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	40	120	40	120	110	20	20	410	240	20	440	50
Future Volume (vph)	40	120	40	120	110	20	20	410	240	20	440	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	11	12	12	11	12
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		0.98			0.98			0.99			1.00	
Frt		0.973			0.989			0.952			0.987	
Flt Protected		0.990			0.977			0.998			0.998	
Satd. Flow (prot)	0	1530	0	0	1610	0	0	1496	0	0	1549	0
Flt Permitted		0.904			0.687			0.979			0.964	
Satd. Flow (perm)	0	1390	0	0	1117	0	0	1467	0	0	1496	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			363			811			931	
Travel Time (s)		12.3			9.9			22.1			25.4	
Confl. Peds. (#/hr)	16		23	23		16	8		4	4		8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	5%	15%	4%	16%	0%	15%	5%	1%	7%	4%	10%
Adj. Flow (vph)	43	130	43	130	120	22	22	446	261	22	478	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	272	0	0	729	0	0	554	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		8.0	22.0		23.0	23.0		23.0	23.0	
Total Split (s)	25.0	25.0		8.0	33.0		57.0	57.0		57.0	57.0	
Total Split (%)	27.8%	27.8%		8.9%	36.7%		63.3%	63.3%		63.3%	63.3%	
Maximum Green (s)	21.0	21.0		4.0	29.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	11	11		8	8		2	2		4	4	
Act Effct Green (s)		26.2			26.2			53.1			53.1	
Actuated g/C Ratio		0.30			0.30			0.61			0.61	
v/c Ratio		0.52			0.81			0.82			0.61	
Control Delay		30.2			48.8			23.9			15.0	
Queue Delay		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
5: Greenwich Ave & Richmond Hill Ave

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		30.2			48.8			23.9			15.0	
LOS		C			D			C			B	
Approach Delay		30.2			48.8			23.9			15.0	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)		98			137			312			190	
Queue Length 95th (ft)		167			#263			#570			298	
Internal Link Dist (ft)		372			283			731			851	
Turn Bay Length (ft)												
Base Capacity (vph)		425			371			892			910	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.73			0.82			0.61	

Intersection Summary




















Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	87.3
Natural Cycle:	75
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	25.7
Intersection LOS:	C
Intersection Capacity Utilization:	87.7%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 5: Greenwich Ave & Richmond Hill Ave



Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	180	110	470	310	860	0	0	690	630
Future Volume (vph)	0	0	0	180	110	470	310	860	0	0	690	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	11	16	12	12	12	11	11	11
Storage Length (ft)	0		0	0		780	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor				1.00		0.94						0.95
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1444	1605	1297	1547	3124	0	0	2963	1391
Flt Permitted				0.950			0.199					
Satd. Flow (perm)	0	0	0	1438	1605	1220	324	3124	0	0	2963	1324
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						94						499
Link Speed (mph)		25			25			25				25
Link Distance (ft)		677			1043			258				338
Travel Time (s)		18.5			28.4			7.0				9.2
Confl. Peds. (#/hr)				2		25	9		56	56		9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	20%	3%	27%	5%	4%	2%	2%	6%	1%
Adj. Flow (vph)	0	0	0	184	112	480	316	878	0	0	704	643
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	184	112	480	316	878	0	0	704	643
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2				6
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2				6
Switch Phase												
Minimum Initial (s)				20.0	20.0	20.0	5.0	20.0				5.0
Minimum Split (s)				29.0	29.0	29.0	10.0	25.0				22.0
Total Split (s)				46.0	46.0	46.0	21.0	64.0				43.0
Total Split (%)				41.8%	41.8%	41.8%	19.1%	58.2%				39.1%
Maximum Green (s)				41.0	41.0	41.0	16.0	59.0				38.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0				2.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0				0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0				5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0	0.2				2.0
Recall Mode				None	None	None	None	Min				Min
Walk Time (s)				7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)				10.0	10.0	10.0		10.0				10.0
Pedestrian Calls (#/hr)				13	13	13		28				5
Act Effect Green (s)				37.4	37.4	37.4	52.9	52.9				31.7
Actuated g/C Ratio				0.37	0.37	0.37	0.53	0.53				0.32

Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

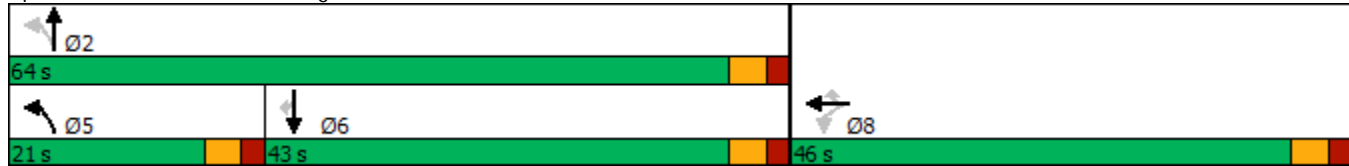


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.34	0.19	0.94	0.86	0.53			0.75	0.85
Control Delay				25.9	23.4	53.2	41.7	17.5			36.9	19.5
Queue Delay				0.0	0.0	0.0	0.3	2.3			0.0	0.0
Total Delay				25.9	23.4	53.2	41.9	19.8			36.9	19.5
LOS				C	C	D	D	B			D	B
Approach Delay					42.4			25.6			28.6	
Approach LOS					D			C			C	
Queue Length 50th (ft)				87	50	258	124	201			222	88
Queue Length 95th (ft)				153	95	#488	#287	256			291	#305
Internal Link Dist (ft)		597			963			178			258	
Turn Bay Length (ft)						780						
Base Capacity (vph)				597	667	562	368	1869			1142	817
Starvation Cap Reductn				0	0	0	2	819			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.31	0.17	0.85	0.86	0.84			0.62	0.79

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 100.5
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 30.8
 Intersection LOS: C
 Intersection Capacity Utilization 121.1%
 ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Washington Blvd & N. State St



Lanes, Volumes, Timings

7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	150	640	500	320	280	10	380	310	270	100
Future Volume (vph)	150	640	500	320	280	10	380	310	270	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	11	11	10	11	11
Storage Length (ft)		0		0		75			75	
Storage Lanes		2		0		1			1	
Taper Length (ft)		25				25				
Lane Util. Factor	0.95	0.97	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor			0.93			0.94			0.89	
Frt			0.941						0.850	
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	2935	2628	0	0	1542	3141	2861	1237	0
Flt Permitted		0.950				0.497				
Satd. Flow (perm)	0	2935	2628	0	0	762	3141	2861	1098	0
Right Turn on Red				No						No
Satd. Flow (RTOR)										
Link Speed (mph)			25				25	28		
Link Distance (ft)			1150				217	771		
Travel Time (s)			31.4				5.9	18.8		
Confl. Peds. (#/hr)				99	31	31			31	31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	4%	1%	11%	1%	25%	0%	6%	2%	45%
Adj. Flow (vph)	153	653	510	327	286	10	388	316	276	102
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	806	837	0	0	296	388	316	378	0
Turn Type	Split	Split	NA		pm+pt	pm+pt	NA	NA	Perm	
Protected Phases	8	8	8		5	5	2	6		
Permitted Phases					2	2			6	
Detector Phase	8	8	8		5	5	2	6	6	
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0		5.0	5.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0	24.0		9.0	9.0	24.0	24.0	24.0	
Total Split (s)	44.0	44.0	44.0		12.0	12.0	66.0	54.0	54.0	
Total Split (%)	40.0%	40.0%	40.0%		10.9%	10.9%	60.0%	49.1%	49.1%	
Maximum Green (s)	40.0	40.0	40.0		8.0	8.0	62.0	50.0	50.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0				0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0				4.0	4.0	4.0	
Lead/Lag					Lead	Lead		Lag	Lag	
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None		None	None	Max	Max	Max	
Walk Time (s)	5.0	5.0	5.0				5.0	5.0	5.0	
Flash Dont Walk (s)	15.0	15.0	15.0				15.0	15.0	15.0	
Pedestrian Calls (#/hr)	50	50	50				4	15	15	
Act Effect Green (s)		39.7	39.7			62.0	62.0	50.0	50.0	
Actuated g/C Ratio		0.36	0.36			0.57	0.57	0.46	0.46	

Lanes, Volumes, Timings
 7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018

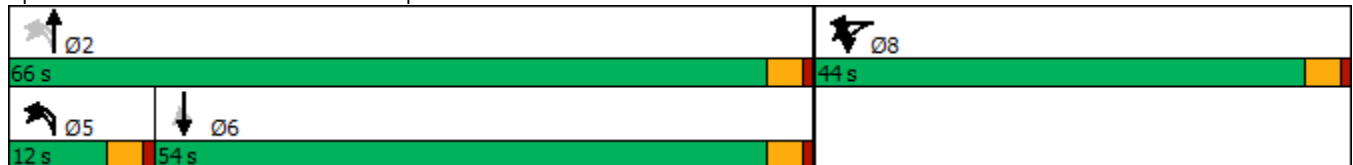


Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
v/c Ratio		0.76	0.88			0.61	0.22	0.24	0.76	
Control Delay		36.4	45.0			19.9	12.3	18.9	36.4	
Queue Delay		0.0	0.0			29.6	2.6	0.0	0.0	
Total Delay		36.4	45.0			49.5	14.8	18.9	36.4	
LOS		D	D			D	B	B	D	
Approach Delay			40.8				29.8	28.5		
Approach LOS			D				C	C		
Queue Length 50th (ft)		255	287			107	67	70	216	
Queue Length 95th (ft)		329	#403			164	94	101	#359	
Internal Link Dist (ft)			1070				137	691		
Turn Bay Length (ft)						75			75	
Base Capacity (vph)		1070	958			487	1775	1304	500	
Starvation Cap Reductn		0	0			194	1242	0	0	
Spillback Cap Reductn		0	0			0	0	0	0	
Storage Cap Reductn		0	0			0	0	0	0	
Reduced v/c Ratio		0.75	0.87			1.01	0.73	0.24	0.76	

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 109.7
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 35.5
 Intersection LOS: D
 Intersection Capacity Utilization 85.2%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 7: I-95 SB On-Ramp & Atlantic St & N. State St



Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ← ← ←		←	↑↑			↑↑	
Traffic Volume (vph)	0	0	0	340	1260	300	250	590	0	0	640	210
Future Volume (vph)	0	0	0	340	1260	300	250	590	0	0	640	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99		1.00					1.00
Frt					0.976							0.963
Flt Protected					0.991		0.950					
Satd. Flow (prot)	0	0	0	0	5206	0	1490	3065	0	0	2861	0
Flt Permitted					0.991		0.110					
Satd. Flow (perm)	0	0	0	0	5206	0	172	3065	0	0	2861	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												38
Link Speed (mph)		25			25			25				25
Link Distance (ft)		1150			792			189				520
Travel Time (s)		31.4			21.6			5.2				14.2
Confl. Peds. (#/hr)	30					30	7					7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	8%	5%	2%	9%	6%	0%	0%	5%	6%
Adj. Flow (vph)	0	0	0	354	1313	313	260	615	0	0	667	219
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1980	0	260	615	0	0	886	0
Turn Type				Split	NA		pm+pt	NA				NA
Protected Phases				8	8		5	2				6
Permitted Phases							2					
Detector Phase				8	8		5	2				6
Switch Phase												
Minimum Initial (s)				10.0	10.0		5.0	25.0				25.0
Minimum Split (s)				49.0	49.0		9.0	49.0				49.0
Total Split (s)				52.0	52.0		18.0	68.0				50.0
Total Split (%)				43.3%	43.3%		15.0%	56.7%				41.7%
Maximum Green (s)				48.0	48.0		14.0	64.0				46.0
Yellow Time (s)				3.0	3.0		3.0	3.0				3.0
All-Red Time (s)				1.0	1.0		1.0	1.0				1.0
Lost Time Adjust (s)					0.0		0.0	0.0				0.0
Total Lost Time (s)					4.0		4.0	4.0				4.0
Lead/Lag							Lead					Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				5.0	5.0		0.5	0.2				0.2
Recall Mode				None	None		None	Min				Min
Walk Time (s)				20.0	20.0			25.0				25.0
Flash Dont Walk (s)				25.0	25.0			20.0				20.0
Pedestrian Calls (#/hr)				15	15			0				4
Act Effct Green (s)					48.2		53.6	53.6				35.5
Actuated g/C Ratio					0.44		0.49	0.49				0.32
v/c Ratio					0.87		1.03	0.41				0.93
Control Delay					34.0		94.4	18.7				51.0
Queue Delay					0.0		25.4	2.3				0.1

Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018

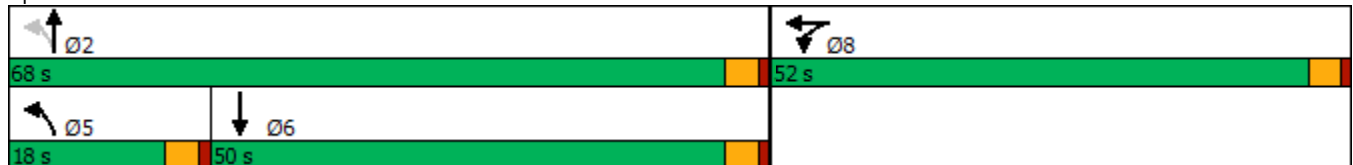


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay					34.0		119.9	21.0			51.1	
LOS					C		F	C			D	
Approach Delay					34.0			50.3			51.1	
Approach LOS					C			D			D	
Queue Length 50th (ft)					363		~150	140			304	
Queue Length 95th (ft)					#516		#334	182			389	
Internal Link Dist (ft)		1070			712			109			440	
Turn Bay Length (ft)												
Base Capacity (vph)					2285		252	1793			1225	
Starvation Cap Reductn					0		45	1010			15	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.87		1.26	0.79			0.73	

Intersection Summary

Area Type:	CBD
Cycle Length:	120
Actuated Cycle Length:	109.9
Natural Cycle:	110
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.03
Intersection Signal Delay:	41.9
Intersection LOS:	D
Intersection Capacity Utilization:	90.3%
ICU Level of Service:	E
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 8: Canal St & N. State St



Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗					↑	↗	↘	↑↑	
Traffic Volume (vph)	470	680	320	0	0	0	0	230	110	100	480	0
Future Volume (vph)	470	680	320	0	0	0	0	230	110	100	480	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	16	10	12	12
Storage Length (ft)	210		240	0		0	0		0	200		200
Storage Lanes	1		1	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor			0.97						0.99	1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1555	3079	1405	0	0	0	0	1513	1287	1378	3154	0
Flt Permitted	0.950									0.544		
Satd. Flow (perm)	1555	3079	1370	0	0	0	0	1513	1270	789	3154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			333						115			
Link Speed (mph)		30			25			25				25
Link Distance (ft)		711			384			138				811
Travel Time (s)		16.2			10.5			3.8				22.1
Confl. Peds. (#/hr)			10						1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	2%	0%	2%	2%	2%	2%	13%	28%	10%	3%	2%
Adj. Flow (vph)	490	708	333	0	0	0	0	240	115	104	500	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	490	708	333	0	0	0	0	240	115	104	500	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		3						2			6	
Permitted Phases	3		3						2	6		
Detector Phase	3	3	3					2	2	6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	24.0	24.0	24.0					24.0	24.0	24.0	24.0	
Total Split (s)	35.0	35.0	35.0					36.0	36.0	26.0	26.0	
Total Split (%)	38.9%	38.9%	38.9%					40.0%	40.0%	28.9%	28.9%	
Maximum Green (s)	31.0	31.0	31.0					32.0	32.0	22.0	22.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Min	Min	Min	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0	13.0					13.0	13.0	13.0	13.0	
Pedestrian Calls (#/hr)	5	5	5					1	1	2	2	
Act Effect Green (s)	28.5	28.5	28.5					28.8	28.8	28.8	28.8	
Actuated g/C Ratio	0.38	0.38	0.38					0.39	0.39	0.39	0.39	

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

Lane Group	Ø4	Ø5
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	4	5
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	8.0	5.0
Minimum Split (s)	19.0	10.0
Total Split (s)	19.0	10.0
Total Split (%)	21%	11%
Maximum Green (s)	15.0	6.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	1.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	8.0	
Pedestrian Calls (#/hr)	0	
Act Effect Green (s)		
Actuated g/C Ratio		

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

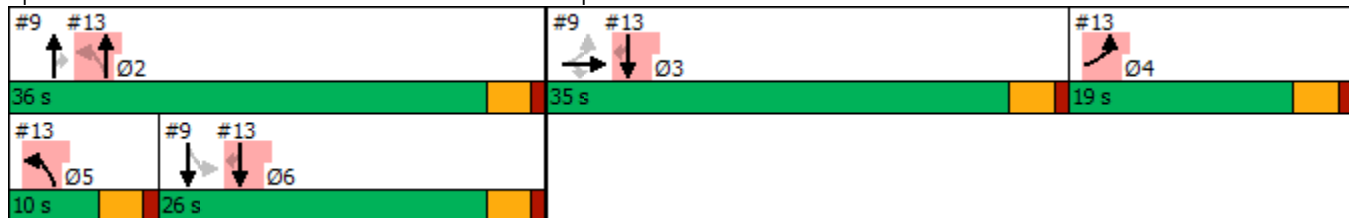


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.83	0.60	0.46					0.41	0.20	0.34	0.41	
Control Delay	36.7	22.5	4.6					6.8	1.7	22.3	19.1	
Queue Delay	0.0	0.0	0.0					1.2	0.9	0.0	0.0	
Total Delay	36.7	22.5	4.6					7.9	2.6	22.3	19.1	
LOS	D	C	A					A	A	C	B	
Approach Delay		23.1						6.2			19.7	
Approach LOS		C						A			B	
Queue Length 50th (ft)	229	154	0					30	0	37	97	
Queue Length 95th (ft)	#403	212	52					m61	m0	80	139	
Internal Link Dist (ft)		631			304			58			731	
Turn Bay Length (ft)	210		240							200		
Base Capacity (vph)	695	1377	797					698	648	323	1292	
Starvation Cap Reductn	0	0	0					267	344	0	0	
Spillback Cap Reductn	0	0	1					0	0	0	10	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.71	0.51	0.42					0.56	0.38	0.32	0.39	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 74.5
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 19.9
 Intersection LOS: B
 Intersection Capacity Utilization 62.5%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.























Splits and Phases: 9: Greenwich Ave & I-95 NB Off Ramp/S. State St



Lane Group	Ø4	Ø5
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
10: Washington Blvd & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 						  		 	 	
Traffic Volume (vph)	420	200	250	0	0	0	0	750	80	170	700	0
Future Volume (vph)	420	200	250	0	0	0	0	750	80	170	700	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	12	10	10	10
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00
Fr't		0.934						0.986				
Flt Protected	0.950	0.989								0.950		
Satd. Flow (prot)	1374	2513	0	0	0	0	0	4301	0	2451	2861	0
Flt Permitted	0.950	0.989								0.950		
Satd. Flow (perm)	1374	2513	0	0	0	0	0	4301	0	2451	2861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		199						18				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		522			566			287				258
Travel Time (s)		14.2			15.4			7.8				7.0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	24%	3%	0%	0%	0%	0%	5%	26%	20%	6%	0%
Adj. Flow (vph)	442	211	263	0	0	0	0	789	84	179	737	0
Shared Lane Traffic (%)	29%											
Lane Group Flow (vph)	314	602	0	0	0	0	0	873	0	179	737	0
Turn Type	Split	NA						NA		Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	9.0	9.0						15.0		7.0	15.0	
Minimum Split (s)	14.0	14.0						20.0		11.0	20.0	
Total Split (s)	25.0	25.0						22.0		11.0	33.0	
Total Split (%)	27.8%	27.8%						24.4%		12.2%	36.7%	
Maximum Green (s)	20.0	20.0						17.0		7.0	28.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0		4.0	5.0	
Lead/Lag	Lag	Lag						Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						0.2		2.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	20.6	20.6						17.5		7.2	28.9	
Actuated g/C Ratio	0.25	0.25						0.21		0.09	0.35	
v/c Ratio	0.93	0.78						0.95		0.85	0.75	
Control Delay	70.1	29.9						55.9		75.5	32.6	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	36%
Maximum Green (s)	30.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	60
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

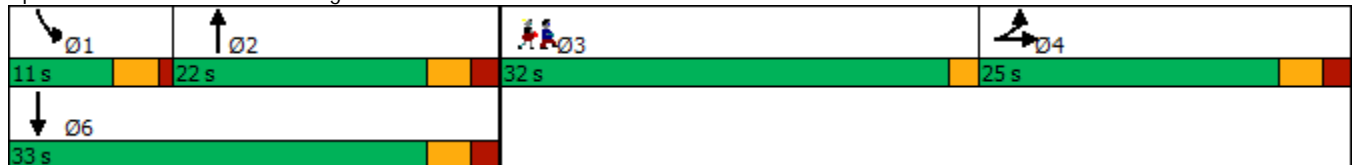


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0						0.0		0.0	12.3	
Total Delay	70.1	29.9						55.9		75.5	44.9	
LOS	E	C						E		E	D	
Approach Delay		43.7						55.9			50.8	
Approach LOS		D						E			D	
Queue Length 50th (ft)	~212	123						~198		53	203	
Queue Length 95th (ft)	#387	#219						#282		#117	#296	
Internal Link Dist (ft)		442			486			207			178	
Turn Bay Length (ft)	100											
Base Capacity (vph)	339	770						916		211	988	
Starvation Cap Reductn	0	0						0		0	236	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.93	0.78						0.95		0.85	0.98	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 83.6
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 50.1
 Intersection LOS: D
 Intersection Capacity Utilization 121.1%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Washington Blvd & S. State St



Lane Group	Ø3
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗	↘	↕↕	
Traffic Volume (vph)	80	310	70	0	0	0	0	590	80	100	360	0
Future Volume (vph)	80	310	70	0	0	0	0	590	80	100	360	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	0		0	75		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor		1.00							0.99	1.00		
Frt			0.850						0.850			
Flt Protected		0.990								0.950		
Satd. Flow (prot)	0	2721	1357	0	0	0	0	3094	1309	1533	3124	0
Flt Permitted		0.990								0.343		
Satd. Flow (perm)	0	2721	1357	0	0	0	0	3094	1292	553	3124	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		543			708			126			217	
Travel Time (s)		14.8			19.3			3.4			5.9	
Confl. Peds. (#/hr)	1						1	37		1	1	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	13%	0%	2%	2%	2%	2%	5%	11%	6%	4%	2%
Adj. Flow (vph)	82	316	71	0	0	0	0	602	82	102	367	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	398	71	0	0	0	0	602	82	102	367	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0					33.0	33.0	6.0	33.0	
Minimum Split (s)	29.0	29.0	29.0					37.0	37.0	10.0	37.0	
Total Split (s)	33.0	33.0	33.0					44.0	44.0	13.0	57.0	
Total Split (%)	36.7%	36.7%	36.7%					48.9%	48.9%	14.4%	63.3%	
Maximum Green (s)	29.0	29.0	29.0					40.0	40.0	9.0	53.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5					0.2	0.2	1.0	0.2	
Recall Mode	None	None	None					Min	Min	None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0		7.0	
Flash Dont Walk (s)	18.0	18.0	18.0					14.0	14.0		14.0	
Pedestrian Calls (#/hr)	0	0	0					1	1		17	
Act Effect Green (s)		16.6	16.6					33.5	33.5	41.6	41.6	
Actuated g/C Ratio		0.25	0.25					0.51	0.51	0.63	0.63	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.58	0.21					0.39	0.13	0.23	0.19	
Control Delay		25.9	21.8					12.6	11.9	7.1	6.0	
Queue Delay		0.0	0.0					0.1	0.0	0.7	0.1	
Total Delay		25.9	21.8					12.7	11.9	7.8	6.2	
LOS		C	C					B	B	A	A	
Approach Delay		25.3						12.6			6.5	
Approach LOS		C						B			A	
Queue Length 50th (ft)		76	23					76	17	14	27	
Queue Length 95th (ft)		121	55					145	50	39	58	
Internal Link Dist (ft)		463			628			46			137	
Turn Bay Length (ft)										75		
Base Capacity (vph)		1208	602					1894	791	481	2535	
Starvation Cap Reductn		0	0					419	0	192	1240	
Spillback Cap Reductn		0	0					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.33	0.12					0.41	0.10	0.35	0.28	

Intersection Summary




















Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	66.3
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.58
Intersection Signal Delay:	14.5
Intersection LOS:	B
Intersection Capacity Utilization:	59.1%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 11: Atlatnic St/Atlantic St & S. State St



Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	460	620	330	0	0	0	0	380	350	290	690	0
Future Volume (vph)	460	620	330	0	0	0	0	380	350	290	690	0
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor												
Frt			0.850					0.928				
Flt Protected	0.950										0.985	
Satd. Flow (prot)	1547	3065	1346	0	0	0	0	2804	0	0	3053	0
Flt Permitted	0.950										0.525	
Satd. Flow (perm)	1547	3065	1346	0	0	0	0	2804	0	0	1627	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				30
Link Distance (ft)		454			543			446				189
Travel Time (s)		12.4			14.8			12.2				4.3
Confl. Peds. (#/hr)							7					7
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	6%	8%	2%	2%	2%	2%	8%	7%	2%	6%	0%
Adj. Flow (vph)	474	639	340	0	0	0	0	392	361	299	711	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	474	639	340	0	0	0	0	753	0	0	1010	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Detector Phase	4	4	4					2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					20.0		1.0	20.0	
Minimum Split (s)	31.0	31.0	31.0					35.0		5.0	35.0	
Total Split (s)	36.0	36.0	36.0					35.0		19.0	54.0	
Total Split (%)	40.0%	40.0%	40.0%					38.9%		21.1%	60.0%	
Maximum Green (s)	32.0	32.0	32.0					31.0		15.0	50.0	
Yellow Time (s)	3.0	3.0	3.0					3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0			4.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					0.2		0.2	0.2	
Recall Mode	None	None	None					Min		None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0			7.0	
Flash Dont Walk (s)	20.0	20.0	20.0					24.0			24.0	
Pedestrian Calls (#/hr)	0	0	0					0			4	
Act Effct Green (s)	30.0	30.0	30.0					28.6			47.7	
Actuated g/C Ratio	0.35	0.35	0.35					0.33			0.56	
v/c Ratio	0.88	0.60	0.72					0.81			0.87	

Lanes, Volumes, Timings
 12: Canal St & S. State St

06/07/2018

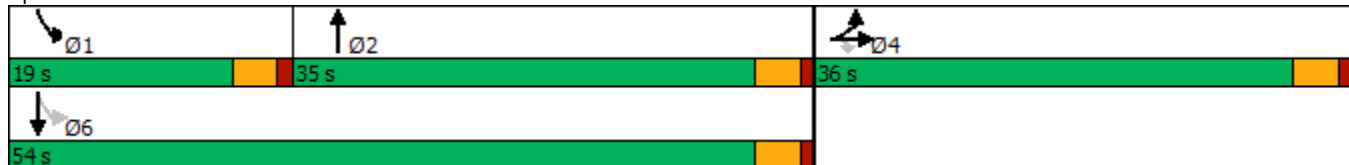


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	46.0	26.0	35.1					34.0			24.4	
Queue Delay	0.0	0.0	0.0					0.0			48.8	
Total Delay	46.0	26.0	35.1					34.0			73.2	
LOS	D	C	D					C			E	
Approach Delay		34.7						34.0			73.2	
Approach LOS		C						C			E	
Queue Length 50th (ft)	247	153	164					199			187	
Queue Length 95th (ft)	#425	210	#269					271			#278	
Internal Link Dist (ft)		374			463			366			109	
Turn Bay Length (ft)	200		200									
Base Capacity (vph)	584	1156	507					1024			1211	
Starvation Cap Reductn	0	0	0					0			328	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.81	0.55	0.67					0.74			1.14	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	85.8
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	46.6
Intersection LOS:	D
Intersection Capacity Utilization:	93.0%
ICU Level of Service:	F
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: Canal St & S. State St



Lanes, Volumes, Timings
13: Greenwich Ave & First Stamford Pl

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
Lane Configurations								
Traffic Volume (vph)	70	20	60	270	400	400		
Future Volume (vph)	70	20	60	270	400	400		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	11	13	12		
Storage Length (ft)	0	100	0			0		
Storage Lanes	2	1	0			1		
Taper Length (ft)	25		25					
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.99			1.00		0.97		
Frt	0.966					0.850		
Flt Protected	0.963			0.991				
Satd. Flow (prot)	2777	0	0	1394	1716	1439		
Flt Permitted	0.963			0.868				
Satd. Flow (perm)	2777	0	0	1220	1716	1398		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	21					417		
Link Speed (mph)	25			25	25			
Link Distance (ft)	260			506	138			
Travel Time (s)	7.1			13.8	3.8			
Confl. Peds. (#/hr)		10	4			4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Heavy Vehicles (%)	11%	6%	2%	21%	3%	1%		
Adj. Flow (vph)	73	21	63	281	417	417		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	94	0	0	344	417	417		
Turn Type	Prot		pm+pt	NA	NA	Perm		
Protected Phases	4		5	2	3 6		3	6
Permitted Phases			2			3 6		
Detector Phase	4		5	2	3 6	3 6		
Switch Phase								
Minimum Initial (s)	8.0		5.0	12.0			8.0	12.0
Minimum Split (s)	19.0		10.0	24.0			24.0	24.0
Total Split (s)	19.0		10.0	36.0			35.0	26.0
Total Split (%)	21.1%		11.1%	40.0%			39%	29%
Maximum Green (s)	15.0		6.0	32.0			31.0	22.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0			0.0				
Total Lost Time (s)	4.0			4.0				
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Vehicle Extension (s)	1.0		3.0	3.0			0.2	3.0
Recall Mode	None		None	Min			None	Min
Walk Time (s)	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	8.0			13.0			13.0	13.0
Pedestrian Calls (#/hr)	0			1			5	2
Act Effect Green (s)	8.6			28.8	62.9	62.9		
Actuated g/C Ratio	0.12			0.39	0.84	0.84		

Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018

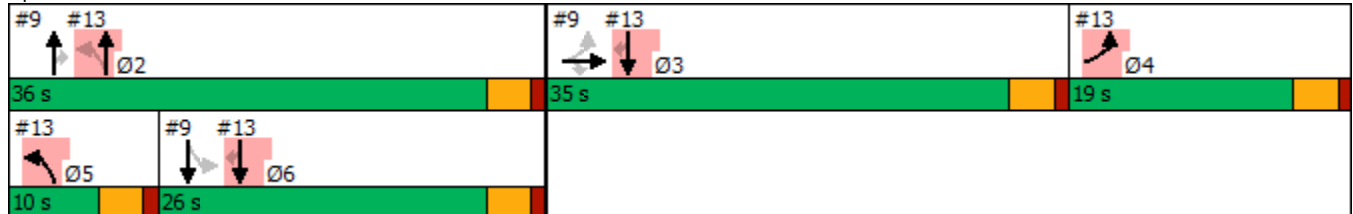


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
v/c Ratio	0.28			0.73	0.29	0.33		
Control Delay	30.8			32.4	1.1	1.4		
Queue Delay	0.0			0.0	0.3	0.3		
Total Delay	30.8			32.5	1.4	1.7		
LOS	C			C	A	A		
Approach Delay	30.8			32.5	1.6			
Approach LOS	C			C	A			
Queue Length 50th (ft)	18			150	13	12		
Queue Length 95th (ft)	41			#281	14	26		
Internal Link Dist (ft)	180			426	58			
Turn Bay Length (ft)								
Base Capacity (vph)	617			563	1450	1245		
Starvation Cap Reductn	0			0	529	351		
Spillback Cap Reductn	54			2	0	0		
Storage Cap Reductn	0			0	0	0		
Reduced v/c Ratio	0.17			0.61	0.45	0.47		

Intersection Summary















Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 74.5
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 12.1
 Intersection LOS: B
 Intersection Capacity Utilization 61.2%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 13: Greenwich Ave & First Stamford Pl



Lanes, Volumes, Timings
14: Washington Blvd & Station Pl

06/07/2018

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Lane Configurations		 	 			 	
Traffic Volume (vph)	130	240	590	90	430	520	
Future Volume (vph)	130	240	590	90	430	520	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	8	12	11	11	11	11	
Storage Length (ft)	0	40		0	0		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	0.88	0.95	0.95	1.00	0.95	
Fr _t		0.850	0.980				
Fl _t Protected	0.950				0.950		
Satd. Flow (prot)	1380	2484	2864	0	1540	2963	
Fl _t Permitted	0.950				0.202		
Satd. Flow (perm)	1380	2484	2864	0	327	2963	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)			19				
Link Speed (mph)	25		25			25	
Link Distance (ft)	385		386			287	
Travel Time (s)	10.5		10.5			7.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Heavy Vehicles (%)	2%	3%	8%	4%	2%	6%	
Adj. Flow (vph)	140	258	634	97	462	559	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	140	258	731	0	462	559	
Turn Type	Prot	pt+ov	NA		pm+pt	NA	
Protected Phases	4	4 1	2		1	6	3
Permitted Phases					6		
Detector Phase	4	4 1	2		1	6	
Switch Phase							
Minimum Initial (s)	9.0		15.0		7.0	15.0	1.0
Minimum Split (s)	13.0		20.0		11.0	20.0	20.0
Total Split (s)	14.0		30.0		26.0	56.0	20.0
Total Split (%)	15.6%		33.3%		28.9%	62.2%	22%
Maximum Green (s)	10.0		25.0		22.0	51.0	18.0
Yellow Time (s)	3.0		3.0		3.0	3.0	2.0
All-Red Time (s)	1.0		2.0		1.0	2.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	4.0		5.0		4.0	5.0	
Lead/Lag	Lag		Lag		Lead		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0		0.2		2.0	0.2	0.2
Recall Mode	None		Max		None	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							11.0
Pedestrian Calls (#/hr)							20
Act Effct Green (s)	10.1	36.4	25.4		52.8	51.8	
Actuated g/C Ratio	0.13	0.47	0.33		0.68	0.66	
v/c Ratio	0.79	0.22	0.77		0.81	0.28	
Control Delay	66.9	14.9	31.9		28.6	7.4	

Lanes, Volumes, Timings
 14: Washington Blvd & Station PI

06/07/2018



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Queue Delay	0.0	0.0	0.0		2.9	0.6	
Total Delay	66.9	14.9	31.9		31.5	8.1	
LOS	E	B	C		C	A	
Approach Delay	33.2		31.9			18.7	
Approach LOS	C		C			B	
Queue Length 50th (ft)	58	31	135		95	32	
Queue Length 95th (ft)	#192	85	#315		#383	115	
Internal Link Dist (ft)	305		306			207	
Turn Bay Length (ft)		40					
Base Capacity (vph)	179	1136	946		569	1968	
Starvation Cap Reductn	0	0	0		45	982	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.78	0.23	0.77		0.88	0.57	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 77.9
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 25.9
 Intersection LOS: C
 Intersection Capacity Utilization 66.6%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Washington Blvd & Station PI

Ø1	Ø2	Ø3	Ø4
26 s	30 s	20 s	14 s
Ø6			
56 s			

Lanes, Volumes, Timings

15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↖	↗	↖
Traffic Volume (vph)	60	150	30	220	280	330	30	280	180	100	180	160
Future Volume (vph)	60	150	30	220	280	330	30	280	180	100	180	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	11	12	12	14	12	12	16
Storage Length (ft)	80		0	175		0	100		125	75		0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.98	0.97		0.88		0.95	0.99		0.98	0.99		0.97
Frt		0.975				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1501	0	1510	1589	1313	1624	2981	1409	1490	3154	1631
Flt Permitted	0.469			0.570			0.632			0.430		
Satd. Flow (perm)	759	1501	0	795	1589	1251	1073	2981	1375	670	3154	1583
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						311			191			170
Link Speed (mph)		25			25			25				30
Link Distance (ft)		271			522			362				194
Travel Time (s)		7.4			14.2			9.9				4.4
Confl. Peds. (#/hr)	35		182	182		35	6		9	9		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	0%	4%	4%	7%	0%	9%	10%	9%	3%	1%
Adj. Flow (vph)	64	160	32	234	298	351	32	298	191	106	191	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	192	0	234	298	351	32	298	191	106	191	170
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	3	8		7	4	5	1	6	7	5	2	3
Permitted Phases	8			4		4	6		6	2		2
Detector Phase	3	8		7	4	5	1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	5.0	5.0	15.0	5.0	5.0	15.0	5.0
Minimum Split (s)	10.0	34.0		10.0	31.0	10.0	10.0	24.0	10.0	10.0	34.0	10.0
Total Split (s)	11.0	34.0		12.0	35.0	18.0	10.0	26.0	12.0	18.0	34.0	11.0
Total Split (%)	12.2%	37.8%		13.3%	38.9%	20.0%	11.1%	28.9%	13.3%	20.0%	37.8%	12.2%
Maximum Green (s)	6.0	29.0		7.0	30.0	13.0	5.0	21.0	7.0	13.0	29.0	6.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	0.2	3.0	3.0	0.2	3.0
Recall Mode	None	None		None	None	None	None	Min	None	None	Min	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		22.0			19.0			12.0			22.0	
Pedestrian Calls (#/hr)		90			17			5			3	
Act Effect Green (s)	31.8	25.9		34.1	27.0	36.8	21.3	16.3	23.4	31.1	27.4	33.4
Actuated g/C Ratio	0.40	0.33		0.43	0.34	0.46	0.27	0.21	0.30	0.39	0.35	0.42

Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018

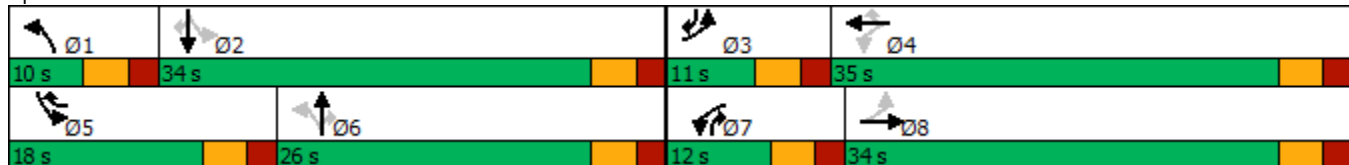


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.18	0.39		0.58	0.55	0.47	0.10	0.49	0.35	0.29	0.18	0.22
Control Delay	13.4	23.9		21.2	26.2	4.2	17.3	32.1	5.2	19.0	20.8	3.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	23.9		21.2	26.2	4.2	17.3	32.1	5.2	19.0	20.8	3.5
LOS	B	C		C	C	A	B	C	A	B	C	A
Approach Delay		21.3			16.2			21.4			14.1	
Approach LOS		C			B			C			B	
Queue Length 50th (ft)	16	71		66	116	9	10	73	0	36	33	0
Queue Length 95th (ft)	43	144		138	221	52	27	115	43	69	67	34
Internal Link Dist (ft)		191			442			282			114	
Turn Bay Length (ft)	80			175			100		125	75		
Base Capacity (vph)	368	556		405	609	797	324	800	542	399	1180	770
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.35		0.58	0.49	0.44	0.10	0.37	0.35	0.27	0.16	0.22

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 79.3
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 17.6
 Intersection LOS: B
 Intersection Capacity Utilization 73.9%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 15: Atlantic St/Atlantic St & Station Pl/Dock St



Lanes, Volumes, Timings
 16: Parking Garage & Station Pl

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↘	
Traffic Volume (vph)	260	170	0	460	10	10
Future Volume (vph)	260	170	0	460	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.932	
Flt Protected					0.976	
Satd. Flow (prot)	1863	1615	0	1863	1728	0
Flt Permitted					0.976	
Satd. Flow (perm)	1863	1615	0	1863	1728	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	385			158	174	
Travel Time (s)	10.5			4.3	4.7	
Confl. Peds. (#/hr)		118	118		10	107
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	274	179	0	484	11	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	274	179	0	484	22	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.0% ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
17: Canal St & Dock St/Jefferson St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕	↗	↖	↕	
Traffic Volume (vph)	280	420	20	120	470	200	10	190	90	330	390	270
Future Volume (vph)	280	420	20	120	470	200	10	190	90	330	390	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	11	12	12	11	12	11	11	16
Storage Length (ft)	275		0	170		0	0		120	0		180
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00	1.00		0.98	1.00			1.00	0.99	1.00	0.99	
Frt		0.993			0.955				0.850		0.939	
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	1496	2842	0	1378	2736	0	0	2802	1346	1390	2807	0
Flt Permitted	0.195			0.462				0.912		0.621		
Satd. Flow (perm)	307	2842	0	660	2736	0	0	2560	1327	907	2807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			76				94		240	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		855			803			934			446	
Travel Time (s)		23.3			21.9			25.5			12.2	
Confl. Peds. (#/hr)	2		33	33		2	11		2	2		11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	9%	20%	10%	8%	12%	29%	11%	8%	13%	3%	6%
Adj. Flow (vph)	292	438	21	125	490	208	10	198	94	344	406	281
Shared Lane Traffic (%)												
Lane Group Flow (vph)	292	459	0	125	698	0	0	208	94	344	687	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pm+ov	D.P+P	NA	
Protected Phases	1	6		5	2			4	5	3	3	4
Permitted Phases	6			2			4		4	4		
Detector Phase	1	6		5	2		4	4	5	3	3	4
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		15.0	15.0	5.0	5.0		
Minimum Split (s)	10.0	33.0		10.0	33.0		30.0	30.0	10.0	10.0		
Total Split (s)	14.0	35.0		12.0	33.0		30.0	30.0	12.0	13.0		
Total Split (%)	15.6%	38.9%		13.3%	36.7%		33.3%	33.3%	13.3%	14.4%		
Maximum Green (s)	9.0	30.0		7.0	28.0		25.0	25.0	7.0	8.0		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		3.0	3.0	3.0	3.0		
Recall Mode	None	Min		None	Min		None	None	None	None		
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		21.0			21.0		18.0	18.0				
Pedestrian Calls (#/hr)		16			1		6	6				
Act Effect Green (s)	31.6	22.5		27.3	20.3			17.5	24.5	25.6	30.7	
Actuated g/C Ratio	0.42	0.30		0.36	0.27			0.23	0.33	0.34	0.41	

Lanes, Volumes, Timings
 17: Canal St & Dock St/Jefferson St

06/07/2018

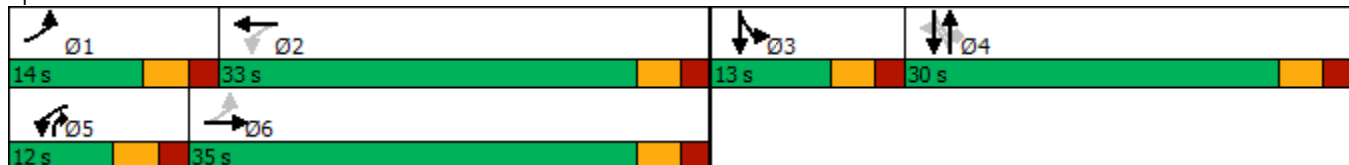


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	1.07	0.54		0.41	0.88			0.35	0.19	0.96	0.53	
Control Delay	96.7	24.6		17.8	37.1			26.6	4.9	62.2	12.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	96.7	24.6		17.8	37.1			26.6	4.9	62.2	12.7	
LOS	F	C		B	D			C	A	E	B	
Approach Delay		52.6			34.2			19.8			29.2	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)	~96	86		31	138			41	0	119	74	
Queue Length 95th (ft)	#296	153		75	238			79	29	#328	144	
Internal Link Dist (ft)		775			723			854			366	
Turn Bay Length (ft)	275			170					120			
Base Capacity (vph)	272	1148		307	1076			860	498	360	1550	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	1.07	0.40		0.41	0.65			0.24	0.19	0.96	0.44	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 75.3
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 35.7
 Intersection LOS: D
 Intersection Capacity Utilization 90.7%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Canal St & Dock St/Jefferson St



Lanes, Volumes, Timings
18: Atlantic St & 2004 Parking Garage

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	20	0	10	460	280	140
Future Volume (vph)	20	0	10	460	280	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	11	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			1.00		0.94
Fr _t						0.850
Fl _t Protected	0.950			0.999		
Satd. Flow (prot)	1624	0	0	1718	1545	1647
Fl _t Permitted	0.950			0.993		
Satd. Flow (perm)	1621	0	0	1707	1545	1551
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						151
Link Speed (mph)	25			25	25	
Link Distance (ft)	195			538	362	
Travel Time (s)	5.3			14.7	9.9	
Confl. Peds. (#/hr)	2	5	25			25
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	13%	7%	0%
Adj. Flow (vph)	22	0	11	495	301	151
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	506	301	151
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases			2			6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	20.0	20.0	20.0
Minimum Split (s)	24.0		9.0	25.0	25.0	25.0
Total Split (s)	24.0		9.0	36.0	27.0	27.0
Total Split (%)	40.0%		15.0%	60.0%	45.0%	45.0%
Maximum Green (s)	19.0		5.0	31.0	22.0	22.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.0			5.0	5.0	5.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		None	Max	Max	Max
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	12.0				12.0	12.0
Pedestrian Calls (#/hr)	3				12	12
Act Effct Green (s)	8.3			47.7	47.7	47.7
Actuated g/C Ratio	0.16			0.90	0.90	0.90
v/c Ratio	0.09			0.33	0.22	0.11
Control Delay	17.9			4.1	3.6	1.4
Queue Delay	0.0			0.0	0.0	0.0

Lanes, Volumes, Timings
 18: Atlantic St & 2004 Parking Garage

06/07/2018

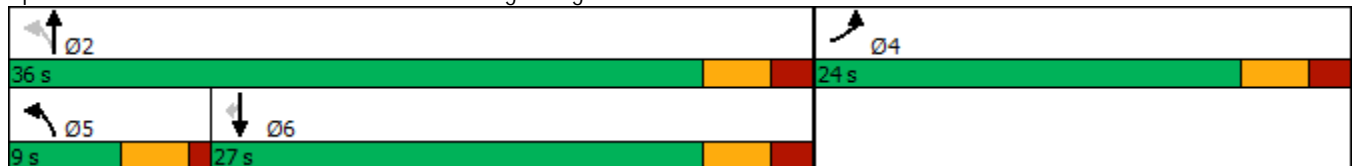


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	17.9			4.1	3.6	1.4
LOS	B			A	A	A
Approach Delay	17.9			4.1	2.8	
Approach LOS	B			A	A	
Queue Length 50th (ft)	6			0	0	0
Queue Length 95th (ft)	19			197	108	22
Internal Link Dist (ft)	115			458	282	
Turn Bay Length (ft)						
Base Capacity (vph)	587			1542	1396	1416
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.04			0.33	0.22	0.11

Intersection Summary

Area Type:	CBD
Cycle Length:	60
Actuated Cycle Length:	52.8
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.33
Intersection Signal Delay:	3.8
Intersection LOS:	A
Intersection Capacity Utilization	52.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 18: Atlantic St & 2004 Parking Garage



Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	0	190	30	120	10	550	130	100	310	240
Future Volume (vph)	10	10	0	190	30	120	10	550	130	100	310	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	9	10	10	10	10	11	11	11
Storage Length (ft)	0		0	0		85	0		0	0		142
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor	1.00	1.00			0.99	0.98		0.98			1.00	0.96
Frt						0.850		0.972				0.850
Flt Protected	0.950	0.996			0.959			0.999			0.988	
Satd. Flow (prot)	1595	1672	0	0	1403	1105	0	2673	0	0	2841	1405
Flt Permitted	0.950	0.996			0.959			0.947			0.601	
Satd. Flow (perm)	1589	1671	0	0	1389	1086	0	2533	0	0	1720	1346
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						122		29				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		312			842			315				386
Travel Time (s)		8.5			23.0			8.6				10.5
Confl. Peds. (#/hr)	4		9	9		4	13		49	49		13
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	6%	0%	8%	0%	7%	13%	13%	8%	0%
Parking (#/hr)						4						
Adj. Flow (vph)	11	11	0	213	34	135	11	618	146	112	348	270
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	10	12	0	0	247	135	0	775	0	0	460	270
Turn Type	Split	NA		Split	NA	pm+ov	Perm	NA		pm+pt	NA	Perm
Protected Phases	7	7		8	8	1		2		1	6	
Permitted Phases						8	2			6		6
Detector Phase	7	7		8	8	8	2	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	20.0	20.0		5.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0	9.0	34.0	34.0		9.0	34.0	34.0
Total Split (s)	27.0	27.0		27.0	27.0	10.0	36.0	36.0		10.0	46.0	46.0
Total Split (%)	27.0%	27.0%		27.0%	27.0%	10.0%	36.0%	36.0%		10.0%	46.0%	46.0%
Maximum Green (s)	22.0	22.0		22.0	22.0	6.0	31.0	31.0		6.0	41.0	41.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0	2.0	2.0		1.0	2.0	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	4.0		5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Recall Mode	None	None		None	None	None	Min	Min		None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		22.0	22.0			22.0	22.0
Pedestrian Calls (#/hr)	5	5		2	2		25	25			6	6
Act Effect Green (s)	12.3	12.3			17.7	25.0		29.1			39.6	39.6

Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018

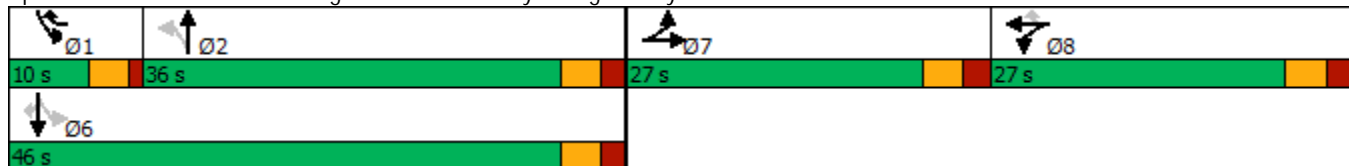


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.17	0.17			0.24	0.34		0.39			0.53	0.53
v/c Ratio	0.04	0.04			0.74	0.30		0.77			0.46	0.38
Control Delay	31.7	31.7			44.3	7.5		28.3			15.2	16.0
Queue Delay	0.0	0.0			0.0	0.0		0.6			0.0	0.2
Total Delay	31.7	31.7			44.3	7.5		28.9			15.2	16.2
LOS	C	C			D	A		C			B	B
Approach Delay		31.7			31.3			28.9			15.6	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	4	4			93	3		124			43	51
Queue Length 95th (ft)	18	22			#272	47		#368			146	198
Internal Link Dist (ft)		232			762			235			306	
Turn Bay Length (ft)						85						142
Base Capacity (vph)	497	521			437	488		1129			1079	782
Starvation Cap Reductn	0	0			0	0		111			0	116
Spillback Cap Reductn	0	0			0	0		0			0	0
Storage Cap Reductn	0	0			0	0		0			0	0
Reduced v/c Ratio	0.02	0.02			0.57	0.28		0.76			0.43	0.41

Intersection Summary

Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 74.4
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 24.3 Intersection LOS: C
 Intersection Capacity Utilization 75.8% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: Washington Blvd & Gateway Garage/Henry St



Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	130	20	10	120	20	20	270	30	20	140	180
Future Volume (vph)	120	130	20	10	120	20	20	270	30	20	140	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	10	10	10
Storage Length (ft)	150		0	150		0	150		0	150		340
Storage Lanes	1		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	0.98	1.00		1.00	0.99		0.98	0.98		0.90	0.96	
Frt		0.980			0.978			0.985			0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1354	1483	0	1464	1312	0	1533	1278	0	1444	1142	0
Flt Permitted	0.551			0.654			0.377			0.408		
Satd. Flow (perm)	770	1483	0	1006	1312	0	595	1278	0	555	1142	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			9			8			90	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		842			669			1254			538	
Travel Time (s)		23.0			18.2			34.2			14.7	
Confl. Peds. (#/hr)	12		1	1		12	19		84	84		19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	20%	12%	17%	11%	9%	0%	6%	15%	0%	5%	8%	9%
Parking (#/hr)					4			4			4	
Adj. Flow (vph)	130	141	22	11	130	22	22	293	33	22	152	196
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	163	0	11	152	0	22	326	0	22	348	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		7.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.7	23.7		23.7	23.7		9.5	23.9		9.5	23.9	
Total Split (s)	13.0	37.0		24.0	24.0		9.6	43.4		9.6	43.4	
Total Split (%)	14.4%	41.1%		26.7%	26.7%		10.7%	48.2%		10.7%	48.2%	
Maximum Green (s)	8.3	32.3		19.3	19.3		5.1	38.5		5.1	38.5	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.0	3.3		3.0	3.3	
All-Red Time (s)	1.3	1.3		1.3	1.3		1.5	1.6		1.5	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.5	4.9		4.5	4.9	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Max		Max	Max		None	Min		None	Min	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		12.0		12.0	12.0			12.0			12.0	
Pedestrian Calls (#/hr)		1		6	6			42			10	
Act Effect Green (s)	33.4	33.4		23.7	23.7		24.7	22.6		24.7	22.6	

Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018

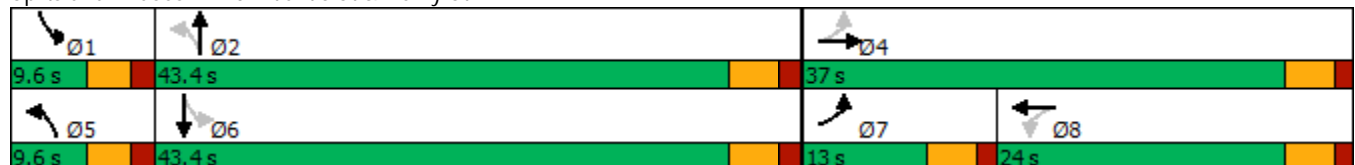


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.48	0.48		0.34	0.34		0.36	0.33		0.36	0.33	
v/c Ratio	0.30	0.23		0.03	0.33		0.08	0.77		0.08	0.80	
Control Delay	16.7	14.6		25.0	25.1		11.8	33.6		11.9	30.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.7	14.6		25.0	25.1		11.8	33.6		11.9	30.5	
LOS	B	B		C	C		B	C		B	C	
Approach Delay		15.5			25.1			32.2			29.4	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	23	27		3	40		6	106		6	87	
Queue Length 95th (ft)	96	112		19	135		17	225		17	213	
Internal Link Dist (ft)		762			589			1174			458	
Turn Bay Length (ft)	150			150			150			150		
Base Capacity (vph)	445	722		344	455		284	740		265	696	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.29	0.23		0.03	0.33		0.08	0.44		0.08	0.50	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	69.1
Natural Cycle:	70
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	26.2
Intersection LOS:	C
Intersection Capacity Utilization	56.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 20: Atlantic St & Henry St



Lanes, Volumes, Timings
21: Washington Blvd & Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	0	200	0	0	0	140	430	0	0	190	350
Future Volume (vph)	260	0	200	0	0	0	140	430	0	0	190	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	12	12	12	12	11	12	12	10	10
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.96					1.00				0.95
Frt			0.850									0.850
Flt Protected	0.950							0.988				
Satd. Flow (prot)	1415	0	1301	0	1710	0	0	2941	0	0	1451	1268
Flt Permitted	0.950							0.810				
Satd. Flow (perm)	1410	0	1246	0	1710	0	0	2400	0	0	1451	1205
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)												385
Link Speed (mph)		25			25			25				25
Link Distance (ft)		369			194			789				315
Travel Time (s)		10.1			5.3			21.5				8.6
Confl. Peds. (#/hr)	2		9	9		2	12		80	80		12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	11%	0%	8%	0%	0%	0%	4%	6%	0%	0%	10%	7%
Adj. Flow (vph)	286	0	220	0	0	0	154	473	0	0	209	385
Shared Lane Traffic (%)												
Lane Group Flow (vph)	286	0	220	0	0	0	0	627	0	0	209	385
Turn Type	Prot		Perm				Perm	NA			NA	pm+ov
Protected Phases	4				3			2			6	4
Permitted Phases			4	3			2					6
Detector Phase	4		4	3	3		2	2			6	4
Switch Phase												
Minimum Initial (s)	7.0		7.0	4.0	4.0		20.0	20.0			20.0	7.0
Minimum Split (s)	24.0		24.0	22.0	22.0		27.0	27.0			27.0	24.0
Total Split (s)	30.0		30.0	22.0	22.0		38.0	38.0			38.0	30.0
Total Split (%)	33.3%		33.3%	24.4%	24.4%		42.2%	42.2%			42.2%	33.3%
Maximum Green (s)	24.0		24.0	18.0	18.0		32.0	32.0			32.0	24.0
Yellow Time (s)	4.0		4.0	3.5	3.5		4.0	4.0			4.0	4.0
All-Red Time (s)	2.0		2.0	0.5	0.5		2.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)	6.0		6.0		4.0			6.0			6.0	6.0
Lead/Lag	Lag		Lag	Lead	Lead							Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes							Yes
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode	None		None	None	None		Min	Min			Min	None
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		14.0	14.0			14.0	11.0
Pedestrian Calls (#/hr)	4		4	1	1		40	40			6	4
Act Effect Green (s)	18.3		18.3					24.2			24.2	42.5
Actuated g/C Ratio	0.31		0.31					0.42			0.42	0.73

Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018

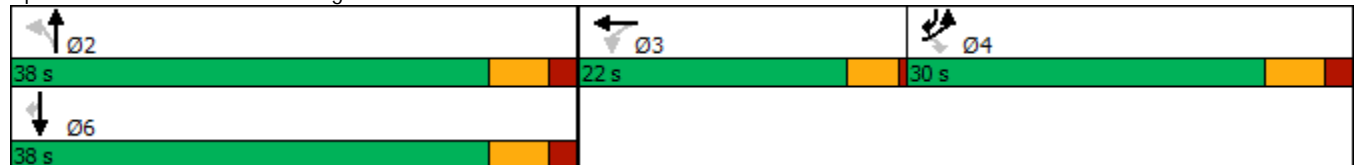


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.64		0.56					0.63			0.35	0.38
Control Delay	27.6		25.7					19.4			16.7	1.6
Queue Delay	0.0		0.0					0.0			0.0	0.0
Total Delay	27.6		25.7					19.4			16.8	1.6
LOS	C		C					B			B	A
Approach Delay		26.8						19.4			7.0	
Approach LOS		C						B			A	
Queue Length 50th (ft)	69		51					76			42	0
Queue Length 95th (ft)	#272		#196					227			150	25
Internal Link Dist (ft)		289			114			709			235	
Turn Bay Length (ft)	140											
Base Capacity (vph)	624		550					1413			854	1075
Starvation Cap Reductn	0		0					0			40	12
Spillback Cap Reductn	0		0					0			0	0
Storage Cap Reductn	0		0					0			0	0
Reduced v/c Ratio	0.46		0.40					0.44			0.26	0.36

Intersection Summary




















Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 58.2
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 17.3
 Intersection LOS: B
 Intersection Capacity Utilization 70.7%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 21: Washington Blvd & Pulaski St



Lanes, Volumes, Timings
22: Greenwich Ave & Pulaski St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	290	0	0	390	110	0	0	0	190	0	260
Future Volume (vph)	210	290	0	0	390	110	0	0	0	190	0	260
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	10
Storage Length (ft)	150		0	0		150	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		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												
Frt						0.850						0.922
Flt Protected	0.950											0.979
Satd. Flow (prot)	1464	1679	0	0	1583	1358	0	1676	0	0	1480	0
Flt Permitted	0.950											0.979
Satd. Flow (perm)	1464	1679	0	0	1583	1358	0	1676	0	0	1480	0
Link Speed (mph)		25			25			30				25
Link Distance (ft)		400			594			202				506
Travel Time (s)		10.9			16.2			4.6				13.8
Confl. Peds. (#/hr)	1											
Peak Hour Factor	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.92	0.92	0.95	0.92	0.95
Heavy Vehicles (%)	11%	12%	2%	2%	8%	7%	2%	2%	2%	2%	2%	6%
Adj. Flow (vph)	221	305	0	0	411	116	0	0	0	200	0	274
Shared Lane Traffic (%)												
Lane Group Flow (vph)	221	305	0	0	411	116	0	0	0	0	474	0
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary

Area Type:	CBD
Control Type:	Roundabout
Intersection Capacity Utilization	79.2%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↕	↗		↕	↗	↘	↘	
Traffic Volume (vph)	20	10	10	50	40	170	10	360	140	130	220	60
Future Volume (vph)	20	10	10	50	40	170	10	360	140	130	220	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	11	11	11	12	11	10	11	11	11
Storage Length (ft)	0		0	0		120	0		220	250		0
Storage Lanes	0		0	0		1	0		1	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	0.98		1.00	0.90	0.96	0.98	
Frt		0.966				0.850			0.850		0.968	
Flt Protected		0.976			0.973			0.999		0.950		
Satd. Flow (prot)	0	1354	0	0	1479	1266	0	1547	1304	1390	1444	0
Flt Permitted		0.865			0.836			0.988		0.437		
Satd. Flow (perm)	0	1196	0	0	1266	1242	0	1528	1175	615	1444	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		12				198			163			
Link Speed (mph)		25			25			25				25
Link Distance (ft)		355			1254			478				789
Travel Time (s)		9.7			34.2			13.0				21.5
Confl. Peds. (#/hr)	5		3	3		5	47		36	36		47
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	25%	20%	50%	11%	6%	11%	33%	6%	4%	13%	10%	2%
Adj. Flow (vph)	23	12	12	58	47	198	12	419	163	151	256	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	105	198	0	431	163	151	326	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2				6
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	20.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	29.0	29.0	
Total Split (s)	30.0	30.0		30.0	30.0	30.0	60.0	60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%	66.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	55.0	55.0	55.0	55.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Recall Mode	None	None		None	None	None	Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	17.0	17.0	
Pedestrian Calls (#/hr)	1	1		2	2	2	18	18	18	23	23	
Act Effect Green (s)		16.0			16.0	16.0		21.7	21.7	21.7	21.7	
Actuated g/C Ratio		0.33			0.33	0.33		0.45	0.45	0.45	0.45	

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.12			0.25	0.36		0.62	0.26	0.54	0.50	
Control Delay		10.6			14.2	4.7		14.8	3.0	18.4	12.5	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		10.6			14.2	4.7		14.8	3.0	18.4	12.5	
LOS		B			B	A		B	A	B	B	
Approach Delay		10.6			8.0			11.5			14.4	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)		6			19	0		80	0	27	56	
Queue Length 95th (ft)		26			56	33		165	22	78	120	
Internal Link Dist (ft)		275			1174			398			709	
Turn Bay Length (ft)						120			220	250		
Base Capacity (vph)		637			669	750		1508	1161	607	1425	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.07			0.16	0.26		0.29	0.14	0.25	0.23	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	47.8
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	11.7
Intersection LOS:	B
Intersection Capacity Utilization:	66.8%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 23: Washington Blvd & Atlantic St



Lanes, Volumes, Timings

24: Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	30	450	0	0	500	0	10	0	10	0	0	0
Future Volume (vph)	30	450	0	0	500	0	10	0	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t								0.932				
Fl _t Protected		0.997						0.976				
Satd. Flow (prot)	0	1859	0	0	1863	0	0	1694	0	0	1900	0
Fl _t Permitted		0.997						0.976				
Satd. Flow (perm)	0	1859	0	0	1863	0	0	1694	0	0	1900	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		594			369			245			153	
Travel Time (s)		16.2			10.1			5.6			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	2%	2%	0%	2%	0%	2%	0%	0%	0%
Adj. Flow (vph)	33	489	0	0	543	0	11	0	11	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	522	0	0	543	0	0	22	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.3%
ICU Level of Service	B
Analysis Period (min)	15

Lanes, Volumes, Timings
 25: S. State St & S. State Lot

06/07/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↑			↘	
Traffic Volume (vph)	5	869	0	0	1	0
Future Volume (vph)	5	869	0	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	3185	0	0	1593	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3185	0	0	1593	0
Link Speed (mph)		25	25		30	
Link Distance (ft)		384	522		171	
Travel Time (s)		10.5	14.2		3.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	915	0	0	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	920	0	0	1	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	CBD
Control Type:	Unsignalized
Intersection Capacity Utilization	36.9%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 26: Parking Garage & Station PI

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	230	40	30	460	0	0
Future Volume (vph)	230	40	30	460	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.980					
Flt Protected				0.997		
Satd. Flow (prot)	1831	0	0	1859	0	0
Flt Permitted				0.997		
Satd. Flow (perm)	1831	0	0	1859	0	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	158			343	181	
Travel Time (s)	4.3			9.4	4.9	
Confl. Peds. (#/hr)	44		44			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	0%	0%	2%	2%	2%
Adj. Flow (vph)	242	42	32	484	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	284	0	0	516	0	0
Sign Control	Free			Free	Stop	
















Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	47.6%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

27: Station PI

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	230	0	0	290	180	0	0	0	0	0	0
Future Volume (vph)	0	230	0	0	290	180	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.948											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1779	0	0	1900	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1779	0	0	1900	0	0	0	0
Link Speed (mph)	25				25				25		25	
Link Distance (ft)	343				271				93		77	
Travel Time (s)	9.4				7.4				2.5		2.1	
Confl. Peds. (#/hr)							105		119			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%
Adj. Flow (vph)	0	247	0	0	312	194	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	0	0	506	0	0	0	0	0	0	0
Sign Control	Stop				Free				Stop		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.1%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

36: S. State St

06/07/2018

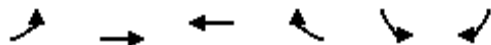


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↑↑	
Traffic Volume (vph)	0	480	0	0	930	0
Future Volume (vph)	0	480	0	0	930	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	1.00	1.00	0.97	1.00
Fr t						
Flt Protected					0.950	
Satd. Flow (prot)	0	3252	0	0	3400	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3252	0	0	3400	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					485	
Link Speed (mph)		30	30		30	
Link Distance (ft)		708	454		415	
Travel Time (s)		16.1	10.3		9.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	11%	2%	2%	3%	2%
Adj. Flow (vph)	0	490	0	0	949	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	490	0	0	949	0
Turn Type		NA			Prot	
Protected Phases		4			6	
Permitted Phases						
Detector Phase		4			6	
Switch Phase						
Minimum Initial (s)		26.0			26.0	
Minimum Split (s)		30.0			30.0	
Total Split (s)		30.0			30.0	
Total Split (%)		50.0%			50.0%	
Maximum Green (s)		26.0			26.0	
Yellow Time (s)		3.0			3.0	
All-Red Time (s)		1.0			1.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.0			4.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0			3.0	
Recall Mode		None			Max	
Act Effct Green (s)		26.0			26.0	
Actuated g/C Ratio		0.43			0.43	
v/c Ratio		0.35			0.54	
Control Delay		12.2			7.1	
Queue Delay		0.0			0.0	
Total Delay		12.2			7.1	
LOS		B			A	
Approach Delay		12.2			7.1	
Approach LOS		B			A	
Queue Length 50th (ft)		58			54	
Queue Length 95th (ft)		90			96	

Lanes, Volumes, Timings

36: S. State St

06/07/2018

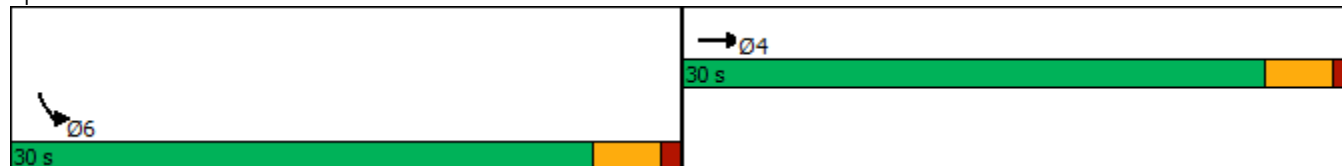


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Internal Link Dist (ft)		628	374		335	
Turn Bay Length (ft)						
Base Capacity (vph)		1409			1748	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.35			0.54	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.54
Intersection Signal Delay:	8.8
Intersection LOS:	A
Intersection Capacity Utilization	54.9%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 36: S. State St



Lanes, Volumes, Timings

1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷	↷	↶	↷	↷
Traffic Volume (vph)	90	660	70	110	660	110	70	220	230	60	130	110
Future Volume (vph)	90	660	70	110	660	110	70	220	230	60	130	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	15	12	11	11	11	10	10	10	10	10	9
Storage Length (ft)	0		0	165		0	60		75	75		35
Storage Lanes	1		0	1		0	0		2	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99			0.99		0.97		0.94	0.97		0.96
Frt		0.986			0.979				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	1564	0	1540	2937	0	1516	1596	1343	1444	1565	1118
Flt Permitted	0.237			0.079			0.637			0.511		
Satd. Flow (perm)	374	1564	0	128	2937	0	990	1596	1266	755	1565	1068
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			21				201			98
Link Speed (mph)		30			30			25				25
Link Distance (ft)		906			553			931				521
Travel Time (s)		20.6			12.6			25.4				14.2
Confl. Peds. (#/hr)	23		31	31		23	19		27	27		19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	6%	2%	4%	0%	0%	0%	1%	5%	2%	3%
Parking (#/hr)		4										4
Adj. Flow (vph)	94	688	73	115	688	115	73	229	240	63	135	115
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	761	0	115	803	0	73	229	240	63	135	115
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	20.0		4.0	20.0		4.0	40.0	40.0	4.0	4.0	4.0
Minimum Split (s)	7.0	24.0		7.0	24.0		7.0	44.0	44.0	7.0	24.0	24.0
Total Split (s)	10.0	56.0		8.0	54.0		7.0	44.0	44.0	7.0	44.0	44.0
Total Split (%)	8.7%	48.7%		7.0%	47.0%		6.1%	38.3%	38.3%	6.1%	38.3%	38.3%
Maximum Green (s)	7.0	52.0		5.0	50.0		4.0	40.0	40.0	4.0	40.0	40.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	0.2		1.0	0.2		1.0	3.0	3.0	1.0	3.0	3.0
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Walk Time (s)		10.0			10.0			10.0	10.0		10.0	10.0
Flash Dont Walk (s)		10.0			10.0			10.0	10.0		10.0	10.0
Pedestrian Calls (#/hr)		15			11			14	14		10	10
Act Effect Green (s)	59.2	52.0		56.8	50.8		44.2	40.0	40.0	44.2	40.0	40.0

Lanes, Volumes, Timings
 1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018

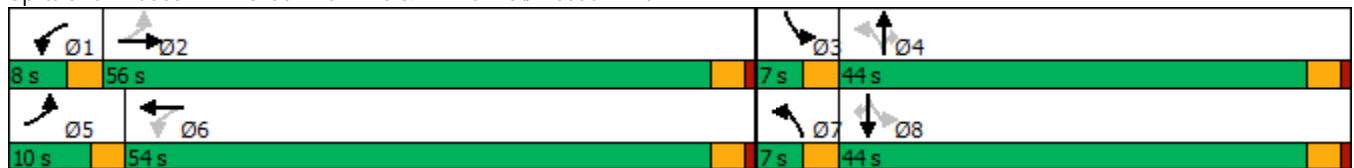


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.52	0.46		0.50	0.45		0.39	0.35	0.35	0.39	0.35	0.35
v/c Ratio	0.37	1.06		0.91	0.61		0.18	0.41	0.42	0.20	0.25	0.26
Control Delay	17.6	81.2		82.8	26.0		22.3	31.0	8.5	22.6	28.1	8.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	81.2		82.8	26.0		22.3	31.0	8.5	22.6	28.1	8.8
LOS	B	F		F	C		C	C	A	C	C	A
Approach Delay		74.2			33.1			19.9			19.9	
Approach LOS		E			C			B			B	
Queue Length 50th (ft)	33	-625		41	231		33	128	19	28	71	8
Queue Length 95th (ft)	62	#865		#159	298		64	200	84	57	121	51
Internal Link Dist (ft)		826			473			851			441	
Turn Bay Length (ft)				165			60		75	75		35
Base Capacity (vph)	267	719		126	1325		403	562	576	318	551	439
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.35	1.06		0.91	0.61		0.18	0.41	0.42	0.20	0.25	0.26

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 113.6
 Natural Cycle: 115
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 42.2
 Intersection LOS: D
 Intersection Capacity Utilization 100.7%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Greenwich Ave & W. Main St/Tresser Blvd



Lanes, Volumes, Timings
2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	780	40	160	730	240	80	850	420	260	910	70
Future Volume (vph)	130	780	40	160	730	240	80	850	420	260	910	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	11	11	11
Storage Length (ft)	325		0	200		0	200		375	330		260
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00	1.00		0.98	0.99		0.99		0.83	0.95		0.95
Frt		0.993			0.963				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	4382	0	1570	4247	0	1481	2991	1277	1570	2963	1405
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1509	4382	0	1541	4247	0	1466	2991	1057	1496	2963	1334
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		667			769			581			703	
Travel Time (s)		15.2			17.5			15.8			19.2	
Confl. Peds. (#/hr)	10		31	31		10	26		109	109		26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	6%	5%	10%	0%	6%	0%
Adj. Flow (vph)	137	821	42	168	768	253	84	895	442	274	958	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	863	0	168	1021	0	84	895	442	274	958	74
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	15.0	15.0	4.0	15.0	15.0
Minimum Split (s)	8.0	21.0		8.0	21.0		8.0	27.0	27.0	8.0	27.0	27.0
Total Split (s)	14.0	27.0		16.0	29.0		18.0	49.0	49.0	23.0	54.0	54.0
Total Split (%)	12.2%	23.5%		13.9%	25.2%		15.7%	42.6%	42.6%	20.0%	47.0%	47.0%
Maximum Green (s)	10.0	23.0		12.0	25.0		14.0	45.0	45.0	19.0	50.0	50.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes								
Vehicle Extension (s)	1.0	3.0		3.0	3.0		1.0	0.2	0.2	1.0	0.2	0.2
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		10.0			10.0			16.0	16.0		16.0	16.0
Pedestrian Calls (#/hr)		15			5			55	55		13	13
Act Effect Green (s)	10.0	23.0		12.0	25.0		9.7	45.0	45.0	19.0	56.1	56.1
Actuated g/C Ratio	0.09	0.20		0.10	0.22		0.08	0.39	0.39	0.17	0.49	0.49

Lanes, Volumes, Timings
2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	1.05	0.99		1.03	1.11		0.68	0.76	1.07	1.06	0.66	0.11
Control Delay	142.6	73.2		129.7	105.2		75.9	35.7	99.1	118.5	26.4	18.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	142.6	73.2		129.7	105.2		75.9	35.7	99.1	118.5	26.4	18.6
LOS	F	E		F	F		E	D	F	F	C	B
Approach Delay		82.7			108.7			57.8			45.3	
Approach LOS		F			F			E			D	
Queue Length 50th (ft)	~110	235		~133	~316		61	298	~363	~223	284	30
Queue Length 95th (ft)	#239	#328		#272	#408		111	380	#563	#391	387	63
Internal Link Dist (ft)		587			689			501			623	
Turn Bay Length (ft)	325			200			200		375	330		260
Base Capacity (vph)	131	876		163	923		180	1170	413	259	1444	650
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.99		1.03	1.11		0.47	0.76	1.07	1.06	0.66	0.11

Intersection Summary

Area Type:	CBD
Cycle Length:	115
Actuated Cycle Length:	115
Natural Cycle:	100
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.11
Intersection Signal Delay:	71.8
Intersection LOS:	E
Intersection Capacity Utilization:	85.3%
ICU Level of Service:	E
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 2: Washington Blvd & Tresser Blvd



Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	1160	70	260	810	160	220	320	100	190	300	60
Future Volume (vph)	130	1160	70	260	810	160	220	320	100	190	300	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	10	10	10
Storage Length (ft)	96		0	118		0	304		0	106		106
Storage Lanes	1		0	1		0	1		0	1		2
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	1.00			0.99		0.87	0.97		0.96		0.76
Frt		0.991			0.975			0.964				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1354	4316	0	1454	4311	0	1540	2937	0	1501	2808	1304
Flt Permitted	0.250			0.100			0.447			0.350		
Satd. Flow (perm)	353	4316	0	153	4311	0	627	2937	0	528	2808	991
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		769			474			771			641	
Travel Time (s)		17.5			10.8			21.0			17.5	
Confl. Peds. (#/hr)	27		42	42		27	169		70	70		169
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	12%	3%	6%	8%	1%	2%	2%	0%	2%	1%	8%	4%
Adj. Flow (vph)	137	1221	74	274	853	168	232	337	105	200	316	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	1295	0	274	1021	0	232	442	0	200	316	63
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	10.0		4.0	10.0	10.0
Minimum Split (s)	8.0	27.0		8.0	27.0		8.0	30.0		8.0	30.0	30.0
Total Split (s)	16.0	43.0		25.0	52.0		17.0	31.0		16.0	30.0	30.0
Total Split (%)	13.9%	37.4%		21.7%	45.2%		14.8%	27.0%		13.9%	26.1%	26.1%
Maximum Green (s)	12.0	38.0		21.0	47.0		13.0	26.0		12.0	25.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)		7.0			7.0			10.0			10.0	10.0
Flash Dont Walk (s)		15.0			15.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)		20			14			35			85	85
Act Effect Green (s)	46.6	35.9		59.6	44.7		36.6	23.0		34.5	22.0	22.0
Actuated g/C Ratio	0.43	0.33		0.55	0.42		0.34	0.21		0.32	0.20	0.20

Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018

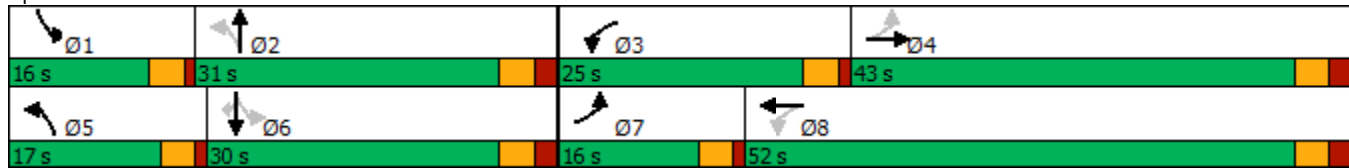


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.56	0.90		0.89	0.57		0.72	0.70		0.73	0.55	0.31
Control Delay	23.4	44.4		58.2	26.0		41.4	46.3		43.6	42.9	42.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	23.4	44.4		58.2	26.0		41.4	46.3		43.6	42.9	42.5
LOS	C	D		E	C		D	D		D	D	D
Approach Delay		42.4			32.8			44.6			43.1	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	48	334		150	204		125	157		106	109	39
Queue Length 95th (ft)	83	#423		#298	257		#209	215		#189	156	81
Internal Link Dist (ft)		689			394			691			561	
Turn Bay Length (ft)	96			118			304			106		106
Base Capacity (vph)	276	1562		345	1957		331	727		285	669	236
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.50	0.83		0.79	0.52		0.70	0.61		0.70	0.47	0.27

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 107.4
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 39.8 Intersection LOS: D
 Intersection Capacity Utilization 92.2% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Atlantic St & Tresser Blvd



Lanes, Volumes, Timings
4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1210	320	120	710	50	190	660	100	100	360	190
Future Volume (vph)	200	1210	320	120	710	50	190	660	100	100	360	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	10	12	10	11	9	10	10	11
Storage Length (ft)	200		0	300		0	160		0	171		148
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	0.98		0.99	1.00		0.97	0.99		0.99		0.93
Frt		0.969			0.990			0.980				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1496	4183	0	1501	4178	0	1501	3033	0	1501	2973	1351
Flt Permitted	0.232			0.102			0.370			0.154		
Satd. Flow (perm)	361	4183	0	160	4178	0	569	3033	0	241	2973	1260
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		70			10							
Link Speed (mph)		30			30			25				25
Link Distance (ft)		557			937			520				749
Travel Time (s)		12.7			21.3			14.2				20.4
Confl. Peds. (#/hr)	40		77	77		40	44		28	28		44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	2%	1%	3%	0%	1%	1%	0%	1%	2%	4%
Adj. Flow (vph)	213	1287	340	128	755	53	202	702	106	106	383	202
Shared Lane Traffic (%)												
Lane Group Flow (vph)	213	1627	0	128	808	0	202	808	0	106	383	202
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		8
Detector Phase	1	6		5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	11.0	29.0		11.0	29.0		11.0	31.0		11.0	31.0	31.0
Total Split (s)	23.0	51.0		14.0	42.0		15.0	39.0		11.0	35.0	35.0
Total Split (%)	20.0%	44.3%		12.2%	36.5%		13.0%	33.9%		9.6%	30.4%	30.4%
Maximum Green (s)	19.0	47.0		10.0	38.0		11.0	35.0		7.0	31.0	31.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min		None	None		None	None	None
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Dont Walk (s)		18.0			18.0			20.0			20.0	20.0
Pedestrian Calls (#/hr)		38			20			14			22	22
Act Effect Green (s)	55.2	43.2		48.8	39.4		42.7	32.1		35.7	28.6	28.6
Actuated g/C Ratio	0.51	0.40		0.45	0.36		0.40	0.30		0.33	0.26	0.26

Lanes, Volumes, Timings
 4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018

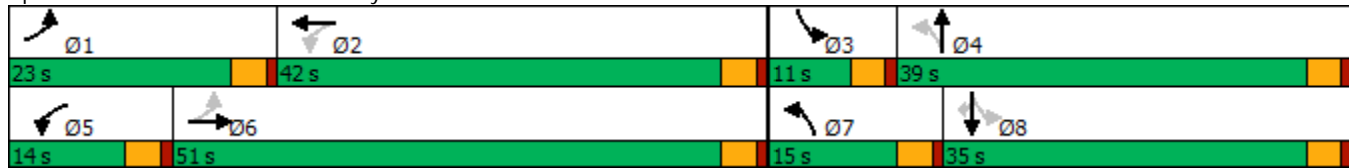


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.66	0.95		0.68	0.53		0.64	0.90		0.65	0.49	0.60
Control Delay	25.0	43.2		40.7	29.0		34.2	50.6		43.9	36.6	44.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	25.0	43.2		40.7	29.0		34.2	50.6		43.9	36.6	44.7
LOS	C	D		D	C		C	D		D	D	D
Approach Delay		41.1			30.6			47.4			40.1	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	83	400		47	164		102	297		50	125	130
Queue Length 95th (ft)	131	#509		#139	223		164	#406		#107	174	213
Internal Link Dist (ft)		477			857			440			669	
Turn Bay Length (ft)	200			300			160			171		148
Base Capacity (vph)	391	1881		199	1591		323	995		162	863	366
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.54	0.86		0.64	0.51		0.63	0.81		0.65	0.44	0.55

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 108
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 40.2
 Intersection LOS: D
 Intersection Capacity Utilization 87.3%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Canal St/Greyrock Pl & Tresser Blvd



Lanes, Volumes, Timings
5: Greenwich Ave & Richmond Hill Ave

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	80	180	60	60	150	40	30	450	110	20	210	80
Future Volume (vph)	80	180	60	60	150	40	30	450	110	20	210	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	11	12	12	11	12
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			0.99			0.99	
Frt		0.975			0.978			0.975			0.965	
Flt Protected		0.988			0.988			0.997			0.997	
Satd. Flow (prot)	0	1601	0	0	1688	0	0	1592	0	0	1528	0
Flt Permitted		0.827			0.817			0.973			0.951	
Satd. Flow (perm)	0	1332	0	0	1393	0	0	1553	0	0	1457	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			363			811			931	
Travel Time (s)		12.3			9.9			22.1			25.4	
Confl. Peds. (#/hr)	15		9	9		15	12		8	8		12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	8%	2%	5%	0%	0%	0%	1%	0%	3%	3%
Adj. Flow (vph)	86	194	65	65	161	43	32	484	118	22	226	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	345	0	0	269	0	0	634	0	0	334	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		8.0	22.0		23.0	23.0		23.0	23.0	
Total Split (s)	32.0	32.0		8.0	40.0		50.0	50.0		50.0	50.0	
Total Split (%)	35.6%	35.6%		8.9%	44.4%		55.6%	55.6%		55.6%	55.6%	
Maximum Green (s)	28.0	28.0		4.0	36.0		46.0	46.0		46.0	46.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	4	4		8	8		4	4		6	6	
Act Effct Green (s)		24.0			24.0			46.2			46.2	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
v/c Ratio		0.85			0.63			0.69			0.39	
Control Delay		45.1			30.3			17.2			11.1	
Queue Delay		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
 5: Greenwich Ave & Richmond Hill Ave

06/07/2018

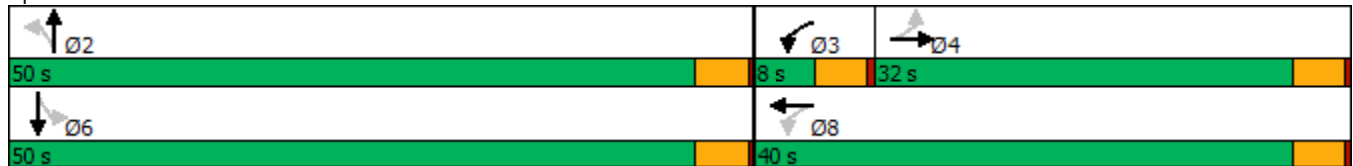


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		45.1			30.3			17.2			11.1	
LOS		D			C			B			B	
Approach Delay		45.1			30.3			17.2			11.1	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)		155			111			210			85	
Queue Length 95th (ft)		#285			189			367			152	
Internal Link Dist (ft)		372			283			731			851	
Turn Bay Length (ft)												
Base Capacity (vph)		481			643			917			860	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.72			0.42			0.69			0.39	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	78.2
Natural Cycle:	70
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	24.2
Intersection LOS:	C
Intersection Capacity Utilization:	77.0%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 5: Greenwich Ave & Richmond Hill Ave



Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	120	60	320	270	910	0	0	660	670
Future Volume (vph)	0	0	0	120	60	320	270	910	0	0	660	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	11	16	12	12	12	11	11	11
Storage Length (ft)	0		0	0		780	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor				0.96		0.91	0.97					0.85
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1494	1621	1373	1624	3217	0	0	2935	1391
Flt Permitted				0.950			0.283					
Satd. Flow (perm)	0	0	0	1436	1621	1249	468	3217	0	0	2935	1178
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						138						449
Link Speed (mph)		25			25			25				25
Link Distance (ft)		677			1043			258				338
Travel Time (s)		18.5			28.4			7.0				9.2
Confl. Peds. (#/hr)	41		20	20		41	42		56	56		42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	16%	2%	20%	0%	1%	2%	2%	7%	1%
Adj. Flow (vph)	0	0	0	122	61	327	276	929	0	0	673	684
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	122	61	327	276	929	0	0	673	684
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2			6	6
Switch Phase												
Minimum Initial (s)				20.0	20.0	20.0	5.0	20.0			5.0	5.0
Minimum Split (s)				29.0	29.0	29.0	10.0	25.0			22.0	22.0
Total Split (s)				32.0	32.0	32.0	15.0	78.0			63.0	63.0
Total Split (%)				29.1%	29.1%	29.1%	13.6%	70.9%			57.3%	57.3%
Maximum Green (s)				27.0	27.0	27.0	10.0	73.0			58.0	58.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0	0.2			2.0	2.0
Recall Mode				None	None	None	None	Min			Min	Min
Walk Time (s)				7.0	7.0	7.0		7.0			7.0	7.0
Flash Dont Walk (s)				10.0	10.0	10.0		10.0			10.0	10.0
Pedestrian Calls (#/hr)				20	20	20		28			21	21
Act Effect Green (s)				23.4	23.4	23.4	51.9	51.9			36.4	36.4
Actuated g/C Ratio				0.27	0.27	0.27	0.60	0.60			0.42	0.42

Lanes, Volumes, Timings
 6: Washington Blvd & N. State St

06/07/2018

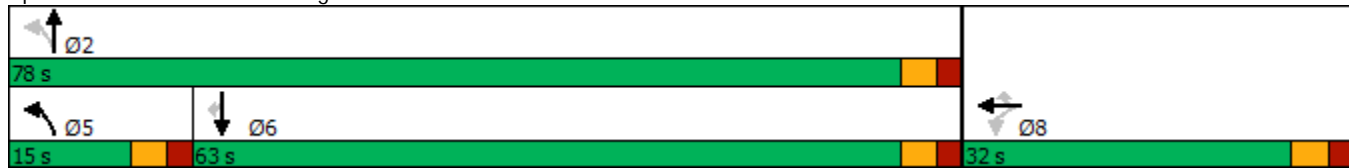


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.31	0.14	0.74	0.66	0.48			0.54	0.90
Control Delay				32.6	30.4	30.9	15.8	9.8			18.9	24.0
Queue Delay				0.0	0.0	0.0	2.6	0.3			0.0	0.0
Total Delay				32.6	30.4	30.9	18.4	10.1			18.9	24.0
LOS				C	C	C	B	B			B	C
Approach Delay					31.3			12.0			21.5	
Approach LOS					C			B			C	
Queue Length 50th (ft)				52	25	92	56	114			124	108
Queue Length 95th (ft)				126	70	#277	110	187			193	#375
Internal Link Dist (ft)		597			963			178			258	
Turn Bay Length (ft)						780						
Base Capacity (vph)				477	539	507	425	2718			2097	970
Starvation Cap Reductn				0	0	0	68	1035			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.26	0.11	0.64	0.77	0.55			0.32	0.71

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 85.9
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 19.4 Intersection LOS: B
 Intersection Capacity Utilization 122.8% ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Washington Blvd & N. State St



Lanes, Volumes, Timings

7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	170	770	300	350	200	10	250	400	310	70
Future Volume (vph)	170	770	300	350	200	10	250	400	310	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	11	11	10	11	11
Storage Length (ft)		0		0		75			75	
Storage Lanes		2		0		1			1	
Taper Length (ft)		25				25				
Lane Util. Factor	0.95	0.97	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor		0.99	0.92			0.95			0.86	
Frt			0.919						0.850	
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	2992	2550	0	0	1556	3141	2973	1291	0
Flt Permitted		0.950				0.412				
Satd. Flow (perm)	0	2976	2550	0	0	638	3141	2973	1113	0
Right Turn on Red				No						No
Satd. Flow (RTOR)										
Link Speed (mph)			25				25	28		
Link Distance (ft)			1150				217	771		
Travel Time (s)			31.4				5.9	18.8		
Confl. Peds. (#/hr)	2			89	39	39			39	39
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	2%	1%	6%	1%	0%	0%	2%	2%	39%
Adj. Flow (vph)	187	846	330	385	220	11	275	440	341	77
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	1033	715	0	0	231	275	440	418	0
Turn Type	Split	Split	NA		pm+pt	pm+pt	NA	NA	Perm	
Protected Phases	8	8	8		5	5	2	6		
Permitted Phases					2	2			6	
Detector Phase	8	8	8		5	5	2	6	6	
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0		5.0	5.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0	24.0		9.0	9.0	24.0	24.0	24.0	
Total Split (s)	46.0	46.0	46.0		11.0	11.0	64.0	53.0	53.0	
Total Split (%)	41.8%	41.8%	41.8%		10.0%	10.0%	58.2%	48.2%	48.2%	
Maximum Green (s)	42.0	42.0	42.0		7.0	7.0	60.0	49.0	49.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0				0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0				4.0	4.0	4.0	
Lead/Lag					Lead	Lead		Lag	Lag	
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None		None	None	Max	Max	Max	
Walk Time (s)	5.0	5.0	5.0				5.0	5.0	5.0	
Flash Dont Walk (s)	15.0	15.0	15.0				15.0	15.0	15.0	
Pedestrian Calls (#/hr)	45	45	45				3	20	20	
Act Effect Green (s)		42.0	42.0			60.0	60.0	49.0	49.0	
Actuated g/C Ratio		0.38	0.38			0.55	0.55	0.45	0.45	

Lanes, Volumes, Timings
 7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018

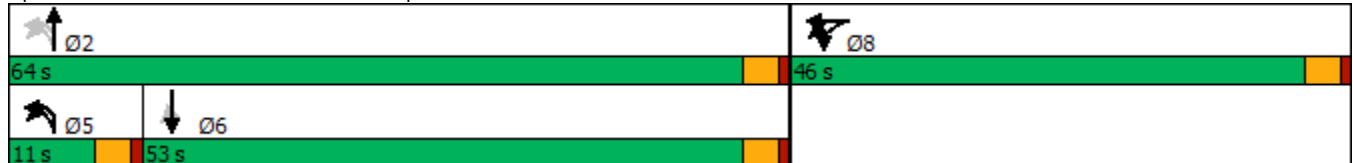


Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
v/c Ratio		0.90	0.73			0.57	0.16	0.33	0.84	
Control Delay		44.5	34.7			20.3	12.8	20.7	44.7	
Queue Delay		0.0	0.0			19.2	1.6	0.0	0.0	
Total Delay		44.5	34.7			39.5	14.3	20.7	44.7	
LOS		D	C			D	B	C	D	
Approach Delay			40.5				25.8	32.4		
Approach LOS			D				C	C		
Queue Length 50th (ft)		350	225			83	48	103	256	
Queue Length 95th (ft)		#478	299			132	71	142	#444	
Internal Link Dist (ft)			1070				137	691		
Turn Bay Length (ft)						75			75	
Base Capacity (vph)		1142	973			406	1713	1324	495	
Starvation Cap Reductn		0	0			162	1245	0	0	
Spillback Cap Reductn		0	0			0	0	0	0	
Storage Cap Reductn		0	0			0	0	0	0	
Reduced v/c Ratio		0.90	0.73			0.95	0.59	0.33	0.84	

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 35.9
 Intersection LOS: D
 Intersection Capacity Utilization 82.2%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 7: I-95 SB On-Ramp & Atlantic St & N. State St



Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	360	900	200	280	750	0	0	620	170
Future Volume (vph)	0	0	0	360	900	200	280	750	0	0	620	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					1.00		1.00					1.00
Frt					0.979							0.968
Flt Protected					0.988		0.950					
Satd. Flow (prot)	0	0	0	0	5352	0	1624	3217	0	0	2967	0
Flt Permitted					0.988		0.118					
Satd. Flow (perm)	0	0	0	0	5352	0	201	3217	0	0	2967	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												33
Link Speed (mph)		25			25			25				25
Link Distance (ft)		1150			792			189				520
Travel Time (s)		31.4			21.6			5.2				14.2
Confl. Peds. (#/hr)	23					23	11		3	3		11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	0%	1%	0%	0%	2%	2%
Adj. Flow (vph)	0	0	0	379	947	211	295	789	0	0	653	179
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1537	0	295	789	0	0	832	0
Turn Type				Split	NA		pm+pt	NA				NA
Protected Phases				8	8		5	2				6
Permitted Phases							2					
Detector Phase				8	8		5	2				6
Switch Phase												
Minimum Initial (s)				10.0	10.0		5.0	25.0				25.0
Minimum Split (s)				49.0	49.0		9.0	49.0				49.0
Total Split (s)				49.0	49.0		22.0	71.0				49.0
Total Split (%)				40.8%	40.8%		18.3%	59.2%				40.8%
Maximum Green (s)				45.0	45.0		18.0	67.0				45.0
Yellow Time (s)				3.0	3.0		3.0	3.0				3.0
All-Red Time (s)				1.0	1.0		1.0	1.0				1.0
Lost Time Adjust (s)					0.0		0.0	0.0				0.0
Total Lost Time (s)					4.0		4.0	4.0				4.0
Lead/Lag							Lead					Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				5.0	5.0		0.5	0.2				0.2
Recall Mode				None	None		None	Min				Min
Walk Time (s)				20.0	20.0			25.0				25.0
Flash Dont Walk (s)				25.0	25.0			20.0				20.0
Pedestrian Calls (#/hr)				11	11			1				6
Act Effct Green (s)					45.3		53.1	53.1				32.4
Actuated g/C Ratio					0.43		0.50	0.50				0.30
v/c Ratio					0.68		0.92	0.49				0.90
Control Delay					27.7		60.3	18.5				47.1
Queue Delay					0.0		54.3	1.7				0.0

Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018

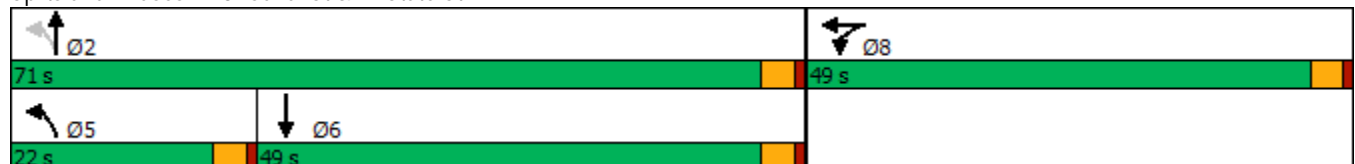


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay					27.7		114.6	20.2			47.2	
LOS					C		F	C			D	
Approach Delay					27.7			45.9			47.2	
Approach LOS					C			D			D	
Queue Length 50th (ft)					238		146	180			278	
Queue Length 95th (ft)					347		#324	227			357	
Internal Link Dist (ft)		1070			712			109			440	
Turn Bay Length (ft)												
Base Capacity (vph)					2279		342	2039			1282	
Starvation Cap Reductn					0		106	1030			20	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.67		1.25	0.78			0.66	

Intersection Summary

Area Type:	CBD
Cycle Length:	120
Actuated Cycle Length:	106.4
Natural Cycle:	110
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	38.1
Intersection LOS:	D
Intersection Capacity Utilization:	87.8%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 8: Canal St & N. State St



Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	670	150	0	0	0	0	420	350	70	280	0
Future Volume (vph)	190	670	150	0	0	0	0	420	350	70	280	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	16	10	12	12
Storage Length (ft)	210		240	0		0	0		0	200		200
Storage Lanes	1		1	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor	0.99		0.95						0.98	1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1555	3079	1351	0	0	0	0	1710	1540	1444	3185	0
Flt Permitted	0.950									0.297		
Satd. Flow (perm)	1541	3079	1285	0	0	0	0	1710	1513	450	3185	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158						368			
Link Speed (mph)		30			25			25				25
Link Distance (ft)		711			384			138				811
Travel Time (s)		16.2			10.5			3.8				22.1
Confl. Peds. (#/hr)	3		21						3	3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	4%	2%	2%	2%	2%	0%	7%	5%	2%	2%
Adj. Flow (vph)	200	705	158	0	0	0	0	442	368	74	295	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	705	158	0	0	0	0	442	368	74	295	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		3						2			6	
Permitted Phases	3		3						2	6		
Detector Phase	3	3	3					2	2	6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	24.0	24.0	24.0					24.0	24.0	24.0	24.0	
Total Split (s)	38.0	38.0	38.0					52.0	52.0	42.0	42.0	
Total Split (%)	31.7%	31.7%	31.7%					43.3%	43.3%	35.0%	35.0%	
Maximum Green (s)	34.0	34.0	34.0					48.0	48.0	38.0	38.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Min	Min	Min	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0	13.0					13.0	13.0	13.0	13.0	
Pedestrian Calls (#/hr)	10	10	10					1	1	2	2	
Act Effect Green (s)	27.3	27.3	27.3					38.0	38.0	38.0	38.0	
Actuated g/C Ratio	0.27	0.27	0.27					0.38	0.38	0.38	0.38	

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

Lane Group	Ø4	Ø5
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	4	5
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	8.0	5.0
Minimum Split (s)	19.0	10.0
Total Split (s)	30.0	10.0
Total Split (%)	25%	8%
Maximum Green (s)	26.0	6.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	1.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	8.0	
Pedestrian Calls (#/hr)	10	
Act Effect Green (s)		
Actuated g/C Ratio		

Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

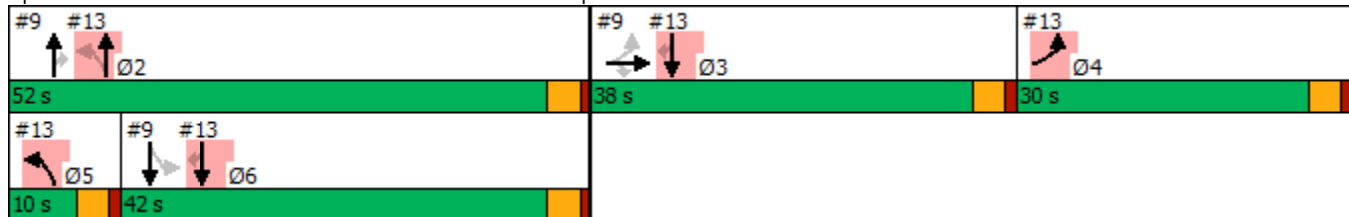


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.83	0.34					0.68	0.46	0.43	0.24	
Control Delay	37.0	45.4	7.4					18.4	7.2	34.7	22.5	
Queue Delay	0.0	0.0	0.0					3.7	2.1	0.0	0.0	
Total Delay	37.0	45.4	7.4					22.2	9.3	34.7	22.5	
LOS	D	D	A					C	A	C	C	
Approach Delay		38.2						16.3			25.0	
Approach LOS		D						B			C	
Queue Length 50th (ft)	117	244	0					226	88	37	72	
Queue Length 95th (ft)	202	343	51					351	160	90	112	
Internal Link Dist (ft)		631			304			58			731	
Turn Bay Length (ft)	210		240							200		
Base Capacity (vph)	562	1123	569					881	958	202	1435	
Starvation Cap Reductn	0	0	0					342	438	0	0	
Spillback Cap Reductn	0	0	3					0	0	0	64	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.36	0.63	0.28					0.82	0.71	0.37	0.22	

Intersection Summary

Area Type:	CBD
Cycle Length:	120
Actuated Cycle Length:	99.5
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	28.1
Intersection LOS:	C
Intersection Capacity Utilization:	65.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 9: Greenwich Ave & I-95 NB Off Ramp/S. State St



Lane Group	Ø4	Ø5
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↔						↗		↖	↗	
Traffic Volume (vph)	380	360	360	0	0	0	0	800	60	170	610	0
Future Volume (vph)	380	360	360	0	0	0	0	800	60	170	610	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	12	10	10	10
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00
Fr't		0.929						0.989				
Flt Protected	0.950	0.998								0.950		
Satd. Flow (prot)	1429	2663	0	0	0	0	0	4509	0	2472	2916	0
Flt Permitted	0.950	0.998								0.950		
Satd. Flow (perm)	1429	2663	0	0	0	0	0	4509	0	2472	2916	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		237						12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		522			566			287				258
Travel Time (s)		14.2			15.4			7.8				7.0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	10%	0%	0%	0%	0%	0%	1%	21%	19%	4%	0%
Adj. Flow (vph)	384	364	364	0	0	0	0	808	61	172	616	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	346	766	0	0	0	0	0	869	0	172	616	0
Turn Type	Split	NA						NA		Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	9.0	9.0						15.0		7.0	15.0	
Minimum Split (s)	14.0	14.0						20.0		11.0	20.0	
Total Split (s)	26.0	26.0						21.0		11.0	32.0	
Total Split (%)	28.9%	28.9%						23.3%		12.2%	35.6%	
Maximum Green (s)	21.0	21.0						16.0		7.0	27.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0		4.0	5.0	
Lead/Lag	Lag	Lag						Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						0.2		2.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	22.0	22.0						16.8		7.3	28.3	
Actuated g/C Ratio	0.28	0.28						0.22		0.09	0.37	
v/c Ratio	0.85	0.83						0.88		0.74	0.58	
Control Delay	52.7	29.8						44.5		58.7	25.9	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	36%
Maximum Green (s)	30.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	55
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

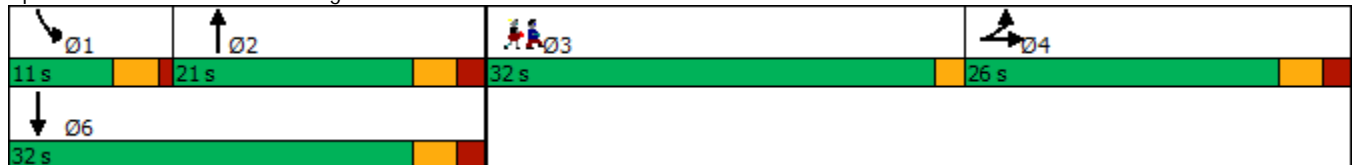


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0						0.0		0.0	1.2	
Total Delay	52.7	29.8						44.5		58.7	27.1	
LOS	D	C						D		E	C	
Approach Delay		36.9						44.5			34.0	
Approach LOS		D						D			C	
Queue Length 50th (ft)	~235	170						~201		51	162	
Queue Length 95th (ft)	#419	#299						#285		#111	224	
Internal Link Dist (ft)		442			486			207			178	
Turn Bay Length (ft)	100											
Base Capacity (vph)	407	928						987		234	1067	
Starvation Cap Reductn	0	0						0		0	240	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.85	0.83						0.88		0.74	0.74	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 77.2
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 38.5
 Intersection LOS: D
 Intersection Capacity Utilization 122.8%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Washington Blvd & S. State St



Lane Group	Ø3
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗	↘	↕↕	
Traffic Volume (vph)	70	380	140	0	0	0	0	390	90	170	400	0
Future Volume (vph)	70	380	140	0	0	0	0	390	90	170	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	0		0	75		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor									0.98	1.00		
Frt			0.850						0.850			
Flt Protected		0.992								0.950		
Satd. Flow (prot)	0	2892	1357	0	0	0	0	3217	1454	1624	3185	0
Flt Permitted		0.992								0.448		
Satd. Flow (perm)	0	2892	1357	0	0	0	0	3217	1431	765	3185	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		543			708			126				217
Travel Time (s)		14.8			19.3			3.4				5.9
Confl. Peds. (#/hr)							20		3	3		20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	0%	2%	2%	2%	2%	1%	0%	0%	2%	2%
Adj. Flow (vph)	71	388	143	0	0	0	0	398	92	173	408	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	459	143	0	0	0	0	398	92	173	408	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0					33.0	33.0	6.0	33.0	
Minimum Split (s)	29.0	29.0	29.0					37.0	37.0	10.0	37.0	
Total Split (s)	33.0	33.0	33.0					42.0	42.0	15.0	57.0	
Total Split (%)	36.7%	36.7%	36.7%					46.7%	46.7%	16.7%	63.3%	
Maximum Green (s)	29.0	29.0	29.0					38.0	38.0	11.0	53.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5					0.2	0.2	1.0	0.2	
Recall Mode	None	None	None					Min	Min	None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0		7.0	
Flash Dont Walk (s)	18.0	18.0	18.0					14.0	14.0		14.0	
Pedestrian Calls (#/hr)	0	0	0					1	1		10	
Act Effect Green (s)		18.6	18.6					33.3	33.3	44.9	44.9	
Actuated g/C Ratio		0.26	0.26					0.47	0.47	0.63	0.63	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.61	0.41					0.27	0.14	0.30	0.20	
Control Delay		26.9	25.5					13.7	14.0	8.1	6.8	
Queue Delay		0.0	0.0					0.0	0.0	1.1	0.2	
Total Delay		26.9	25.5					13.7	14.0	9.2	7.0	
LOS		C	C					B	B	A	A	
Approach Delay		26.5						13.7			7.6	
Approach LOS		C						B			A	
Queue Length 50th (ft)		91	51					52	21	27	34	
Queue Length 95th (ft)		144	104					108	62	70	73	
Internal Link Dist (ft)		463			628			46			137	
Turn Bay Length (ft)										75		
Base Capacity (vph)		1183	555					1724	767	613	2381	
Starvation Cap Reductn		0	0					0	0	255	1240	
Spillback Cap Reductn		0	0					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.39	0.26					0.23	0.12	0.48	0.36	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	71.6
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	16.2
Intersection LOS:	B
Intersection Capacity Utilization:	61.9%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 11: Atlatnic St/Atlantic St & S. State St



Lanes, Volumes, Timings

12: Canal St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	540	950	220	0	0	0	0	490	360	310	670	0
Future Volume (vph)	540	950	220	0	0	0	0	490	360	310	670	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor								0.99			1.00	
Fr _t			0.850					0.936				
Fl _t Protected	0.950										0.984	
Satd. Flow (prot)	1547	3217	1358	0	0	0	0	3008	0	0	3144	0
Fl _t Permitted	0.950										0.530	
Satd. Flow (perm)	1547	3217	1358	0	0	0	0	3008	0	0	1693	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				30
Link Distance (ft)		454			543			446				189
Travel Time (s)		12.4			14.8			12.2				4.3
Confl. Peds. (#/hr)							16		4	4		16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	1%	7%	2%	2%	2%	0%	0%	1%	1%	2%	0%
Adj. Flow (vph)	568	1000	232	0	0	0	0	516	379	326	705	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	568	1000	232	0	0	0	0	895	0	0	1031	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Detector Phase	4	4	4					2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					20.0		1.0	20.0	
Minimum Split (s)	31.0	31.0	31.0					35.0		5.0	35.0	
Total Split (s)	37.0	37.0	37.0					36.0		17.0	53.0	
Total Split (%)	41.1%	41.1%	41.1%					40.0%		18.9%	58.9%	
Maximum Green (s)	33.0	33.0	33.0					32.0		13.0	49.0	
Yellow Time (s)	3.0	3.0	3.0					3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0			4.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					0.2		0.2	0.2	
Recall Mode	None	None	None					Min		None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0			7.0	
Flash Dont Walk (s)	20.0	20.0	20.0					24.0			24.0	
Pedestrian Calls (#/hr)	0	0	0					2			8	
Act Effct Green (s)	33.0	33.0	33.0					31.2			48.2	
Actuated g/C Ratio	0.37	0.37	0.37					0.35			0.54	
v/c Ratio	0.99	0.84	0.46					0.85			1.01dl	

Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018



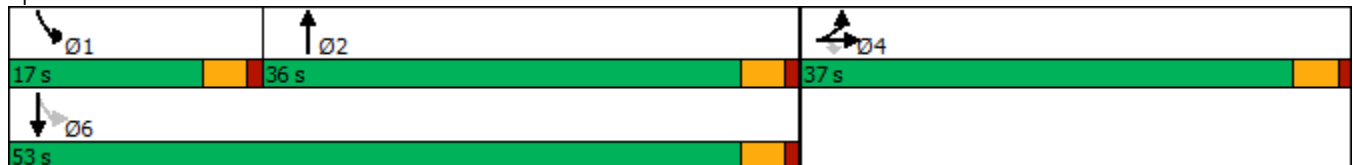
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	66.0	33.8	25.3					36.2			29.9	
Queue Delay	1.2	0.7	0.0					0.0			47.3	
Total Delay	67.3	34.5	25.3					36.2			77.1	
LOS	E	C	C					D			E	
Approach Delay		43.6						36.2			77.1	
Approach LOS		D						D			E	
Queue Length 50th (ft)	~319	270	99					242			196	
Queue Length 95th (ft)	#538	#363	168					#330			#303	
Internal Link Dist (ft)		374			463			366			109	
Turn Bay Length (ft)	200		200									
Base Capacity (vph)	572	1190	502					1079			1142	
Starvation Cap Reductn	3	40	0					0			315	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	1.00	0.87	0.46					0.83			1.25	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 89.2
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 51.1
 Intersection Capacity Utilization 101.9%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service G

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 12: Canal St & S. State St



Lanes, Volumes, Timings
13: Greenwich Ave & First Stamford Pl

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
Lane Configurations								
Traffic Volume (vph)	400	120	40	370	360	70		
Future Volume (vph)	400	120	40	370	360	70		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	11	13	12		
Storage Length (ft)	0	100	0			0		
Storage Lanes	2	1	0			1		
Taper Length (ft)	25		25					
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.98			1.00		0.97		
Frt	0.965					0.850		
Flt Protected	0.963			0.995				
Satd. Flow (prot)	2920	0	0	1601	1716	1425		
Flt Permitted	0.963			0.934				
Satd. Flow (perm)	2920	0	0	1502	1716	1380		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	31					74		
Link Speed (mph)	25			25	25			
Link Distance (ft)	260			506	138			
Travel Time (s)	7.1			13.8	3.8			
Confl. Peds. (#/hr)		21	4			4		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Heavy Vehicles (%)	4%	0%	0%	3%	3%	2%		
Adj. Flow (vph)	421	126	42	389	379	74		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	547	0	0	431	379	74		
Turn Type	Prot		pm+pt	NA	NA	Perm		
Protected Phases	4		5	2	3 6		3	6
Permitted Phases			2			3 6		
Detector Phase	4		5	2	3 6	3 6		
Switch Phase								
Minimum Initial (s)	8.0		5.0	12.0			8.0	12.0
Minimum Split (s)	19.0		10.0	24.0			24.0	24.0
Total Split (s)	30.0		10.0	52.0			38.0	42.0
Total Split (%)	25.0%		8.3%	43.3%			32%	35%
Maximum Green (s)	26.0		6.0	48.0			34.0	38.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0			0.0				
Total Lost Time (s)	4.0			4.0				
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Vehicle Extension (s)	1.0		3.0	3.0			0.2	3.0
Recall Mode	None		None	Min			None	Min
Walk Time (s)	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	8.0			13.0			13.0	13.0
Pedestrian Calls (#/hr)	10			1			10	2
Act Effect Green (s)	21.3			38.0	69.6	69.6		
Actuated g/C Ratio	0.21			0.38	0.70	0.70		

Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018

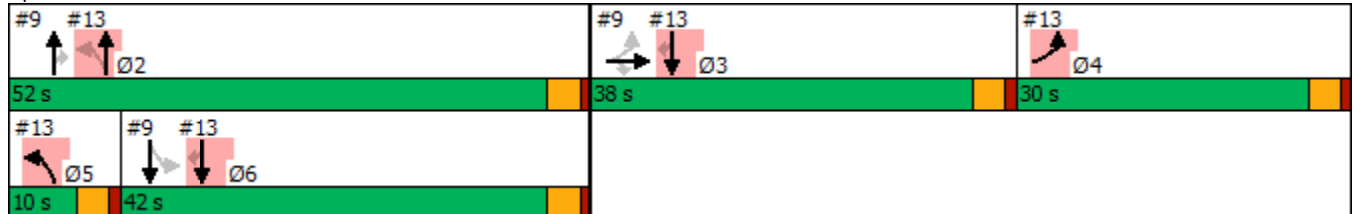


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
v/c Ratio	0.84			0.75	0.32	0.07		
Control Delay	50.3			37.4	3.3	0.1		
Queue Delay	14.8			0.0	0.3	0.5		
Total Delay	65.1			37.4	3.6	0.6		
LOS	E			D	A	A		
Approach Delay	65.1			37.4	3.1			
Approach LOS	E			D	A			
Queue Length 50th (ft)	180			255	26	0		
Queue Length 95th (ft)	#283			405	62	0		
Internal Link Dist (ft)	180			426	58			
Turn Bay Length (ft)								
Base Capacity (vph)	837			773	1355	1105		
Starvation Cap Reductn	0			0	468	787		
Spillback Cap Reductn	277			2	0	0		
Storage Cap Reductn	0			0	0	0		
Reduced v/c Ratio	0.98			0.56	0.43	0.23		

Intersection Summary












Area Type: CBD
 Cycle Length: 120
 Actuated Cycle Length: 99.5
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 37.2 Intersection LOS: D
 Intersection Capacity Utilization 72.5% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 13: Greenwich Ave & First Stamford Pl



Lanes, Volumes, Timings
14: Washington Blvd & Station Pl

06/07/2018

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Lane Configurations							
Traffic Volume (vph)	120	370	500	100	310	660	
Future Volume (vph)	120	370	500	100	310	660	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	8	12	11	11	11	11	
Storage Length (ft)	0	40		0	0		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	0.88	0.95	0.95	1.00	0.95	
Fr _t		0.850	0.975				
Fl _t Protected	0.950				0.950		
Satd. Flow (prot)	1354	2533	3022	0	1540	3020	
Fl _t Permitted	0.950				0.315		
Satd. Flow (perm)	1354	2533	3022	0	510	3020	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)			26				
Link Speed (mph)	25		25			25	
Link Distance (ft)	385		386			287	
Travel Time (s)	10.5		10.5			7.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	4%	1%	1%	3%	2%	4%	
Adj. Flow (vph)	125	385	521	104	323	688	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	125	385	625	0	323	688	
Turn Type	Prot	pt+ov	NA		pm+pt	NA	
Protected Phases	4	4 1	2		1	6	3
Permitted Phases					6		
Detector Phase	4	4 1	2		1	6	
Switch Phase							
Minimum Initial (s)	9.0		15.0		7.0	15.0	1.0
Minimum Split (s)	13.0		20.0		11.0	20.0	20.0
Total Split (s)	16.0		30.0		24.0	54.0	20.0
Total Split (%)	17.8%		33.3%		26.7%	60.0%	22%
Maximum Green (s)	12.0		25.0		20.0	49.0	18.0
Yellow Time (s)	3.0		3.0		3.0	3.0	2.0
All-Red Time (s)	1.0		2.0		1.0	2.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	4.0		5.0		4.0	5.0	
Lead/Lag	Lag		Lag		Lead		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0		0.2		2.0	0.2	0.2
Recall Mode	None		Max		None	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							11.0
Pedestrian Calls (#/hr)							18
Act Effct Green (s)	11.3	27.7	33.5		50.9	49.9	
Actuated g/C Ratio	0.15	0.36	0.43		0.66	0.65	
v/c Ratio	0.63	0.42	0.47		0.65	0.35	
Control Delay	49.6	20.4	20.4		14.5	8.7	

Lanes, Volumes, Timings
 14: Washington Blvd & Station PI

06/07/2018

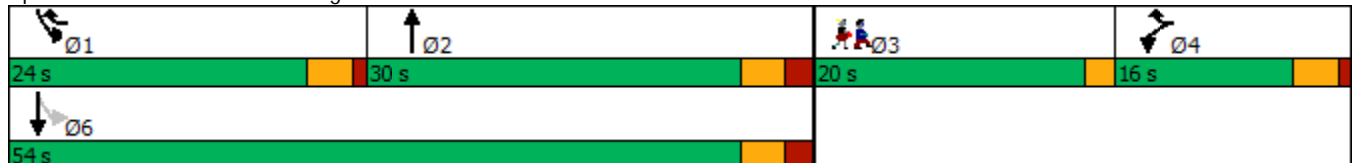


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Queue Delay	0.0	0.0	0.0		0.5	0.8	
Total Delay	49.6	20.4	20.4		14.9	9.5	
LOS	D	C	C		B	A	
Approach Delay	27.5		20.4			11.2	
Approach LOS	C		C			B	
Queue Length 50th (ft)	50	68	78		40	48	
Queue Length 95th (ft)	#151	126	225		154	155	
Internal Link Dist (ft)	305		306			207	
Turn Bay Length (ft)		40					
Base Capacity (vph)	214	1142	1325		607	1950	
Starvation Cap Reductn	0	0	0		65	898	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.58	0.34	0.47		0.60	0.65	

Intersection Summary

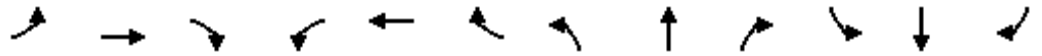
Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 77.2
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 17.8
 Intersection LOS: B
 Intersection Capacity Utilization 56.3%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Washington Blvd & Station PI



Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	290	50	220	180	180	60	160	350	160	270	110
Future Volume (vph)	140	290	50	220	180	180	60	160	350	160	270	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	11	12	12	14	12	12	16
Storage Length (ft)	80		0	175		0	100		125	75		0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.98	0.98		0.95		0.97	0.99		0.96	0.98		0.97
Frt		0.978				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1565	0	1510	1605	1391	1624	3249	1535	1593	3185	1631
Flt Permitted	0.593			0.334			0.573			0.502		
Satd. Flow (perm)	965	1565	0	506	1605	1345	972	3249	1476	826	3185	1579
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						196			183			120
Link Speed (mph)		25			25			25				30
Link Distance (ft)		271			522			362				194
Travel Time (s)		7.4			14.2			9.9				4.4
Confl. Peds. (#/hr)	21		102	102		21	8		19	19		8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	4%	3%	1%	0%	0%	1%	2%	2%	1%
Adj. Flow (vph)	152	315	54	239	196	196	65	174	380	174	293	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	369	0	239	196	196	65	174	380	174	293	120
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	3	8		7	4	5	1	6	7	5	2	3
Permitted Phases	8			4		4	6		6	2		2
Detector Phase	3	8		7	4	5	1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	5.0	5.0	15.0	5.0	5.0	15.0	5.0
Minimum Split (s)	10.0	34.0		10.0	31.0	10.0	10.0	24.0	10.0	10.0	34.0	10.0
Total Split (s)	12.0	34.0		12.0	34.0	15.0	10.0	29.0	12.0	15.0	34.0	12.0
Total Split (%)	13.3%	37.8%		13.3%	37.8%	16.7%	11.1%	32.2%	13.3%	16.7%	37.8%	13.3%
Maximum Green (s)	7.0	29.0		7.0	29.0	10.0	5.0	24.0	7.0	10.0	29.0	7.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	0.2	3.0	3.0	0.2	3.0
Recall Mode	None	None		None	None	None	None	Min	None	None	Min	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		22.0			19.0			12.0			22.0	
Pedestrian Calls (#/hr)		50			10			10			4	
Act Effect Green (s)	30.9	23.9		31.0	23.9	33.4	21.8	16.8	23.9	31.3	23.6	30.6
Actuated g/C Ratio	0.40	0.31		0.40	0.31	0.43	0.28	0.22	0.31	0.40	0.30	0.39

Lanes, Volumes, Timings
 15: Atlantic St/Atlatic St & Station Pl/Dock St

06/07/2018

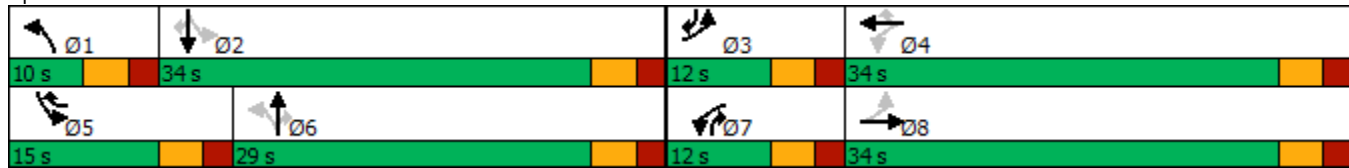


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.35	0.77		0.81	0.40	0.28	0.21	0.25	0.65	0.41	0.30	0.17
Control Delay	15.6	36.3		39.8	24.0	3.0	18.0	27.4	16.3	19.7	23.6	3.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	36.3		39.8	24.0	3.0	18.0	27.4	16.3	19.7	23.6	3.7
LOS	B	D		D	C	A	B	C	B	B	C	A
Approach Delay		30.3			23.5			19.6			18.4	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	40	154		67	71	0	21	40	77	61	64	0
Queue Length 95th (ft)	90	#298		#199	146	34	46	67	162	106	98	29
Internal Link Dist (ft)		191			442			282			114	
Turn Bay Length (ft)	80			175			100		125	75		
Base Capacity (vph)	440	593		294	608	706	316	1019	586	434	1208	702
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.62		0.81	0.32	0.28	0.21	0.17	0.65	0.40	0.24	0.17

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 77.5
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 22.7 Intersection LOS: C
 Intersection Capacity Utilization 78.2% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 15: Atlantic St/Atlatic St & Station Pl/Dock St



Lanes, Volumes, Timings
 16: Parking Garage & Station Pl

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↘	
Traffic Volume (vph)	390	10	0	200	180	30
Future Volume (vph)	390	10	0	200	180	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.981	
Flt Protected					0.959	
Satd. Flow (prot)	1863	1615	0	1863	1787	0
Flt Permitted					0.959	
Satd. Flow (perm)	1863	1615	0	1863	1787	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	385			158	174	
Travel Time (s)	10.5			4.3	4.7	
Confl. Peds. (#/hr)		112			1	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	406	10	0	208	188	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	406	10	0	208	219	0
Sign Control	Free			Free	Stop	

Intersection Summary

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

Lanes, Volumes, Timings
17: Canal St & Dock St/Jefferson St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕↔		↔	↕↔			↕↔	↕	↔	↕↔	
Traffic Volume (vph)	290	500	20	130	420	250	20	360	210	270	260	310
Future Volume (vph)	290	500	20	130	420	250	20	360	210	270	260	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	11	12	12	11	12	11	11	16
Storage Length (ft)	275		0	170		0	0		120	0		180
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00	1.00		0.98	0.99			1.00	0.98	1.00	0.99	
Frt		0.994			0.944				0.850		0.919	
Flt Protected	0.950			0.950				0.997		0.950		
Satd. Flow (prot)	1555	3057	0	1501	2891	0	0	3131	1439	1496	2834	0
Flt Permitted	0.127			0.442				0.895		0.361		
Satd. Flow (perm)	208	3057	0	686	2891	0	0	2810	1412	566	2834	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			101				156		302	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		855			803			934			446	
Travel Time (s)		23.3			21.9			25.5			12.2	
Confl. Peds. (#/hr)	2		31	31		2	5		5	5		5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	0%	1%	2%	2%	0%	0%	1%	5%	1%	1%
Adj. Flow (vph)	312	538	22	140	452	269	22	387	226	290	280	333
Shared Lane Traffic (%)												
Lane Group Flow (vph)	312	560	0	140	721	0	0	409	226	290	613	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pm+ov	D.P+P	NA	
Protected Phases	1	6		5	2			4	5	3	3 4	
Permitted Phases	6			2			4		4	4		
Detector Phase	1	6		5	2		4	4	5	3	3 4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		15.0	15.0	5.0	5.0		
Minimum Split (s)	10.0	33.0		10.0	33.0		30.0	30.0	10.0	10.0		
Total Split (s)	28.0	49.0		17.0	38.0		30.0	30.0	17.0	24.0		
Total Split (%)	23.3%	40.8%		14.2%	31.7%		25.0%	25.0%	14.2%	20.0%		
Maximum Green (s)	23.0	44.0		12.0	33.0		25.0	25.0	12.0	19.0		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		3.0	3.0	3.0	3.0		
Recall Mode	None	Min		None	Min		None	None	None	None		
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		21.0			21.0		18.0	18.0				
Pedestrian Calls (#/hr)		15			1		5	5				
Act Effect Green (s)	51.8	36.1		37.0	26.5			22.2	32.8	40.5	45.7	
Actuated g/C Ratio	0.48	0.34		0.34	0.25			0.21	0.30	0.38	0.42	

Lanes, Volumes, Timings
 17: Canal St & Dock St/Jefferson St

06/07/2018

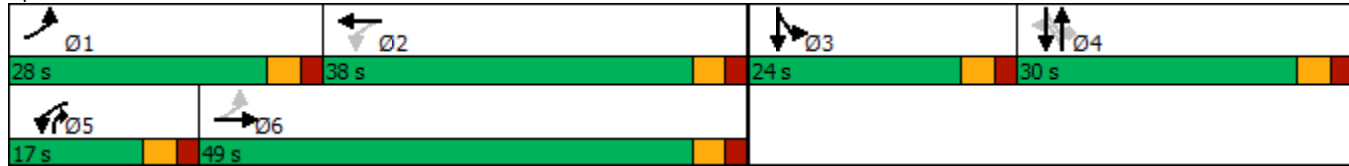


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.89	0.54		0.44	0.92			0.71	0.42	0.78	0.45	
Control Delay	55.5	31.2		22.3	51.8			48.5	12.0	41.2	12.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.2	
Total Delay	55.5	31.2		22.3	51.8			48.5	12.0	41.2	12.6	
LOS	E	C		C	D			D	B	D	B	
Approach Delay		39.9			47.0			35.5			21.8	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	174	173		57	241			148	35	152	80	
Queue Length 95th (ft)	#337	229		96	320			213	101	#259	136	
Internal Link Dist (ft)		775			723			854			366	
Turn Bay Length (ft)	275			170					120			
Base Capacity (vph)	394	1282		340	977			668	561	387	1450	
Starvation Cap Reductn	0	0		0	0			0	0	0	247	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.79	0.44		0.41	0.74			0.61	0.40	0.75	0.51	

Intersection Summary

Area Type: CBD
 Cycle Length: 120
 Actuated Cycle Length: 107.7
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 35.9
 Intersection LOS: D
 Intersection Capacity Utilization 89.6%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Canal St & Dock St/Jefferson St



Lanes, Volumes, Timings
 18: Atlantic St & 2004 Parking Garage

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	110	20	20	460	510	30
Future Volume (vph)	110	20	20	460	510	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	11	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99			1.00		0.96
Frt	0.980					0.850
Flt Protected	0.959			0.998		
Satd. Flow (prot)	1601	0	0	1916	1605	1647
Flt Permitted	0.959			0.975		
Satd. Flow (perm)	1599	0	0	1871	1605	1574
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	16					31
Link Speed (mph)	25			25	25	
Link Distance (ft)	195			538	362	
Travel Time (s)	5.3			14.7	9.9	
Confl. Peds. (#/hr)	2	2	16			16
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	3%	0%
Adj. Flow (vph)	112	20	20	469	520	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	132	0	0	489	520	31
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases			2			6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	20.0	20.0	20.0
Minimum Split (s)	24.0		9.0	25.0	25.0	25.0
Total Split (s)	24.0		9.0	36.0	27.0	27.0
Total Split (%)	40.0%		15.0%	60.0%	45.0%	45.0%
Maximum Green (s)	19.0		5.0	31.0	22.0	22.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.0			5.0	5.0	5.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		None	Max	Max	Max
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	12.0				12.0	12.0
Pedestrian Calls (#/hr)	1				8	8
Act Effct Green (s)	10.0			35.2	35.2	35.2
Actuated g/C Ratio	0.19			0.68	0.68	0.68
v/c Ratio	0.41			0.39	0.48	0.03
Control Delay	19.4			7.2	8.6	2.8
Queue Delay	0.0			0.0	0.0	0.0

Lanes, Volumes, Timings
 18: Atlantic St & 2004 Parking Garage

06/07/2018

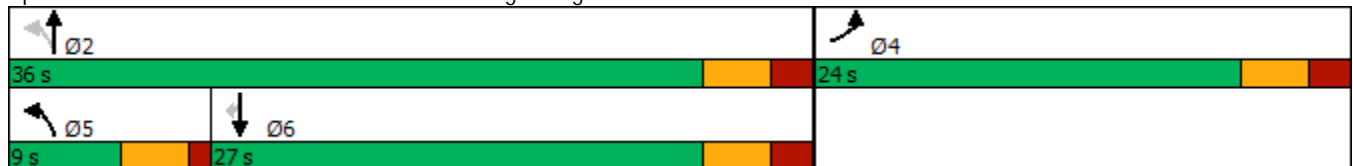


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	19.4			7.2	8.6	2.8
LOS	B			A	A	A
Approach Delay	19.4			7.2	8.3	
Approach LOS	B			A	A	
Queue Length 50th (ft)	30			59	69	0
Queue Length 95th (ft)	67			176	214	10
Internal Link Dist (ft)	115			458	282	
Turn Bay Length (ft)						
Base Capacity (vph)	596			1265	1085	1074
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.22			0.39	0.48	0.03

Intersection Summary

Area Type:	CBD
Cycle Length:	60
Actuated Cycle Length:	52.1
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	9.1
Intersection Capacity Utilization	61.9%
Analysis Period (min)	15
Intersection LOS:	A
ICU Level of Service	B

Splits and Phases: 18: Atlantic St & 2004 Parking Garage



Lanes, Volumes, Timings
19: Washington Blvd & Gateway Garage/Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	40	10	200	10	120	10	390	290	220	530	20
Future Volume (vph)	90	40	10	200	10	120	10	390	290	220	530	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	9	10	10	10	10	11	11	11
Storage Length (ft)	0		0	0		85	0		0	0		142
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor	0.99	0.99			0.99	0.97		0.95			0.99	0.94
Frt		0.979				0.850		0.937				0.850
Flt Protected	0.950	0.986			0.955			0.999			0.986	
Satd. Flow (prot)	1595	1616	0	0	1416	1137	0	2625	0	0	2958	1405
Flt Permitted	0.950	0.986			0.955			0.942			0.551	
Satd. Flow (perm)	1574	1610	0	0	1406	1104	0	2475	0	0	1640	1327
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						122		185				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		312			842			315				386
Travel Time (s)		8.5			23.0			8.6				10.5
Confl. Peds. (#/hr)	13		6	6		13	21		59	59		21
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	4%	0%	5%	0%	4%	1%	4%	5%	0%
Parking (#/hr)						4						
Adj. Flow (vph)	92	41	10	204	10	122	10	398	296	224	541	20
Shared Lane Traffic (%)	23%											
Lane Group Flow (vph)	71	72	0	0	214	122	0	704	0	0	765	20
Turn Type	Split	NA		Split	NA	pm+ov	Perm	NA		pm+pt	NA	Perm
Protected Phases	7	7		8	8	1		2		1	6	
Permitted Phases						8	2			6		6
Detector Phase	7	7		8	8	8	2	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	20.0	20.0		5.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0	9.0	34.0	34.0		9.0	34.0	34.0
Total Split (s)	27.0	27.0		27.0	27.0	12.0	34.0	34.0		12.0	46.0	46.0
Total Split (%)	27.0%	27.0%		27.0%	27.0%	12.0%	34.0%	34.0%		12.0%	46.0%	46.0%
Maximum Green (s)	22.0	22.0		22.0	22.0	8.0	29.0	29.0		8.0	41.0	41.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0	2.0	2.0		1.0	2.0	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	4.0		5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Recall Mode	None	None		None	None	None	Min	Min		None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		22.0	22.0			22.0	22.0
Pedestrian Calls (#/hr)	3	3		6	6		30	30			10	10
Act Effect Green (s)	12.4	12.4			16.7	25.9		29.8			42.1	42.1

Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018

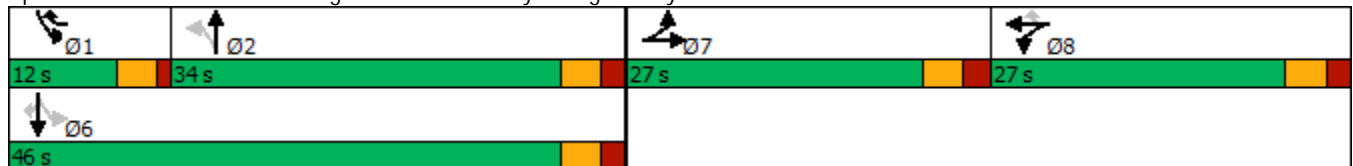


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.15	0.15			0.20	0.31		0.36			0.51	0.51
v/c Ratio	0.30	0.30			0.75	0.28		0.70			0.80	0.03
Control Delay	37.1	37.1			49.5	6.1		23.1			27.1	14.9
Queue Delay	0.0	0.0			0.0	0.0		0.3			0.0	0.0
Total Delay	37.1	37.1			49.5	6.1		23.5			27.1	14.9
LOS	D	D			D	A		C			C	B
Approach Delay		37.1			33.7			23.5			26.8	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	36	36			105	0		122			137	5
Queue Length 95th (ft)	80	81			#222	38		#264			#345	22
Internal Link Dist (ft)		232			762			235			306	
Turn Bay Length (ft)						85						142
Base Capacity (vph)	436	442			387	468		1011			951	676
Starvation Cap Reductn	0	0			0	0		54			0	0
Spillback Cap Reductn	0	0			0	0		0			0	0
Storage Cap Reductn	0	0			0	0		0			0	0
Reduced v/c Ratio	0.16	0.16			0.55	0.26		0.74			0.80	0.03

Intersection Summary






















Area Type:	CBD
Cycle Length:	100
Actuated Cycle Length:	82.5
Natural Cycle:	100
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	27.5
Intersection LOS:	C
Intersection Capacity Utilization:	80.3%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 19: Washington Blvd & Gateway Garage/Henry St



Lanes, Volumes, Timings
 20: Atlantic St & Henry St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	250	20	10	130	20	30	210	40	20	220	240
Future Volume (vph)	240	250	20	10	130	20	30	210	40	20	220	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	10	10	10
Storage Length (ft)	150		0	150		0	150		0	150		340
Storage Lanes	1		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	0.96	0.99		0.95	0.99		0.98	0.99		0.97	0.95	
Frt		0.989			0.980			0.976			0.922	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1577	1634	0	1624	1340	0	1624	1422	0	1516	1221	0
Flt Permitted	0.510			0.590			0.278			0.554		
Satd. Flow (perm)	811	1634	0	953	1340	0	464	1422	0	856	1221	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			8			13			75	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		842			669			1254			538	
Travel Time (s)		23.0			18.2			34.2			14.7	
Confl. Peds. (#/hr)	27		34	34		27	31		21	21		31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	3%	0%	0%	6%	0%	0%	2%	3%	0%	1%	1%
Parking (#/hr)					4			4			4	
Adj. Flow (vph)	245	255	20	10	133	20	31	214	41	20	224	245
Shared Lane Traffic (%)												
Lane Group Flow (vph)	245	275	0	10	153	0	31	255	0	20	469	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		7.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.7	23.7		23.7	23.7		9.5	23.9		9.5	23.9	
Total Split (s)	14.0	37.8		23.8	23.8		9.5	42.7		9.5	42.7	
Total Split (%)	15.6%	42.0%		26.4%	26.4%		10.6%	47.4%		10.6%	47.4%	
Maximum Green (s)	9.3	33.1		19.1	19.1		5.0	37.8		5.0	37.8	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.0	3.3		3.0	3.3	
All-Red Time (s)	1.3	1.3		1.3	1.3		1.5	1.6		1.5	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.5	4.9		4.5	4.9	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Max		Max	Max		None	Min		None	Min	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		12.0		12.0	12.0			12.0			12.0	
Pedestrian Calls (#/hr)		3		6	6			30			10	
Act Effect Green (s)	34.1	34.1		20.3	20.3		34.1	31.9		33.3	30.2	

Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018

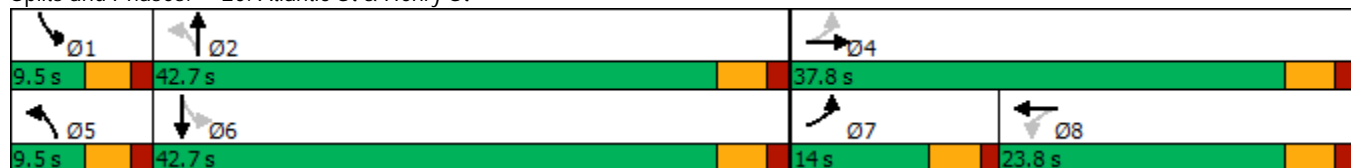


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.43	0.43		0.26	0.26		0.43	0.40		0.42	0.38	
v/c Ratio	0.56	0.39		0.04	0.44		0.11	0.44		0.05	0.92	
Control Delay	25.1	20.5		28.9	32.4		11.4	18.9		10.7	44.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.1	20.5		28.9	32.4		11.4	18.9		10.7	44.6	
LOS	C	C		C	C		B	B		B	D	
Approach Delay		22.7			32.2			18.1			43.2	
Approach LOS		C			C			B			D	
Queue Length 50th (ft)	99	111		4	71		8	75		5	200	
Queue Length 95th (ft)	169	186		18	136		21	159		16	#389	
Internal Link Dist (ft)		762			589			1174			458	
Turn Bay Length (ft)	150			150			150			150		
Base Capacity (vph)	441	705		243	348		275	729		402	637	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.56	0.39		0.04	0.44		0.11	0.35		0.05	0.74	

Intersection Summary



















Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	79.2
Natural Cycle:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	29.7
Intersection LOS:	C
Intersection Capacity Utilization:	73.2%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 20: Atlantic St & Henry St



Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	0	340	10	10	10	100	300	0	0	360	380
Future Volume (vph)	380	0	340	10	10	10	100	300	0	0	360	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	12	12	12	12	11	12	12	10	10
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.87		0.95			0.99				0.92
Frt			0.850		0.955							0.850
Flt Protected	0.950				0.984			0.988				
Satd. Flow (prot)	1540	0	1364	0	1593	0	0	3095	0	0	1520	1292
Flt Permitted	0.950				0.984			0.666				
Satd. Flow (perm)	1520	0	1186	0	1534	0	0	2074	0	0	1520	1184
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					10							396
Link Speed (mph)		25			25			25				25
Link Distance (ft)		369			194			789				315
Travel Time (s)		10.1			5.3			21.5				8.6
Confl. Peds. (#/hr)	9		45	45		9	26		176	176		26
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	3%	0%	0%	0%	1%	0%	4%	0%	5%	5%
Adj. Flow (vph)	396	0	354	10	10	10	104	313	0	0	375	396
Shared Lane Traffic (%)												
Lane Group Flow (vph)	396	0	354	0	30	0	0	417	0	0	375	396
Turn Type	Prot		Perm	Perm	NA		Perm	NA			NA	pm+ov
Protected Phases	4				3			2			6	4
Permitted Phases			4	3			2					6
Detector Phase	4		4	3	3		2	2			6	4
Switch Phase												
Minimum Initial (s)	7.0		7.0	4.0	4.0		20.0	20.0			20.0	7.0
Minimum Split (s)	24.0		24.0	22.0	22.0		27.0	27.0			27.0	24.0
Total Split (s)	36.0		36.0	22.0	22.0		32.0	32.0			32.0	36.0
Total Split (%)	40.0%		40.0%	24.4%	24.4%		35.6%	35.6%			35.6%	40.0%
Maximum Green (s)	30.0		30.0	18.0	18.0		26.0	26.0			26.0	30.0
Yellow Time (s)	4.0		4.0	3.5	3.5		4.0	4.0			4.0	4.0
All-Red Time (s)	2.0		2.0	0.5	0.5		2.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)	6.0		6.0		4.0			6.0			6.0	6.0
Lead/Lag	Lag		Lag	Lead	Lead							Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes							Yes
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode	None		None	None	None		Min	Min			Min	None
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		14.0	14.0			14.0	11.0
Pedestrian Calls (#/hr)	22		22	5	5		88	88			13	22
Act Effct Green (s)	26.3		26.3		8.3			24.4			24.4	50.7
Actuated g/C Ratio	0.37		0.37		0.12			0.35			0.35	0.72

Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018

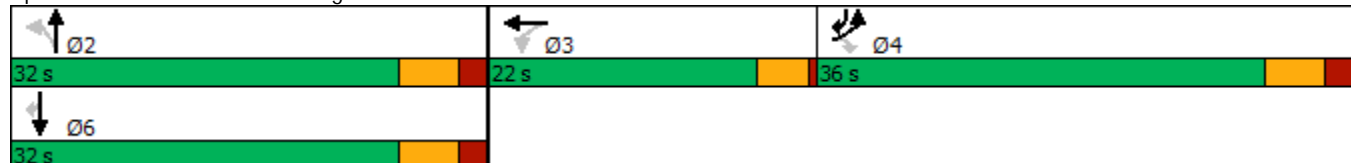


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.69		0.80		0.16			0.58			0.72	0.40
Control Delay	28.8		38.6		26.2			26.0			33.1	1.7
Queue Delay	0.0		0.0		0.0			0.0			0.9	0.0
Total Delay	28.8		38.6		26.2			26.0			34.0	1.8
LOS	C		D		C			C			C	A
Approach Delay		33.5			26.2			26.0			17.5	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	157		148		9			88			161	0
Queue Length 95th (ft)	#342		#355		33			165			#357	25
Internal Link Dist (ft)		289			114			709			235	
Turn Bay Length (ft)	140											
Base Capacity (vph)	689		530		419			804			589	1045
Starvation Cap Reductn	0		0		0			0			62	50
Spillback Cap Reductn	0		0		0			0			0	0
Storage Cap Reductn	0		0		0			0			0	0
Reduced v/c Ratio	0.57		0.67		0.07			0.52			0.71	0.40

Intersection Summary




















Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 70.7
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 25.5
 Intersection LOS: C
 Intersection Capacity Utilization 81.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 21: Washington Blvd & Pulaski St



Lanes, Volumes, Timings
 22: Greenwich Ave & Pulaski St

06/07/2018

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	280	440	0	0	390	120	0	0	0	290	0	210	
Future Volume (vph)	280	440	0	0	390	120	0	0	0	290	0	210	
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	10	
Storage Length (ft)	150		0	0		150	0		0	0		0	
Storage Lanes	1		0	0		1	0		0	0		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													
Frt							0.850					0.943	
Flt Protected	0.950											0.972	
Satd. Flow (prot)	1562	1862	0	0	1629	1439	0	1676	0	0	1537	0	
Flt Permitted	0.950											0.972	
Satd. Flow (perm)	1562	1862	0	0	1629	1439	0	1676	0	0	1537	0	
Link Speed (mph)					25					30			25
Link Distance (ft)					474					594			273
Travel Time (s)					12.9					16.2			6.2
Confl. Peds. (#/hr)	19											1	1
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96	
Heavy Vehicles (%)	4%	1%	2%	2%	5%	1%	2%	2%	2%	2%	2%	2%	
Adj. Flow (vph)	292	458	0	0	406	125	0	0	0	302	0	219	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	292	458	0	0	406	125	0	0	0	0	521	0	
Sign Control	Yield			Yield			Yield			Yield			

Intersection Summary

Area Type:	CBD
Control Type:	Roundabout
Intersection Capacity Utilization	90.7%
ICU Level of Service	E
Analysis Period (min)	15

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕	↕	↕	↕	
Traffic Volume (vph)	80	40	10	140	20	100	10	220	90	230	370	30
Future Volume (vph)	80	40	10	140	20	100	10	220	90	230	370	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	11	11	11	12	11	10	11	11	11
Storage Length (ft)	0		0	0		120	0		220	250		0
Storage Lanes	0		0	0		1	0		1	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	0.98		1.00	0.90	0.94	0.99	
Frt		0.989				0.850			0.850		0.989	
Flt Protected		0.970			0.958			0.998		0.950		
Satd. Flow (prot)	0	1799	0	0	1584	1338	0	1574	1330	1510	1523	0
Flt Permitted		0.734			0.708			0.979		0.604		
Satd. Flow (perm)	0	1355	0	0	1157	1310	0	1539	1195	905	1523	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		5				109			98			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		355			1254			478			789	
Travel Time (s)		9.7			34.2			13.0			21.5	
Confl. Peds. (#/hr)	7		8	8		7	94		37	37		94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%	0%	5%	2%	4%	6%	3%
Adj. Flow (vph)	87	43	11	152	22	109	11	239	98	250	402	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	174	109	0	250	98	250	435	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2				6
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	20.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	29.0	29.0	
Total Split (s)	33.0	33.0		33.0	33.0	33.0	57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%	36.7%	63.3%	63.3%	63.3%	63.3%	63.3%	
Maximum Green (s)	28.0	28.0		28.0	28.0	28.0	52.0	52.0	52.0	52.0	52.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Recall Mode	None	None		None	None	None	Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	17.0	17.0	
Pedestrian Calls (#/hr)	4	4		3	3	3	18	18	18	47	47	
Act Effect Green (s)		16.6			16.6	16.6		24.4	24.4	24.4	24.4	
Actuated g/C Ratio		0.32			0.32	0.32		0.48	0.48	0.48	0.48	

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.32			0.47	0.22		0.34	0.16	0.58	0.60	
Control Delay		16.7			20.4	5.3		9.9	2.7	16.3	14.0	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		16.7			20.4	5.3		9.9	2.7	16.3	14.0	
LOS		B			C	A		A	A	B	B	
Approach Delay		16.7			14.6			7.9			14.8	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		25			34	0		40	0	46	81	
Queue Length 95th (ft)		89			117	32		98	19	128	190	
Internal Link Dist (ft)		275			1174			398			709	
Turn Bay Length (ft)						120			220	250		
Base Capacity (vph)		765			651	785		1456	1136	856	1441	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.18			0.27	0.14		0.17	0.09	0.29	0.30	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	51.3
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	13.3
Intersection LOS:	B
Intersection Capacity Utilization:	68.4%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 23: Washington Blvd & Atlantic St



Lanes, Volumes, Timings

24: Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	0	720	10	10	480	0	0	0	0	0	0	30
Future Volume (vph)	0	720	10	10	480	0	0	0	0	0	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.998										0.865
Fl _t Protected					0.999							
Satd. Flow (prot)	0	1859	0	0	1861	0	0	1900	0	0	1644	0
Fl _t Permitted					0.999							
Satd. Flow (perm)	0	1859	0	0	1861	0	0	1900	0	0	1644	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		594			369			245			153	
Travel Time (s)		16.2			10.1			5.6			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	2%	2%	0%	2%	0%	2%	0%	0%	0%
Adj. Flow (vph)	0	783	11	11	522	0	0	0	0	0	0	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	794	0	0	533	0	0	0	0	0	33	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 25: S. State St & S. State Lot

06/07/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↑			↔↓	
Traffic Volume (vph)	0	1085	0	0	15	0
Future Volume (vph)	0	1085	0	0	15	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3185	0	0	1593	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3185	0	0	1593	0
Link Speed (mph)		25	25		30	
Link Distance (ft)		384	522		171	
Travel Time (s)		10.5	14.2		3.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1142	0	0	16	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1142	0	0	16	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	CBD
Control Type:	Unsignalized
Intersection Capacity Utilization	43.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 26: Parking Garage & Station PI

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	420	0	20	200	0	0
Future Volume (vph)	420	0	20	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected				0.995		
Satd. Flow (prot)	1863	0	0	1857	0	0
Flt Permitted				0.995		
Satd. Flow (perm)	1863	0	0	1857	0	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	158			343	181	
Travel Time (s)	4.3			9.4	4.9	
Confl. Peds. (#/hr)		123	123			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	438	0	21	208	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	438	0	0	229	0	0
Sign Control	Free			Free	Stop	













Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.5%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

27: Station PI

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑				
Traffic Volume (vph)	0	420	0	0	210	130	0	0	60	0	0	0
Future Volume (vph)	0	420	0	0	210	130	0	0	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.948					0.865						
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1779	0	0	1644	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1779	0	0	1644	0	0	0	0
Link Speed (mph)	25		25				25			25		
Link Distance (ft)	343		271				93			77		
Travel Time (s)	9.4		7.4				2.5			2.1		
Confl. Peds. (#/hr)						2	17	84				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%
Adj. Flow (vph)	0	447	0	0	223	138	0	0	64	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	447	0	0	361	0	0	64	0	0	0	0
Sign Control	Stop		Free				Stop			Stop		

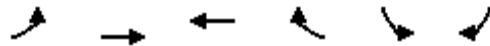
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

36: S. State St

06/07/2018

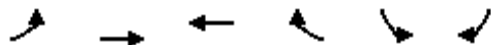


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↑↑	
Traffic Volume (vph)	0	630	0	0	1080	0
Future Volume (vph)	0	630	0	0	1080	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	1.00	1.00	0.97	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	3252	0	0	3400	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3252	0	0	3400	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					301	
Link Speed (mph)		30	30		30	
Link Distance (ft)		708	454		415	
Travel Time (s)		16.1	10.3		9.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	11%	2%	2%	3%	2%
Adj. Flow (vph)	0	643	0	0	1102	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	643	0	0	1102	0
Turn Type		NA			Prot	
Protected Phases		4			6	
Permitted Phases						
Detector Phase		4			6	
Switch Phase						
Minimum Initial (s)		26.0			26.0	
Minimum Split (s)		30.0			30.0	
Total Split (s)		30.0			30.0	
Total Split (%)		50.0%			50.0%	
Maximum Green (s)		26.0			26.0	
Yellow Time (s)		3.0			3.0	
All-Red Time (s)		1.0			1.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.0			4.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0			3.0	
Recall Mode		None			Max	
Act Effct Green (s)		26.0			26.0	
Actuated g/C Ratio		0.43			0.43	
v/c Ratio		0.46			0.67	
Control Delay		13.3			12.0	
Queue Delay		0.0			0.0	
Total Delay		13.3			12.0	
LOS		B			B	
Approach Delay		13.3			12.0	
Approach LOS		B			B	
Queue Length 50th (ft)		82			109	
Queue Length 95th (ft)		121			169	

Lanes, Volumes, Timings

36: S. State St

06/07/2018

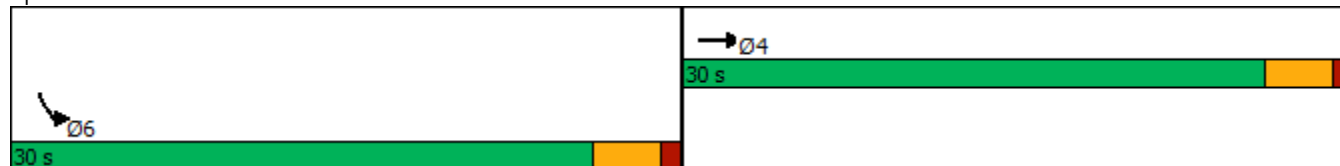


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Internal Link Dist (ft)		628	374		335	
Turn Bay Length (ft)						
Base Capacity (vph)		1409			1643	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.46			0.67	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization	59.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 36: S. State St



Lanes, Volumes, Timings

1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	450	40	180	500	100	40	220	230	100	280	90
Future Volume (vph)	60	450	40	180	500	100	40	220	230	100	280	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	15	12	11	11	11	10	10	10	10	10	9
Storage Length (ft)	0		0	165		0	60		75	75		35
Storage Lanes	1		0	1		0	0		2	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00			0.99		1.00		0.96	0.98		0.98
Frt		0.988			0.975				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	1513	0	1540	2857	0	1223	1535	1317	1444	1535	1140
Flt Permitted	0.337			0.163			0.478			0.503		
Satd. Flow (perm)	531	1513	0	264	2857	0	612	1535	1259	749	1535	1115
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			26				214			69
Link Speed (mph)		30			30			25				25
Link Distance (ft)		906			553			931				521
Travel Time (s)		20.6			12.6			25.4				14.2
Confl. Peds. (#/hr)	14		13	13		14	6		20	20		6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	8%	3%	2%	7%	2%	24%	4%	3%	5%	4%	1%
Parking (#/hr)		4										4
Adj. Flow (vph)	65	484	43	194	538	108	43	237	247	108	301	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	527	0	194	646	0	43	237	247	108	301	97
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	20.0		4.0	20.0		4.0	40.0	40.0	4.0	4.0	4.0
Minimum Split (s)	7.0	24.0		7.0	24.0		7.0	44.0	44.0	7.0	24.0	24.0
Total Split (s)	9.0	47.0		12.0	50.0		7.0	44.0	44.0	7.0	44.0	44.0
Total Split (%)	8.2%	42.7%		10.9%	45.5%		6.4%	40.0%	40.0%	6.4%	40.0%	40.0%
Maximum Green (s)	6.0	43.0		9.0	46.0		4.0	40.0	40.0	4.0	40.0	40.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	0.2		1.0	0.2		1.0	3.0	3.0	1.0	3.0	3.0
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Walk Time (s)		10.0			10.0			10.0	10.0		10.0	10.0
Flash Dont Walk (s)		10.0			10.0			10.0	10.0		10.0	10.0
Pedestrian Calls (#/hr)		6			7			10	10		3	3
Act Effect Green (s)	44.5	38.1		50.8	43.1		45.2	40.2	40.2	46.5	43.2	43.2

Lanes, Volumes, Timings
 1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018

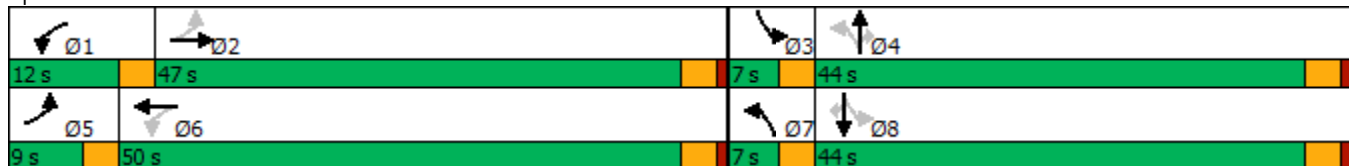


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.42	0.36		0.48	0.41		0.43	0.38	0.38	0.44	0.41	0.41
v/c Ratio	0.24	0.96		0.83	0.55		0.15	0.40	0.40	0.30	0.48	0.19
Control Delay	16.4	61.7		46.8	24.8		19.5	27.7	7.3	21.9	28.2	10.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	61.7		46.8	24.8		19.5	27.7	7.3	21.9	28.2	10.2
LOS	B	E		D	C		B	C	A	C	C	B
Approach Delay		56.7			29.9			17.5			23.4	
Approach LOS		E			C			B			C	
Queue Length 50th (ft)	23	339		74	168		17	125	15	45	167	13
Queue Length 95th (ft)	46	#547		#166	225		40	197	76	83	255	50
Internal Link Dist (ft)		826			473			851			441	
Turn Bay Length (ft)				165			60		75	75		35
Base Capacity (vph)	284	624		237	1271		286	587	613	357	631	499
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.84		0.82	0.51		0.15	0.40	0.40	0.30	0.48	0.19

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 105.1
 Natural Cycle: 95
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 32.3
 Intersection LOS: C
 Intersection Capacity Utilization 93.0%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Greenwich Ave & W. Main St/Tresser Blvd



Lanes, Volumes, Timings
 2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗↗		↖	↖↖↖		↖	↖↖	↖	↖	↖↖	↖
Traffic Volume (vph)	120	610	30	150	710	170	70	730	270	210	1070	110
Future Volume (vph)	120	610	30	150	710	170	70	730	270	210	1070	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	11	11	11
Storage Length (ft)	325		0	200		0	200		375	330		260
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.99	1.00		0.97	0.99		0.98		0.77	0.92		0.91
Frt		0.993			0.971				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1391	4237	0	1510	4171	0	1441	2829	1171	1468	3049	1351
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1371	4237	0	1463	4171	0	1417	2829	898	1351	3049	1236
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		667			769			581			703	
Travel Time (s)		15.2			17.5			15.8			19.2	
Confl. Peds. (#/hr)	26		40	40		26	52		157	157		52
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	9%	5%	12%	4%	4%	3%	9%	11%	20%	7%	3%	4%
Adj. Flow (vph)	124	629	31	155	732	175	72	753	278	216	1103	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	660	0	155	907	0	72	753	278	216	1103	113
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	15.0	15.0	4.0	15.0	15.0
Minimum Split (s)	8.0	21.0		8.0	21.0		8.0	27.0	27.0	8.0	27.0	27.0
Total Split (s)	15.0	25.0		19.0	29.0		12.0	43.0	43.0	23.0	54.0	54.0
Total Split (%)	13.6%	22.7%		17.3%	26.4%		10.9%	39.1%	39.1%	20.9%	49.1%	49.1%
Maximum Green (s)	11.0	21.0		15.0	25.0		8.0	39.0	39.0	19.0	50.0	50.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes								
Vehicle Extension (s)	1.0	3.0		3.0	3.0		1.0	0.2	0.2	1.0	0.2	0.2
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		10.0			10.0			16.0	16.0		16.0	16.0
Pedestrian Calls (#/hr)		20			13			75	75		25	25
Act Effect Green (s)	10.6	21.8		13.7	24.9		7.1	33.9	33.9	17.1	46.0	46.0
Actuated g/C Ratio	0.10	0.21		0.13	0.24		0.07	0.33	0.33	0.17	0.45	0.45

Lanes, Volumes, Timings
2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.87	0.73		0.78	0.90		0.73	0.81	0.94	0.89	0.81	0.20
Control Delay	95.0	45.2		70.6	52.0		87.4	39.0	73.8	78.7	30.6	19.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.0	45.2		70.6	52.0		87.4	39.0	73.8	78.7	30.6	19.2
LOS	F	D		E	D		F	D	E	E	C	B
Approach Delay		53.1			54.7			51.0			37.0	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	88	165		107	233		51	243	182	149	341	47
Queue Length 95th (ft)	#201	#213		#209	#321		#125	318	#343	#283	432	85
Internal Link Dist (ft)		587			689			501			623	
Turn Bay Length (ft)	325			200			200		375	330		260
Base Capacity (vph)	151	899		223	1030		113	1090	346	275	1506	610
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.73		0.70	0.88		0.64	0.69	0.80	0.79	0.73	0.19

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 102.7
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 47.7
 Intersection LOS: D
 Intersection Capacity Utilization 77.8%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Washington Blvd & Tresser Blvd



Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	960	70	290	820	70	190	290	250	190	270	30
Future Volume (vph)	120	960	70	290	820	70	190	290	250	190	270	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	10	10	10
Storage Length (ft)	96		0	118		0	304		0	106		106
Storage Lanes	1		0	1		0	1		0	1		2
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	1.00		0.99	1.00		0.93	0.94		0.95		0.87
Frt		0.990			0.988			0.931				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1274	4142	0	1496	4308	0	1496	2707	0	1486	2708	1245
Flt Permitted	0.299			0.119			0.511			0.272		
Satd. Flow (perm)	397	4142	0	186	4308	0	747	2707	0	405	2708	1088
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		769			474			771			641	
Travel Time (s)		17.5			10.8			21.0			17.5	
Confl. Peds. (#/hr)	27		40	40		27	88		98	98		88
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	19%	7%	12%	5%	3%	4%	5%	2%	0%	2%	12%	9%
Adj. Flow (vph)	124	990	72	299	845	72	196	299	258	196	278	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	1062	0	299	917	0	196	557	0	196	278	31
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	10.0		4.0	10.0	10.0
Minimum Split (s)	8.0	27.0		8.0	27.0		8.0	30.0		8.0	30.0	30.0
Total Split (s)	16.0	37.0		26.0	47.0		17.0	32.0		15.0	30.0	30.0
Total Split (%)	14.5%	33.6%		23.6%	42.7%		15.5%	29.1%		13.6%	27.3%	27.3%
Maximum Green (s)	12.0	32.0		22.0	42.0		13.0	27.0		11.0	25.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)		7.0			7.0			10.0			10.0	10.0
Flash Dont Walk (s)		15.0			15.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)		20			15			50			44	44
Act Effect Green (s)	40.2	29.7		53.8	39.2		37.1	24.4		35.1	23.4	23.4
Actuated g/C Ratio	0.39	0.29		0.53	0.38		0.36	0.24		0.34	0.23	0.23

Lanes, Volumes, Timings
 3: Atlantic St & Tresser Blvd

06/07/2018

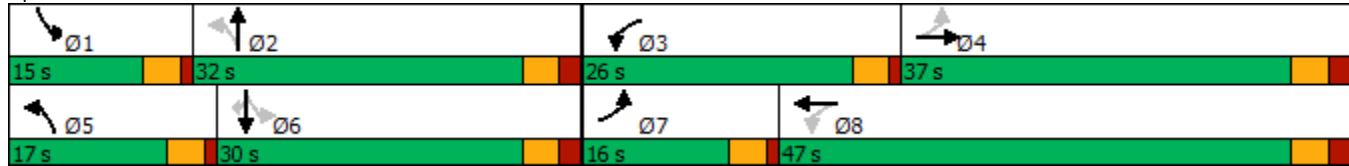


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.52	0.88		0.88	0.55		0.55	0.86		0.78	0.45	0.12
Control Delay	22.9	45.1		52.5	26.6		29.5	52.6		46.9	37.8	35.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	22.9	45.1		52.5	26.6		29.5	52.6		46.9	37.8	35.3
LOS	C	D		D	C		C	D		D	D	D
Approach Delay		42.7			32.9			46.6			41.2	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	43	261		153	177		96	197		96	89	17
Queue Length 95th (ft)	77	#339		#300	228		156	#285		#181	132	44
Internal Link Dist (ft)		689			394			691			561	
Turn Bay Length (ft)	96			118			304			106		106
Base Capacity (vph)	272	1320		384	1822		379	728		259	674	271
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.46	0.80		0.78	0.50		0.52	0.77		0.76	0.41	0.11

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 102.1
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 40.1
 Intersection LOS: D
 Intersection Capacity Utilization 87.9%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Atlantic St & Tresser Blvd



Lanes, Volumes, Timings
4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	700	170	230	1010	40	280	410	200	130	470	140
Future Volume (vph)	90	700	170	230	1010	40	280	410	200	130	470	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	10	12	10	11	9	10	10	11
Storage Length (ft)	200		0	300		0	160		0	171		148
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00	0.98		0.98	1.00		0.99	0.99		0.99		0.97
Frt		0.971			0.994			0.951				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1402	4046	0	1444	4151	0	1486	2785	0	1516	2861	1351
Flt Permitted	0.212			0.144			0.241			0.351		
Satd. Flow (perm)	312	4046	0	215	4151	0	375	2785	0	557	2861	1314
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		50			6							
Link Speed (mph)		30			30			25				25
Link Distance (ft)		557			937			520				749
Travel Time (s)		12.7			21.3			14.2				20.4
Confl. Peds. (#/hr)	18		68	68		18	13		11	11		13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	12%	6%	7%	5%	4%	9%	2%	8%	3%	0%	6%	4%
Adj. Flow (vph)	94	729	177	240	1052	42	292	427	208	135	490	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	906	0	240	1094	0	292	635	0	135	490	146
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		8
Detector Phase	1	6		5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	11.0	29.0		11.0	29.0		11.0	31.0		11.0	31.0	31.0
Total Split (s)	14.0	32.0		23.0	41.0		24.0	40.0		15.0	31.0	31.0
Total Split (%)	12.7%	29.1%		20.9%	37.3%		21.8%	36.4%		13.6%	28.2%	28.2%
Maximum Green (s)	10.0	28.0		19.0	37.0		20.0	36.0		11.0	27.0	27.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min		None	None		None	None	None
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Dont Walk (s)		18.0			18.0			20.0			20.0	20.0
Pedestrian Calls (#/hr)		34			9			5			7	7
Act Effect Green (s)	31.1	22.6		43.2	33.7		42.5	28.9		30.3	20.9	20.9
Actuated g/C Ratio	0.33	0.24		0.46	0.36		0.45	0.31		0.32	0.22	0.22

Lanes, Volumes, Timings
 4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018

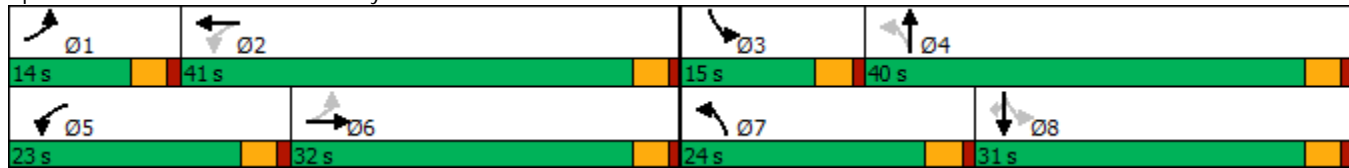


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.90		0.77	0.73		0.78	0.74		0.49	0.77	0.50
Control Delay	25.5	46.3		39.9	31.8		34.8	36.0		24.2	44.5	40.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	25.5	46.3		39.9	31.8		34.8	36.0		24.2	44.5	40.8
LOS	C	D		D	C		C	D		C	D	D
Approach Delay		44.3			33.3			35.6			40.2	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	34	199		103	228		126	192		51	160	85
Queue Length 95th (ft)	70	#268		#235	308		#244	272		95	226	152
Internal Link Dist (ft)		477			857			440			669	
Turn Bay Length (ft)	200			300			160			171		148
Base Capacity (vph)	230	1293		358	1710		415	1114		309	858	394
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.41	0.70		0.67	0.64		0.70	0.57		0.44	0.57	0.37

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 94
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 37.9
 Intersection LOS: D
 Intersection Capacity Utilization 82.8%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Canal St/Greyrock Pl & Tresser Blvd



Lanes, Volumes, Timings
5: Greenwich Ave & Richmond Hill Ave

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	40	120	40	120	110	20	20	410	240	20	440	50
Future Volume (vph)	40	120	40	120	110	20	20	410	240	20	440	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	11	12	12	11	12
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		0.98			0.98			0.99			1.00	
Frt		0.973			0.989			0.952			0.987	
Flt Protected		0.990			0.977			0.998			0.998	
Satd. Flow (prot)	0	1530	0	0	1610	0	0	1496	0	0	1549	0
Flt Permitted		0.904			0.687			0.979			0.964	
Satd. Flow (perm)	0	1390	0	0	1117	0	0	1467	0	0	1496	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			363			811			931	
Travel Time (s)		12.3			9.9			22.1			25.4	
Confl. Peds. (#/hr)	16		23	23		16	8		4	4		8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	5%	15%	4%	16%	0%	15%	5%	1%	7%	4%	10%
Adj. Flow (vph)	43	130	43	130	120	22	22	446	261	22	478	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	272	0	0	729	0	0	554	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		8.0	22.0		23.0	23.0		23.0	23.0	
Total Split (s)	25.0	25.0		8.0	33.0		57.0	57.0		57.0	57.0	
Total Split (%)	27.8%	27.8%		8.9%	36.7%		63.3%	63.3%		63.3%	63.3%	
Maximum Green (s)	21.0	21.0		4.0	29.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	11	11		8	8		2	2		4	4	
Act Effct Green (s)		26.2			26.2			53.1			53.1	
Actuated g/C Ratio		0.30			0.30			0.61			0.61	
v/c Ratio		0.52			0.81			0.82			0.61	
Control Delay		30.2			48.8			23.9			15.0	
Queue Delay		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
 5: Greenwich Ave & Richmond Hill Ave

06/07/2018

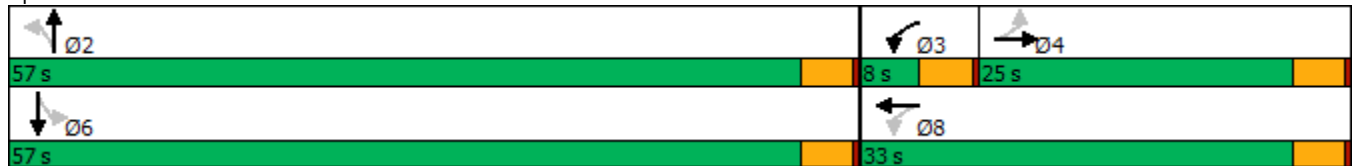


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		30.2			48.8			23.9			15.0	
LOS		C			D			C			B	
Approach Delay		30.2			48.8			23.9			15.0	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)		98			137			312			190	
Queue Length 95th (ft)		167			#263			#570			298	
Internal Link Dist (ft)		372			283			731			851	
Turn Bay Length (ft)												
Base Capacity (vph)		425			371			892			910	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.73			0.82			0.61	

Intersection Summary





















Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	87.3
Natural Cycle:	75
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	25.7
Intersection LOS:	C
Intersection Capacity Utilization:	87.7%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 5: Greenwich Ave & Richmond Hill Ave



Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	290	110	470	310	860	0	0	710	630
Future Volume (vph)	0	0	0	290	110	470	310	860	0	0	710	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	11	16	12	12	12	11	11	11
Storage Length (ft)	0		0	0		780	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor				1.00		0.94						0.95
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1444	1605	1297	1547	3124	0	0	2963	1391
Flt Permitted				0.950			0.189					
Satd. Flow (perm)	0	0	0	1438	1605	1220	308	3124	0	0	2963	1324
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						94						497
Link Speed (mph)		25			25			25				25
Link Distance (ft)		677			1043			258				338
Travel Time (s)		18.5			28.4			7.0				9.2
Confl. Peds. (#/hr)				2		25	9		56	56		9
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	20%	3%	27%	5%	4%	2%	2%	6%	1%
Adj. Flow (vph)	0	0	0	296	112	480	316	878	0	0	724	643
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	296	112	480	316	878	0	0	724	643
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2				6
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2				6
Switch Phase												
Minimum Initial (s)				20.0	20.0	20.0	5.0	20.0				5.0
Minimum Split (s)				29.0	29.0	29.0	10.0	25.0				22.0
Total Split (s)				46.0	46.0	46.0	21.0	64.0				43.0
Total Split (%)				41.8%	41.8%	41.8%	19.1%	58.2%				39.1%
Maximum Green (s)				41.0	41.0	41.0	16.0	59.0				38.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0				2.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0				0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0				5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0	0.2				2.0
Recall Mode				None	None	None	None	Min				Min
Walk Time (s)				7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)				10.0	10.0	10.0		10.0				10.0
Pedestrian Calls (#/hr)				13	13	13		28				5
Act Effect Green (s)				37.7	37.7	37.7	53.4	53.4				32.1
Actuated g/C Ratio				0.37	0.37	0.37	0.53	0.53				0.32

Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

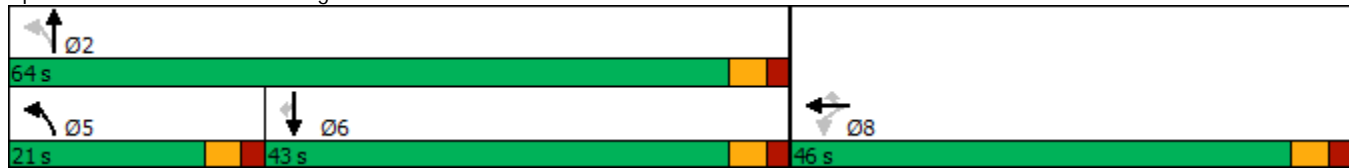


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.55	0.19	0.94	0.88	0.53			0.77	0.85
Control Delay				30.7	23.5	53.2	44.6	17.5			37.7	19.6
Queue Delay				0.0	0.0	0.0	0.0	2.8			0.0	0.0
Total Delay				30.7	23.5	53.2	44.6	20.3			37.7	19.6
LOS				C	C	D	D	C			D	B
Approach Delay					42.0			26.7			29.2	
Approach LOS					D			C			C	
Queue Length 50th (ft)				157	51	261	127	201			231	90
Queue Length 95th (ft)				253	95	#488	#297	256			301	#311
Internal Link Dist (ft)		597			963			178			258	
Turn Bay Length (ft)						780						
Base Capacity (vph)				591	660	557	361	1850			1130	812
Starvation Cap Reductn				0	0	0	0	827			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.50	0.17	0.86	0.88	0.86			0.64	0.79

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 101.3
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 31.6
 Intersection LOS: C
 Intersection Capacity Utilization 121.0%
 ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Washington Blvd & N. State St



Lanes, Volumes, Timings

7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	140	640	590	320	280	10	380	310	270	110
Future Volume (vph)	140	640	590	320	280	10	380	310	270	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	11	11	10	11	11
Storage Length (ft)		0		0		75			75	
Storage Lanes		2		0		1			1	
Taper Length (ft)		25				25				
Lane Util. Factor	0.95	0.97	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor			0.94			0.94			0.89	
Fr _t			0.947						0.850	
Fl _t Protected		0.950				0.950				
Satd. Flow (prot)	0	2934	2673	0	0	1542	3141	2861	1228	0
Fl _t Permitted		0.950				0.497				
Satd. Flow (perm)	0	2934	2673	0	0	762	3141	2861	1090	0
Right Turn on Red				No						No
Satd. Flow (RTOR)										
Link Speed (mph)			25				25	28		
Link Distance (ft)			1150				217	771		
Travel Time (s)			31.4				5.9	18.8		
Confl. Peds. (#/hr)				99	31	31			31	31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	4%	1%	11%	1%	25%	0%	6%	2%	45%
Adj. Flow (vph)	143	653	602	327	286	10	388	316	276	112
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	796	929	0	0	296	388	316	388	0
Turn Type	Split	Split	NA		pm+pt	pm+pt	NA	NA	Perm	
Protected Phases	8	8	8		5	5	2	6		
Permitted Phases					2	2			6	
Detector Phase	8	8	8		5	5	2	6	6	
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0		5.0	5.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0	24.0		9.0	9.0	24.0	24.0	24.0	
Total Split (s)	44.0	44.0	44.0		12.0	12.0	66.0	54.0	54.0	
Total Split (%)	40.0%	40.0%	40.0%		10.9%	10.9%	60.0%	49.1%	49.1%	
Maximum Green (s)	40.0	40.0	40.0		8.0	8.0	62.0	50.0	50.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0				0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0				4.0	4.0	4.0	
Lead/Lag					Lead	Lead		Lag	Lag	
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None		None	None	Max	Max	Max	
Walk Time (s)	5.0	5.0	5.0				5.0	5.0	5.0	
Flash Dont Walk (s)	15.0	15.0	15.0				15.0	15.0	15.0	
Pedestrian Calls (#/hr)	50	50	50				4	15	15	
Act Effect Green (s)		40.0	40.0			62.0	62.0	50.0	50.0	
Actuated g/C Ratio		0.36	0.36			0.56	0.56	0.45	0.45	

Lanes, Volumes, Timings
 7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018

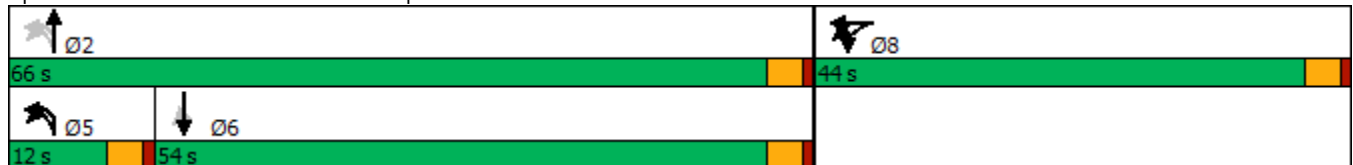


Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
v/c Ratio		0.75	0.96			0.61	0.22	0.24	0.78	
Control Delay		35.8	54.8			20.0	12.3	19.0	38.6	
Queue Delay		0.0	0.0			30.6	2.7	0.0	0.0	
Total Delay		35.8	54.8			50.6	15.0	19.0	38.6	
LOS		D	D			D	B	B	D	
Approach Delay			46.1				30.4	29.8		
Approach LOS			D				C	C		
Queue Length 50th (ft)		250	333			107	67	70	226	
Queue Length 95th (ft)		324	#471			164	94	101	#395	
Internal Link Dist (ft)			1070				137	691		
Turn Bay Length (ft)						75			75	
Base Capacity (vph)		1066	972			486	1770	1300	495	
Starvation Cap Reductn		0	0			194	1242	0	0	
Spillback Cap Reductn		0	0			0	0	0	0	
Storage Cap Reductn		0	0			0	0	0	0	
Reduced v/c Ratio		0.75	0.96			1.01	0.73	0.24	0.78	

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 39.0
 Intersection LOS: D
 Intersection Capacity Utilization 88.4%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 7: I-95 SB On-Ramp & Atlantic St & N. State St



Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (vph)	0	0	0	310	1310	300	270	590	0	0	630	240
Future Volume (vph)	0	0	0	310	1310	300	270	590	0	0	630	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99		1.00					1.00
Frt					0.977							0.959
Flt Protected					0.992		0.950					
Satd. Flow (prot)	0	0	0	0	5219	0	1490	3065	0	0	2847	0
Flt Permitted					0.992		0.108					
Satd. Flow (perm)	0	0	0	0	5219	0	169	3065	0	0	2847	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												32
Link Speed (mph)		25			25			25				25
Link Distance (ft)		1150			792			189				520
Travel Time (s)		31.4			21.6			5.2				14.2
Confl. Peds. (#/hr)	30					30	7					7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	8%	5%	2%	9%	6%	0%	0%	5%	6%
Adj. Flow (vph)	0	0	0	323	1365	313	281	615	0	0	656	250
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2001	0	281	615	0	0	906	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Detector Phase				8	8		5	2			6	
Switch Phase												
Minimum Initial (s)				10.0	10.0		5.0	25.0			25.0	
Minimum Split (s)				49.0	49.0		9.0	49.0			49.0	
Total Split (s)				52.0	52.0		18.0	68.0			50.0	
Total Split (%)				43.3%	43.3%		15.0%	56.7%			41.7%	
Maximum Green (s)				48.0	48.0		14.0	64.0			46.0	
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					4.0		4.0	4.0			4.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				5.0	5.0		0.5	0.2			0.2	
Recall Mode				None	None		None	Min			Min	
Walk Time (s)				20.0	20.0			25.0			25.0	
Flash Dont Walk (s)				25.0	25.0			20.0			20.0	
Pedestrian Calls (#/hr)				15	15			0			4	
Act Effct Green (s)					48.2		54.8	54.8			36.7	
Actuated g/C Ratio					0.43		0.49	0.49			0.33	
v/c Ratio					0.88		1.12	0.41			0.94	
Control Delay					35.6		122.6	18.4			52.5	
Queue Delay					0.0		2.7	3.0			0.1	

Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018

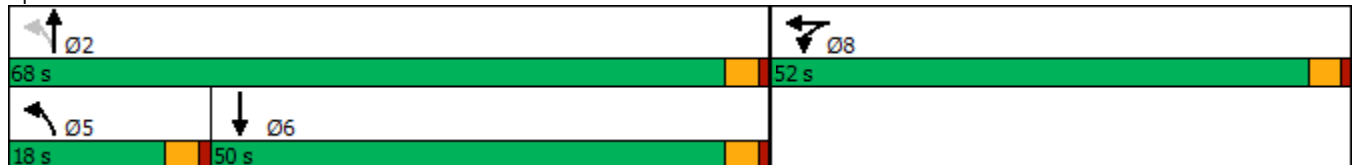


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay					35.6		125.3	21.4			52.6	
LOS					D		F	C			D	
Approach Delay					35.6			54.0			52.6	
Approach LOS					D			D			D	
Queue Length 50th (ft)					379		~186	140			317	
Queue Length 95th (ft)					#525		#375	182			405	
Internal Link Dist (ft)		1070			712			109			440	
Turn Bay Length (ft)												
Base Capacity (vph)					2265		250	1774			1203	
Starvation Cap Reductn					0		43	1024			14	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.88		1.36	0.82			0.76	

Intersection Summary

Area Type:	CBD
Cycle Length:	120
Actuated Cycle Length:	111
Natural Cycle:	110
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.12
Intersection Signal Delay:	44.0
Intersection LOS:	D
Intersection Capacity Utilization:	92.3%
ICU Level of Service:	F
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 8: Canal St & N. State St



Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗					↑	↗	↘	↑↑	
Traffic Volume (vph)	470	700	310	0	0	0	0	230	130	110	480	0
Future Volume (vph)	470	700	310	0	0	0	0	230	130	110	480	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	16	10	12	12
Storage Length (ft)	210		240	0		0	0		0	200		200
Storage Lanes	1		1	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor			0.97						0.99	1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1555	3079	1405	0	0	0	0	1513	1287	1378	3154	0
Flt Permitted	0.950									0.545		
Satd. Flow (perm)	1555	3079	1370	0	0	0	0	1513	1270	790	3154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			323						135			
Link Speed (mph)		30			25			25				25
Link Distance (ft)		711			384			138				811
Travel Time (s)		16.2			10.5			3.8				22.1
Confl. Peds. (#/hr)			10						1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	2%	0%	2%	2%	2%	2%	13%	28%	10%	3%	2%
Adj. Flow (vph)	490	729	323	0	0	0	0	240	135	115	500	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	490	729	323	0	0	0	0	240	135	115	500	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		3						2			6	
Permitted Phases	3		3						2	6		
Detector Phase	3	3	3					2	2	6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	24.0	24.0	24.0					24.0	24.0	24.0	24.0	
Total Split (s)	35.0	35.0	35.0					36.0	36.0	26.0	26.0	
Total Split (%)	38.9%	38.9%	38.9%					40.0%	40.0%	28.9%	28.9%	
Maximum Green (s)	31.0	31.0	31.0					32.0	32.0	22.0	22.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Min	Min	Min	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0	13.0					13.0	13.0	13.0	13.0	
Pedestrian Calls (#/hr)	5	5	5					1	1	2	2	
Act Effect Green (s)	28.5	28.5	28.5					29.7	29.7	29.7	29.7	
Actuated g/C Ratio	0.38	0.38	0.38					0.39	0.39	0.39	0.39	

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

Lane Group	Ø4	Ø5
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	4	5
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	8.0	5.0
Minimum Split (s)	19.0	10.0
Total Split (s)	19.0	10.0
Total Split (%)	21%	11%
Maximum Green (s)	15.0	6.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	1.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	8.0	
Pedestrian Calls (#/hr)	0	
Act Effect Green (s)		
Actuated g/C Ratio		

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

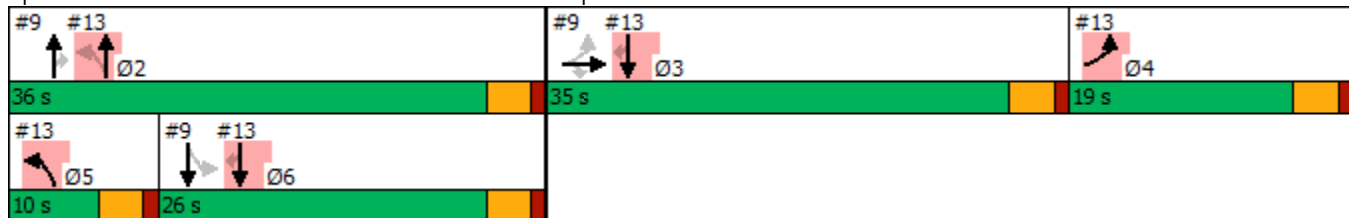


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.83	0.63	0.45					0.40	0.23	0.37	0.40	
Control Delay	37.7	23.2	4.6					6.5	1.7	22.9	19.0	
Queue Delay	0.0	0.0	0.0					1.4	1.2	0.0	0.0	
Total Delay	37.7	23.2	4.6					7.9	2.8	22.9	19.0	
LOS	D	C	A					A	A	C	B	
Approach Delay		23.9						6.1			19.7	
Approach LOS		C						A			B	
Queue Length 50th (ft)	229	161	0					29	0	42	97	
Queue Length 95th (ft)	#403	220	51					m56	m0	88	139	
Internal Link Dist (ft)		631			304			58			731	
Turn Bay Length (ft)	210		240							200		
Base Capacity (vph)	679	1344	780					682	646	321	1282	
Starvation Cap Reductn	0	0	0					274	339	0	0	
Spillback Cap Reductn	0	0	1					0	0	0	13	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.72	0.54	0.41					0.59	0.44	0.36	0.39	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 75.4
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 20.2
 Intersection LOS: C
 Intersection Capacity Utilization 62.5%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Greenwich Ave & I-95 NB Off Ramp/S. State St



Lane Group	Ø4	Ø5
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	430	210	230	0	0	0	0	750	80	170	630	0
Future Volume (vph)	430	210	230	0	0	0	0	750	80	170	630	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	12	10	10	10
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00
Fr't		0.940						0.986				
Flt Protected	0.950	0.989								0.950		
Satd. Flow (prot)	1374	2521	0	0	0	0	0	4301	0	2451	2861	0
Flt Permitted	0.950	0.989								0.950		
Satd. Flow (perm)	1374	2521	0	0	0	0	0	4301	0	2451	2861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		140						18				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		522			566			287				258
Travel Time (s)		14.2			15.4			7.8				7.0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	4%	24%	3%	0%	0%	0%	0%	5%	26%	20%	6%	0%
Adj. Flow (vph)	453	221	242	0	0	0	0	789	84	179	663	0
Shared Lane Traffic (%)	31%											
Lane Group Flow (vph)	313	603	0	0	0	0	0	873	0	179	663	0
Turn Type	Split	NA						NA		Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	9.0	9.0						15.0		7.0	15.0	
Minimum Split (s)	14.0	14.0						20.0		11.0	20.0	
Total Split (s)	25.0	25.0						22.0		11.0	33.0	
Total Split (%)	27.8%	27.8%						24.4%		12.2%	36.7%	
Maximum Green (s)	20.0	20.0						17.0		7.0	28.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0		4.0	5.0	
Lead/Lag	Lag	Lag						Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						0.2		2.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	20.6	20.6						17.5		7.2	28.9	
Actuated g/C Ratio	0.25	0.25						0.21		0.09	0.35	
v/c Ratio	0.92	0.83						0.95		0.85	0.67	
Control Delay	69.5	36.5						55.9		75.5	29.9	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	36%
Maximum Green (s)	30.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	60
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

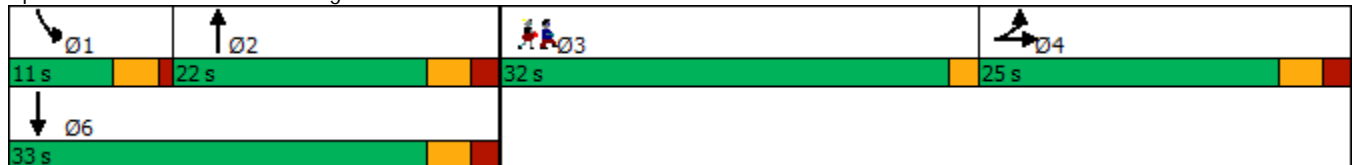


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0						0.0		0.0	4.4	
Total Delay	69.5	36.5						55.9		75.5	34.3	
LOS	E	D						E		E	C	
Approach Delay		47.8						55.9			43.1	
Approach LOS		D						E			D	
Queue Length 50th (ft)	~204	144						~198		53	176	
Queue Length 95th (ft)	#386	#251						#282		#117	242	
Internal Link Dist (ft)		442			486			207			178	
Turn Bay Length (ft)	100											
Base Capacity (vph)	339	727						916		211	988	
Starvation Cap Reductn	0	0						0		0	246	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.92	0.83						0.95		0.85	0.89	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 83.6
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 49.0
 Intersection LOS: D
 Intersection Capacity Utilization 121.0%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Washington Blvd & S. State St



Lane Group	Ø3
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗	↘	↕↕	
Traffic Volume (vph)	80	310	70	0	0	0	0	590	80	100	350	0
Future Volume (vph)	80	310	70	0	0	0	0	590	80	100	350	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	0		0	75		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor		1.00							0.99	1.00		
Frt			0.850						0.850			
Flt Protected		0.990								0.950		
Satd. Flow (prot)	0	2721	1357	0	0	0	0	3094	1309	1533	3124	0
Flt Permitted		0.990								0.343		
Satd. Flow (perm)	0	2721	1357	0	0	0	0	3094	1292	553	3124	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		543			708			126			217	
Travel Time (s)		14.8			19.3			3.4			5.9	
Confl. Peds. (#/hr)	1						1	37		1	1	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	13%	0%	2%	2%	2%	2%	5%	11%	6%	4%	2%
Adj. Flow (vph)	82	316	71	0	0	0	0	602	82	102	357	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	398	71	0	0	0	0	602	82	102	357	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0					33.0	33.0	6.0	33.0	
Minimum Split (s)	29.0	29.0	29.0					37.0	37.0	10.0	37.0	
Total Split (s)	33.0	33.0	33.0					44.0	44.0	13.0	57.0	
Total Split (%)	36.7%	36.7%	36.7%					48.9%	48.9%	14.4%	63.3%	
Maximum Green (s)	29.0	29.0	29.0					40.0	40.0	9.0	53.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5					0.2	0.2	1.0	0.2	
Recall Mode	None	None	None					Min	Min	None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0		7.0	
Flash Dont Walk (s)	18.0	18.0	18.0					14.0	14.0		14.0	
Pedestrian Calls (#/hr)	0	0	0					1	1		17	
Act Effect Green (s)		16.6	16.6					33.5	33.5	41.6	41.6	
Actuated g/C Ratio		0.25	0.25					0.51	0.51	0.63	0.63	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.58	0.21					0.39	0.13	0.23	0.18	
Control Delay		25.9	21.8					12.6	11.9	7.1	6.0	
Queue Delay		0.0	0.0					0.1	0.0	0.7	0.1	
Total Delay		25.9	21.8					12.7	11.9	7.8	6.1	
LOS		C	C					B	B	A	A	
Approach Delay		25.3						12.6			6.5	
Approach LOS		C						B			A	
Queue Length 50th (ft)		76	23					76	17	14	26	
Queue Length 95th (ft)		121	55					145	50	39	57	
Internal Link Dist (ft)		463			628			46			137	
Turn Bay Length (ft)										75		
Base Capacity (vph)		1208	602					1894	791	481	2535	
Starvation Cap Reductn		0	0					419	0	192	1245	
Spillback Cap Reductn		0	0					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.33	0.12					0.41	0.10	0.35	0.28	

Intersection Summary




















Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 66.3
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 14.6
 Intersection LOS: B
 Intersection Capacity Utilization 59.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 11: Atlatnic St/Atlantic St & S. State St



Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	460	620	340	0	0	0	0	400	350	290	650	0
Future Volume (vph)	460	620	340	0	0	0	0	400	350	290	650	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor												
Frt			0.850					0.930				
Flt Protected	0.950										0.985	
Satd. Flow (prot)	1547	3065	1346	0	0	0	0	2810	0	0	3055	0
Flt Permitted	0.950										0.528	
Satd. Flow (perm)	1547	3065	1346	0	0	0	0	2810	0	0	1637	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				30
Link Distance (ft)		454			543			446				189
Travel Time (s)		12.4			14.8			12.2				4.3
Confl. Peds. (#/hr)							7					7
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	6%	8%	2%	2%	2%	2%	8%	7%	2%	6%	0%
Adj. Flow (vph)	474	639	351	0	0	0	0	412	361	299	670	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	474	639	351	0	0	0	0	773	0	0	969	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Detector Phase	4	4	4					2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					20.0		1.0	20.0	
Minimum Split (s)	31.0	31.0	31.0					35.0		5.0	35.0	
Total Split (s)	36.0	36.0	36.0					35.0		19.0	54.0	
Total Split (%)	40.0%	40.0%	40.0%					38.9%		21.1%	60.0%	
Maximum Green (s)	32.0	32.0	32.0					31.0		15.0	50.0	
Yellow Time (s)	3.0	3.0	3.0					3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0			4.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					0.2		0.2	0.2	
Recall Mode	None	None	None					Min		None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0			7.0	
Flash Dont Walk (s)	20.0	20.0	20.0					24.0			24.0	
Pedestrian Calls (#/hr)	0	0	0					0			4	
Act Effect Green (s)	29.8	29.8	29.8					28.6			47.5	
Actuated g/C Ratio	0.35	0.35	0.35					0.33			0.56	
v/c Ratio	0.88	0.60	0.75					0.82			0.84	

Lanes, Volumes, Timings
 12: Canal St & S. State St

06/07/2018

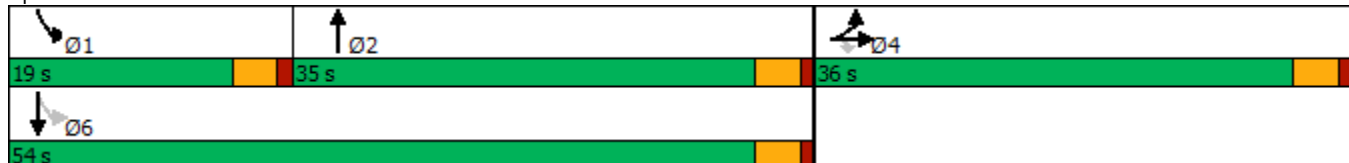


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	46.2	26.0	36.6					34.8			21.6	
Queue Delay	0.0	0.0	0.0					0.0			49.4	
Total Delay	46.2	26.0	36.6					34.8			71.0	
LOS	D	C	D					C			E	
Approach Delay		35.1						34.8			71.0	
Approach LOS		D						C			E	
Queue Length 50th (ft)	247	153	172					206			176	
Queue Length 95th (ft)	#425	210	#301					280			#242	
Internal Link Dist (ft)		374			463			366			109	
Turn Bay Length (ft)	200		200									
Base Capacity (vph)	588	1165	511					1034			1225	
Starvation Cap Reductn	0	0	0					0			351	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.81	0.55	0.69					0.75			1.11	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	85.4
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	45.9
Intersection LOS:	D
Intersection Capacity Utilization:	92.4%
ICU Level of Service:	F
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: Canal St & S. State St



Lanes, Volumes, Timings
13: Greenwich Ave & First Stamford Pl

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
Lane Configurations								
Traffic Volume (vph)	70	20	60	290	390	400		
Future Volume (vph)	70	20	60	290	390	400		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	11	13	12		
Storage Length (ft)	0	100	0			0		
Storage Lanes	2	1	0			1		
Taper Length (ft)	25		25					
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.99			1.00		0.97		
Frt	0.966					0.850		
Flt Protected	0.963			0.991				
Satd. Flow (prot)	2777	0	0	1392	1716	1439		
Flt Permitted	0.963			0.877				
Satd. Flow (perm)	2777	0	0	1231	1716	1398		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	21					417		
Link Speed (mph)	25			25	25			
Link Distance (ft)	260			506	138			
Travel Time (s)	7.1			13.8	3.8			
Confl. Peds. (#/hr)		10	4			4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Heavy Vehicles (%)	11%	6%	2%	21%	3%	1%		
Adj. Flow (vph)	73	21	63	302	406	417		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	94	0	0	365	406	417		
Turn Type	Prot		pm+pt	NA	NA	Perm		
Protected Phases	4		5	2	3 6		3	6
Permitted Phases			2			3 6		
Detector Phase	4		5	2	3 6	3 6		
Switch Phase								
Minimum Initial (s)	8.0		5.0	12.0			8.0	12.0
Minimum Split (s)	19.0		10.0	24.0			24.0	24.0
Total Split (s)	19.0		10.0	36.0			35.0	26.0
Total Split (%)	21.1%		11.1%	40.0%			39%	29%
Maximum Green (s)	15.0		6.0	32.0			31.0	22.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0			0.0				
Total Lost Time (s)	4.0			4.0				
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Vehicle Extension (s)	1.0		3.0	3.0			0.2	3.0
Recall Mode	None		None	Min			None	Min
Walk Time (s)	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	8.0			13.0			13.0	13.0
Pedestrian Calls (#/hr)	0			1			5	2
Act Effect Green (s)	8.5			29.7	63.8	63.8		
Actuated g/C Ratio	0.11			0.39	0.85	0.85		

Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018

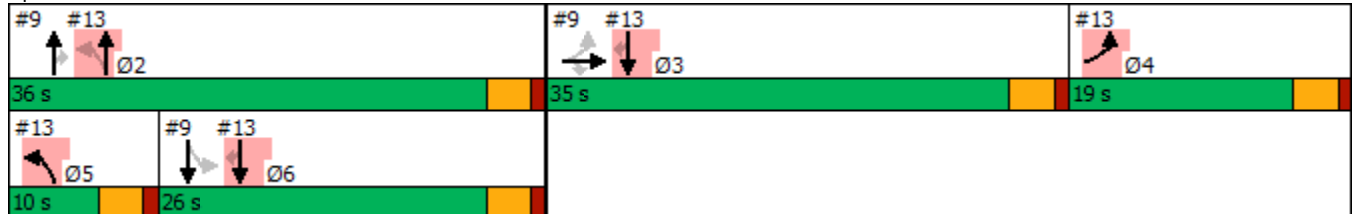


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
v/c Ratio	0.28			0.75	0.28	0.33		
Control Delay	31.0			33.7	1.0	1.4		
Queue Delay	0.0			0.0	0.4	0.3		
Total Delay	31.0			33.7	1.4	1.8		
LOS	C			C	A	A		
Approach Delay	31.0			33.7	1.6			
Approach LOS	C			C	A			
Queue Length 50th (ft)	18			162	12	13		
Queue Length 95th (ft)	41			#305	14	27		
Internal Link Dist (ft)	180			426	58			
Turn Bay Length (ft)								
Base Capacity (vph)	603			555	1443	1241		
Starvation Cap Reductn	0			0	547	355		
Spillback Cap Reductn	53			2	0	0		
Storage Cap Reductn	0			0	0	0		
Reduced v/c Ratio	0.17			0.66	0.45	0.47		

Intersection Summary












Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 75.4
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 12.9
 Intersection LOS: B
 Intersection Capacity Utilization 61.8%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 13: Greenwich Ave & First Stamford Pl



Lanes, Volumes, Timings
14: Washington Blvd & Station Pl

06/07/2018

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Lane Configurations							
Traffic Volume (vph)	120	240	590	80	410	450	
Future Volume (vph)	120	240	590	80	410	450	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	8	12	11	11	11	11	
Storage Length (ft)	0	40		0	0		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	0.88	0.95	0.95	1.00	0.95	
Fr _t		0.850	0.982				
Fl _t Protected	0.950				0.950		
Satd. Flow (prot)	1380	2484	2868	0	1540	2963	
Fl _t Permitted	0.950				0.228		
Satd. Flow (perm)	1380	2484	2868	0	369	2963	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)			16				
Link Speed (mph)	25		25			25	
Link Distance (ft)	385		386			287	
Travel Time (s)	10.5		10.5			7.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Heavy Vehicles (%)	2%	3%	8%	4%	2%	6%	
Adj. Flow (vph)	129	258	634	86	441	484	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	129	258	720	0	441	484	
Turn Type	Prot	pt+ov	NA		pm+pt	NA	
Protected Phases	4	4 1	2		1	6	3
Permitted Phases					6		
Detector Phase	4	4 1	2		1	6	
Switch Phase							
Minimum Initial (s)	9.0		15.0		7.0	15.0	1.0
Minimum Split (s)	13.0		20.0		11.0	20.0	20.0
Total Split (s)	14.0		30.0		26.0	56.0	20.0
Total Split (%)	15.6%		33.3%		28.9%	62.2%	22%
Maximum Green (s)	10.0		25.0		22.0	51.0	18.0
Yellow Time (s)	3.0		3.0		3.0	3.0	2.0
All-Red Time (s)	1.0		2.0		1.0	2.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	4.0		5.0		4.0	5.0	
Lead/Lag	Lag		Lag		Lead		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0		0.2		2.0	0.2	0.2
Recall Mode	None		Max		None	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							11.0
Pedestrian Calls (#/hr)							20
Act Effct Green (s)	9.9	34.0	27.7		52.8	51.8	
Actuated g/C Ratio	0.13	0.44	0.36		0.68	0.67	
v/c Ratio	0.73	0.24	0.70		0.80	0.25	
Control Delay	61.4	15.6	28.6		25.3	7.2	

Lanes, Volumes, Timings
 14: Washington Blvd & Station PI

06/07/2018



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Queue Delay	0.0	0.0	0.0		1.5	0.5	
Total Delay	61.4	15.6	28.6		26.8	7.7	
LOS	E	B	C		C	A	
Approach Delay	30.9		28.6			16.8	
Approach LOS	C		C			B	
Queue Length 50th (ft)	53	31	133		72	27	
Queue Length 95th (ft)	#174	85	#308		#336	98	
Internal Link Dist (ft)	305		306			207	
Turn Bay Length (ft)		40					
Base Capacity (vph)	180	1138	1031		587	1973	
Starvation Cap Reductn	0	0	0		46	1015	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.72	0.23	0.70		0.82	0.51	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 77.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 23.7
 Intersection LOS: C
 Intersection Capacity Utilization 64.5%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Washington Blvd & Station PI

Ø1	Ø2	Ø3	Ø4
26 s	30 s	20 s	14 s
Ø6			
56 s			

Lanes, Volumes, Timings

15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗↗	↗	↖	↗↗	↗
Traffic Volume (vph)	60	150	30	200	260	330	30	270	170	100	170	160
Future Volume (vph)	60	150	30	200	260	330	30	270	170	100	170	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	11	12	12	14	12	12	16
Storage Length (ft)	80		0	175		0	100		125	75		0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.98	0.97		0.88		0.95	0.99		0.98	0.99		0.97
Frt		0.975				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1501	0	1510	1589	1313	1624	2981	1409	1490	3154	1631
Flt Permitted	0.499			0.570			0.638			0.441		
Satd. Flow (perm)	806	1501	0	795	1589	1251	1083	2981	1375	687	3154	1583
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						323			181			170
Link Speed (mph)		25			25			25				30
Link Distance (ft)		271			522			362				194
Travel Time (s)		7.4			14.2			9.9				4.4
Confl. Peds. (#/hr)	35		182	182		35	6		9	9		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	0%	4%	4%	7%	0%	9%	10%	9%	3%	1%
Adj. Flow (vph)	64	160	32	213	277	351	32	287	181	106	181	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	192	0	213	277	351	32	287	181	106	181	170
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	3	8		7	4	5	1	6	7	5	2	3
Permitted Phases	8			4		4	6		6	2		2
Detector Phase	3	8		7	4	5	1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	5.0	5.0	15.0	5.0	5.0	15.0	5.0
Minimum Split (s)	10.0	34.0		10.0	31.0	10.0	10.0	24.0	10.0	10.0	34.0	10.0
Total Split (s)	11.0	34.0		12.0	35.0	18.0	10.0	26.0	12.0	18.0	34.0	11.0
Total Split (%)	12.2%	37.8%		13.3%	38.9%	20.0%	11.1%	28.9%	13.3%	20.0%	37.8%	12.2%
Maximum Green (s)	6.0	29.0		7.0	30.0	13.0	5.0	21.0	7.0	13.0	29.0	6.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	0.2	3.0	3.0	0.2	3.0
Recall Mode	None	None		None	None	None	None	Min	None	None	Min	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		22.0			19.0			12.0			22.0	
Pedestrian Calls (#/hr)		90			17			5			3	
Act Effect Green (s)	31.8	25.9		34.1	27.0	36.8	21.3	16.3	23.4	31.1	27.4	33.4
Actuated g/C Ratio	0.40	0.33		0.43	0.34	0.46	0.27	0.21	0.30	0.39	0.35	0.42

Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018

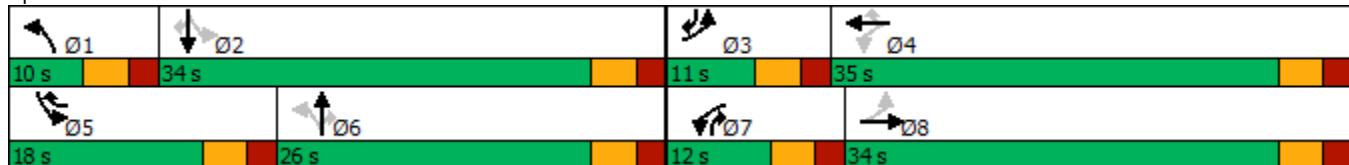


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.17	0.39		0.53	0.51	0.46	0.10	0.47	0.34	0.29	0.17	0.22
Control Delay	13.3	23.9		19.5	25.3	3.9	17.2	31.9	5.2	18.9	20.7	3.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	23.9		19.5	25.3	3.9	17.2	31.9	5.2	18.9	20.7	3.5
LOS	B	C		B	C	A	B	C	A	B	C	A
Approach Delay		21.3			14.9			21.3			13.9	
Approach LOS		C			B			C			B	
Queue Length 50th (ft)	16	71		59	106	6	10	70	0	36	31	0
Queue Length 95th (ft)	43	144		126	204	48	27	111	41	69	64	34
Internal Link Dist (ft)		191			442			282			114	
Turn Bay Length (ft)	80			175			100		125	75		
Base Capacity (vph)	383	556		405	609	803	326	800	536	403	1180	770
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.35		0.53	0.45	0.44	0.10	0.36	0.34	0.26	0.15	0.22

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 79.3
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 17.0
 Intersection LOS: B
 Intersection Capacity Utilization 72.6%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 15: Atlantic St/Atlantic St & Station Pl/Dock St



Lanes, Volumes, Timings
 16: Parking Garage & Station Pl

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↘	
Traffic Volume (vph)	260	160	0	460	10	10
Future Volume (vph)	260	160	0	460	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.932	
Flt Protected					0.976	
Satd. Flow (prot)	1863	1615	0	1863	1728	0
Flt Permitted					0.976	
Satd. Flow (perm)	1863	1615	0	1863	1728	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	385			158	174	
Travel Time (s)	10.5			4.3	4.7	
Confl. Peds. (#/hr)		118	118		10	107
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	274	168	0	484	11	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	274	168	0	484	22	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.0% ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
 17: Canal St & Dock St/Jefferson St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	280	420	20	120	460	220	10	190	90	340	390	240
Future Volume (vph)	280	420	20	120	460	220	10	190	90	340	390	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	11	12	12	11	12	11	11	16
Storage Length (ft)	275		0	170		0	0		120	0		180
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00	1.00		0.98	1.00			1.00	0.99	1.00	0.99	
Frt		0.993			0.951				0.850		0.943	
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	1496	2842	0	1378	2721	0	0	2802	1346	1390	2823	0
Flt Permitted	0.189			0.466				0.914		0.621		
Satd. Flow (perm)	297	2842	0	665	2721	0	0	2566	1327	907	2823	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			92				94		182	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		855			803			934			446	
Travel Time (s)		23.3			21.9			25.5			12.2	
Confl. Peds. (#/hr)	2		33	33		2	11		2	2		11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	9%	20%	10%	8%	12%	29%	11%	8%	13%	3%	6%
Adj. Flow (vph)	292	438	21	125	479	229	10	198	94	354	406	250
Shared Lane Traffic (%)												
Lane Group Flow (vph)	292	459	0	125	708	0	0	208	94	354	656	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pm+ov	D.P+P	NA	
Protected Phases	1	6		5	2			4	5	3	3 4	
Permitted Phases	6			2			4		4	4		
Detector Phase	1	6		5	2		4	4	5	3	3 4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		15.0	15.0	5.0	5.0		
Minimum Split (s)	10.0	33.0		10.0	33.0		30.0	30.0	10.0	10.0		
Total Split (s)	14.0	35.0		12.0	33.0		30.0	30.0	12.0	13.0		
Total Split (%)	15.6%	38.9%		13.3%	36.7%		33.3%	33.3%	13.3%	14.4%		
Maximum Green (s)	9.0	30.0		7.0	28.0		25.0	25.0	7.0	8.0		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		3.0	3.0	3.0	3.0		
Recall Mode	None	Min		None	Min		None	None	None	None		
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		21.0			21.0		18.0	18.0				
Pedestrian Calls (#/hr)		16			1		6	6				
Act Effect Green (s)	31.6	22.5		27.3	20.4			17.4	24.4	25.5	30.6	
Actuated g/C Ratio	0.42	0.30		0.36	0.27			0.23	0.32	0.34	0.41	

Lanes, Volumes, Timings
 17: Canal St & Dock St/Jefferson St

06/07/2018

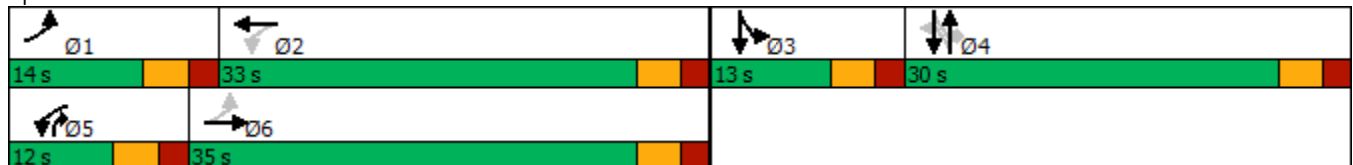


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	1.09	0.54		0.41	0.88			0.35	0.19	0.99	0.52	
Control Delay	100.2	24.5		17.7	36.5			26.7	4.9	69.6	13.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	100.2	24.5		17.7	36.5			26.7	4.9	69.6	13.9	
LOS	F	C		B	D			C	A	E	B	
Approach Delay		53.9			33.7			19.9				33.5
Approach LOS		D			C			B				C
Queue Length 50th (ft)	~99	86		31	137			42	0	~129	80	
Queue Length 95th (ft)	#300	153		75	238			79	29	#352	148	
Internal Link Dist (ft)		775			723			854				366
Turn Bay Length (ft)	275			170					120			
Base Capacity (vph)	269	1150		309	1081			862	497	359	1531	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	1.09	0.40		0.40	0.65			0.24	0.19	0.99	0.43	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 75.2
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 37.4
 Intersection LOS: D
 Intersection Capacity Utilization 90.0%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Canal St & Dock St/Jefferson St



Lanes, Volumes, Timings
18: Atlantic St & 2004 Parking Garage

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	20	0	10	460	250	140
Future Volume (vph)	20	0	10	460	250	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	11	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			1.00		0.94
Frt						0.850
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1624	0	0	1718	1545	1647
Flt Permitted	0.950			0.994		
Satd. Flow (perm)	1621	0	0	1708	1545	1551
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						151
Link Speed (mph)	25			25	25	
Link Distance (ft)	195			538	362	
Travel Time (s)	5.3			14.7	9.9	
Confl. Peds. (#/hr)	2	5	25			25
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	13%	7%	0%
Adj. Flow (vph)	22	0	11	495	269	151
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	506	269	151
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases			2			6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	20.0	20.0	20.0
Minimum Split (s)	24.0		9.0	25.0	25.0	25.0
Total Split (s)	24.0		9.0	36.0	27.0	27.0
Total Split (%)	40.0%		15.0%	60.0%	45.0%	45.0%
Maximum Green (s)	19.0		5.0	31.0	22.0	22.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.0			5.0	5.0	5.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		None	Max	Max	Max
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	12.0				12.0	12.0
Pedestrian Calls (#/hr)	3				12	12
Act Effct Green (s)	8.3			47.7	47.7	47.7
Actuated g/C Ratio	0.16			0.90	0.90	0.90
v/c Ratio	0.09			0.33	0.19	0.11
Control Delay	17.9			4.1	3.5	1.4
Queue Delay	0.0			0.0	0.0	0.0

Lanes, Volumes, Timings
 18: Atlantic St & 2004 Parking Garage

06/07/2018

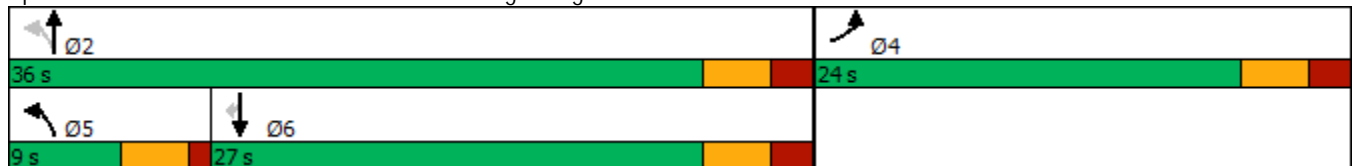


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	17.9			4.1	3.5	1.4
LOS	B			A	A	A
Approach Delay	17.9			4.1	2.7	
Approach LOS	B			A	A	
Queue Length 50th (ft)	6			0	0	0
Queue Length 95th (ft)	19			197	95	22
Internal Link Dist (ft)	115			458	282	
Turn Bay Length (ft)						
Base Capacity (vph)	587			1543	1396	1416
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.04			0.33	0.19	0.11

Intersection Summary

Area Type:	CBD
Cycle Length:	60
Actuated Cycle Length:	52.8
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.33
Intersection Signal Delay:	3.8
Intersection LOS:	A
Intersection Capacity Utilization	52.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 18: Atlantic St & 2004 Parking Garage



Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	10	0	190	0	120	10	540	130	100	310	160
Future Volume (vph)	10	10	0	190	0	120	10	540	130	100	310	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	9	10	10	10	10	11	11	11
Storage Length (ft)	0		0	0		85	0		0	0		142
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor	1.00	1.00			0.99	0.98		0.98			1.00	0.96
Frt						0.850		0.971				0.850
Flt Protected	0.950	0.996			0.950			0.999			0.988	
Satd. Flow (prot)	1595	1672	0	0	1379	1105	0	2669	0	0	2841	1405
Flt Permitted	0.950	0.996			0.950			0.947			0.610	
Satd. Flow (perm)	1588	1671	0	0	1363	1086	0	2530	0	0	1746	1346
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						135		30				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		312			842			315				386
Travel Time (s)		8.5			23.0			8.6				10.5
Confl. Peds. (#/hr)	4		9	9		4	13		49	49		13
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	6%	0%	8%	0%	7%	13%	13%	8%	0%
Parking (#/hr)						4						
Adj. Flow (vph)	11	11	0	213	0	135	11	607	146	112	348	180
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	10	12	0	0	213	135	0	764	0	0	460	180
Turn Type	Split	NA		Split	NA	pm+ov	Perm	NA		pm+pt	NA	Perm
Protected Phases	7	7		8	8	1		2		1	6	
Permitted Phases						8	2			6		6
Detector Phase	7	7		8	8	8	2	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	20.0	20.0		5.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0	9.0	34.0	34.0		9.0	34.0	34.0
Total Split (s)	27.0	27.0		27.0	27.0	10.0	36.0	36.0		10.0	46.0	46.0
Total Split (%)	27.0%	27.0%		27.0%	27.0%	10.0%	36.0%	36.0%		10.0%	46.0%	46.0%
Maximum Green (s)	22.0	22.0		22.0	22.0	6.0	31.0	31.0		6.0	41.0	41.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0	2.0	2.0		1.0	2.0	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	4.0		5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Recall Mode	None	None		None	None	None	Min	Min		None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		22.0	22.0			22.0	22.0
Pedestrian Calls (#/hr)	5	5		2	2		25	25			6	6
Act Effect Green (s)	12.4	12.4			16.1	23.6		28.1			38.8	38.8

Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018

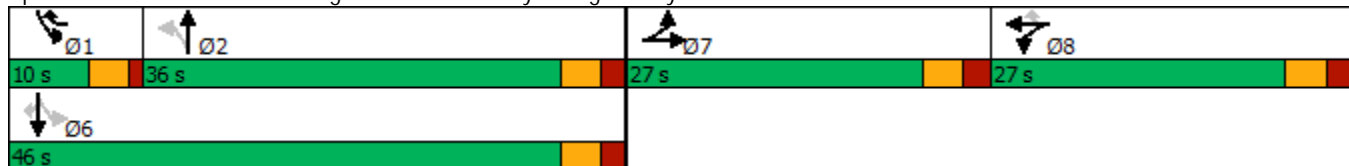


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.17	0.17			0.22	0.33		0.39			0.54	0.54
v/c Ratio	0.04	0.04			0.69	0.30		0.76			0.45	0.25
Control Delay	31.2	31.3			41.6	6.4		27.4			14.7	14.2
Queue Delay	0.0	0.0			0.0	0.0		0.3			0.0	0.0
Total Delay	31.2	31.3			41.6	6.4		27.7			14.7	14.2
LOS	C	C			D	A		C			B	B
Approach Delay		31.2			27.9			27.7			14.6	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	3	4			75	0		111			38	28
Queue Length 95th (ft)	18	22			#222	41		#359			146	129
Internal Link Dist (ft)		232			762			235			306	
Turn Bay Length (ft)						85						142
Base Capacity (vph)	520	545			450	498		1180			1144	819
Starvation Cap Reductn	0	0			0	0		87			0	0
Spillback Cap Reductn	0	0			0	0		0			0	0
Storage Cap Reductn	0	0			0	0		0			0	0
Reduced v/c Ratio	0.02	0.02			0.47	0.27		0.70			0.40	0.22

Intersection Summary

Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 71.9
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 23.1
 Intersection LOS: C
 Intersection Capacity Utilization 74.0%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: Washington Blvd & Gateway Garage/Henry St



Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	130	20	10	120	20	20	270	30	20	140	150
Future Volume (vph)	110	130	20	10	120	20	20	270	30	20	140	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	10	10	10
Storage Length (ft)	150		0	150		0	150		0	150		340
Storage Lanes	1		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	0.98	1.00		1.00	0.99		0.98	0.98		0.90	0.97	
Frt		0.980			0.978			0.985			0.922	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1354	1483	0	1464	1312	0	1533	1278	0	1444	1154	0
Flt Permitted	0.551			0.654			0.422			0.406		
Satd. Flow (perm)	770	1483	0	1006	1312	0	664	1278	0	552	1154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			9			8			75	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		842			669			1254			538	
Travel Time (s)		23.0			18.2			34.2			14.7	
Confl. Peds. (#/hr)	12		1	1		12	19		84	84		19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	20%	12%	17%	11%	9%	0%	6%	15%	0%	5%	8%	9%
Parking (#/hr)					4			4			4	
Adj. Flow (vph)	120	141	22	11	130	22	22	293	33	22	152	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	163	0	11	152	0	22	326	0	22	315	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		7.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.7	23.7		23.7	23.7		9.5	23.9		9.5	23.9	
Total Split (s)	13.0	37.0		24.0	24.0		9.6	43.4		9.6	43.4	
Total Split (%)	14.4%	41.1%		26.7%	26.7%		10.7%	48.2%		10.7%	48.2%	
Maximum Green (s)	8.3	32.3		19.3	19.3		5.1	38.5		5.1	38.5	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.0	3.3		3.0	3.3	
All-Red Time (s)	1.3	1.3		1.3	1.3		1.5	1.6		1.5	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.5	4.9		4.5	4.9	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Max		Max	Max		None	Min		None	Min	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		12.0		12.0	12.0			12.0			12.0	
Pedestrian Calls (#/hr)		1		6	6			42			10	
Act Effect Green (s)	33.3	33.3		23.6	23.6		24.1	22.0		24.1	22.0	

Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018

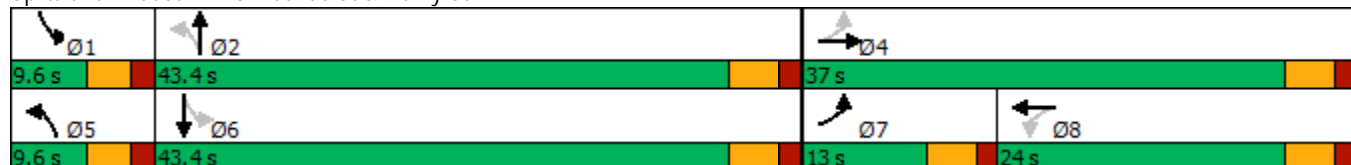


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.49	0.49		0.35	0.35		0.35	0.32		0.35	0.32	
v/c Ratio	0.28	0.22		0.03	0.33		0.07	0.78		0.08	0.75	
Control Delay	15.8	14.0		24.1	24.3		11.9	34.9		12.2	27.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.8	14.0		24.1	24.3		11.9	34.9		12.2	27.6	
LOS	B	B		C	C		B	C		B	C	
Approach Delay		14.8			24.3			33.4			26.6	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	21	27		3	39		6	106		6	78	
Queue Length 95th (ft)	85	106		18	130		17	227		17	191	
Internal Link Dist (ft)		762			589			1174			458	
Turn Bay Length (ft)	150			150			150			150		
Base Capacity (vph)	448	727		348	460		300	745		263	701	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.27	0.22		0.03	0.33		0.07	0.44		0.08	0.45	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	68.3
Natural Cycle:	70
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	25.4
Intersection LOS:	C
Intersection Capacity Utilization:	53.9%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 20: Atlantic St & Henry St



Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	0	200	0	0	0	140	430	0	0	190	350
Future Volume (vph)	260	0	200	0	0	0	140	430	0	0	190	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	12	12	12	12	11	12	12	10	10
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.96					1.00				0.95
Frt			0.850									0.850
Flt Protected	0.950							0.988				
Satd. Flow (prot)	1415	0	1301	0	1710	0	0	2941	0	0	1451	1268
Flt Permitted	0.950							0.810				
Satd. Flow (perm)	1410	0	1246	0	1710	0	0	2400	0	0	1451	1205
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)												385
Link Speed (mph)		25			25			25				25
Link Distance (ft)		369			194			789				315
Travel Time (s)		10.1			5.3			21.5				8.6
Confl. Peds. (#/hr)	2		9	9		2	12		80	80		12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	11%	0%	8%	0%	0%	0%	4%	6%	0%	0%	10%	7%
Adj. Flow (vph)	286	0	220	0	0	0	154	473	0	0	209	385
Shared Lane Traffic (%)												
Lane Group Flow (vph)	286	0	220	0	0	0	0	627	0	0	209	385
Turn Type	Prot		Perm				Perm	NA			NA	pm+ov
Protected Phases	4				3			2			6	4
Permitted Phases			4	3			2					6
Detector Phase	4		4	3	3		2	2			6	4
Switch Phase												
Minimum Initial (s)	7.0		7.0	4.0	4.0		20.0	20.0			20.0	7.0
Minimum Split (s)	24.0		24.0	22.0	22.0		27.0	27.0			27.0	24.0
Total Split (s)	30.0		30.0	22.0	22.0		38.0	38.0			38.0	30.0
Total Split (%)	33.3%		33.3%	24.4%	24.4%		42.2%	42.2%			42.2%	33.3%
Maximum Green (s)	24.0		24.0	18.0	18.0		32.0	32.0			32.0	24.0
Yellow Time (s)	4.0		4.0	3.5	3.5		4.0	4.0			4.0	4.0
All-Red Time (s)	2.0		2.0	0.5	0.5		2.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)	6.0		6.0		4.0			6.0			6.0	6.0
Lead/Lag	Lag		Lag	Lead	Lead							Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes							Yes
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode	None		None	None	None		Min	Min			Min	None
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		14.0	14.0			14.0	11.0
Pedestrian Calls (#/hr)	4		4	1	1		40	40			6	4
Act Effect Green (s)	18.3		18.3					24.2			24.2	42.5
Actuated g/C Ratio	0.31		0.31					0.42			0.42	0.73

Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018

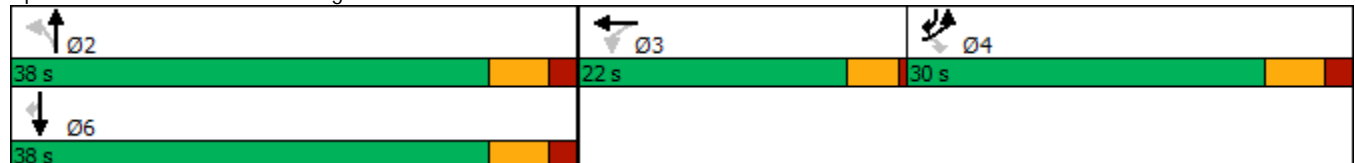


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.64		0.56					0.63			0.35	0.38
Control Delay	27.6		25.7					19.4			16.7	1.6
Queue Delay	0.0		0.0					0.0			0.0	0.0
Total Delay	27.6		25.7					19.4			16.8	1.6
LOS	C		C					B			B	A
Approach Delay		26.8						19.4			7.0	
Approach LOS		C						B			A	
Queue Length 50th (ft)	69		51					76			42	0
Queue Length 95th (ft)	#272		#196					227			150	25
Internal Link Dist (ft)		289			114			709			235	
Turn Bay Length (ft)	140											
Base Capacity (vph)	624		550					1413			854	1075
Starvation Cap Reductn	0		0					0			40	12
Spillback Cap Reductn	0		0					0			0	0
Storage Cap Reductn	0		0					0			0	0
Reduced v/c Ratio	0.46		0.40					0.44			0.26	0.36

Intersection Summary




















Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 58.2
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 17.3
 Intersection LOS: B
 Intersection Capacity Utilization 70.7%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 21: Washington Blvd & Pulaski St



Lanes, Volumes, Timings
 22: Greenwich Ave & Pulaski St

06/07/2018

														
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Traffic Volume (vph)	220	280	0	0	390	120	0	0	0	170	0	260		
Future Volume (vph)	220	280	0	0	390	120	0	0	0	170	0	260		
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	10		
Storage Length (ft)	150		0	0		150	0		0	0		0		
Storage Lanes	1		0	0		1	0		0	0		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														
Frt							0.850							
Flt Protected	0.950											0.981		
Satd. Flow (prot)	1464	1679	0	0	1583	1358	0	1676	0	0	1475	0		
Flt Permitted	0.950											0.981		
Satd. Flow (perm)	1464	1679	0	0	1583	1358	0	1676	0	0	1475	0		
Link Speed (mph)					25					30				
Link Distance (ft)					400					594				
Travel Time (s)					10.9					16.2				
Confl. Peds. (#/hr)	1													
Peak Hour Factor	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.92	0.92	0.95	0.92	0.95		
Heavy Vehicles (%)	11%	12%	2%	2%	8%	7%	2%	2%	2%	2%	2%	6%		
Adj. Flow (vph)	232	295	0	0	411	126	0	0	0	179	0	274		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	232	295	0	0	411	126	0	0	0	0	453	0		
Sign Control	Yield			Yield				Yield			Yield			

Intersection Summary

Area Type:	CBD
Control Type:	Roundabout
Intersection Capacity Utilization	77.4%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↕	↗		↕	↗	↘	↘	
Traffic Volume (vph)	20	10	10	50	40	170	10	370	140	130	220	60
Future Volume (vph)	20	10	10	50	40	170	10	370	140	130	220	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	11	11	11	12	11	10	11	11	11
Storage Length (ft)	0		0	0		120	0		220	250		0
Storage Lanes	0		0	0		1	0		1	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	0.98		1.00	0.90	0.96	0.98	
Frt		0.966				0.850			0.850		0.968	
Flt Protected		0.976			0.973			0.999		0.950		
Satd. Flow (prot)	0	1354	0	0	1479	1266	0	1547	1304	1390	1444	0
Flt Permitted		0.865			0.836			0.989		0.427		
Satd. Flow (perm)	0	1196	0	0	1266	1242	0	1529	1175	602	1444	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		12				198			163			
Link Speed (mph)		25			25			25				25
Link Distance (ft)		355			1254			478				789
Travel Time (s)		9.7			34.2			13.0				21.5
Confl. Peds. (#/hr)	5		3	3		5	47		36	36		47
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	25%	20%	50%	11%	6%	11%	33%	6%	4%	13%	10%	2%
Adj. Flow (vph)	23	12	12	58	47	198	12	430	163	151	256	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	105	198	0	442	163	151	326	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2				6
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	20.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	29.0	29.0	
Total Split (s)	30.0	30.0		30.0	30.0	30.0	60.0	60.0	60.0	60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%	66.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0	25.0	55.0	55.0	55.0	55.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Recall Mode	None	None		None	None	None	Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	17.0	17.0	
Pedestrian Calls (#/hr)	1	1		2	2	2	18	18	18	23	23	
Act Effect Green (s)		16.0			16.0	16.0		22.0	22.0	22.0	22.0	
Actuated g/C Ratio		0.33			0.33	0.33		0.46	0.46	0.46	0.46	

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.12			0.25	0.36		0.63	0.26	0.55	0.49	
Control Delay		10.8			14.4	4.8		15.0	2.9	18.8	12.4	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		10.8			14.4	4.8		15.0	2.9	18.8	12.4	
LOS		B			B	A		B	A	B	B	
Approach Delay		10.8			8.1			11.8			14.4	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)		6			19	0		82	0	27	56	
Queue Length 95th (ft)		27			56	33		170	22	79	120	
Internal Link Dist (ft)		275			1174			398			709	
Turn Bay Length (ft)						120			220	250		
Base Capacity (vph)		635			666	747		1505	1159	593	1422	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.07			0.16	0.27		0.29	0.14	0.25	0.23	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	48.1
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	11.8
Intersection LOS:	B
Intersection Capacity Utilization:	67.4%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 23: Washington Blvd & Atlantic St



Lanes, Volumes, Timings

24: Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	10	440	0	0	510	0	10	0	10	0	0	0
Future Volume (vph)	10	440	0	0	510	0	10	0	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t								0.932				
Fl _t Protected		0.999						0.976				
Satd. Flow (prot)	0	1862	0	0	1863	0	0	1694	0	0	1900	0
Fl _t Permitted		0.999						0.976				
Satd. Flow (perm)	0	1862	0	0	1863	0	0	1694	0	0	1900	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		594			369			245			153	
Travel Time (s)		16.2			10.1			5.6			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	2%	2%	0%	2%	0%	2%	0%	0%	0%
Adj. Flow (vph)	11	478	0	0	554	0	11	0	11	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	489	0	0	554	0	0	22	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

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

Lanes, Volumes, Timings
 25: S. State St & S. State Lot

06/07/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↑			↘	
Traffic Volume (vph)	80	850	0	0	20	0
Future Volume (vph)	80	850	0	0	20	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Fr						
Flt Protected		0.996			0.950	
Satd. Flow (prot)	0	3173	0	0	1593	0
Flt Permitted		0.996			0.950	
Satd. Flow (perm)	0	3173	0	0	1593	0
Link Speed (mph)		25	25		30	
Link Distance (ft)		384	522		171	
Travel Time (s)		10.5	14.2		3.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	84	895	0	0	21	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	979	0	0	21	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	CBD
Control Type:	Unsignalized
Intersection Capacity Utilization	38.7%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 26: Parking Garage & Station PI

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	230	40	10	460	0	0
Future Volume (vph)	230	40	10	460	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.980					
Flt Protected				0.999		
Satd. Flow (prot)	1831	0	0	1862	0	0
Flt Permitted				0.999		
Satd. Flow (perm)	1831	0	0	1862	0	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	158			343	181	
Travel Time (s)	4.3			9.4	4.9	
Confl. Peds. (#/hr)	44		44			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	0%	0%	2%	2%	2%
Adj. Flow (vph)	242	42	11	484	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	284	0	0	495	0	0
Sign Control	Free			Free	Stop	
















Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.6%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

27: Station PI

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	230	0	0	270	180	0	0	0	0	0	0
Future Volume (vph)	0	230	0	0	270	180	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.946											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1776	0	0	1900	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1776	0	0	1900	0	0	0	0
Link Speed (mph)	25				25				25		25	
Link Distance (ft)	343				271				93		77	
Travel Time (s)	9.4				7.4				2.5		2.1	
Confl. Peds. (#/hr)							105			119		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%
Adj. Flow (vph)	0	247	0	0	290	194	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	0	0	484	0	0	0	0	0	0	0
Sign Control	Stop				Free				Stop		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	45.0%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

36: S. State St

06/07/2018

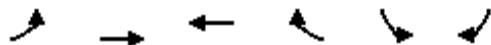


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↑↑	
Traffic Volume (vph)	0	490	0	0	930	0
Future Volume (vph)	0	490	0	0	930	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	1.00	1.00	0.97	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	3252	0	0	3400	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3252	0	0	3400	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					470	
Link Speed (mph)		30	30		30	
Link Distance (ft)		708	454		415	
Travel Time (s)		16.1	10.3		9.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	11%	2%	2%	3%	2%
Adj. Flow (vph)	0	500	0	0	949	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	500	0	0	949	0
Turn Type		NA			Prot	
Protected Phases		4			6	
Permitted Phases						
Detector Phase		4			6	
Switch Phase						
Minimum Initial (s)		26.0			26.0	
Minimum Split (s)		30.0			30.0	
Total Split (s)		30.0			30.0	
Total Split (%)		50.0%			50.0%	
Maximum Green (s)		26.0			26.0	
Yellow Time (s)		3.0			3.0	
All-Red Time (s)		1.0			1.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.0			4.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0			3.0	
Recall Mode		None			Max	
Act Effct Green (s)		26.0			26.0	
Actuated g/C Ratio		0.43			0.43	
v/c Ratio		0.35			0.55	
Control Delay		12.3			7.3	
Queue Delay		0.0			0.0	
Total Delay		12.3			7.3	
LOS		B			A	
Approach Delay		12.3			7.3	
Approach LOS		B			A	
Queue Length 50th (ft)		60			56	
Queue Length 95th (ft)		92			98	

Lanes, Volumes, Timings

36: S. State St

06/07/2018

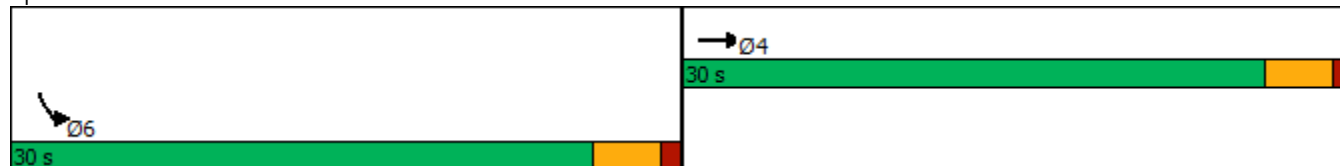


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Internal Link Dist (ft)		628	374		335	
Turn Bay Length (ft)						
Base Capacity (vph)		1409			1739	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.35			0.55	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	9.0
Intersection LOS:	A
Intersection Capacity Utilization	54.9%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 36: S. State St



Lanes, Volumes, Timings

1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	660	70	110	660	110	70	230	230	60	130	110
Future Volume (vph)	90	660	70	110	660	110	70	230	230	60	130	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	15	12	11	11	11	10	10	10	10	10	9
Storage Length (ft)	0		0	165		0	60		75	75		35
Storage Lanes	1		0	1		0	0		2	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99			0.99		0.97		0.94	0.97		0.96
Frt		0.986			0.979				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	1564	0	1540	2937	0	1516	1596	1343	1444	1565	1118
Flt Permitted	0.237			0.079			0.637			0.497		
Satd. Flow (perm)	374	1564	0	128	2937	0	990	1596	1266	735	1565	1068
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			21				192			98
Link Speed (mph)		30			30			25				25
Link Distance (ft)		906			553			931				521
Travel Time (s)		20.6			12.6			25.4				14.2
Confl. Peds. (#/hr)	23		31	31		23	19		27	27		19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	6%	2%	4%	0%	0%	0%	1%	5%	2%	3%
Parking (#/hr)		4										4
Adj. Flow (vph)	94	688	73	115	688	115	73	240	240	63	135	115
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	761	0	115	803	0	73	240	240	63	135	115
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	20.0		4.0	20.0		4.0	40.0	40.0	4.0	4.0	4.0
Minimum Split (s)	7.0	24.0		7.0	24.0		7.0	44.0	44.0	7.0	24.0	24.0
Total Split (s)	10.0	56.0		8.0	54.0		7.0	44.0	44.0	7.0	44.0	44.0
Total Split (%)	8.7%	48.7%		7.0%	47.0%		6.1%	38.3%	38.3%	6.1%	38.3%	38.3%
Maximum Green (s)	7.0	52.0		5.0	50.0		4.0	40.0	40.0	4.0	40.0	40.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	0.2		1.0	0.2		1.0	3.0	3.0	1.0	3.0	3.0
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Walk Time (s)		10.0			10.0			10.0	10.0		10.0	10.0
Flash Dont Walk (s)		10.0			10.0			10.0	10.0		10.0	10.0
Pedestrian Calls (#/hr)		15			11			14	14		10	10
Act Effect Green (s)	59.2	52.0		56.8	50.8		44.2	40.0	40.0	44.2	40.0	40.0

Lanes, Volumes, Timings
 1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.52	0.46		0.50	0.45		0.39	0.35	0.35	0.39	0.35	0.35
v/c Ratio	0.37	1.06		0.91	0.61		0.18	0.43	0.42	0.20	0.25	0.26
Control Delay	17.6	81.2		82.8	26.0		22.3	31.4	9.3	22.7	28.1	8.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	81.2		82.8	26.0		22.3	31.4	9.3	22.7	28.1	8.8
LOS	B	F		F	C		C	C	A	C	C	A
Approach Delay		74.2			33.1			20.6			19.9	
Approach LOS		E			C			C			B	
Queue Length 50th (ft)	33	-625		41	231		33	135	24	28	71	8
Queue Length 95th (ft)	62	#865		#159	298		64	211	90	57	121	51
Internal Link Dist (ft)		826			473			851			441	
Turn Bay Length (ft)				165			60		75	75		35
Base Capacity (vph)	267	719		126	1325		403	562	570	311	551	439
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.35	1.06		0.91	0.61		0.18	0.43	0.42	0.20	0.25	0.26

Intersection Summary

Area Type:	CBD
Cycle Length:	115
Actuated Cycle Length:	113.6
Natural Cycle:	115
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.06
Intersection Signal Delay:	42.2
Intersection LOS:	D
Intersection Capacity Utilization:	100.7%
ICU Level of Service:	G
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Greenwich Ave & W. Main St/Tresser Blvd



Lanes, Volumes, Timings

2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	780	40	160	730	240	80	860	420	260	910	70
Future Volume (vph)	130	780	40	160	730	240	80	860	420	260	910	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	11	11	11
Storage Length (ft)	325		0	200		0	200		375	330		260
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00	1.00		0.98	0.99		0.99		0.83	0.95		0.95
Frt		0.993			0.963				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	4382	0	1570	4247	0	1481	2991	1277	1570	2963	1405
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1509	4382	0	1541	4247	0	1466	2991	1057	1497	2963	1334
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		667			769			581			703	
Travel Time (s)		15.2			17.5			15.8			19.2	
Confl. Peds. (#/hr)	10		31	31		10	26		109	109		26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	6%	5%	10%	0%	6%	0%
Adj. Flow (vph)	137	821	42	168	768	253	84	905	442	274	958	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	863	0	168	1021	0	84	905	442	274	958	74
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	15.0	15.0	4.0	15.0	15.0
Minimum Split (s)	8.0	21.0		8.0	21.0		8.0	27.0	27.0	8.0	27.0	27.0
Total Split (s)	14.0	27.0		16.0	29.0		18.0	49.0	49.0	23.0	54.0	54.0
Total Split (%)	12.2%	23.5%		13.9%	25.2%		15.7%	42.6%	42.6%	20.0%	47.0%	47.0%
Maximum Green (s)	10.0	23.0		12.0	25.0		14.0	45.0	45.0	19.0	50.0	50.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes								
Vehicle Extension (s)	1.0	3.0		3.0	3.0		1.0	0.2	0.2	1.0	0.2	0.2
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		10.0			10.0			16.0	16.0		16.0	16.0
Pedestrian Calls (#/hr)		15			5			55	55		13	13
Act Effect Green (s)	10.0	23.0		12.0	25.0		9.7	45.0	45.0	19.0	56.1	56.1
Actuated g/C Ratio	0.09	0.20		0.10	0.22		0.08	0.39	0.39	0.17	0.49	0.49

Lanes, Volumes, Timings
 2: Washington Blvd & Tresser Blvd

06/07/2018

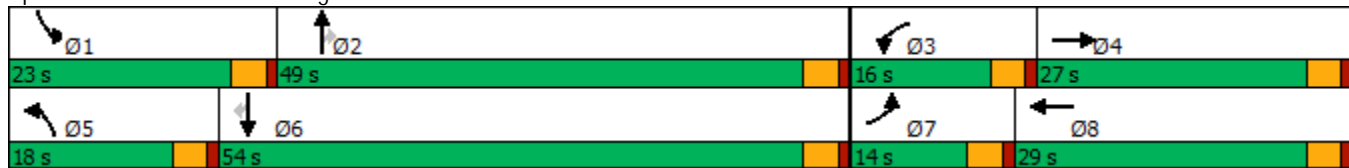


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	1.05	0.99		1.03	1.11		0.68	0.77	1.07	1.06	0.66	0.11
Control Delay	142.6	73.2		129.7	105.2		75.9	36.0	99.1	118.5	26.4	18.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	142.6	73.2		129.7	105.2		75.9	36.0	99.1	118.5	26.4	18.6
LOS	F	E		F	F		E	D	F	F	C	B
Approach Delay		82.7			108.7			57.9			45.3	
Approach LOS		F			F			E			D	
Queue Length 50th (ft)	~110	235		~133	~316		61	303	~363	~223	284	30
Queue Length 95th (ft)	#239	#328		#272	#408		111	386	#563	#391	387	63
Internal Link Dist (ft)		587			689			501			623	
Turn Bay Length (ft)	325			200			200		375	330		260
Base Capacity (vph)	131	876		163	923		180	1170	413	259	1444	650
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.99		1.03	1.11		0.47	0.77	1.07	1.06	0.66	0.11

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 115
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 71.8
 Intersection LOS: E
 Intersection Capacity Utilization 85.6%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Washington Blvd & Tresser Blvd



Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	1160	70	260	810	160	220	320	100	190	300	60
Future Volume (vph)	130	1160	70	260	810	160	220	320	100	190	300	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	10	10	10
Storage Length (ft)	96		0	118		0	304		0	106		106
Storage Lanes	1		0	1		0	1		0	1		2
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	1.00			0.99		0.87	0.97		0.96		0.76
Frt		0.991			0.975			0.964				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1354	4316	0	1454	4311	0	1540	2937	0	1501	2808	1304
Flt Permitted	0.250			0.100			0.447			0.350		
Satd. Flow (perm)	353	4316	0	153	4311	0	627	2937	0	528	2808	991
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		769			474			771			641	
Travel Time (s)		17.5			10.8			21.0			17.5	
Confl. Peds. (#/hr)	27		42	42		27	169		70	70		169
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	12%	3%	6%	8%	1%	2%	2%	0%	2%	1%	8%	4%
Adj. Flow (vph)	137	1221	74	274	853	168	232	337	105	200	316	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	1295	0	274	1021	0	232	442	0	200	316	63
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	10.0		4.0	10.0	10.0
Minimum Split (s)	8.0	27.0		8.0	27.0		8.0	30.0		8.0	30.0	30.0
Total Split (s)	16.0	43.0		25.0	52.0		17.0	31.0		16.0	30.0	30.0
Total Split (%)	13.9%	37.4%		21.7%	45.2%		14.8%	27.0%		13.9%	26.1%	26.1%
Maximum Green (s)	12.0	38.0		21.0	47.0		13.0	26.0		12.0	25.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)		7.0			7.0			10.0			10.0	10.0
Flash Dont Walk (s)		15.0			15.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)		20			14			35			85	85
Act Effect Green (s)	46.6	35.9		59.6	44.7		36.6	23.0		34.5	22.0	22.0
Actuated g/C Ratio	0.43	0.33		0.55	0.42		0.34	0.21		0.32	0.20	0.20

Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018

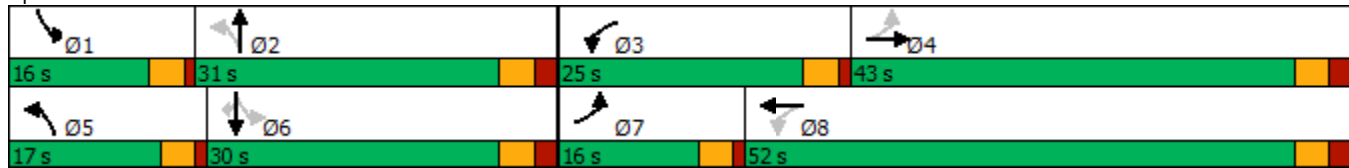


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.56	0.90		0.89	0.57		0.72	0.70		0.73	0.55	0.31
Control Delay	23.4	44.4		58.2	26.0		41.4	46.3		43.6	42.9	42.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	23.4	44.4		58.2	26.0		41.4	46.3		43.6	42.9	42.5
LOS	C	D		E	C		D	D		D	D	D
Approach Delay		42.4			32.8			44.6			43.1	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	48	334		150	204		125	157		106	109	39
Queue Length 95th (ft)	83	#423		#298	257		#209	215		#189	156	81
Internal Link Dist (ft)		689			394			691			561	
Turn Bay Length (ft)	96			118			304			106		106
Base Capacity (vph)	276	1562		345	1957		331	727		285	669	236
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.50	0.83		0.79	0.52		0.70	0.61		0.70	0.47	0.27

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 107.4
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 39.8 Intersection LOS: D
 Intersection Capacity Utilization 92.2% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Atlantic St & Tresser Blvd



Lanes, Volumes, Timings
4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1210	320	120	710	50	190	660	110	100	360	190
Future Volume (vph)	200	1210	320	120	710	50	190	660	110	100	360	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	10	12	10	11	9	10	10	11
Storage Length (ft)	200		0	300		0	160		0	171		148
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	0.98		0.99	1.00		0.97	0.99		0.99		0.93
Frt		0.969			0.990			0.979				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1496	4183	0	1501	4178	0	1501	3028	0	1501	2973	1351
Flt Permitted	0.231			0.101			0.371			0.149		
Satd. Flow (perm)	359	4183	0	159	4178	0	571	3028	0	234	2973	1260
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		70			10							
Link Speed (mph)		30			30			25				25
Link Distance (ft)		557			937			520				749
Travel Time (s)		12.7			21.3			14.2				20.4
Confl. Peds. (#/hr)	40		77	77		40	44		28	28		44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	2%	1%	3%	0%	1%	1%	0%	1%	2%	4%
Adj. Flow (vph)	213	1287	340	128	755	53	202	702	117	106	383	202
Shared Lane Traffic (%)												
Lane Group Flow (vph)	213	1627	0	128	808	0	202	819	0	106	383	202
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		8
Detector Phase	1	6		5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	11.0	29.0		11.0	29.0		11.0	31.0		11.0	31.0	31.0
Total Split (s)	23.0	51.0		14.0	42.0		15.0	39.0		11.0	35.0	35.0
Total Split (%)	20.0%	44.3%		12.2%	36.5%		13.0%	33.9%		9.6%	30.4%	30.4%
Maximum Green (s)	19.0	47.0		10.0	38.0		11.0	35.0		7.0	31.0	31.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min		None	None		None	None	None
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Dont Walk (s)		18.0			18.0			20.0			20.0	20.0
Pedestrian Calls (#/hr)		38			20			14			22	22
Act Effect Green (s)	55.4	43.4		48.9	39.5		43.0	32.4		36.1	29.0	29.0
Actuated g/C Ratio	0.51	0.40		0.45	0.36		0.40	0.30		0.33	0.27	0.27

Lanes, Volumes, Timings
 4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018

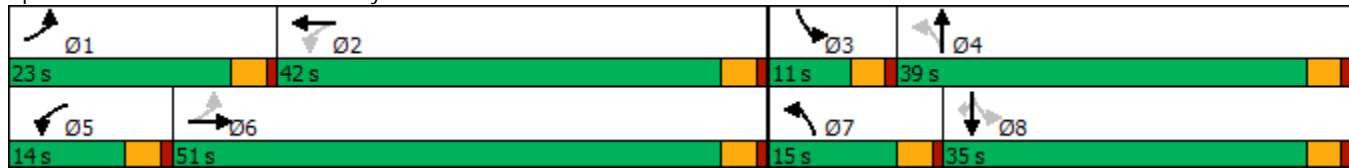


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.66	0.95		0.68	0.53		0.64	0.90		0.66	0.48	0.60
Control Delay	25.1	43.4		41.3	29.1		34.1	51.7		44.8	36.6	44.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	25.1	43.4		41.3	29.1		34.1	51.7		44.8	36.6	44.5
LOS	C	D		D	C		C	D		D	D	D
Approach Delay		41.3			30.8			48.2			40.2	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	83	400		47	164		102	303		50	125	130
Queue Length 95th (ft)	131	#509		#140	223		164	#416		#109	174	213
Internal Link Dist (ft)		477			857			440			669	
Turn Bay Length (ft)	200			300			160			171		148
Base Capacity (vph)	389	1872		197	1586		324	988		160	859	364
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.55	0.87		0.65	0.51		0.62	0.83		0.66	0.45	0.55

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 108.5
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 40.5
 Intersection LOS: D
 Intersection Capacity Utilization 87.3%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Canal St/Greyrock Pl & Tresser Blvd



Lanes, Volumes, Timings
5: Greenwich Ave & Richmond Hill Ave

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	80	180	60	60	160	50	30	440	110	20	210	80
Future Volume (vph)	80	180	60	60	160	50	30	440	110	20	210	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	11	12	12	11	12
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			0.99			0.99	
Frt		0.975			0.975			0.974			0.965	
Flt Protected		0.988			0.989			0.997			0.997	
Satd. Flow (prot)	0	1601	0	0	1683	0	0	1590	0	0	1528	0
Flt Permitted		0.814			0.830			0.973			0.952	
Satd. Flow (perm)	0	1311	0	0	1410	0	0	1551	0	0	1459	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			363			811			931	
Travel Time (s)		12.3			9.9			22.1			25.4	
Confl. Peds. (#/hr)	15		9	9		15	12		8	8		12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	8%	2%	5%	0%	0%	0%	1%	0%	3%	3%
Adj. Flow (vph)	86	194	65	65	172	54	32	473	118	22	226	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	345	0	0	291	0	0	623	0	0	334	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		8.0	22.0		23.0	23.0		23.0	23.0	
Total Split (s)	32.0	32.0		8.0	40.0		50.0	50.0		50.0	50.0	
Total Split (%)	35.6%	35.6%		8.9%	44.4%		55.6%	55.6%		55.6%	55.6%	
Maximum Green (s)	28.0	28.0		4.0	36.0		46.0	46.0		46.0	46.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	4	4		8	8		4	4		6	6	
Act Effct Green (s)		24.5			24.5			46.2			46.2	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
v/c Ratio		0.85			0.66			0.69			0.39	
Control Delay		45.0			31.3			17.4			11.5	
Queue Delay		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
5: Greenwich Ave & Richmond Hill Ave

06/07/2018

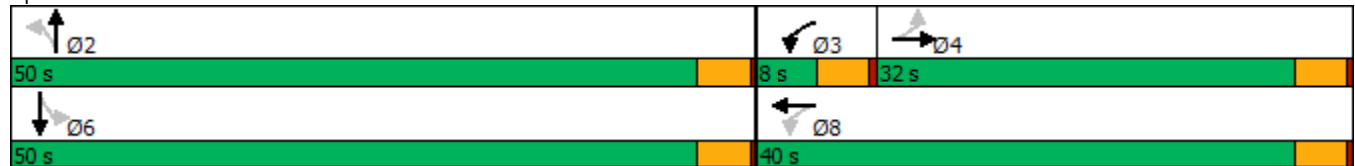


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		45.0			31.3			17.4			11.5	
LOS		D			C			B			B	
Approach Delay		45.0			31.3			17.4			11.5	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)		156			122			207			86	
Queue Length 95th (ft)		#283			204			377			160	
Internal Link Dist (ft)		372			283			731			851	
Turn Bay Length (ft)												
Base Capacity (vph)		476			647			909			855	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.72			0.45			0.69			0.39	

Intersection Summary




















Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	78.8
Natural Cycle:	70
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	24.7
Intersection LOS:	C
Intersection Capacity Utilization:	77.2%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 5: Greenwich Ave & Richmond Hill Ave



Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	130	60	320	280	930	0	0	660	670
Future Volume (vph)	0	0	0	130	60	320	280	930	0	0	660	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	11	16	12	12	12	11	11	11
Storage Length (ft)	0		0	0		780	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor				0.96		0.91	0.97					0.85
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1494	1621	1373	1624	3217	0	0	2935	1391
Flt Permitted				0.950			0.283					
Satd. Flow (perm)	0	0	0	1436	1621	1249	468	3217	0	0	2935	1178
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						132						445
Link Speed (mph)		25			25			25				25
Link Distance (ft)		677			1043			258				338
Travel Time (s)		18.5			28.4			7.0				9.2
Confl. Peds. (#/hr)	41		20	20		41	42		56	56		42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	16%	2%	20%	0%	1%	2%	2%	7%	1%
Adj. Flow (vph)	0	0	0	133	61	327	286	949	0	0	673	684
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	133	61	327	286	949	0	0	673	684
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2				6
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2				6
Switch Phase												
Minimum Initial (s)				20.0	20.0	20.0	5.0	20.0				5.0
Minimum Split (s)				29.0	29.0	29.0	10.0	25.0				22.0
Total Split (s)				32.0	32.0	32.0	15.0	78.0				63.0
Total Split (%)				29.1%	29.1%	29.1%	13.6%	70.9%				57.3%
Maximum Green (s)				27.0	27.0	27.0	10.0	73.0				58.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0				2.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0				0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0				5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0	0.2				2.0
Recall Mode				None	None	None	None	Min				Min
Walk Time (s)				7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)				10.0	10.0	10.0		10.0				10.0
Pedestrian Calls (#/hr)				20	20	20		28				21
Act Effect Green (s)				23.4	23.4	23.4	52.3	52.3				36.7
Actuated g/C Ratio				0.27	0.27	0.27	0.61	0.61				0.43

Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

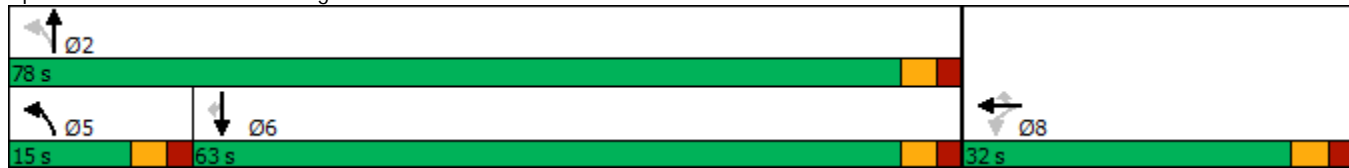


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.34	0.14	0.75	0.68	0.49			0.54	0.90
Control Delay				33.2	30.5	32.3	16.7	9.9			18.9	24.3
Queue Delay				0.0	0.0	0.0	2.8	0.3			0.0	0.0
Total Delay				33.2	30.5	32.3	19.6	10.2			18.9	24.3
LOS				C	C	C	B	B			B	C
Approach Delay					32.3			12.4			21.7	
Approach LOS					C			B			C	
Queue Length 50th (ft)				58	25	97	58	118			125	111
Queue Length 95th (ft)				137	70	#284	115	193			193	#384
Internal Link Dist (ft)		597			963			178			258	
Turn Bay Length (ft)						780						
Base Capacity (vph)				475	536	501	425	2710			2087	966
Starvation Cap Reductn				0	0	0	64	1031			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.28	0.11	0.65	0.79	0.57			0.32	0.71

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 86.3
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 19.7
 Intersection LOS: B
 Intersection Capacity Utilization 126.8%
 ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Washington Blvd & N. State St



Lanes, Volumes, Timings

7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	170	770	310	350	200	10	260	400	310	70
Future Volume (vph)	170	770	310	350	200	10	260	400	310	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	11	11	10	11	11
Storage Length (ft)		0		0		75			75	
Storage Lanes		2		0		1			1	
Taper Length (ft)		25				25				
Lane Util. Factor	0.95	0.97	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor		0.99	0.92			0.95			0.86	
Frt			0.920						0.850	
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	2992	2557	0	0	1556	3141	2973	1291	0
Flt Permitted		0.950				0.412				
Satd. Flow (perm)	0	2976	2557	0	0	638	3141	2973	1113	0
Right Turn on Red				No						No
Satd. Flow (RTOR)										
Link Speed (mph)			25				25	28		
Link Distance (ft)			1150				217	771		
Travel Time (s)			31.4				5.9	18.8		
Confl. Peds. (#/hr)	2			89	39	39			39	39
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	2%	1%	6%	1%	0%	0%	2%	2%	39%
Adj. Flow (vph)	187	846	341	385	220	11	286	440	341	77
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	1033	726	0	0	231	286	440	418	0
Turn Type	Split	Split	NA		pm+pt	pm+pt	NA	NA	Perm	
Protected Phases	8	8	8		5	5	2	6		
Permitted Phases					2	2			6	
Detector Phase	8	8	8		5	5	2	6	6	
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0		5.0	5.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0	24.0		9.0	9.0	24.0	24.0	24.0	
Total Split (s)	46.0	46.0	46.0		11.0	11.0	64.0	53.0	53.0	
Total Split (%)	41.8%	41.8%	41.8%		10.0%	10.0%	58.2%	48.2%	48.2%	
Maximum Green (s)	42.0	42.0	42.0		7.0	7.0	60.0	49.0	49.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0				0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0				4.0	4.0	4.0	
Lead/Lag					Lead	Lead		Lag	Lag	
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None		None	None	Max	Max	Max	
Walk Time (s)	5.0	5.0	5.0				5.0	5.0	5.0	
Flash Dont Walk (s)	15.0	15.0	15.0				15.0	15.0	15.0	
Pedestrian Calls (#/hr)	45	45	45				3	20	20	
Act Effect Green (s)		42.0	42.0			60.0	60.0	49.0	49.0	
Actuated g/C Ratio		0.38	0.38			0.55	0.55	0.45	0.45	

Lanes, Volumes, Timings
 7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018

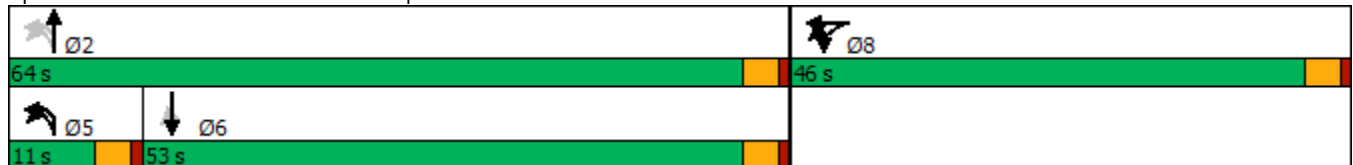


Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
v/c Ratio		0.90	0.74			0.57	0.17	0.33	0.84	
Control Delay		44.5	35.0			20.3	12.8	20.7	44.7	
Queue Delay		0.0	0.0			19.2	1.7	0.0	0.0	
Total Delay		44.5	35.0			39.5	14.5	20.7	44.7	
LOS		D	D			D	B	C	D	
Approach Delay			40.6				25.7	32.4		
Approach LOS			D				C	C		
Queue Length 50th (ft)		350	230			83	50	103	256	
Queue Length 95th (ft)		#478	305			132	74	142	#444	
Internal Link Dist (ft)			1070				137	691		
Turn Bay Length (ft)						75			75	
Base Capacity (vph)		1142	976			406	1713	1324	495	
Starvation Cap Reductn		0	0			162	1240	0	0	
Spillback Cap Reductn		0	0			0	0	0	0	
Storage Cap Reductn		0	0			0	0	0	0	
Reduced v/c Ratio		0.90	0.74			0.95	0.60	0.33	0.84	

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 35.9
 Intersection LOS: D
 Intersection Capacity Utilization 82.2%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 7: I-95 SB On-Ramp & Atlantic St & N. State St



Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (vph)	0	0	0	350	910	200	280	760	0	0	620	170
Future Volume (vph)	0	0	0	350	910	200	280	760	0	0	620	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					1.00		1.00					1.00
Frt					0.979							0.968
Flt Protected					0.988		0.950					
Satd. Flow (prot)	0	0	0	0	5352	0	1624	3217	0	0	2967	0
Flt Permitted					0.988		0.118					
Satd. Flow (perm)	0	0	0	0	5352	0	201	3217	0	0	2967	0
Right Turn on Red				Yes		No			Yes			Yes
Satd. Flow (RTOR)												33
Link Speed (mph)		25			25			25				25
Link Distance (ft)		1150			792			189				520
Travel Time (s)		31.4			21.6			5.2				14.2
Confl. Peds. (#/hr)	23					23	11		3	3		11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	0%	1%	0%	0%	2%	2%
Adj. Flow (vph)	0	0	0	368	958	211	295	800	0	0	653	179
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1537	0	295	800	0	0	832	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Detector Phase				8	8		5	2			6	
Switch Phase												
Minimum Initial (s)				10.0	10.0		5.0	25.0			25.0	
Minimum Split (s)				49.0	49.0		9.0	49.0			49.0	
Total Split (s)				49.0	49.0		22.0	71.0			49.0	
Total Split (%)				40.8%	40.8%		18.3%	59.2%			40.8%	
Maximum Green (s)				45.0	45.0		18.0	67.0			45.0	
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					4.0		4.0	4.0			4.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				5.0	5.0		0.5	0.2			0.2	
Recall Mode				None	None		None	Min			Min	
Walk Time (s)				20.0	20.0			25.0			25.0	
Flash Dont Walk (s)				25.0	25.0			20.0			20.0	
Pedestrian Calls (#/hr)				11	11			1			6	
Act Effct Green (s)					45.3		53.1	53.1			32.4	
Actuated g/C Ratio					0.43		0.50	0.50			0.30	
v/c Ratio					0.68		0.92	0.50			0.90	
Control Delay					27.7		60.3	18.6			47.1	
Queue Delay					0.0		54.3	1.8			0.0	

Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018

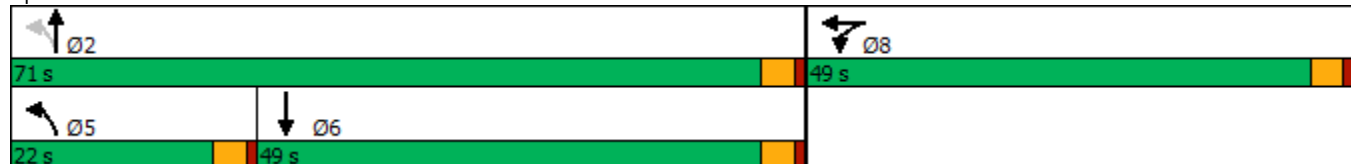


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay					27.7		114.6	20.4			47.2	
LOS					C		F	C			D	
Approach Delay					27.7			45.8			47.2	
Approach LOS					C			D			D	
Queue Length 50th (ft)					238		146	183			278	
Queue Length 95th (ft)					347		#324	231			357	
Internal Link Dist (ft)		1070			712			109			440	
Turn Bay Length (ft)												
Base Capacity (vph)					2279		342	2039			1282	
Starvation Cap Reductn					0		106	1025			20	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.67		1.25	0.79			0.66	

Intersection Summary

Area Type:	CBD
Cycle Length:	120
Actuated Cycle Length:	106.4
Natural Cycle:	110
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	38.1
Intersection LOS:	D
Intersection Capacity Utilization:	87.8%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 8: Canal St & N. State St



Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	680	150	0	0	0	0	410	350	70	280	0
Future Volume (vph)	190	680	150	0	0	0	0	410	350	70	280	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	16	10	12	12
Storage Length (ft)	210		240	0		0	0		0	200		200
Storage Lanes	1		1	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor	0.99		0.95						0.98	1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1555	3079	1351	0	0	0	0	1710	1540	1444	3185	0
Flt Permitted	0.950									0.306		
Satd. Flow (perm)	1541	3079	1285	0	0	0	0	1710	1513	464	3185	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158						368			
Link Speed (mph)		30			25			25				25
Link Distance (ft)		711			384			138				811
Travel Time (s)		16.2			10.5			3.8				22.1
Confl. Peds. (#/hr)	3		21						3	3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	4%	2%	2%	2%	2%	0%	7%	5%	2%	2%
Adj. Flow (vph)	200	716	158	0	0	0	0	432	368	74	295	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	716	158	0	0	0	0	432	368	74	295	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		3						2			6	
Permitted Phases	3		3						2	6		
Detector Phase	3	3	3					2	2	6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	24.0	24.0	24.0					24.0	24.0	24.0	24.0	
Total Split (s)	38.0	38.0	38.0					52.0	52.0	42.0	42.0	
Total Split (%)	31.7%	31.7%	31.7%					43.3%	43.3%	35.0%	35.0%	
Maximum Green (s)	34.0	34.0	34.0					48.0	48.0	38.0	38.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Min	Min	Min	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0	13.0					13.0	13.0	13.0	13.0	
Pedestrian Calls (#/hr)	10	10	10					1	1	2	2	
Act Effect Green (s)	27.7	27.7	27.7					38.1	38.1	38.1	38.1	
Actuated g/C Ratio	0.28	0.28	0.28					0.38	0.38	0.38	0.38	

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

Lane Group	Ø4	Ø5
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	4	5
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	8.0	5.0
Minimum Split (s)	19.0	10.0
Total Split (s)	30.0	10.0
Total Split (%)	25%	8%
Maximum Green (s)	26.0	6.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	1.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	8.0	
Pedestrian Calls (#/hr)	10	
Act Effect Green (s)		
Actuated g/C Ratio		

Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

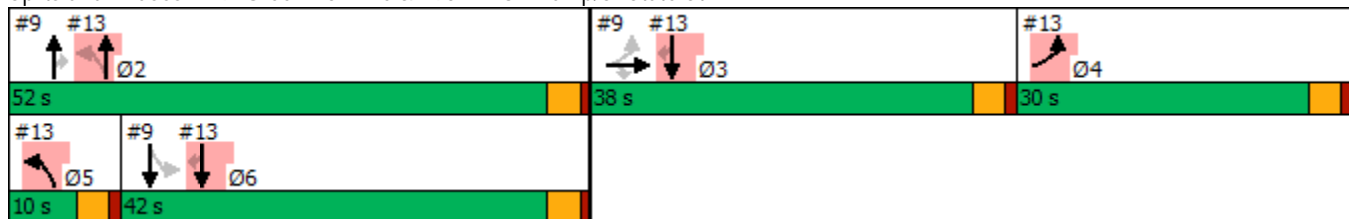


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.84	0.34					0.66	0.46	0.42	0.24	
Control Delay	37.0	45.9	7.4					18.0	7.2	34.0	22.7	
Queue Delay	0.0	0.0	0.0					3.8	2.2	0.0	0.0	
Total Delay	37.0	45.9	7.4					21.8	9.4	34.0	22.7	
LOS	D	D	A					C	A	C	C	
Approach Delay		38.5						16.1			25.0	
Approach LOS		D						B			C	
Queue Length 50th (ft)	117	251	0					221	89	38	73	
Queue Length 95th (ft)	202	349	51					340	160	89	112	
Internal Link Dist (ft)		631			304			58			731	
Turn Bay Length (ft)	210		240							200		
Base Capacity (vph)	558	1115	566					875	953	207	1427	
Starvation Cap Reductn	0	0	0					348	437	0	0	
Spillback Cap Reductn	0	0	3					0	0	0	64	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.36	0.64	0.28					0.82	0.71	0.36	0.22	

Intersection Summary

Area Type:	CBD
Cycle Length:	120
Actuated Cycle Length:	100
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	28.3
Intersection LOS:	C
Intersection Capacity Utilization:	65.3%
ICU Level of Service:	C
Analysis Period (min):	15



















Splits and Phases: 9: Greenwich Ave & I-95 NB Off Ramp/S. State St



Lane Group	Ø4	Ø5
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	470	500	390	0	0	0	0	750	40	170	600	0
Future Volume (vph)	470	500	390	0	0	0	0	750	40	170	600	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	12	10	10	10
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00
Fr _t		0.938						0.992				
Fl _t Protected	0.950	0.997								0.950		
Satd. Flow (prot)	1429	2671	0	0	0	0	0	4540	0	2472	2916	0
Fl _t Permitted	0.950	0.997								0.950		
Satd. Flow (perm)	1429	2671	0	0	0	0	0	4540	0	2472	2916	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		163						8				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		522			566			287				258
Travel Time (s)		14.2			15.4			7.8				7.0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	10%	0%	0%	0%	0%	0%	1%	21%	19%	4%	0%
Adj. Flow (vph)	475	505	394	0	0	0	0	758	40	172	606	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	427	947	0	0	0	0	0	798	0	172	606	0
Turn Type	Split	NA						NA		Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	9.0	9.0						15.0		7.0	15.0	
Minimum Split (s)	14.0	14.0						20.0		11.0	20.0	
Total Split (s)	26.0	26.0						21.0		11.0	32.0	
Total Split (%)	28.9%	28.9%						23.3%		12.2%	35.6%	
Maximum Green (s)	21.0	21.0						16.0		7.0	27.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0		4.0	5.0	
Lead/Lag	Lag	Lag						Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						0.2		2.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	22.1	22.1						16.3		7.4	27.8	
Actuated g/C Ratio	0.29	0.29						0.21		0.10	0.36	
v/c Ratio	1.04	1.07						0.82		0.73	0.57	
Control Delay	89.5	78.3						40.5		58.1	25.9	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	36%
Maximum Green (s)	30.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	55
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

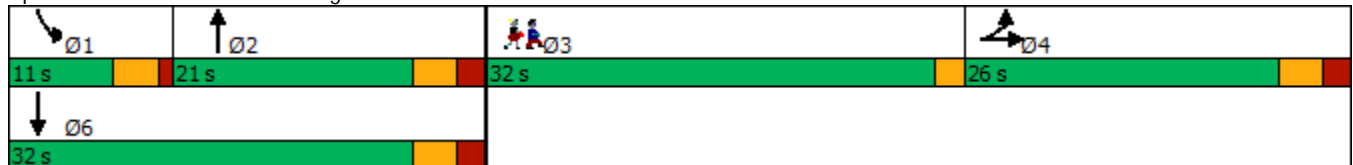


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0						0.0		0.0	1.0	
Total Delay	89.5	78.3						40.5		58.1	26.9	
LOS	F	E						D		E	C	
Approach Delay		81.8						40.5			33.8	
Approach LOS		F						D			C	
Queue Length 50th (ft)	~341	~336						165		51	159	
Queue Length 95th (ft)	#540	#465						#252		#111	220	
Internal Link Dist (ft)		442			486			207			178	
Turn Bay Length (ft)	100											
Base Capacity (vph)	410	884						1000		236	1077	
Starvation Cap Reductn	0	0						0		0	242	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	1.04	1.07						0.80		0.73	0.73	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 76.8
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 58.0
 Intersection LOS: E
 Intersection Capacity Utilization 126.8%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Washington Blvd & S. State St



Lane Group	Ø3
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔	↗					↕↕	↗	↘	↕↕	
Traffic Volume (vph)	90	470	140	0	0	0	0	370	80	170	400	0
Future Volume (vph)	90	470	140	0	0	0	0	370	80	170	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	0		0	75		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor									0.98	1.00		
Frt			0.850						0.850			
Flt Protected		0.992								0.950		
Satd. Flow (prot)	0	2892	1357	0	0	0	0	3217	1454	1624	3185	0
Flt Permitted		0.992								0.454		
Satd. Flow (perm)	0	2892	1357	0	0	0	0	3217	1431	775	3185	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		543			708			126				217
Travel Time (s)		14.8			19.3			3.4				5.9
Confl. Peds. (#/hr)							20		3	3		20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	0%	2%	2%	2%	2%	1%	0%	0%	2%	2%
Adj. Flow (vph)	92	480	143	0	0	0	0	378	82	173	408	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	572	143	0	0	0	0	378	82	173	408	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0					33.0	33.0	6.0	33.0	
Minimum Split (s)	29.0	29.0	29.0					37.0	37.0	10.0	37.0	
Total Split (s)	33.0	33.0	33.0					42.0	42.0	15.0	57.0	
Total Split (%)	36.7%	36.7%	36.7%					46.7%	46.7%	16.7%	63.3%	
Maximum Green (s)	29.0	29.0	29.0					38.0	38.0	11.0	53.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5					0.2	0.2	1.0	0.2	
Recall Mode	None	None	None					Min	Min	None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0		7.0	
Flash Dont Walk (s)	18.0	18.0	18.0					14.0	14.0		14.0	
Pedestrian Calls (#/hr)	0	0	0					1	1		10	
Act Effect Green (s)		22.1	22.1					33.3	33.3	45.1	45.1	
Actuated g/C Ratio		0.29	0.29					0.44	0.44	0.60	0.60	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.67	0.36					0.27	0.13	0.31	0.21	
Control Delay		27.7	23.7					15.3	15.5	9.4	8.0	
Queue Delay		0.0	0.0					0.0	0.0	1.3	0.3	
Total Delay		27.7	23.7					15.3	15.5	10.7	8.3	
LOS		C	C					B	B	B	A	
Approach Delay		26.9						15.3			9.0	
Approach LOS		C						B			A	
Queue Length 50th (ft)		120	51					56	22	33	42	
Queue Length 95th (ft)		183	103					105	58	74	77	
Internal Link Dist (ft)		463			628			46			137	
Turn Bay Length (ft)										75		
Base Capacity (vph)		1122	526					1637	728	589	2260	
Starvation Cap Reductn		0	0					0	0	249	1191	
Spillback Cap Reductn		0	0					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.51	0.27					0.23	0.11	0.51	0.38	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 75.3
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 17.9
 Intersection Capacity Utilization 65.3%
 Analysis Period (min) 15




















Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 11: Atlatnic St/Atlantic St & S. State St



Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	560	1000	240	0	0	0	0	490	330	310	660	0
Future Volume (vph)	560	1000	240	0	0	0	0	490	330	310	660	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor								0.99				1.00
Fr _t			0.850					0.940				
Fl _t Protected	0.950											0.984
Satd. Flow (prot)	1547	3217	1358	0	0	0	0	3023	0	0	3144	0
Fl _t Permitted	0.950											0.529
Satd. Flow (perm)	1547	3217	1358	0	0	0	0	3023	0	0	1690	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				30
Link Distance (ft)		454			543			446				189
Travel Time (s)		12.4			14.8			12.2				4.3
Confl. Peds. (#/hr)							16		4	4		16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	1%	7%	2%	2%	2%	0%	0%	1%	1%	2%	0%
Adj. Flow (vph)	589	1053	253	0	0	0	0	516	347	326	695	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	589	1053	253	0	0	0	0	863	0	0	1021	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Detector Phase	4	4	4					2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					20.0		1.0	20.0	
Minimum Split (s)	31.0	31.0	31.0					35.0		5.0	35.0	
Total Split (s)	37.0	37.0	37.0					36.0		17.0	53.0	
Total Split (%)	41.1%	41.1%	41.1%					40.0%		18.9%	58.9%	
Maximum Green (s)	33.0	33.0	33.0					32.0		13.0	49.0	
Yellow Time (s)	3.0	3.0	3.0					3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0			4.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					0.2		0.2	0.2	
Recall Mode	None	None	None					Min		None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0			7.0	
Flash Dont Walk (s)	20.0	20.0	20.0					24.0			24.0	
Pedestrian Calls (#/hr)	0	0	0					2			8	
Act Effct Green (s)	33.0	33.0	33.0					30.9			47.9	
Actuated g/C Ratio	0.37	0.37	0.37					0.35			0.54	
v/c Ratio	1.03	0.88	0.50					0.82			0.99dl	

Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018



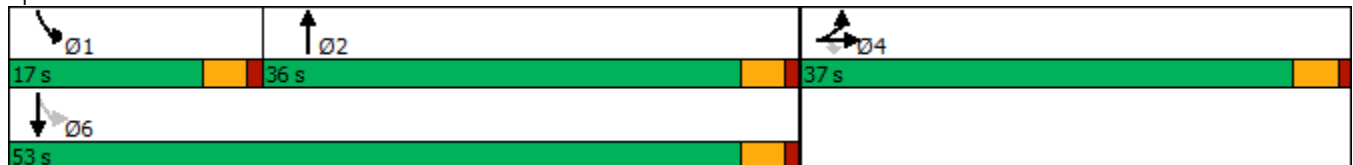
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	74.4	36.8	26.3					34.2			29.0	
Queue Delay	1.7	1.2	0.0					0.0			47.7	
Total Delay	76.1	37.9	26.3					34.2			76.7	
LOS	E	D	C					C			E	
Approach Delay		48.2						34.3			76.7	
Approach LOS		D						C			E	
Queue Length 50th (ft)	~365	292	110					229			193	
Queue Length 95th (ft)	#566	#416	184					306			#295	
Internal Link Dist (ft)		374			463			366			109	
Turn Bay Length (ft)	200		200									
Base Capacity (vph)	574	1194	503					1088			1144	
Starvation Cap Reductn	3	39	0					0			318	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	1.03	0.91	0.50					0.79			1.24	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 88.9
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 52.7
 Intersection Capacity Utilization 101.7%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service G

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 12: Canal St & S. State St



Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
Lane Configurations								
Traffic Volume (vph)	400	120	40	370	360	70		
Future Volume (vph)	400	120	40	370	360	70		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	11	13	12		
Storage Length (ft)	0	100	0			0		
Storage Lanes	2	1	0			1		
Taper Length (ft)	25		25					
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.98			1.00		0.97		
Frt	0.965					0.850		
Flt Protected	0.963			0.995				
Satd. Flow (prot)	2920	0	0	1601	1716	1425		
Flt Permitted	0.963			0.934				
Satd. Flow (perm)	2920	0	0	1502	1716	1380		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	31					74		
Link Speed (mph)	25			25	25			
Link Distance (ft)	260			506	138			
Travel Time (s)	7.1			13.8	3.8			
Confl. Peds. (#/hr)		21	4			4		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Heavy Vehicles (%)	4%	0%	0%	3%	3%	2%		
Adj. Flow (vph)	421	126	42	389	379	74		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	547	0	0	431	379	74		
Turn Type	Prot		pm+pt	NA	NA	Perm		
Protected Phases	4		5	2	3 6		3	6
Permitted Phases			2			3 6		
Detector Phase	4		5	2	3 6	3 6		
Switch Phase								
Minimum Initial (s)	8.0		5.0	12.0			8.0	12.0
Minimum Split (s)	19.0		10.0	24.0			24.0	24.0
Total Split (s)	30.0		10.0	52.0			38.0	42.0
Total Split (%)	25.0%		8.3%	43.3%			32%	35%
Maximum Green (s)	26.0		6.0	48.0			34.0	38.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0			0.0				
Total Lost Time (s)	4.0			4.0				
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Vehicle Extension (s)	1.0		3.0	3.0			0.2	3.0
Recall Mode	None		None	Min			None	Min
Walk Time (s)	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	8.0			13.0			13.0	13.0
Pedestrian Calls (#/hr)	10			1			10	2
Act Effect Green (s)	21.4			38.1	70.1	70.1		
Actuated g/C Ratio	0.21			0.38	0.70	0.70		

Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018

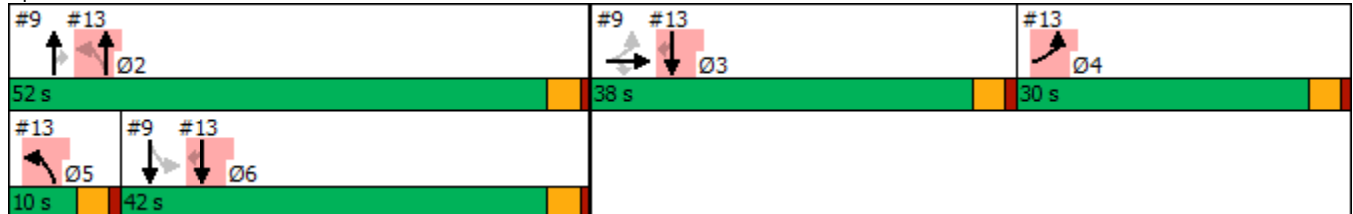


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
v/c Ratio	0.84			0.75	0.32	0.07		
Control Delay	50.6			37.7	3.3	0.1		
Queue Delay	15.8			0.0	0.3	0.5		
Total Delay	66.5			37.7	3.6	0.6		
LOS	E			D	A	A		
Approach Delay	66.5			37.7	3.2			
Approach LOS	E			D	A			
Queue Length 50th (ft)	183			259	26	0		
Queue Length 95th (ft)	#283			405	62	0		
Internal Link Dist (ft)	180			426	58			
Turn Bay Length (ft)								
Base Capacity (vph)	831			768	1349	1100		
Starvation Cap Reductn	0			0	469	789		
Spillback Cap Reductn	274			2	0	0		
Storage Cap Reductn	0			0	0	0		
Reduced v/c Ratio	0.98			0.56	0.43	0.24		

Intersection Summary












Area Type: CBD
 Cycle Length: 120
 Actuated Cycle Length: 100
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 37.8
 Intersection LOS: D
 Intersection Capacity Utilization 72.5%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 13: Greenwich Ave & First Stamford Pl



Lanes, Volumes, Timings
14: Washington Blvd & Station Pl

06/07/2018

							Ø3
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (vph)	110	350	430	100	310	680	
Future Volume (vph)	110	350	430	100	310	680	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	8	12	11	11	11	11	
Storage Length (ft)	0	40		0	0		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	0.88	0.95	0.95	1.00	0.95	
Fr _t		0.850	0.972				
Fl _t Protected	0.950				0.950		
Satd. Flow (prot)	1354	2533	3011	0	1540	3020	
Fl _t Permitted	0.950				0.356		
Satd. Flow (perm)	1354	2533	3011	0	577	3020	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)			31				
Link Speed (mph)	25		25			25	
Link Distance (ft)	385		386			287	
Travel Time (s)	10.5		10.5			7.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	4%	1%	1%	3%	2%	4%	
Adj. Flow (vph)	115	365	448	104	323	708	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	115	365	552	0	323	708	
Turn Type	Prot	pt+ov	NA		pm+pt	NA	
Protected Phases	4	4 1	2		1	6	3
Permitted Phases					6		
Detector Phase	4	4 1	2		1	6	
Switch Phase							
Minimum Initial (s)	9.0		15.0		7.0	15.0	1.0
Minimum Split (s)	13.0		20.0		11.0	20.0	20.0
Total Split (s)	16.0		30.0		24.0	54.0	20.0
Total Split (%)	17.8%		33.3%		26.7%	60.0%	22%
Maximum Green (s)	12.0		25.0		20.0	49.0	18.0
Yellow Time (s)	3.0		3.0		3.0	3.0	2.0
All-Red Time (s)	1.0		2.0		1.0	2.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	4.0		5.0		4.0	5.0	
Lead/Lag	Lag		Lag		Lead		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0		0.2		2.0	0.2	0.2
Recall Mode	None		Max		None	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							11.0
Pedestrian Calls (#/hr)							18
Act Effct Green (s)	11.2	27.3	33.8		50.9	49.9	
Actuated g/C Ratio	0.15	0.35	0.44		0.66	0.65	
v/c Ratio	0.59	0.41	0.41		0.61	0.36	
Control Delay	47.0	20.3	19.2		13.2	8.8	

Lanes, Volumes, Timings
 14: Washington Blvd & Station PI

06/07/2018



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Queue Delay	0.0	0.0	0.0		0.6	0.9	
Total Delay	47.0	20.3	19.2		13.8	9.6	
LOS	D	C	B		B	A	
Approach Delay	26.7		19.2			10.9	
Approach LOS	C		B			B	
Queue Length 50th (ft)	45	64	66		40	50	
Queue Length 95th (ft)	#136	120	193		154	160	
Internal Link Dist (ft)	305		306			207	
Turn Bay Length (ft)		40					
Base Capacity (vph)	214	1115	1335		635	1953	
Starvation Cap Reductn	0	0	0		93	891	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.54	0.33	0.41		0.60	0.67	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 77.1
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 16.8
 Intersection LOS: B
 Intersection Capacity Utilization 54.2%
 ICU Level of Service A
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Washington Blvd & Station PI

Ø1 24 s	Ø2 30 s	Ø3 20 s	Ø4 16 s
Ø6 54 s			

Lanes, Volumes, Timings

15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	280	50	220	180	180	60	150	320	160	270	110
Future Volume (vph)	130	280	50	220	180	180	60	150	320	160	270	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	11	12	12	14	12	12	16
Storage Length (ft)	80		0	175		0	100		125	75		0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.98	0.98		0.95		0.97	0.99		0.96	0.98		0.97
Frt		0.977				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1563	0	1510	1605	1391	1624	3249	1535	1593	3185	1631
Flt Permitted	0.593			0.348			0.573			0.508		
Satd. Flow (perm)	965	1563	0	527	1605	1345	972	3249	1476	836	3185	1579
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						196			188			120
Link Speed (mph)		25			25			25				30
Link Distance (ft)		271			522			362				194
Travel Time (s)		7.4			14.2			9.9				4.4
Confl. Peds. (#/hr)	21		102	102		21	8		19	19		8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	4%	3%	1%	0%	0%	1%	2%	2%	1%
Adj. Flow (vph)	141	304	54	239	196	196	65	163	348	174	293	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	358	0	239	196	196	65	163	348	174	293	120
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	3	8		7	4	5	1	6	7	5	2	3
Permitted Phases	8			4		4	6		6	2		2
Detector Phase	3	8		7	4	5	1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	5.0	5.0	15.0	5.0	5.0	15.0	5.0
Minimum Split (s)	10.0	34.0		10.0	31.0	10.0	10.0	24.0	10.0	10.0	34.0	10.0
Total Split (s)	12.0	34.0		12.0	34.0	15.0	10.0	29.0	12.0	15.0	34.0	12.0
Total Split (%)	13.3%	37.8%		13.3%	37.8%	16.7%	11.1%	32.2%	13.3%	16.7%	37.8%	13.3%
Maximum Green (s)	7.0	29.0		7.0	29.0	10.0	5.0	24.0	7.0	10.0	29.0	7.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	0.2	3.0	3.0	0.2	3.0
Recall Mode	None	None		None	None	None	None	Min	None	None	Min	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		22.0			19.0			12.0			22.0	
Pedestrian Calls (#/hr)		50			10			10			4	
Act Effect Green (s)	30.7	23.7		30.9	23.8	33.3	21.8	16.8	23.8	31.2	23.6	30.6
Actuated g/C Ratio	0.40	0.31		0.40	0.31	0.43	0.28	0.22	0.31	0.40	0.31	0.40

Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018

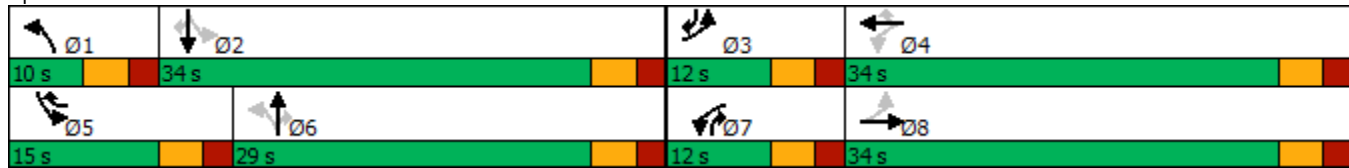


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.32	0.75		0.80	0.40	0.28	0.21	0.23	0.59	0.40	0.30	0.17
Control Delay	15.2	35.2		37.6	24.0	3.0	18.0	27.2	13.8	19.6	23.6	3.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	35.2		37.6	24.0	3.0	18.0	27.2	13.8	19.6	23.6	3.7
LOS	B	D		D	C	A	B	C	B	B	C	A
Approach Delay		29.5			22.7			18.1			18.3	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	37	148		67	71	0	21	37	60	61	64	0
Queue Length 95th (ft)	84	281		#194	146	34	46	63	135	106	98	29
Internal Link Dist (ft)		191			442			282			114	
Turn Bay Length (ft)	80			175			100		125	75		
Base Capacity (vph)	440	594		300	610	706	317	1022	590	438	1211	703
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.60		0.80	0.32	0.28	0.21	0.16	0.59	0.40	0.24	0.17

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 77.3
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 21.9
 Intersection LOS: C
 Intersection Capacity Utilization 78.2%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 15: Atlantic St/Atlantic St & Station Pl/Dock St



Lanes, Volumes, Timings
 16: Parking Garage & Station Pl

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↘	
Traffic Volume (vph)	390	10	0	200	160	10
Future Volume (vph)	390	10	0	200	160	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.992	
Flt Protected					0.955	
Satd. Flow (prot)	1863	1615	0	1863	1800	0
Flt Permitted					0.955	
Satd. Flow (perm)	1863	1615	0	1863	1800	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	385			158	174	
Travel Time (s)	10.5			4.3	4.7	
Confl. Peds. (#/hr)		112			1	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	406	10	0	208	167	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	406	10	0	208	177	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
17: Canal St & Dock St/Jefferson St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕	↖	↖	↕	↕
Traffic Volume (vph)	260	490	20	130	420	260	20	360	210	290	260	310
Future Volume (vph)	260	490	20	130	420	260	20	360	210	290	260	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	11	12	12	11	12	11	11	16
Storage Length (ft)	275		0	170		0	0		120	0		180
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00	1.00		0.98	0.99			1.00	0.98	1.00	0.99	
Frt		0.994			0.943				0.850		0.919	
Flt Protected	0.950			0.950				0.997		0.950		
Satd. Flow (prot)	1555	3057	0	1501	2887	0	0	3131	1439	1496	2834	0
Flt Permitted	0.128			0.437				0.895		0.365		
Satd. Flow (perm)	209	3057	0	678	2887	0	0	2810	1412	573	2834	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			110				152		302	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		855			803			934			446	
Travel Time (s)		23.3			21.9			25.5			12.2	
Confl. Peds. (#/hr)	2		31	31		2	5		5	5		5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	0%	1%	2%	2%	0%	0%	1%	5%	1%	1%
Adj. Flow (vph)	280	527	22	140	452	280	22	387	226	312	280	333
Shared Lane Traffic (%)												
Lane Group Flow (vph)	280	549	0	140	732	0	0	409	226	312	613	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pm+ov	D.P+P	NA	
Protected Phases	1	6		5	2			4	5	3	3	4
Permitted Phases	6			2			4		4	4		
Detector Phase	1	6		5	2		4	4	5	3	3	4
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		15.0	15.0	5.0	5.0		
Minimum Split (s)	10.0	33.0		10.0	33.0		30.0	30.0	10.0	10.0		
Total Split (s)	28.0	49.0		17.0	38.0		30.0	30.0	17.0	24.0		
Total Split (%)	23.3%	40.8%		14.2%	31.7%		25.0%	25.0%	14.2%	20.0%		
Maximum Green (s)	23.0	44.0		12.0	33.0		25.0	25.0	12.0	19.0		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		3.0	3.0	3.0	3.0		
Recall Mode	None	Min		None	Min		None	None	None	None		
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		21.0			21.0		18.0	18.0				
Pedestrian Calls (#/hr)		15			1		5	5				
Act Effect Green (s)	50.0	34.4		37.0	26.4			22.2	32.8	41.0	46.1	
Actuated g/C Ratio	0.47	0.32		0.35	0.25			0.21	0.31	0.38	0.43	

Lanes, Volumes, Timings
 17: Canal St & Dock St/Jefferson St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.84	0.55		0.44	0.92			0.70	0.42	0.81	0.44	
Control Delay	48.7	31.8		22.3	51.1			47.7	12.3	43.4	12.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.2	
Total Delay	48.7	31.8		22.3	51.1			47.7	12.3	43.4	12.3	
LOS	D	C		C	D			D	B	D	B	
Approach Delay		37.5			46.5			35.1			22.8	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	146	168		57	235			143	35	159	75	
Queue Length 95th (ft)	#277	224		96	#326			213	104	#297	136	
Internal Link Dist (ft)		775			723			854			366	
Turn Bay Length (ft)	275			170					120			
Base Capacity (vph)	396	1295		340	991			675	562	392	1463	
Starvation Cap Reductn	0	0		0	0			0	0	0	252	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.71	0.42		0.41	0.74			0.61	0.40	0.80	0.51	

Intersection Summary

Area Type: CBD
 Cycle Length: 120
 Actuated Cycle Length: 106.5
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 35.3
 Intersection LOS: D
 Intersection Capacity Utilization 88.1%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Canal St & Dock St/Jefferson St



Lanes, Volumes, Timings
18: Atlantic St & 2004 Parking Garage

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	110	20	20	420	510	30
Future Volume (vph)	110	20	20	420	510	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	11	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99			1.00		0.96
Frt	0.980					0.850
Flt Protected	0.959			0.998		
Satd. Flow (prot)	1601	0	0	1916	1605	1647
Flt Permitted	0.959			0.973		
Satd. Flow (perm)	1599	0	0	1867	1605	1574
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	16					31
Link Speed (mph)	25			25	25	
Link Distance (ft)	195			538	362	
Travel Time (s)	5.3			14.7	9.9	
Confl. Peds. (#/hr)	2	2	16			16
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	3%	0%
Adj. Flow (vph)	112	20	20	429	520	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	132	0	0	449	520	31
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases			2			6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	20.0	20.0	20.0
Minimum Split (s)	24.0		9.0	25.0	25.0	25.0
Total Split (s)	24.0		9.0	36.0	27.0	27.0
Total Split (%)	40.0%		15.0%	60.0%	45.0%	45.0%
Maximum Green (s)	19.0		5.0	31.0	22.0	22.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.0			5.0	5.0	5.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		None	Max	Max	Max
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	12.0				12.0	12.0
Pedestrian Calls (#/hr)	1				8	8
Act Effct Green (s)	10.0			35.2	35.2	35.2
Actuated g/C Ratio	0.19			0.68	0.68	0.68
v/c Ratio	0.41			0.36	0.48	0.03
Control Delay	19.4			6.9	8.6	2.8
Queue Delay	0.0			0.0	0.0	0.0

Lanes, Volumes, Timings
 18: Atlantic St & 2004 Parking Garage

06/07/2018

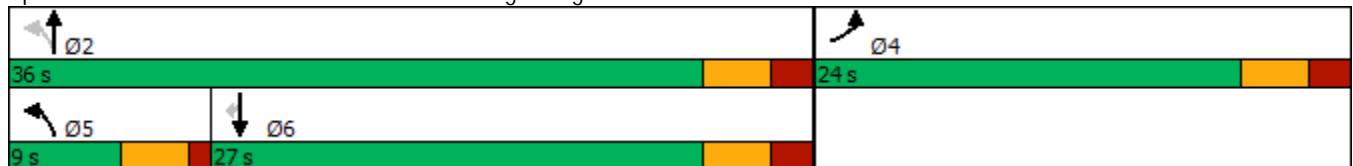


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	19.4			6.9	8.6	2.8
LOS	B			A	A	A
Approach Delay	19.4			6.9	8.3	
Approach LOS	B			A	A	
Queue Length 50th (ft)	30			53	69	0
Queue Length 95th (ft)	67			158	214	10
Internal Link Dist (ft)	115			458	282	
Turn Bay Length (ft)						
Base Capacity (vph)	596			1262	1085	1074
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.22			0.36	0.48	0.03

Intersection Summary

Area Type:	CBD
Cycle Length:	60
Actuated Cycle Length:	52.1
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	9.1
Intersection LOS:	A
Intersection Capacity Utilization	59.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 18: Atlantic St & 2004 Parking Garage



Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	0	10	200	10	120	10	390	290	230	550	10
Future Volume (vph)	20	0	10	200	10	120	10	390	290	230	550	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	9	10	10	10	10	11	11	11
Storage Length (ft)	0		0	0		85	0		0	0		142
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor	0.99	0.98			0.99	0.97		0.95			0.99	0.94
Frt		0.893				0.850		0.937				0.850
Flt Protected	0.950	0.986			0.955			0.999			0.985	
Satd. Flow (prot)	1595	1457	0	0	1416	1137	0	2625	0	0	2955	1405
Flt Permitted	0.950	0.986			0.955			0.941			0.556	
Satd. Flow (perm)	1574	1451	0	0	1405	1104	0	2472	0	0	1655	1327
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						122		185				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		312			842			315				386
Travel Time (s)		8.5			23.0			8.6				10.5
Confl. Peds. (#/hr)	13		6	6		13	21		59	59		21
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	4%	0%	5%	0%	4%	1%	4%	5%	0%
Parking (#/hr)						4						
Adj. Flow (vph)	20	0	10	204	10	122	10	398	296	235	561	10
Shared Lane Traffic (%)	22%											
Lane Group Flow (vph)	16	14	0	0	214	122	0	704	0	0	796	10
Turn Type	Split	NA		Split	NA	pm+ov	Perm	NA		pm+pt	NA	Perm
Protected Phases	7	7		8	8	1		2		1	6	
Permitted Phases						8	2			6		6
Detector Phase	7	7		8	8	8	2	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	20.0	20.0		5.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0	9.0	34.0	34.0		9.0	34.0	34.0
Total Split (s)	27.0	27.0		27.0	27.0	12.0	34.0	34.0		12.0	46.0	46.0
Total Split (%)	27.0%	27.0%		27.0%	27.0%	12.0%	34.0%	34.0%		12.0%	46.0%	46.0%
Maximum Green (s)	22.0	22.0		22.0	22.0	8.0	29.0	29.0		8.0	41.0	41.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0	2.0	2.0		1.0	2.0	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	4.0		5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Recall Mode	None	None		None	None	None	Min	Min		None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		22.0	22.0			22.0	22.0
Pedestrian Calls (#/hr)	3	3		6	6		30	30			10	10
Act Effect Green (s)	12.3	12.3			16.2	25.6		30.0			42.5	42.5

Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018

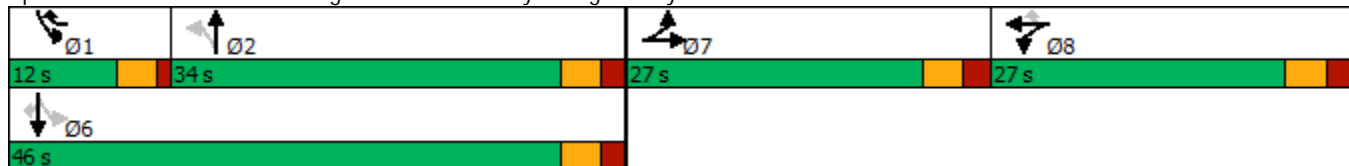


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.16	0.16			0.21	0.32		0.38			0.54	0.54
v/c Ratio	0.06	0.06			0.74	0.28		0.67			0.79	0.01
Control Delay	33.1	33.1			47.2	6.0		21.4			25.0	15.0
Queue Delay	0.0	0.0			0.0	0.0		0.2			0.0	0.0
Total Delay	33.1	33.1			47.2	6.0		21.6			25.0	15.0
LOS	C	C			D	A		C			C	B
Approach Delay		33.1			32.2			21.6			24.9	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	8	7			105	0		122			145	3
Queue Length 95th (ft)	27	25			#222	38		#264			#375	14
Internal Link Dist (ft)		232			762			235			306	
Turn Bay Length (ft)						85						142
Base Capacity (vph)	460	420			409	481		1055			1010	714
Starvation Cap Reductn	0	0			0	0		54			0	0
Spillback Cap Reductn	0	0			0	0		0			0	0
Storage Cap Reductn	0	0			0	0		0			0	0
Reduced v/c Ratio	0.03	0.03			0.52	0.25		0.70			0.79	0.01

Intersection Summary

Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 78.9
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 25.1
 Intersection LOS: C
 Intersection Capacity Utilization 80.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: Washington Blvd & Gateway Garage/Henry St



Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	250	20	10	130	20	30	210	40	20	220	240
Future Volume (vph)	200	250	20	10	130	20	30	210	40	20	220	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	10	10	10
Storage Length (ft)	150		0	150		0	150		0	150		340
Storage Lanes	1		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	0.96	0.99		0.95	0.99		0.98	0.99		0.97	0.95	
Frt		0.989			0.980			0.976			0.922	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1577	1634	0	1624	1340	0	1624	1422	0	1516	1221	0
Flt Permitted	0.513			0.590			0.278			0.554		
Satd. Flow (perm)	815	1634	0	953	1340	0	464	1422	0	856	1221	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			8			13			75	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		842			669			1254			538	
Travel Time (s)		23.0			18.2			34.2			14.7	
Confl. Peds. (#/hr)	27		34	34		27	31		21	21		31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	3%	0%	0%	6%	0%	0%	2%	3%	0%	1%	1%
Parking (#/hr)					4			4			4	
Adj. Flow (vph)	204	255	20	10	133	20	31	214	41	20	224	245
Shared Lane Traffic (%)												
Lane Group Flow (vph)	204	275	0	10	153	0	31	255	0	20	469	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		7.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.7	23.7		23.7	23.7		9.5	23.9		9.5	23.9	
Total Split (s)	14.0	37.8		23.8	23.8		9.5	42.7		9.5	42.7	
Total Split (%)	15.6%	42.0%		26.4%	26.4%		10.6%	47.4%		10.6%	47.4%	
Maximum Green (s)	9.3	33.1		19.1	19.1		5.0	37.8		5.0	37.8	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.0	3.3		3.0	3.3	
All-Red Time (s)	1.3	1.3		1.3	1.3		1.5	1.6		1.5	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.5	4.9		4.5	4.9	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Max		Max	Max		None	Min		None	Min	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		12.0		12.0	12.0			12.0			12.0	
Pedestrian Calls (#/hr)		3		6	6			30			10	
Act Effect Green (s)	34.1	34.1		20.6	20.6		34.1	31.9		33.3	30.2	

Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018

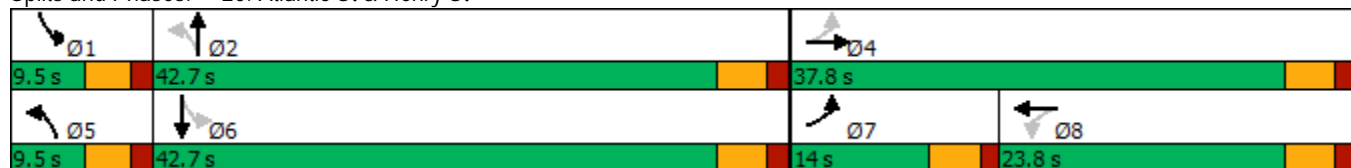


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.43	0.43		0.26	0.26		0.43	0.40		0.42	0.38	
v/c Ratio	0.47	0.39		0.04	0.43		0.11	0.44		0.05	0.92	
Control Delay	22.7	20.5		28.9	32.2		11.4	18.9		10.7	44.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.7	20.5		28.9	32.2		11.4	18.9		10.7	44.6	
LOS	C	C		C	C		B	B		B	D	
Approach Delay		21.5			32.0			18.1			43.2	
Approach LOS		C			C			B			D	
Queue Length 50th (ft)	80	111		4	71		8	75		5	200	
Queue Length 95th (ft)	141	186		18	136		21	159		16	#389	
Internal Link Dist (ft)		762			589			1174			458	
Turn Bay Length (ft)	150			150			150			150		
Base Capacity (vph)	442	705		248	354		275	729		402	637	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.46	0.39		0.04	0.43		0.11	0.35		0.05	0.74	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 79.2
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 29.5 Intersection LOS: C
 Intersection Capacity Utilization 70.7% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 20: Atlantic St & Henry St



Lanes, Volumes, Timings
21: Washington Blvd & Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	0	340	10	10	10	100	300	0	0	370	390
Future Volume (vph)	370	0	340	10	10	10	100	300	0	0	370	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	12	12	12	12	11	12	12	10	10
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.87		0.95			0.99				0.92
Frt			0.850		0.955							0.850
Flt Protected	0.950				0.984			0.988				
Satd. Flow (prot)	1540	0	1364	0	1593	0	0	3095	0	0	1520	1292
Flt Permitted	0.950				0.984			0.658				
Satd. Flow (perm)	1520	0	1186	0	1534	0	0	2049	0	0	1520	1184
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					10							406
Link Speed (mph)		25			25			25				25
Link Distance (ft)		369			194			789				315
Travel Time (s)		10.1			5.3			21.5				8.6
Confl. Peds. (#/hr)	9		45	45		9	26		176	176		26
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	3%	0%	0%	0%	1%	0%	4%	0%	5%	5%
Adj. Flow (vph)	385	0	354	10	10	10	104	313	0	0	385	406
Shared Lane Traffic (%)												
Lane Group Flow (vph)	385	0	354	0	30	0	0	417	0	0	385	406
Turn Type	Prot		Perm	Perm	NA		Perm	NA			NA	pm+ov
Protected Phases	4				3			2			6	4
Permitted Phases			4	3			2					6
Detector Phase	4		4	3	3		2	2			6	4
Switch Phase												
Minimum Initial (s)	7.0		7.0	4.0	4.0		20.0	20.0			20.0	7.0
Minimum Split (s)	24.0		24.0	22.0	22.0		27.0	27.0			27.0	24.0
Total Split (s)	36.0		36.0	22.0	22.0		32.0	32.0			32.0	36.0
Total Split (%)	40.0%		40.0%	24.4%	24.4%		35.6%	35.6%			35.6%	40.0%
Maximum Green (s)	30.0		30.0	18.0	18.0		26.0	26.0			26.0	30.0
Yellow Time (s)	4.0		4.0	3.5	3.5		4.0	4.0			4.0	4.0
All-Red Time (s)	2.0		2.0	0.5	0.5		2.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)	6.0		6.0		4.0			6.0			6.0	6.0
Lead/Lag	Lag		Lag	Lead	Lead							Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes							Yes
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode	None		None	None	None		Min	Min			Min	None
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		14.0	14.0			14.0	11.0
Pedestrian Calls (#/hr)	22		22	5	5		88	88			13	22
Act Effct Green (s)	26.3		26.3		8.3			24.4			24.4	50.8
Actuated g/C Ratio	0.37		0.37		0.12			0.34			0.34	0.72

Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018

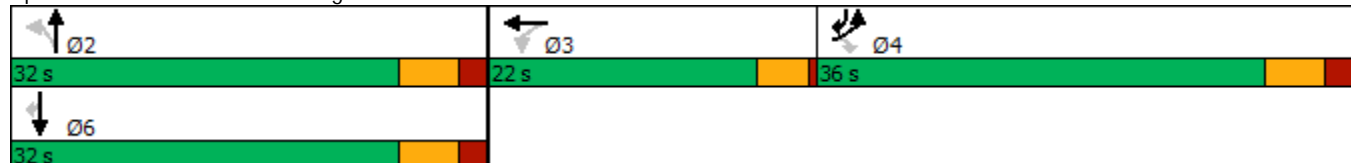


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.67		0.80		0.16			0.59			0.73	0.40
Control Delay	27.9		38.5		26.2			26.2			34.1	1.8
Queue Delay	0.0		0.0		0.0			0.0			1.0	0.0
Total Delay	27.9		38.5		26.2			26.2			35.2	1.8
LOS	C		D		C			C			D	A
Approach Delay		33.0			26.2			26.2			18.0	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	151		149		9			88			166	0
Queue Length 95th (ft)	#327		#355		33			165			#371	26
Internal Link Dist (ft)		289			114			709			235	
Turn Bay Length (ft)	140											
Base Capacity (vph)	687		529		418			792			588	1047
Starvation Cap Reductn	0		0		0			0			62	49
Spillback Cap Reductn	0		0		0			0			0	0
Storage Cap Reductn	0		0		0			0			0	0
Reduced v/c Ratio	0.56		0.67		0.07			0.53			0.73	0.41

Intersection Summary




















Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 70.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 25.5
 Intersection LOS: C
 Intersection Capacity Utilization 81.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 21: Washington Blvd & Pulaski St



Lanes, Volumes, Timings
22: Greenwich Ave & Pulaski St

06/07/2018

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	280	440	0	0	390	110	0	0	0	290	0	210	
Future Volume (vph)	280	440	0	0	390	110	0	0	0	290	0	210	
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	10	
Storage Length (ft)	150		0	0		150	0		0	0		0	
Storage Lanes	1		0	0		1	0		0	0		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													
Frt							0.850					0.943	
Flt Protected	0.950											0.972	
Satd. Flow (prot)	1562	1862	0	0	1629	1439	0	1676	0	0	1537	0	
Flt Permitted	0.950											0.972	
Satd. Flow (perm)	1562	1862	0	0	1629	1439	0	1676	0	0	1537	0	
Link Speed (mph)					25					30			25
Link Distance (ft)					474					594			273
Travel Time (s)					12.9					16.2			6.2
Confl. Peds. (#/hr)	19											1	1
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96	
Heavy Vehicles (%)	4%	1%	2%	2%	5%	1%	2%	2%	2%	2%	2%	2%	
Adj. Flow (vph)	292	458	0	0	406	115	0	0	0	302	0	219	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	292	458	0	0	406	115	0	0	0	0	521	0	
Sign Control	Yield			Yield			Yield			Yield			

Intersection Summary

Area Type:	CBD
Control Type:	Roundabout
Intersection Capacity Utilization	90.7%
ICU Level of Service	E
Analysis Period (min)	15

Lanes, Volumes, Timings
23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕	↕	↕	↕	
Traffic Volume (vph)	80	40	10	140	20	100	10	220	90	230	380	30
Future Volume (vph)	80	40	10	140	20	100	10	220	90	230	380	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	11	11	11	12	11	10	11	11	11
Storage Length (ft)	0		0	0		120	0		220	250		0
Storage Lanes	0		0	0		1	0		1	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	0.98		1.00	0.90	0.94	0.99	
Frt		0.989				0.850			0.850		0.989	
Flt Protected		0.970			0.958			0.998		0.950		
Satd. Flow (prot)	0	1799	0	0	1584	1338	0	1574	1330	1510	1523	0
Flt Permitted		0.734			0.708			0.978		0.604		
Satd. Flow (perm)	0	1355	0	0	1157	1310	0	1537	1195	905	1523	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		5				109			98			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		355			1254			478			789	
Travel Time (s)		9.7			34.2			13.0			21.5	
Confl. Peds. (#/hr)	7		8	8		7	94		37	37		94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%	0%	5%	2%	4%	6%	3%
Adj. Flow (vph)	87	43	11	152	22	109	11	239	98	250	413	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	174	109	0	250	98	250	446	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	20.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	29.0	29.0	
Total Split (s)	33.0	33.0		33.0	33.0	33.0	57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%	36.7%	63.3%	63.3%	63.3%	63.3%	63.3%	
Maximum Green (s)	28.0	28.0		28.0	28.0	28.0	52.0	52.0	52.0	52.0	52.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Recall Mode	None	None		None	None	None	Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	17.0	17.0	
Pedestrian Calls (#/hr)	4	4		3	3	3	18	18	18	47	47	
Act Effect Green (s)		16.6			16.6	16.6		24.4	24.4	24.4	24.4	
Actuated g/C Ratio		0.32			0.32	0.32		0.48	0.48	0.48	0.48	

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.32			0.47	0.22		0.34	0.16	0.58	0.62	
Control Delay		16.7			20.4	5.3		9.9	2.7	16.3	14.3	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		16.7			20.4	5.3		9.9	2.7	16.3	14.3	
LOS		B			C	A		A	A	B	B	
Approach Delay		16.7			14.6			7.9			15.0	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		25			34	0		40	0	46	83	
Queue Length 95th (ft)		89			117	32		98	19	128	196	
Internal Link Dist (ft)		275			1174			398			709	
Turn Bay Length (ft)						120			220	250		
Base Capacity (vph)		765			651	785		1454	1136	856	1441	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.18			0.27	0.14		0.17	0.09	0.29	0.31	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	51.3
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization:	69.0%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 23: Washington Blvd & Atlantic St



Lanes, Volumes, Timings

24: Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	0	720	10	10	500	0	0	0	0	0	0	10
Future Volume (vph)	0	720	10	10	500	0	0	0	0	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998										0.865
Flt Protected					0.999							
Satd. Flow (prot)	0	1859	0	0	1861	0	0	1900	0	0	1644	0
Flt Permitted					0.999							
Satd. Flow (perm)	0	1859	0	0	1861	0	0	1900	0	0	1644	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		594			369			245			153	
Travel Time (s)		16.2			10.1			5.6			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	2%	2%	0%	2%	0%	2%	0%	0%	0%
Adj. Flow (vph)	0	783	11	11	543	0	0	0	0	0	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	794	0	0	554	0	0	0	0	0	11	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 25: S. State St & S. State Lot

06/07/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↑			↕	
Traffic Volume (vph)	5	1080	0	0	280	0
Future Volume (vph)	5	1080	0	0	280	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	3185	0	0	1593	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3185	0	0	1593	0
Link Speed (mph)		25	25		30	
Link Distance (ft)		384	522		171	
Travel Time (s)		10.5	14.2		3.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	1137	0	0	295	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1142	0	0	295	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	CBD
Control Type:	Unsignalized
Intersection Capacity Utilization	57.2%
Analysis Period (min)	15
	ICU Level of Service B

Lanes, Volumes, Timings
26: Parking Garage & Station PI

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	400	0	20	200	0	0
Future Volume (vph)	400	0	20	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected				0.995		
Satd. Flow (prot)	1863	0	0	1857	0	0
Flt Permitted				0.995		
Satd. Flow (perm)	1863	0	0	1857	0	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	158			343	181	
Travel Time (s)	4.3			9.4	4.9	
Confl. Peds. (#/hr)		123	123			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	417	0	21	208	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	417	0	0	229	0	0
Sign Control	Free			Free	Stop	
















Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.5%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

27: Station PI

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	390	0	0	210	130	0	0	60	0	0	0
Future Volume (vph)	0	390	0	0	210	130	0	0	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.948					0.865						
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1779	0	0	1644	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1779	0	0	1644	0	0	0	0
Link Speed (mph)	25		25				25			25		
Link Distance (ft)	343		271				93			77		
Travel Time (s)	9.4		7.4				2.5			2.1		
Confl. Peds. (#/hr)						2	17	84				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%
Adj. Flow (vph)	0	415	0	0	223	138	0	0	64	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	415	0	0	361	0	0	64	0	0	0	0
Sign Control	Stop		Free				Stop			Stop		

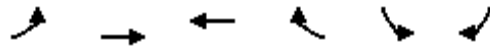
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.3%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

36: S. State St

06/07/2018

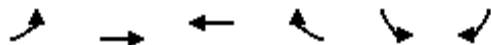


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↑↑	
Traffic Volume (vph)	0	720	0	0	1080	0
Future Volume (vph)	0	720	0	0	1080	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	1.00	1.00	0.97	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	3252	0	0	3400	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3252	0	0	3400	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					225	
Link Speed (mph)		30	30		30	
Link Distance (ft)		708	454		415	
Travel Time (s)		16.1	10.3		9.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	11%	2%	2%	3%	2%
Adj. Flow (vph)	0	735	0	0	1102	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	735	0	0	1102	0
Turn Type		NA			Prot	
Protected Phases		4			6	
Permitted Phases						
Detector Phase		4			6	
Switch Phase						
Minimum Initial (s)		26.0			26.0	
Minimum Split (s)		30.0			30.0	
Total Split (s)		30.0			30.0	
Total Split (%)		50.0%			50.0%	
Maximum Green (s)		26.0			26.0	
Yellow Time (s)		3.0			3.0	
All-Red Time (s)		1.0			1.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.0			4.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0			3.0	
Recall Mode		None			Max	
Act Effct Green (s)		26.0			26.0	
Actuated g/C Ratio		0.43			0.43	
v/c Ratio		0.52			0.69	
Control Delay		14.1			13.4	
Queue Delay		0.0			0.0	
Total Delay		14.1			13.4	
LOS		B			B	
Approach Delay		14.1			13.4	
Approach LOS		B			B	
Queue Length 50th (ft)		97			123	
Queue Length 95th (ft)		142			185	

Lanes, Volumes, Timings

36: S. State St

06/07/2018

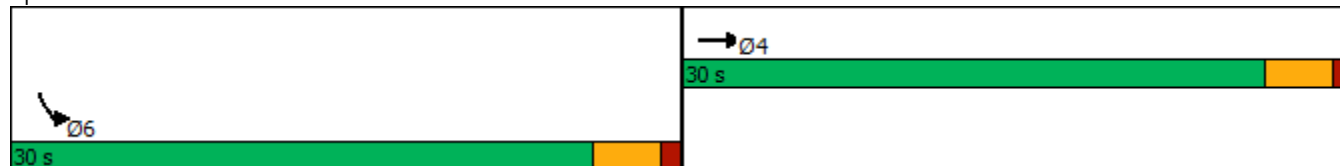


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Internal Link Dist (ft)		628	374		335	
Turn Bay Length (ft)						
Base Capacity (vph)		1409			1600	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.52			0.69	

Intersection Summary


















Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	13.7
Intersection LOS:	B
Intersection Capacity Utilization	59.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 36: S. State St



Lanes, Volumes, Timings
10: Washington Blvd & S. State St

06/15/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	470	500	390	0	0	0	0	750	40	170	600	0
Future Volume (vph)	470	500	390	0	0	0	0	750	40	170	600	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	12	10	10	10
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00
Fr _t		0.938						0.992				
Fl _t Protected	0.950	0.997								0.950		
Satd. Flow (prot)	1429	2671	0	0	0	0	0	4540	0	2472	2916	0
Fl _t Permitted	0.950	0.997								0.950		
Satd. Flow (perm)	1429	2671	0	0	0	0	0	4540	0	2472	2916	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		148						6				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			566			287			258	
Travel Time (s)		14.2			15.4			7.8			7.0	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	10%	0%	0%	0%	0%	0%	1%	21%	19%	4%	0%
Adj. Flow (vph)	475	505	394	0	0	0	0	758	40	172	606	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	427	947	0	0	0	0	0	798	0	172	606	0
Turn Type	Split	NA						NA		Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	9.0	9.0						15.0		7.0	15.0	
Minimum Split (s)	14.0	14.0						20.0		11.0	20.0	
Total Split (s)	39.0	39.0						25.0		14.0	39.0	
Total Split (%)	35.5%	35.5%						22.7%		12.7%	35.5%	
Maximum Green (s)	34.0	34.0						20.0		10.0	34.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0		4.0	5.0	
Lead/Lag	Lag	Lag						Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						0.2		2.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	35.1	35.1						19.2		9.5	32.8	
Actuated g/C Ratio	0.34	0.34						0.19		0.09	0.32	
v/c Ratio	0.87	0.93						0.93		0.75	0.65	
Control Delay	54.8	46.7						60.1		68.4	35.2	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/15/2018

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	29%
Maximum Green (s)	30.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	55
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

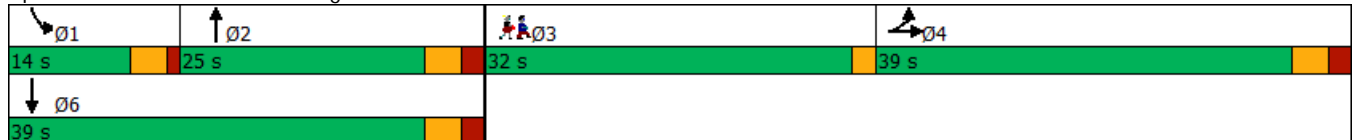
06/15/2018

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0						1.2		0.0	6.6	
Total Delay	54.8	46.7						61.3		68.4	41.7	
LOS	D	D						E		E	D	
Approach Delay		49.2						61.3			47.6	
Approach LOS		D						E			D	
Queue Length 50th (ft)	325	~348						205		62	195	
Queue Length 95th (ft)	#547	#485						#292		#116	260	
Internal Link Dist (ft)		442			486			207			178	
Turn Bay Length (ft)	100											
Base Capacity (vph)	491	1015						923		250	1003	
Starvation Cap Reductn	0	0						33		0	341	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.87	0.93						0.90		0.69	0.92	

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 102
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 52.1
 Intersection LOS: D
 Intersection Capacity Utilization 126.8%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Washington Blvd & S. State St



Lane Group	Ø3
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings

1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	660	70	110	660	110	70	230	230	60	130	110
Future Volume (vph)	90	660	70	110	660	110	70	230	230	60	130	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	15	12	11	11	11	10	10	10	10	10	9
Storage Length (ft)	0		0	165		0	60		75	75		35
Storage Lanes	1		0	1		0	0		2	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99			0.99		0.97		0.94	0.97		0.96
Frt		0.986			0.979				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	1564	0	1540	2937	0	1516	1596	1343	1444	1565	1118
Flt Permitted	0.237			0.079			0.637			0.497		
Satd. Flow (perm)	374	1564	0	128	2937	0	990	1596	1266	735	1565	1068
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			21				192			98
Link Speed (mph)		30			30			25				25
Link Distance (ft)		906			553			931				521
Travel Time (s)		20.6			12.6			25.4				14.2
Confl. Peds. (#/hr)	23		31	31		23	19		27	27		19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	3%	6%	2%	4%	0%	0%	0%	1%	5%	2%	3%
Parking (#/hr)		4										4
Adj. Flow (vph)	94	688	73	115	688	115	73	240	240	63	135	115
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	761	0	115	803	0	73	240	240	63	135	115
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	20.0		4.0	20.0		4.0	40.0	40.0	4.0	4.0	4.0
Minimum Split (s)	7.0	24.0		7.0	24.0		7.0	44.0	44.0	7.0	24.0	24.0
Total Split (s)	10.0	56.0		8.0	54.0		7.0	44.0	44.0	7.0	44.0	44.0
Total Split (%)	8.7%	48.7%		7.0%	47.0%		6.1%	38.3%	38.3%	6.1%	38.3%	38.3%
Maximum Green (s)	7.0	52.0		5.0	50.0		4.0	40.0	40.0	4.0	40.0	40.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	0.2		1.0	0.2		1.0	3.0	3.0	1.0	3.0	3.0
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Walk Time (s)		10.0			10.0			10.0	10.0		10.0	10.0
Flash Dont Walk (s)		10.0			10.0			10.0	10.0		10.0	10.0
Pedestrian Calls (#/hr)		15			11			14	14		10	10
Act Effect Green (s)	59.2	52.0		56.8	50.8		44.2	40.0	40.0	44.2	40.0	40.0

Lanes, Volumes, Timings
 1: Greenwich Ave & W. Main St/Tresser Blvd

06/07/2018

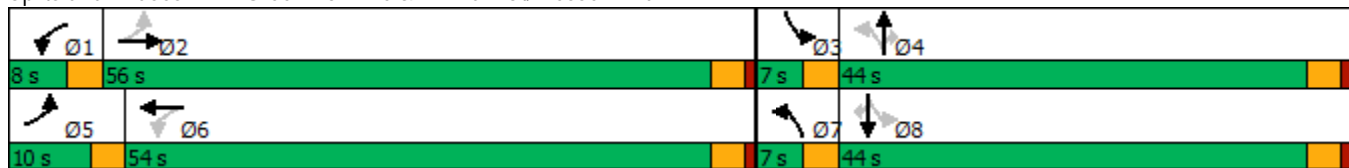


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.52	0.46		0.50	0.45		0.39	0.35	0.35	0.39	0.35	0.35
v/c Ratio	0.37	1.06		0.91	0.61		0.18	0.43	0.42	0.20	0.25	0.26
Control Delay	17.6	81.2		82.8	26.0		22.3	31.4	9.3	22.7	28.1	8.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	81.2		82.8	26.0		22.3	31.4	9.3	22.7	28.1	8.8
LOS	B	F		F	C		C	C	A	C	C	A
Approach Delay		74.2			33.1			20.6			19.9	
Approach LOS		E			C			C			B	
Queue Length 50th (ft)	33	-625		41	231		33	135	24	28	71	8
Queue Length 95th (ft)	62	#865		#159	298		64	211	90	57	121	51
Internal Link Dist (ft)		826			473			851			441	
Turn Bay Length (ft)				165			60		75	75		35
Base Capacity (vph)	267	719		126	1325		403	562	570	311	551	439
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.35	1.06		0.91	0.61		0.18	0.43	0.42	0.20	0.25	0.26

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 113.6
 Natural Cycle: 115
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 42.2
 Intersection LOS: D
 Intersection Capacity Utilization 100.7%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Greenwich Ave & W. Main St/Tresser Blvd



Lanes, Volumes, Timings
2: Washington Blvd & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	780	40	160	730	240	80	860	420	260	910	70
Future Volume (vph)	130	780	40	160	730	240	80	860	420	260	910	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	11	11	11
Storage Length (ft)	325		0	200		0	200		375	330		260
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	1.00	1.00		0.98	0.99		0.99		0.83	0.95		0.95
Frt		0.993			0.963				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1516	4382	0	1570	4247	0	1481	2991	1277	1570	2963	1405
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1509	4382	0	1541	4247	0	1466	2991	1057	1497	2963	1334
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		667			769			581			703	
Travel Time (s)		15.2			17.5			15.8			19.2	
Confl. Peds. (#/hr)	10		31	31		10	26		109	109		26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	6%	5%	10%	0%	6%	0%
Adj. Flow (vph)	137	821	42	168	768	253	84	905	442	274	958	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	863	0	168	1021	0	84	905	442	274	958	74
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	4.0	10.0		4.0	10.0		4.0	15.0	15.0	4.0	15.0	15.0
Minimum Split (s)	8.0	21.0		8.0	21.0		8.0	27.0	27.0	8.0	27.0	27.0
Total Split (s)	14.0	27.0		16.0	29.0		18.0	49.0	49.0	23.0	54.0	54.0
Total Split (%)	12.2%	23.5%		13.9%	25.2%		15.7%	42.6%	42.6%	20.0%	47.0%	47.0%
Maximum Green (s)	10.0	23.0		12.0	25.0		14.0	45.0	45.0	19.0	50.0	50.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes								
Vehicle Extension (s)	1.0	3.0		3.0	3.0		1.0	0.2	0.2	1.0	0.2	0.2
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)		10.0			10.0			16.0	16.0		16.0	16.0
Pedestrian Calls (#/hr)		15			5			55	55		13	13
Act Effect Green (s)	10.0	23.0		12.0	25.0		9.7	45.0	45.0	19.0	56.1	56.1
Actuated g/C Ratio	0.09	0.20		0.10	0.22		0.08	0.39	0.39	0.17	0.49	0.49

Lanes, Volumes, Timings
2: Washington Blvd & Tresser Blvd

06/07/2018

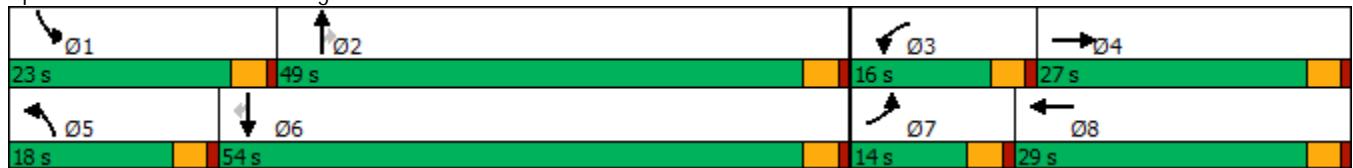


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	1.05	0.99		1.03	1.11		0.68	0.77	1.07	1.06	0.66	0.11
Control Delay	142.6	73.2		129.7	105.2		75.9	36.0	99.1	118.5	26.4	18.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	142.6	73.2		129.7	105.2		75.9	36.0	99.1	118.5	26.4	18.6
LOS	F	E		F	F		E	D	F	F	C	B
Approach Delay		82.7			108.7			57.9			45.3	
Approach LOS		F			F			E			D	
Queue Length 50th (ft)	~110	235		~133	~316		61	303	~363	~223	284	30
Queue Length 95th (ft)	#239	#328		#272	#408		111	386	#563	#391	387	63
Internal Link Dist (ft)		587			689			501			623	
Turn Bay Length (ft)	325			200			200		375	330		260
Base Capacity (vph)	131	876		163	923		180	1170	413	259	1444	650
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.99		1.03	1.11		0.47	0.77	1.07	1.06	0.66	0.11

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 115
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 71.8
 Intersection LOS: E
 Intersection Capacity Utilization 85.6%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Washington Blvd & Tresser Blvd



Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕↕↕		↖	↕↕↕		↖	↕↕		↖	↕↕	↖
Traffic Volume (vph)	130	1160	70	260	810	160	220	320	100	190	300	60
Future Volume (vph)	130	1160	70	260	810	160	220	320	100	190	300	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	11	11	11	10	10	10
Storage Length (ft)	96		0	118		0	304		0	106		106
Storage Lanes	1		0	1		0	1		0	1		2
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	1.00			0.99		0.87	0.97		0.96		0.76
Frt		0.991			0.975			0.964				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1354	4316	0	1454	4311	0	1540	2937	0	1501	2808	1304
Flt Permitted	0.250			0.100			0.447			0.350		
Satd. Flow (perm)	353	4316	0	153	4311	0	627	2937	0	528	2808	991
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		769			474			771			641	
Travel Time (s)		17.5			10.8			21.0			17.5	
Confl. Peds. (#/hr)	27		42	42		27	169		70	70		169
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	12%	3%	6%	8%	1%	2%	2%	0%	2%	1%	8%	4%
Adj. Flow (vph)	137	1221	74	274	853	168	232	337	105	200	316	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	1295	0	274	1021	0	232	442	0	200	316	63
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		6
Detector Phase	7	4		3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	10.0		4.0	10.0	10.0
Minimum Split (s)	8.0	27.0		8.0	27.0		8.0	30.0		8.0	30.0	30.0
Total Split (s)	16.0	43.0		25.0	52.0		17.0	31.0		16.0	30.0	30.0
Total Split (%)	13.9%	37.4%		21.7%	45.2%		14.8%	27.0%		13.9%	26.1%	26.1%
Maximum Green (s)	12.0	38.0		21.0	47.0		13.0	26.0		12.0	25.0	25.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)		7.0			7.0			10.0			10.0	10.0
Flash Dont Walk (s)		15.0			15.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)		20			14			35			85	85
Act Effect Green (s)	46.6	35.9		59.6	44.7		36.6	23.0		34.5	22.0	22.0
Actuated g/C Ratio	0.43	0.33		0.55	0.42		0.34	0.21		0.32	0.20	0.20

Lanes, Volumes, Timings
3: Atlantic St & Tresser Blvd

06/07/2018

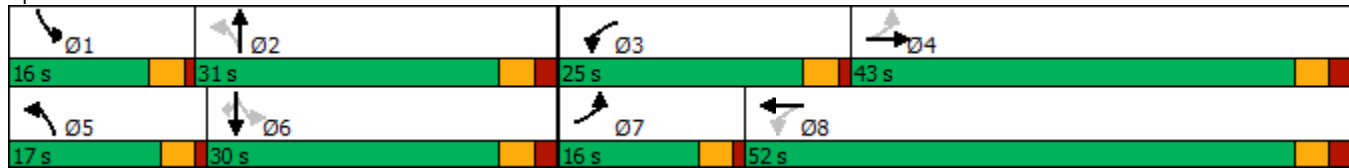


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.56	0.90		0.89	0.57		0.72	0.70		0.73	0.55	0.31
Control Delay	23.4	44.4		58.2	26.0		41.4	46.3		43.6	42.9	42.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	23.4	44.4		58.2	26.0		41.4	46.3		43.6	42.9	42.5
LOS	C	D		E	C		D	D		D	D	D
Approach Delay		42.4			32.8			44.6			43.1	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	48	334		150	204		125	157		106	109	39
Queue Length 95th (ft)	83	#423		#298	257		#209	215		#189	156	81
Internal Link Dist (ft)		689			394			691			561	
Turn Bay Length (ft)	96			118			304			106		106
Base Capacity (vph)	276	1562		345	1957		331	727		285	669	236
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.50	0.83		0.79	0.52		0.70	0.61		0.70	0.47	0.27

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 107.4
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 39.8 Intersection LOS: D
 Intersection Capacity Utilization 92.2% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Atlantic St & Tresser Blvd



Lanes, Volumes, Timings
4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1210	320	120	710	50	190	660	110	100	360	190
Future Volume (vph)	200	1210	320	120	710	50	190	660	110	100	360	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	10	12	10	11	9	10	10	11
Storage Length (ft)	200		0	300		0	160		0	171		148
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.99	0.98		0.99	1.00		0.97	0.99		0.99		0.93
Frt		0.969			0.990			0.979				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1496	4183	0	1501	4178	0	1501	3028	0	1501	2973	1351
Flt Permitted	0.231			0.101			0.371			0.149		
Satd. Flow (perm)	359	4183	0	159	4178	0	571	3028	0	234	2973	1260
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		70			10							
Link Speed (mph)		30			30			25				25
Link Distance (ft)		557			937			520				749
Travel Time (s)		12.7			21.3			14.2				20.4
Confl. Peds. (#/hr)	40		77	77		40	44		28	28		44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	2%	1%	3%	0%	1%	1%	0%	1%	2%	4%
Adj. Flow (vph)	213	1287	340	128	755	53	202	702	117	106	383	202
Shared Lane Traffic (%)												
Lane Group Flow (vph)	213	1627	0	128	808	0	202	819	0	106	383	202
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		8
Detector Phase	1	6		5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	11.0	29.0		11.0	29.0		11.0	31.0		11.0	31.0	31.0
Total Split (s)	23.0	51.0		14.0	42.0		15.0	39.0		11.0	35.0	35.0
Total Split (%)	20.0%	44.3%		12.2%	36.5%		13.0%	33.9%		9.6%	30.4%	30.4%
Maximum Green (s)	19.0	47.0		10.0	38.0		11.0	35.0		7.0	31.0	31.0
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	0.2		2.0	0.2		2.0	2.0		2.0	2.0	2.0
Recall Mode	None	Min		None	Min		None	None		None	None	None
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Dont Walk (s)		18.0			18.0			20.0			20.0	20.0
Pedestrian Calls (#/hr)		38			20			14			22	22
Act Effect Green (s)	55.4	43.4		48.9	39.5		43.0	32.4		36.1	29.0	29.0
Actuated g/C Ratio	0.51	0.40		0.45	0.36		0.40	0.30		0.33	0.27	0.27

Lanes, Volumes, Timings
 4: Canal St/Greyrock Pl & Tresser Blvd

06/07/2018

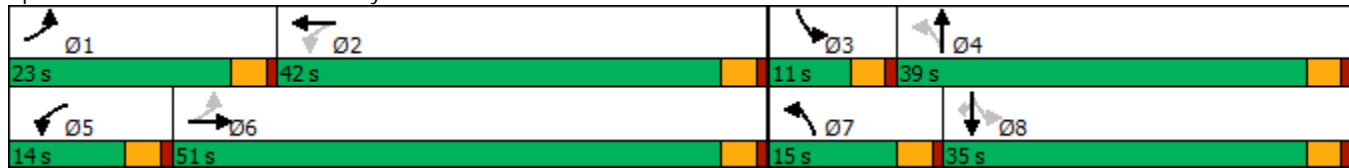


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.66	0.95		0.68	0.53		0.64	0.90		0.66	0.48	0.60
Control Delay	25.1	43.4		41.3	29.1		34.1	51.7		44.8	36.6	44.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	25.1	43.4		41.3	29.1		34.1	51.7		44.8	36.6	44.5
LOS	C	D		D	C		C	D		D	D	D
Approach Delay		41.3			30.8			48.2			40.2	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	83	400		47	164		102	303		50	125	130
Queue Length 95th (ft)	131	#509		#140	223		164	#416		#109	174	213
Internal Link Dist (ft)		477			857			440			669	
Turn Bay Length (ft)	200			300			160			171		148
Base Capacity (vph)	389	1872		197	1586		324	988		160	859	364
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.55	0.87		0.65	0.51		0.62	0.83		0.66	0.45	0.55

Intersection Summary

Area Type: CBD
 Cycle Length: 115
 Actuated Cycle Length: 108.5
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 40.5
 Intersection LOS: D
 Intersection Capacity Utilization 87.3%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Canal St/Greyrock Pl & Tresser Blvd



Lanes, Volumes, Timings
5: Greenwich Ave & Richmond Hill Ave

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	80	180	60	60	160	50	30	440	110	20	210	80
Future Volume (vph)	80	180	60	60	160	50	30	440	110	20	210	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	11	12	12	11	12
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			0.99			0.99	
Frt		0.975			0.975			0.974			0.965	
Flt Protected		0.988			0.989			0.997			0.997	
Satd. Flow (prot)	0	1601	0	0	1683	0	0	1590	0	0	1528	0
Flt Permitted		0.814			0.830			0.973			0.952	
Satd. Flow (perm)	0	1311	0	0	1410	0	0	1551	0	0	1459	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			363			811			931	
Travel Time (s)		12.3			9.9			22.1			25.4	
Confl. Peds. (#/hr)	15		9	9		15	12		8	8		12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	8%	2%	5%	0%	0%	0%	1%	0%	3%	3%
Adj. Flow (vph)	86	194	65	65	172	54	32	473	118	22	226	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	345	0	0	291	0	0	623	0	0	334	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		3	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.0	22.0		8.0	22.0		23.0	23.0		23.0	23.0	
Total Split (s)	32.0	32.0		8.0	40.0		50.0	50.0		50.0	50.0	
Total Split (%)	35.6%	35.6%		8.9%	44.4%		55.6%	55.6%		55.6%	55.6%	
Maximum Green (s)	28.0	28.0		4.0	36.0		46.0	46.0		46.0	46.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	4	4		8	8		4	4		6	6	
Act Effct Green (s)		24.5			24.5			46.2			46.2	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
v/c Ratio		0.85			0.66			0.69			0.39	
Control Delay		45.0			31.3			17.4			11.5	
Queue Delay		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
 5: Greenwich Ave & Richmond Hill Ave

06/07/2018

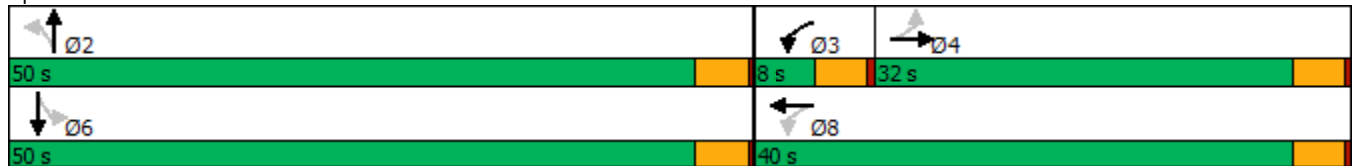


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		45.0			31.3			17.4				11.5
LOS		D			C			B				B
Approach Delay		45.0			31.3			17.4				11.5
Approach LOS		D			C			B				B
Queue Length 50th (ft)		156			122			207				86
Queue Length 95th (ft)		#283			204			377				160
Internal Link Dist (ft)		372			283			731				851
Turn Bay Length (ft)												
Base Capacity (vph)		476			647			909				855
Starvation Cap Reductn		0			0			0				0
Spillback Cap Reductn		0			0			0				0
Storage Cap Reductn		0			0			0				0
Reduced v/c Ratio		0.72			0.45			0.69				0.39

Intersection Summary




















Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	78.8
Natural Cycle:	70
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	24.7
Intersection LOS:	C
Intersection Capacity Utilization:	77.2%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 5: Greenwich Ave & Richmond Hill Ave



Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	130	60	320	280	930	0	0	660	670
Future Volume (vph)	0	0	0	130	60	320	280	930	0	0	660	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	14	11	16	12	12	12	11	11	11
Storage Length (ft)	0		0	0		780	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor				0.96		0.91	0.97					0.85
Frt						0.850						0.850
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1494	1621	1373	1624	3217	0	0	2935	1391
Flt Permitted				0.950			0.283					
Satd. Flow (perm)	0	0	0	1436	1621	1249	468	3217	0	0	2935	1178
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						132						445
Link Speed (mph)		25			25			25				25
Link Distance (ft)		677			1043			258				338
Travel Time (s)		18.5			28.4			7.0				9.2
Confl. Peds. (#/hr)	41		20	20		41	42		56	56		42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	16%	2%	20%	0%	1%	2%	2%	7%	1%
Adj. Flow (vph)	0	0	0	133	61	327	286	949	0	0	673	684
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	133	61	327	286	949	0	0	673	684
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	Perm
Protected Phases					8		5	2				6
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2				6
Switch Phase												
Minimum Initial (s)				20.0	20.0	20.0	5.0	20.0				5.0
Minimum Split (s)				29.0	29.0	29.0	10.0	25.0				22.0
Total Split (s)				32.0	32.0	32.0	15.0	78.0				63.0
Total Split (%)				29.1%	29.1%	29.1%	13.6%	70.9%				57.3%
Maximum Green (s)				27.0	27.0	27.0	10.0	73.0				58.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0				3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0				2.0
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0				0.0
Total Lost Time (s)				5.0	5.0	5.0	5.0	5.0				5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0	0.2				2.0
Recall Mode				None	None	None	None	Min				Min
Walk Time (s)				7.0	7.0	7.0		7.0				7.0
Flash Dont Walk (s)				10.0	10.0	10.0		10.0				10.0
Pedestrian Calls (#/hr)				20	20	20		28				21
Act Effect Green (s)				23.4	23.4	23.4	52.3	52.3				36.7
Actuated g/C Ratio				0.27	0.27	0.27	0.61	0.61				0.43

Lanes, Volumes, Timings
6: Washington Blvd & N. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio				0.34	0.14	0.75	0.68	0.49			0.54	0.90
Control Delay				33.2	30.5	32.3	16.7	9.9			18.9	24.3
Queue Delay				0.0	0.0	0.0	2.8	0.3			0.0	0.0
Total Delay				33.2	30.5	32.3	19.6	10.2			18.9	24.3
LOS				C	C	C	B	B			B	C
Approach Delay					32.3			12.4			21.7	
Approach LOS					C			B			C	
Queue Length 50th (ft)				58	25	97	58	118			125	111
Queue Length 95th (ft)				137	70	#284	115	193			193	#384
Internal Link Dist (ft)		597			963			178			258	
Turn Bay Length (ft)						780						
Base Capacity (vph)				475	536	501	425	2710			2087	966
Starvation Cap Reductn				0	0	0	64	1031			0	0
Spillback Cap Reductn				0	0	0	0	0			0	0
Storage Cap Reductn				0	0	0	0	0			0	0
Reduced v/c Ratio				0.28	0.11	0.65	0.79	0.57			0.32	0.71

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 86.3
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 19.7 Intersection LOS: B
 Intersection Capacity Utilization 126.8% ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Washington Blvd & N. State St



Lanes, Volumes, Timings

7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	170	770	310	350	200	10	260	400	310	70
Future Volume (vph)	170	770	310	350	200	10	260	400	310	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	12	11	11	10	11	11
Storage Length (ft)		0		0		75			75	
Storage Lanes		2		0		1			1	
Taper Length (ft)		25				25				
Lane Util. Factor	0.95	0.97	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor		0.99	0.92			0.95			0.86	
Frt			0.920						0.850	
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	2992	2557	0	0	1556	3141	2973	1291	0
Flt Permitted		0.950				0.412				
Satd. Flow (perm)	0	2976	2557	0	0	638	3141	2973	1113	0
Right Turn on Red				No						No
Satd. Flow (RTOR)										
Link Speed (mph)			25				25	28		
Link Distance (ft)			1150				217	771		
Travel Time (s)			31.4				5.9	18.8		
Confl. Peds. (#/hr)	2			89	39	39			39	39
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	2%	1%	6%	1%	0%	0%	2%	2%	39%
Adj. Flow (vph)	187	846	341	385	220	11	286	440	341	77
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	1033	726	0	0	231	286	440	418	0
Turn Type	Split	Split	NA		pm+pt	pm+pt	NA	NA	Perm	
Protected Phases	8	8	8		5	5	2	6		
Permitted Phases					2	2			6	
Detector Phase	8	8	8		5	5	2	6	6	
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0		5.0	5.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0	24.0		9.0	9.0	24.0	24.0	24.0	
Total Split (s)	46.0	46.0	46.0		11.0	11.0	64.0	53.0	53.0	
Total Split (%)	41.8%	41.8%	41.8%		10.0%	10.0%	58.2%	48.2%	48.2%	
Maximum Green (s)	42.0	42.0	42.0		7.0	7.0	60.0	49.0	49.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0				0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0				4.0	4.0	4.0	
Lead/Lag					Lead	Lead		Lag	Lag	
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None		None	None	Max	Max	Max	
Walk Time (s)	5.0	5.0	5.0				5.0	5.0	5.0	
Flash Dont Walk (s)	15.0	15.0	15.0				15.0	15.0	15.0	
Pedestrian Calls (#/hr)	45	45	45				3	20	20	
Act Effect Green (s)		42.0	42.0			60.0	60.0	49.0	49.0	
Actuated g/C Ratio		0.38	0.38			0.55	0.55	0.45	0.45	

Lanes, Volumes, Timings
 7: I-95 SB On-Ramp & Atlantic St & N. State St

06/07/2018

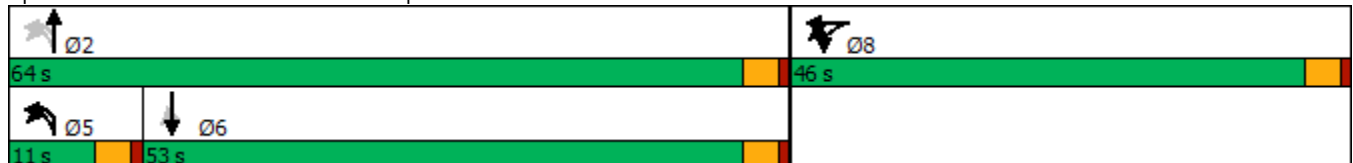


Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
v/c Ratio		0.90	0.74			0.57	0.17	0.33	0.84	
Control Delay		44.5	35.0			20.3	12.8	20.7	44.7	
Queue Delay		0.0	0.0			19.2	1.7	0.0	0.0	
Total Delay		44.5	35.0			39.5	14.5	20.7	44.7	
LOS		D	D			D	B	C	D	
Approach Delay			40.6				25.7	32.4		
Approach LOS			D				C	C		
Queue Length 50th (ft)		350	230			83	50	103	256	
Queue Length 95th (ft)		#478	305			132	74	142	#444	
Internal Link Dist (ft)			1070				137	691		
Turn Bay Length (ft)						75			75	
Base Capacity (vph)		1142	976			406	1713	1324	495	
Starvation Cap Reductn		0	0			162	1240	0	0	
Spillback Cap Reductn		0	0			0	0	0	0	
Storage Cap Reductn		0	0			0	0	0	0	
Reduced v/c Ratio		0.90	0.74			0.95	0.60	0.33	0.84	

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 110
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 35.9
 Intersection LOS: D
 Intersection Capacity Utilization 82.2%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 7: I-95 SB On-Ramp & Atlantic St & N. State St



Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (vph)	0	0	0	350	910	200	280	760	0	0	620	170
Future Volume (vph)	0	0	0	350	910	200	280	760	0	0	620	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					1.00		1.00					1.00
Frt					0.979							0.968
Flt Protected					0.988		0.950					
Satd. Flow (prot)	0	0	0	0	5352	0	1624	3217	0	0	2967	0
Flt Permitted					0.988		0.118					
Satd. Flow (perm)	0	0	0	0	5352	0	201	3217	0	0	2967	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)												33
Link Speed (mph)		25			25			25				25
Link Distance (ft)		1150			792			189				520
Travel Time (s)		31.4			21.6			5.2				14.2
Confl. Peds. (#/hr)	23					23	11		3	3		11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	0%	0%	1%	0%	0%	2%	2%
Adj. Flow (vph)	0	0	0	368	958	211	295	800	0	0	653	179
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1537	0	295	800	0	0	832	0
Turn Type				Split	NA		pm+pt	NA				NA
Protected Phases				8	8		5	2				6
Permitted Phases							2					
Detector Phase				8	8		5	2				6
Switch Phase												
Minimum Initial (s)				10.0	10.0		5.0	25.0				25.0
Minimum Split (s)				49.0	49.0		9.0	49.0				49.0
Total Split (s)				49.0	49.0		22.0	71.0				49.0
Total Split (%)				40.8%	40.8%		18.3%	59.2%				40.8%
Maximum Green (s)				45.0	45.0		18.0	67.0				45.0
Yellow Time (s)				3.0	3.0		3.0	3.0				3.0
All-Red Time (s)				1.0	1.0		1.0	1.0				1.0
Lost Time Adjust (s)					0.0		0.0	0.0				0.0
Total Lost Time (s)					4.0		4.0	4.0				4.0
Lead/Lag							Lead					Lag
Lead-Lag Optimize?												
Vehicle Extension (s)				5.0	5.0		0.5	0.2				0.2
Recall Mode				None	None		None	Min				Min
Walk Time (s)				20.0	20.0			25.0				25.0
Flash Dont Walk (s)				25.0	25.0			20.0				20.0
Pedestrian Calls (#/hr)				11	11			1				6
Act Effect Green (s)					45.3		53.1	53.1				32.4
Actuated g/C Ratio					0.43		0.50	0.50				0.30
v/c Ratio					0.68		0.92	0.50				0.90
Control Delay					27.7		60.3	18.6				47.1
Queue Delay					0.0		54.3	1.8				0.0

Lanes, Volumes, Timings
8: Canal St & N. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay					27.7		114.6	20.4			47.2	
LOS					C		F	C			D	
Approach Delay					27.7			45.8			47.2	
Approach LOS					C			D			D	
Queue Length 50th (ft)					238		146	183			278	
Queue Length 95th (ft)					347		#324	231			357	
Internal Link Dist (ft)		1070			712			109			440	
Turn Bay Length (ft)												
Base Capacity (vph)					2279		342	2039			1282	
Starvation Cap Reductn					0		106	1025			20	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.67		1.25	0.79			0.66	

Intersection Summary

Area Type:	CBD
Cycle Length:	120
Actuated Cycle Length:	106.4
Natural Cycle:	110
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	38.1
Intersection LOS:	D
Intersection Capacity Utilization	87.8%
ICU Level of Service	E
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 8: Canal St & N. State St



Lanes, Volumes, Timings

9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	680	150	0	0	0	0	410	350	70	280	0
Future Volume (vph)	190	680	150	0	0	0	0	410	350	70	280	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	16	10	12	12
Storage Length (ft)	210		240	0		0	0		0	200		200
Storage Lanes	1		1	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor	0.99		0.95						0.98	1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1555	3079	1351	0	0	0	0	1710	1540	1444	3185	0
Flt Permitted	0.950									0.306		
Satd. Flow (perm)	1541	3079	1285	0	0	0	0	1710	1513	464	3185	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158						368			
Link Speed (mph)		30			25			25				25
Link Distance (ft)		711			384			138				811
Travel Time (s)		16.2			10.5			3.8				22.1
Confl. Peds. (#/hr)	3		21						3	3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	4%	2%	2%	2%	2%	0%	7%	5%	2%	2%
Adj. Flow (vph)	200	716	158	0	0	0	0	432	368	74	295	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	716	158	0	0	0	0	432	368	74	295	0
Turn Type	Perm	NA	Perm					NA	Perm	Perm	NA	
Protected Phases		3						2			6	
Permitted Phases	3		3						2	6		
Detector Phase	3	3	3					2	2	6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					12.0	12.0	12.0	12.0	
Minimum Split (s)	24.0	24.0	24.0					24.0	24.0	24.0	24.0	
Total Split (s)	38.0	38.0	38.0					52.0	52.0	42.0	42.0	
Total Split (%)	31.7%	31.7%	31.7%					43.3%	43.3%	35.0%	35.0%	
Maximum Green (s)	34.0	34.0	34.0					48.0	48.0	38.0	38.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	0.2	0.2	0.2					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					Min	Min	Min	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0	13.0					13.0	13.0	13.0	13.0	
Pedestrian Calls (#/hr)	10	10	10					1	1	2	2	
Act Effct Green (s)	27.7	27.7	27.7					38.1	38.1	38.1	38.1	
Actuated g/C Ratio	0.28	0.28	0.28					0.38	0.38	0.38	0.38	

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

Lane Group	Ø4	Ø5
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	4	5
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	8.0	5.0
Minimum Split (s)	19.0	10.0
Total Split (s)	30.0	10.0
Total Split (%)	25%	8%
Maximum Green (s)	26.0	6.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	1.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	8.0	
Pedestrian Calls (#/hr)	10	
Act Effct Green (s)		
Actuated g/C Ratio		

Lanes, Volumes, Timings
 9: Greenwich Ave & I-95 NB Off Ramp/S. State St

06/07/2018

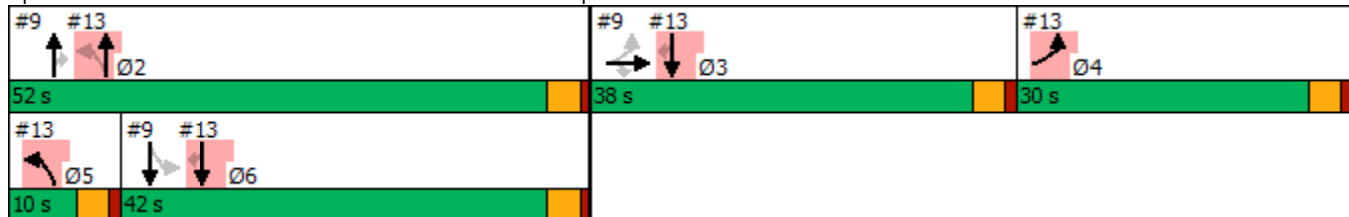


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.84	0.34					0.66	0.46	0.42	0.24	
Control Delay	37.0	45.9	7.4					18.0	7.2	34.0	22.7	
Queue Delay	0.0	0.0	0.0					3.8	2.2	0.0	0.0	
Total Delay	37.0	45.9	7.4					21.8	9.4	34.0	22.7	
LOS	D	D	A					C	A	C	C	
Approach Delay		38.5						16.1			25.0	
Approach LOS		D						B			C	
Queue Length 50th (ft)	117	251	0					221	89	38	73	
Queue Length 95th (ft)	202	349	51					340	160	89	112	
Internal Link Dist (ft)		631			304			58			731	
Turn Bay Length (ft)	210		240							200		
Base Capacity (vph)	558	1115	566					875	953	207	1427	
Starvation Cap Reductn	0	0	0					348	437	0	0	
Spillback Cap Reductn	0	0	3					0	0	0	64	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.36	0.64	0.28					0.82	0.71	0.36	0.22	

Intersection Summary

Area Type:	CBD
Cycle Length:	120
Actuated Cycle Length:	100
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	28.3
Intersection LOS:	C
Intersection Capacity Utilization:	65.3%
ICU Level of Service:	C
Analysis Period (min):	15



















Splits and Phases: 9: Greenwich Ave & I-95 NB Off Ramp/S. State St



Lane Group	Ø4	Ø5
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
10: Washington Blvd & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	470	500	390	0	0	0	0	750	40	170	600	0
Future Volume (vph)	470	500	390	0	0	0	0	750	40	170	600	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	12	12	12	10	10	10
Storage Length (ft)	100		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.91	0.91	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00
Fr _t		0.938						0.992				
Fl _t Protected	0.950	0.997								0.950		
Satd. Flow (prot)	1429	2671	0	0	0	0	0	4540	0	2472	2916	0
Fl _t Permitted	0.950	0.997								0.950		
Satd. Flow (perm)	1429	2671	0	0	0	0	0	4540	0	2472	2916	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		148						6				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		522			566			287				258
Travel Time (s)		14.2			15.4			7.8				7.0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	10%	0%	0%	0%	0%	0%	1%	21%	19%	4%	0%
Adj. Flow (vph)	475	505	394	0	0	0	0	758	40	172	606	0
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	427	947	0	0	0	0	0	798	0	172	606	0
Turn Type	Split	NA						NA		Prot	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phase	4	4						2		1	6	
Switch Phase												
Minimum Initial (s)	9.0	9.0						15.0		7.0	15.0	
Minimum Split (s)	14.0	14.0						20.0		11.0	20.0	
Total Split (s)	39.0	39.0						25.0		14.0	39.0	
Total Split (%)	35.5%	35.5%						22.7%		12.7%	35.5%	
Maximum Green (s)	34.0	34.0						20.0		10.0	34.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0						5.0		4.0	5.0	
Lead/Lag	Lag	Lag						Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						0.2		2.0	0.2	
Recall Mode	None	None						Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	35.1	35.1						19.2		9.5	32.8	
Actuated g/C Ratio	0.34	0.34						0.19		0.09	0.32	
v/c Ratio	0.87	0.93						0.93		0.75	0.65	
Control Delay	54.8	46.7						60.1		68.4	35.2	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	29%
Maximum Green (s)	30.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	55
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	

Lanes, Volumes, Timings
 10: Washington Blvd & S. State St

06/07/2018

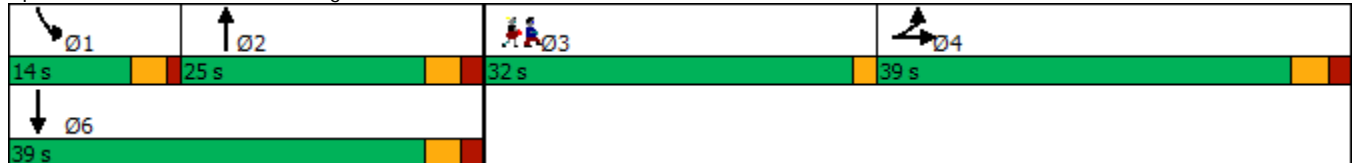


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0						1.2		0.0	6.6	
Total Delay	54.8	46.7						61.3		68.4	41.7	
LOS	D	D						E		E	D	
Approach Delay		49.2						61.3			47.6	
Approach LOS		D						E			D	
Queue Length 50th (ft)	325	-348						205		62	195	
Queue Length 95th (ft)	#547	#485						#292		#116	260	
Internal Link Dist (ft)		442			486			207			178	
Turn Bay Length (ft)	100											
Base Capacity (vph)	491	1015						923		250	1003	
Starvation Cap Reductn	0	0						33		0	341	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.87	0.93						0.90		0.69	0.92	

Intersection Summary

Area Type: CBD
 Cycle Length: 110
 Actuated Cycle Length: 102
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 52.1
 Intersection LOS: D
 Intersection Capacity Utilization 126.8%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Washington Blvd & S. State St



Lane Group	Ø3
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗	↘	↕↕	
Traffic Volume (vph)	90	470	140	0	0	0	0	370	80	170	400	0
Future Volume (vph)	90	470	140	0	0	0	0	370	80	170	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	0		0	75		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor									0.98	1.00		
Frt			0.850						0.850			
Flt Protected		0.992								0.950		
Satd. Flow (prot)	0	2892	1357	0	0	0	0	3217	1454	1624	3185	0
Flt Permitted		0.992								0.454		
Satd. Flow (perm)	0	2892	1357	0	0	0	0	3217	1431	775	3185	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		543			708			126				217
Travel Time (s)		14.8			19.3			3.4				5.9
Confl. Peds. (#/hr)							20		3	3		20
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	4%	0%	2%	2%	2%	2%	1%	0%	0%	2%	2%
Adj. Flow (vph)	92	480	143	0	0	0	0	378	82	173	408	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	572	143	0	0	0	0	378	82	173	408	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0					33.0	33.0	6.0	33.0	
Minimum Split (s)	29.0	29.0	29.0					37.0	37.0	10.0	37.0	
Total Split (s)	33.0	33.0	33.0					42.0	42.0	15.0	57.0	
Total Split (%)	36.7%	36.7%	36.7%					46.7%	46.7%	16.7%	63.3%	
Maximum Green (s)	29.0	29.0	29.0					38.0	38.0	11.0	53.0	
Yellow Time (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0	4.0	4.0	4.0	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5					0.2	0.2	1.0	0.2	
Recall Mode	None	None	None					Min	Min	None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0		7.0	
Flash Dont Walk (s)	18.0	18.0	18.0					14.0	14.0		14.0	
Pedestrian Calls (#/hr)	0	0	0					1	1		10	
Act Effect Green (s)		22.1	22.1					33.3	33.3	45.1	45.1	
Actuated g/C Ratio		0.29	0.29					0.44	0.44	0.60	0.60	

Lanes, Volumes, Timings
 11: Atlatnic St/Atlantic St & S. State St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.67	0.36					0.27	0.13	0.31	0.21	
Control Delay		27.7	23.7					15.3	15.5	9.4	8.0	
Queue Delay		0.0	0.0					0.0	0.0	1.3	0.3	
Total Delay		27.7	23.7					15.3	15.5	10.7	8.3	
LOS		C	C					B	B	B	A	
Approach Delay		26.9						15.3			9.0	
Approach LOS		C						B			A	
Queue Length 50th (ft)		120	51					56	22	33	42	
Queue Length 95th (ft)		183	103					105	58	74	77	
Internal Link Dist (ft)		463			628			46			137	
Turn Bay Length (ft)										75		
Base Capacity (vph)		1122	526					1637	728	589	2260	
Starvation Cap Reductn		0	0					0	0	249	1191	
Spillback Cap Reductn		0	0					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.51	0.27					0.23	0.11	0.51	0.38	

Intersection Summary




















Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 75.3
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 17.9
 Intersection LOS: B
 Intersection Capacity Utilization 65.3%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 11: Atlatnic St/Atlantic St & S. State St



Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	560	1000	240	0	0	0	0	490	330	310	660	0
Future Volume (vph)	560	1000	240	0	0	0	0	490	330	310	660	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor								0.99				1.00
Frt			0.850					0.940				
Flt Protected	0.950											0.984
Satd. Flow (prot)	1547	3217	1358	0	0	0	0	3023	0	0	3144	0
Flt Permitted	0.950											0.529
Satd. Flow (perm)	1547	3217	1358	0	0	0	0	3023	0	0	1690	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				30
Link Distance (ft)		454			543			446				189
Travel Time (s)		12.4			14.8			12.2				4.3
Confl. Peds. (#/hr)							16		4	4		16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	1%	7%	2%	2%	2%	0%	0%	1%	1%	2%	0%
Adj. Flow (vph)	589	1053	253	0	0	0	0	516	347	326	695	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	589	1053	253	0	0	0	0	863	0	0	1021	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Detector Phase	4	4	4					2		1	1	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					20.0		1.0	20.0	
Minimum Split (s)	31.0	31.0	31.0					35.0		5.0	35.0	
Total Split (s)	37.0	37.0	37.0					36.0		17.0	53.0	
Total Split (%)	41.1%	41.1%	41.1%					40.0%		18.9%	58.9%	
Maximum Green (s)	33.0	33.0	33.0					32.0		13.0	49.0	
Yellow Time (s)	3.0	3.0	3.0					3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0					1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	4.0	4.0	4.0					4.0			4.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					0.2		0.2	0.2	
Recall Mode	None	None	None					Min		None	Min	
Walk Time (s)	7.0	7.0	7.0					7.0			7.0	
Flash Dont Walk (s)	20.0	20.0	20.0					24.0			24.0	
Pedestrian Calls (#/hr)	0	0	0					2			8	
Act Effct Green (s)	33.0	33.0	33.0					30.9			47.9	
Actuated g/C Ratio	0.37	0.37	0.37					0.35			0.54	
v/c Ratio	1.03	0.88	0.50					0.82			0.99dl	

Lanes, Volumes, Timings
12: Canal St & S. State St

06/07/2018



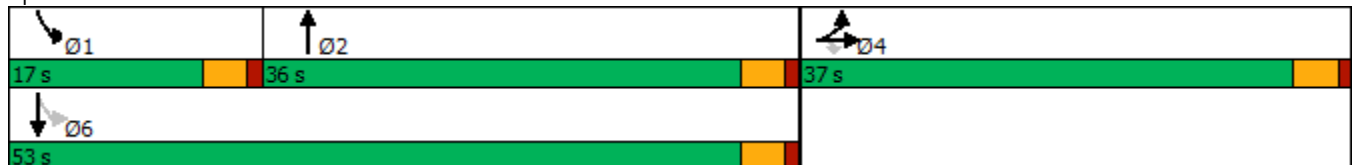
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	74.4	36.8	26.3					34.2			29.0	
Queue Delay	1.7	1.2	0.0					0.0			47.7	
Total Delay	76.1	37.9	26.3					34.2			76.7	
LOS	E	D	C					C			E	
Approach Delay		48.2						34.3			76.7	
Approach LOS		D						C			E	
Queue Length 50th (ft)	~365	292	110					229			193	
Queue Length 95th (ft)	#566	#416	184					306			#295	
Internal Link Dist (ft)		374				463		366			109	
Turn Bay Length (ft)	200		200									
Base Capacity (vph)	574	1194	503					1088			1144	
Starvation Cap Reductn	3	39	0					0			318	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	1.03	0.91	0.50					0.79			1.24	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 88.9
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 52.7
 Intersection Capacity Utilization 101.7%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service G

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 12: Canal St & S. State St



Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
Lane Configurations								
Traffic Volume (vph)	400	120	40	370	360	70		
Future Volume (vph)	400	120	40	370	360	70		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	11	13	12		
Storage Length (ft)	0	100	0			0		
Storage Lanes	2	1	0			1		
Taper Length (ft)	25		25					
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.98			1.00		0.97		
Frt	0.965					0.850		
Flt Protected	0.963			0.995				
Satd. Flow (prot)	2920	0	0	1601	1716	1425		
Flt Permitted	0.963			0.934				
Satd. Flow (perm)	2920	0	0	1502	1716	1380		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	31					74		
Link Speed (mph)	25			25	25			
Link Distance (ft)	260			506	138			
Travel Time (s)	7.1			13.8	3.8			
Confl. Peds. (#/hr)		21	4			4		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Heavy Vehicles (%)	4%	0%	0%	3%	3%	2%		
Adj. Flow (vph)	421	126	42	389	379	74		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	547	0	0	431	379	74		
Turn Type	Prot		pm+pt	NA	NA	Perm		
Protected Phases	4		5	2	3 6		3	6
Permitted Phases			2			3 6		
Detector Phase	4		5	2	3 6	3 6		
Switch Phase								
Minimum Initial (s)	8.0		5.0	12.0			8.0	12.0
Minimum Split (s)	19.0		10.0	24.0			24.0	24.0
Total Split (s)	30.0		10.0	52.0			38.0	42.0
Total Split (%)	25.0%		8.3%	43.3%			32%	35%
Maximum Green (s)	26.0		6.0	48.0			34.0	38.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0			0.0				
Total Lost Time (s)	4.0			4.0				
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Vehicle Extension (s)	1.0		3.0	3.0			0.2	3.0
Recall Mode	None		None	Min			None	Min
Walk Time (s)	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	8.0			13.0			13.0	13.0
Pedestrian Calls (#/hr)	10			1			10	2
Act Effect Green (s)	21.4			38.1	70.1	70.1		
Actuated g/C Ratio	0.21			0.38	0.70	0.70		

Lanes, Volumes, Timings
 13: Greenwich Ave & First Stamford Pl

06/07/2018

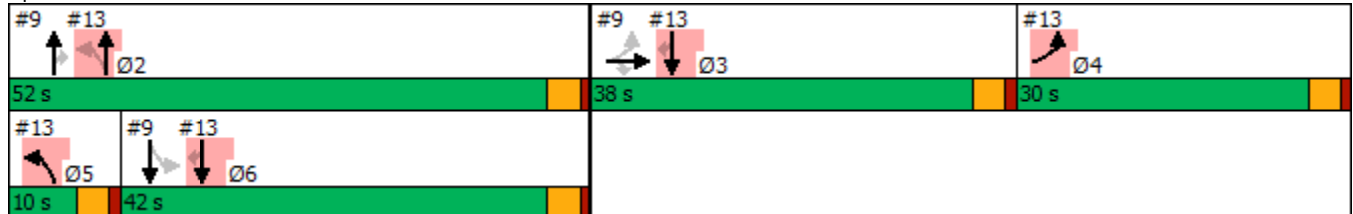


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3	Ø6
v/c Ratio	0.84			0.75	0.32	0.07		
Control Delay	50.6			37.7	3.3	0.1		
Queue Delay	15.8			0.0	0.3	0.5		
Total Delay	66.5			37.7	3.6	0.6		
LOS	E			D	A	A		
Approach Delay	66.5			37.7	3.2			
Approach LOS	E			D	A			
Queue Length 50th (ft)	183			259	26	0		
Queue Length 95th (ft)	#283			405	62	0		
Internal Link Dist (ft)	180			426	58			
Turn Bay Length (ft)								
Base Capacity (vph)	831			768	1349	1100		
Starvation Cap Reductn	0			0	469	789		
Spillback Cap Reductn	274			2	0	0		
Storage Cap Reductn	0			0	0	0		
Reduced v/c Ratio	0.98			0.56	0.43	0.24		

Intersection Summary












Area Type: CBD
 Cycle Length: 120
 Actuated Cycle Length: 100
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 37.8
 Intersection LOS: D
 Intersection Capacity Utilization 72.5%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 13: Greenwich Ave & First Stamford Pl



Lanes, Volumes, Timings
14: Washington Blvd & Station Pl

06/07/2018

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Lane Configurations							
Traffic Volume (vph)	110	350	430	100	310	680	
Future Volume (vph)	110	350	430	100	310	680	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	8	12	11	11	11	11	
Storage Length (ft)	0	100		0	0		
Storage Lanes	1	1		0	1		
Taper Length (ft)	25				25		
Lane Util. Factor	1.00	0.88	0.95	0.95	1.00	0.95	
Fr _t		0.850	0.972				
Fl _t Protected	0.950				0.950		
Satd. Flow (prot)	1354	2533	3011	0	1540	3020	
Fl _t Permitted	0.950				0.356		
Satd. Flow (perm)	1354	2533	3011	0	577	3020	
Right Turn on Red		No		Yes			
Satd. Flow (RTOR)			31				
Link Speed (mph)	25		25			25	
Link Distance (ft)	385		386			287	
Travel Time (s)	10.5		10.5			7.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	4%	1%	1%	3%	2%	4%	
Adj. Flow (vph)	115	365	448	104	323	708	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	115	365	552	0	323	708	
Turn Type	Prot	pt+ov	NA		pm+pt	NA	
Protected Phases	4	4 1	2		1	6	3
Permitted Phases					6		
Detector Phase	4	4 1	2		1	6	
Switch Phase							
Minimum Initial (s)	9.0		15.0		7.0	15.0	1.0
Minimum Split (s)	13.0		20.0		11.0	20.0	20.0
Total Split (s)	16.0		30.0		24.0	54.0	20.0
Total Split (%)	17.8%		33.3%		26.7%	60.0%	22%
Maximum Green (s)	12.0		25.0		20.0	49.0	18.0
Yellow Time (s)	3.0		3.0		3.0	3.0	2.0
All-Red Time (s)	1.0		2.0		1.0	2.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	4.0		5.0		4.0	5.0	
Lead/Lag	Lag		Lag		Lead		Lead
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0		0.2		2.0	0.2	0.2
Recall Mode	None		Max		None	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							11.0
Pedestrian Calls (#/hr)							18
Act Effct Green (s)	11.2	27.3	33.8		50.9	49.9	
Actuated g/C Ratio	0.15	0.35	0.44		0.66	0.65	
v/c Ratio	0.59	0.41	0.41		0.61	0.36	
Control Delay	47.0	20.3	19.2		13.2	8.8	

Lanes, Volumes, Timings
 14: Washington Blvd & Station PI

06/07/2018



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø3
Queue Delay	0.0	0.0	0.0		0.6	0.9	
Total Delay	47.0	20.3	19.2		13.8	9.6	
LOS	D	C	B		B	A	
Approach Delay	26.7		19.2			10.9	
Approach LOS	C		B			B	
Queue Length 50th (ft)	45	64	66		40	50	
Queue Length 95th (ft)	#136	120	193		154	160	
Internal Link Dist (ft)	305		306			207	
Turn Bay Length (ft)		100					
Base Capacity (vph)	214	1115	1335		635	1953	
Starvation Cap Reductn	0	0	0		93	891	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.54	0.33	0.41		0.60	0.67	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 77.1
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 16.8
 Intersection LOS: B
 Intersection Capacity Utilization 54.2%
 ICU Level of Service A
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Washington Blvd & Station PI

Ø1 24 s	Ø2 30 s	Ø3 20 s	Ø4 16 s
Ø6 54 s			

Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	280	50	220	180	180	60	150	320	160	270	110
Future Volume (vph)	130	280	50	220	180	180	60	150	320	160	270	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	11	11	11	12	12	14	12	12	16
Storage Length (ft)	80		0	175		0	100		125	75		0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25			25			25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor	0.98	0.98		0.95		0.97	0.99		0.96	0.98		0.97
Frt		0.977				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1570	1563	0	1510	1605	1391	1624	3249	1535	1593	3185	1631
Flt Permitted	0.593			0.348			0.573			0.508		
Satd. Flow (perm)	965	1563	0	527	1605	1345	972	3249	1476	836	3185	1579
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)						196			188			120
Link Speed (mph)		25			25			25				30
Link Distance (ft)		271			522			362				194
Travel Time (s)		7.4			14.2			9.9				4.4
Confl. Peds. (#/hr)	21		102	102		21	8		19	19		8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	4%	3%	1%	0%	0%	1%	2%	2%	1%
Adj. Flow (vph)	141	304	54	239	196	196	65	163	348	174	293	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	358	0	239	196	196	65	163	348	174	293	120
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	3	8		7	4	5	1	6	7	5	2	3
Permitted Phases	8			4		4	6		6	2		2
Detector Phase	3	8		7	4	5	1	6	7	5	2	3
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	5.0	5.0	15.0	5.0	5.0	15.0	5.0
Minimum Split (s)	10.0	34.0		10.0	31.0	10.0	10.0	24.0	10.0	10.0	34.0	10.0
Total Split (s)	12.0	34.0		12.0	34.0	15.0	10.0	29.0	12.0	15.0	34.0	12.0
Total Split (%)	13.3%	37.8%		13.3%	37.8%	16.7%	11.1%	32.2%	13.3%	16.7%	37.8%	13.3%
Maximum Green (s)	7.0	29.0		7.0	29.0	10.0	5.0	24.0	7.0	10.0	29.0	7.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	0.2	3.0	3.0	0.2	3.0
Recall Mode	None	None		None	None	None	None	Min	None	None	Min	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		22.0			19.0			12.0			22.0	
Pedestrian Calls (#/hr)		50			10			10			4	
Act Effect Green (s)	30.7	23.7		30.9	23.8	33.3	21.8	16.8	23.8	31.2	23.6	30.6
Actuated g/C Ratio	0.40	0.31		0.40	0.31	0.43	0.28	0.22	0.31	0.40	0.31	0.40

Lanes, Volumes, Timings
 15: Atlantic St/Atlantic St & Station Pl/Dock St

06/07/2018

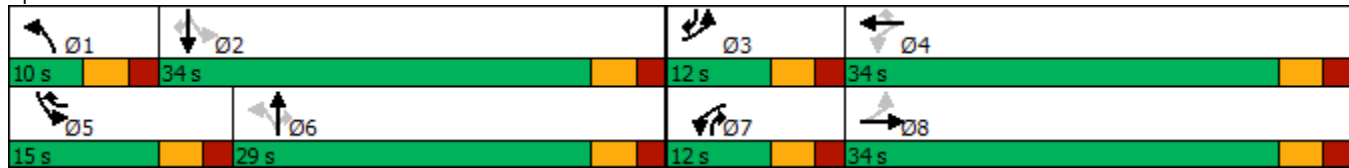


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.32	0.75		0.80	0.40	0.28	0.21	0.23	0.59	0.40	0.30	0.17
Control Delay	15.2	35.2		37.6	24.0	3.0	18.0	27.2	13.8	19.6	23.6	3.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	35.2		37.6	24.0	3.0	18.0	27.2	13.8	19.6	23.6	3.7
LOS	B	D		D	C	A	B	C	B	B	C	A
Approach Delay		29.5			22.7			18.1			18.3	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	37	148		67	71	0	21	37	60	61	64	0
Queue Length 95th (ft)	84	281		#194	146	34	46	63	135	106	98	29
Internal Link Dist (ft)		191			442			282			114	
Turn Bay Length (ft)	80			175			100		125	75		
Base Capacity (vph)	440	594		300	610	706	317	1022	590	438	1211	703
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.60		0.80	0.32	0.28	0.21	0.16	0.59	0.40	0.24	0.17

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 77.3
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 21.9 Intersection LOS: C
 Intersection Capacity Utilization 78.2% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 15: Atlantic St/Atlantic St & Station Pl/Dock St



Lanes, Volumes, Timings
 16: Parking Garage & Station Pl

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑	↘	
Traffic Volume (vph)	390	10	0	200	160	10
Future Volume (vph)	390	10	0	200	160	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.992	
Flt Protected					0.955	
Satd. Flow (prot)	1863	1615	0	1863	1800	0
Flt Permitted					0.955	
Satd. Flow (perm)	1863	1615	0	1863	1800	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	385			158	174	
Travel Time (s)	10.5			4.3	4.7	
Confl. Peds. (#/hr)		112			1	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	406	10	0	208	167	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	406	10	0	208	177	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
17: Canal St & Dock St/Jefferson St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	490	20	130	420	260	20	360	210	290	260	310
Future Volume (vph)	260	490	20	130	420	260	20	360	210	290	260	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	10	11	12	12	11	12	11	11	16
Storage Length (ft)	275		0	170		0	0		120	0		180
Storage Lanes	1		0	1		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00	1.00		0.98	0.99			1.00	0.98	1.00	0.99	
Frt		0.994			0.943				0.850		0.919	
Flt Protected	0.950			0.950				0.997		0.950		
Satd. Flow (prot)	1555	3057	0	1501	2887	0	0	3131	1439	1496	2834	0
Flt Permitted	0.128			0.437				0.895		0.365		
Satd. Flow (perm)	209	3057	0	678	2887	0	0	2810	1412	573	2834	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			110				152		302	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		855			803			934			446	
Travel Time (s)		23.3			21.9			25.5			12.2	
Confl. Peds. (#/hr)	2		31	31		2	5		5	5		5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	0%	1%	2%	2%	0%	0%	1%	5%	1%	1%
Adj. Flow (vph)	280	527	22	140	452	280	22	387	226	312	280	333
Shared Lane Traffic (%)												
Lane Group Flow (vph)	280	549	0	140	732	0	0	409	226	312	613	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pm+ov	D.P+P	NA	
Protected Phases	1	6		5	2			4	5	3	3	4
Permitted Phases	6			2			4		4	4		
Detector Phase	1	6		5	2		4	4	5	3	3	4
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		15.0	15.0	5.0	5.0		
Minimum Split (s)	10.0	33.0		10.0	33.0		30.0	30.0	10.0	10.0		
Total Split (s)	28.0	49.0		17.0	38.0		30.0	30.0	17.0	24.0		
Total Split (%)	23.3%	40.8%		14.2%	31.7%		25.0%	25.0%	14.2%	20.0%		
Maximum Green (s)	23.0	44.0		12.0	33.0		25.0	25.0	12.0	19.0		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0		
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		3.0	3.0	3.0	3.0		
Recall Mode	None	Min		None	Min		None	None	None	None		
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		21.0			21.0		18.0	18.0				
Pedestrian Calls (#/hr)		15			1		5	5				
Act Effect Green (s)	50.0	34.4		37.0	26.4			22.2	32.8	41.0	46.1	
Actuated g/C Ratio	0.47	0.32		0.35	0.25			0.21	0.31	0.38	0.43	

Lanes, Volumes, Timings
 17: Canal St & Dock St/Jefferson St

06/07/2018

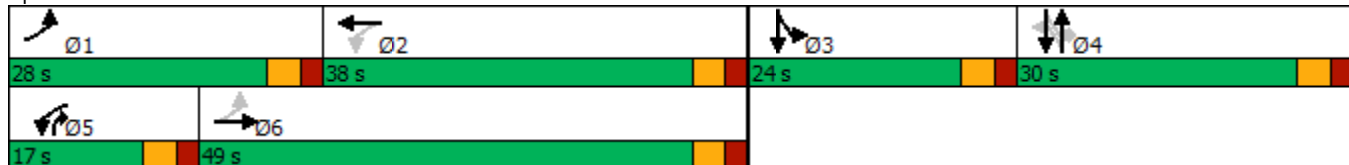


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.84	0.55		0.44	0.92			0.70	0.42	0.81	0.44	
Control Delay	48.7	31.8		22.3	51.1			47.7	12.3	43.4	12.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.2	
Total Delay	48.7	31.8		22.3	51.1			47.7	12.3	43.4	12.3	
LOS	D	C		C	D			D	B	D	B	
Approach Delay		37.5			46.5			35.1			22.8	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	146	168		57	235			143	35	159	75	
Queue Length 95th (ft)	#277	224		96	#326			213	104	#297	136	
Internal Link Dist (ft)		775			723			854			366	
Turn Bay Length (ft)	275			170					120			
Base Capacity (vph)	396	1295		340	991			675	562	392	1463	
Starvation Cap Reductn	0	0		0	0			0	0	0	252	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.71	0.42		0.41	0.74			0.61	0.40	0.80	0.51	

Intersection Summary

Area Type: CBD
 Cycle Length: 120
 Actuated Cycle Length: 106.5
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 35.3
 Intersection LOS: D
 Intersection Capacity Utilization 88.1%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Canal St & Dock St/Jefferson St



Lanes, Volumes, Timings
18: Atlantic St & 2004 Parking Garage

06/07/2018



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	110	20	20	420	510	30
Future Volume (vph)	110	20	20	420	510	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	16	11	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99			1.00		0.96
Frt	0.980					0.850
Flt Protected	0.959			0.998		
Satd. Flow (prot)	1601	0	0	1916	1605	1647
Flt Permitted	0.959			0.973		
Satd. Flow (perm)	1599	0	0	1867	1605	1574
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	16					31
Link Speed (mph)	25			25	25	
Link Distance (ft)	195			538	362	
Travel Time (s)	5.3			14.7	9.9	
Confl. Peds. (#/hr)	2	2	16			16
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	3%	0%
Adj. Flow (vph)	112	20	20	429	520	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	132	0	0	449	520	31
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases			2			6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	20.0	20.0	20.0
Minimum Split (s)	24.0		9.0	25.0	25.0	25.0
Total Split (s)	24.0		9.0	36.0	27.0	27.0
Total Split (%)	40.0%		15.0%	60.0%	45.0%	45.0%
Maximum Green (s)	19.0		5.0	31.0	22.0	22.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	5.0			5.0	5.0	5.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		None	Max	Max	Max
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	12.0				12.0	12.0
Pedestrian Calls (#/hr)	1				8	8
Act Effct Green (s)	10.0			35.2	35.2	35.2
Actuated g/C Ratio	0.19			0.68	0.68	0.68
v/c Ratio	0.41			0.36	0.48	0.03
Control Delay	19.4			6.9	8.6	2.8
Queue Delay	0.0			0.0	0.0	0.0

Lanes, Volumes, Timings
 18: Atlantic St & 2004 Parking Garage

06/07/2018

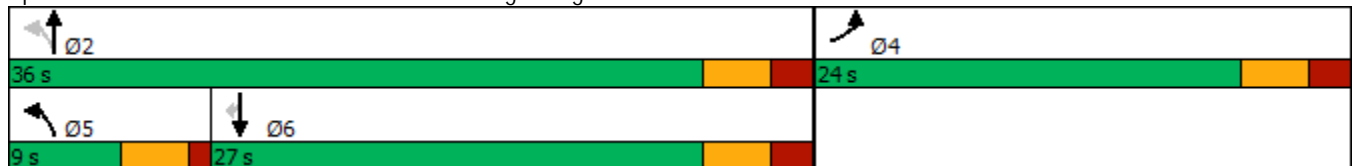


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Total Delay	19.4			6.9	8.6	2.8
LOS	B			A	A	A
Approach Delay	19.4			6.9	8.3	
Approach LOS	B			A	A	
Queue Length 50th (ft)	30			53	69	0
Queue Length 95th (ft)	67			158	214	10
Internal Link Dist (ft)	115			458	282	
Turn Bay Length (ft)						
Base Capacity (vph)	596			1262	1085	1074
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.22			0.36	0.48	0.03

Intersection Summary

Area Type:	CBD
Cycle Length:	60
Actuated Cycle Length:	52.1
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	9.1
Intersection LOS:	A
Intersection Capacity Utilization	59.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 18: Atlantic St & 2004 Parking Garage



Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	0	10	200	10	120	10	390	290	230	550	10
Future Volume (vph)	20	0	10	200	10	120	10	390	290	230	550	10
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	12	12	9	10	10	10	10	11	11	11
Storage Length (ft)	0		0	0		85	0		0	0		142
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor	0.99	0.98			0.99	0.97		0.95			0.99	0.94
Frt		0.893				0.850		0.937				0.850
Flt Protected	0.950	0.986			0.955			0.999			0.985	
Satd. Flow (prot)	1595	1457	0	0	1416	1137	0	2625	0	0	2955	1405
Flt Permitted	0.950	0.986			0.955			0.941			0.556	
Satd. Flow (perm)	1574	1451	0	0	1405	1104	0	2472	0	0	1655	1327
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						122		185				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		312			842			315				386
Travel Time (s)		8.5			23.0			8.6				10.5
Confl. Peds. (#/hr)	13		6	6		13	21		59	59		21
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	4%	0%	5%	0%	4%	1%	4%	5%	0%
Parking (#/hr)						4						
Adj. Flow (vph)	20	0	10	204	10	122	10	398	296	235	561	10
Shared Lane Traffic (%)	22%											
Lane Group Flow (vph)	16	14	0	0	214	122	0	704	0	0	796	10
Turn Type	Split	NA		Split	NA	pm+ov	Perm	NA		pm+pt	NA	Perm
Protected Phases	7	7		8	8	1		2		1	6	
Permitted Phases						8	2			6		6
Detector Phase	7	7		8	8	8	2	2		1	1	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	5.0	20.0	20.0		5.0	20.0	20.0
Minimum Split (s)	27.0	27.0		27.0	27.0	9.0	34.0	34.0		9.0	34.0	34.0
Total Split (s)	27.0	27.0		27.0	27.0	12.0	34.0	34.0		12.0	46.0	46.0
Total Split (%)	27.0%	27.0%		27.0%	27.0%	12.0%	34.0%	34.0%		12.0%	46.0%	46.0%
Maximum Green (s)	22.0	22.0		22.0	22.0	8.0	29.0	29.0		8.0	41.0	41.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1.0	2.0	2.0		1.0	2.0	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	4.0		5.0			5.0	5.0
Lead/Lag	Lead	Lead		Lag	Lag	Lead	Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Recall Mode	None	None		None	None	None	Min	Min		None	Min	Min
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		22.0	22.0			22.0	22.0
Pedestrian Calls (#/hr)	3	3		6	6		30	30			10	10
Act Effect Green (s)	12.3	12.3			16.2	25.6		30.0			42.5	42.5

Lanes, Volumes, Timings
 19: Washington Blvd & Gateway Garage/Henry St

06/07/2018

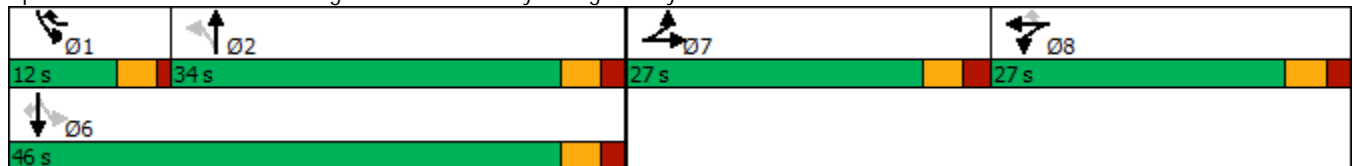


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.16	0.16			0.21	0.32		0.38			0.54	0.54
v/c Ratio	0.06	0.06			0.74	0.28		0.67			0.79	0.01
Control Delay	33.1	33.1			47.2	6.0		21.4			25.0	15.0
Queue Delay	0.0	0.0			0.0	0.0		0.2			0.0	0.0
Total Delay	33.1	33.1			47.2	6.0		21.6			25.0	15.0
LOS	C	C			D	A		C			C	B
Approach Delay		33.1			32.2			21.6			24.9	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	8	7			105	0		122			145	3
Queue Length 95th (ft)	27	25			#222	38		#264			#375	14
Internal Link Dist (ft)		232			762			235			306	
Turn Bay Length (ft)						85						142
Base Capacity (vph)	460	420			409	481		1055			1010	714
Starvation Cap Reductn	0	0			0	0		54			0	0
Spillback Cap Reductn	0	0			0	0		0			0	0
Storage Cap Reductn	0	0			0	0		0			0	0
Reduced v/c Ratio	0.03	0.03			0.52	0.25		0.70			0.79	0.01

Intersection Summary

Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 78.9
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 25.1
 Intersection LOS: C
 Intersection Capacity Utilization 80.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: Washington Blvd & Gateway Garage/Henry St



Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	250	20	10	130	20	30	210	40	20	220	240
Future Volume (vph)	200	250	20	10	130	20	30	210	40	20	220	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	10	10	10
Storage Length (ft)	150		0	150		0	150		0	150		340
Storage Lanes	1		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	0.96	0.99		0.95	0.99		0.98	0.99		0.97	0.95	
Frt		0.989			0.980			0.976			0.922	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1577	1634	0	1624	1340	0	1624	1422	0	1516	1221	0
Flt Permitted	0.513			0.590			0.278			0.554		
Satd. Flow (perm)	815	1634	0	953	1340	0	464	1422	0	856	1221	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			8			13			75	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		842			669			1254			538	
Travel Time (s)		23.0			18.2			34.2			14.7	
Confl. Peds. (#/hr)	27		34	34		27	31		21	21		31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	3%	0%	0%	6%	0%	0%	2%	3%	0%	1%	1%
Parking (#/hr)					4			4			4	
Adj. Flow (vph)	204	255	20	10	133	20	31	214	41	20	224	245
Shared Lane Traffic (%)												
Lane Group Flow (vph)	204	275	0	10	153	0	31	255	0	20	469	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	7.0		7.0	7.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.7	23.7		23.7	23.7		9.5	23.9		9.5	23.9	
Total Split (s)	14.0	37.8		23.8	23.8		9.5	42.7		9.5	42.7	
Total Split (%)	15.6%	42.0%		26.4%	26.4%		10.6%	47.4%		10.6%	47.4%	
Maximum Green (s)	9.3	33.1		19.1	19.1		5.0	37.8		5.0	37.8	
Yellow Time (s)	3.4	3.4		3.4	3.4		3.0	3.3		3.0	3.3	
All-Red Time (s)	1.3	1.3		1.3	1.3		1.5	1.6		1.5	1.6	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.5	4.9		4.5	4.9	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	Max		Max	Max		None	Min		None	Min	
Walk Time (s)		7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)		12.0		12.0	12.0			12.0			12.0	
Pedestrian Calls (#/hr)		3		6	6			30			10	
Act Effect Green (s)	34.1	34.1		20.6	20.6		34.1	31.9		33.3	30.2	

Lanes, Volumes, Timings
20: Atlantic St & Henry St

06/07/2018

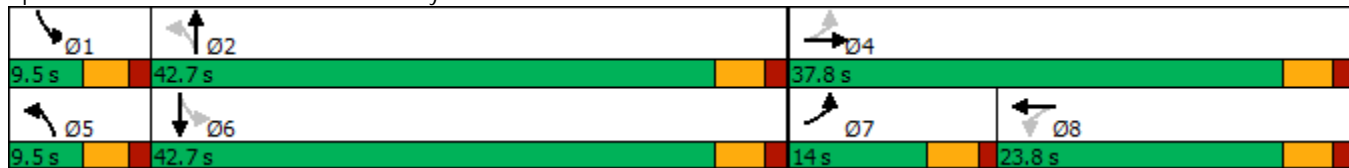


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.43	0.43		0.26	0.26		0.43	0.40		0.42	0.38	
v/c Ratio	0.47	0.39		0.04	0.43		0.11	0.44		0.05	0.92	
Control Delay	22.7	20.5		28.9	32.2		11.4	18.9		10.7	44.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.7	20.5		28.9	32.2		11.4	18.9		10.7	44.6	
LOS	C	C		C	C		B	B		B	D	
Approach Delay		21.5			32.0			18.1			43.2	
Approach LOS		C			C			B			D	
Queue Length 50th (ft)	80	111		4	71		8	75		5	200	
Queue Length 95th (ft)	141	186		18	136		21	159		16	#389	
Internal Link Dist (ft)		762			589			1174			458	
Turn Bay Length (ft)	150			150			150			150		
Base Capacity (vph)	442	705		248	354		275	729		402	637	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.46	0.39		0.04	0.43		0.11	0.35		0.05	0.74	

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 79.2
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 29.5 Intersection LOS: C
 Intersection Capacity Utilization 70.7% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 20: Atlantic St & Henry St



Lanes, Volumes, Timings
21: Washington Blvd & Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	370	0	340	10	10	10	100	300	0	0	370	390
Future Volume (vph)	370	0	340	10	10	10	100	300	0	0	370	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	11	12	12	12	12	11	12	12	10	10
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.87		0.95			0.99				0.92
Frt			0.850		0.955							0.850
Flt Protected	0.950				0.984			0.988				
Satd. Flow (prot)	1540	0	1364	0	1593	0	0	3095	0	0	1520	1292
Flt Permitted	0.950				0.984			0.658				
Satd. Flow (perm)	1520	0	1186	0	1534	0	0	2049	0	0	1520	1184
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					10							406
Link Speed (mph)		25			25			25				25
Link Distance (ft)		369			194			789				315
Travel Time (s)		10.1			5.3			21.5				8.6
Confl. Peds. (#/hr)	9		45	45		9	26		176	176		26
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	3%	0%	0%	0%	1%	0%	4%	0%	5%	5%
Adj. Flow (vph)	385	0	354	10	10	10	104	313	0	0	385	406
Shared Lane Traffic (%)												
Lane Group Flow (vph)	385	0	354	0	30	0	0	417	0	0	385	406
Turn Type	Prot		Perm	Perm	NA		Perm	NA			NA	pm+ov
Protected Phases	4				3			2			6	4
Permitted Phases			4	3			2					6
Detector Phase	4		4	3	3		2	2			6	4
Switch Phase												
Minimum Initial (s)	7.0		7.0	4.0	4.0		20.0	20.0			20.0	7.0
Minimum Split (s)	24.0		24.0	22.0	22.0		27.0	27.0			27.0	24.0
Total Split (s)	36.0		36.0	22.0	22.0		32.0	32.0			32.0	36.0
Total Split (%)	40.0%		40.0%	24.4%	24.4%		35.6%	35.6%			35.6%	40.0%
Maximum Green (s)	30.0		30.0	18.0	18.0		26.0	26.0			26.0	30.0
Yellow Time (s)	4.0		4.0	3.5	3.5		4.0	4.0			4.0	4.0
All-Red Time (s)	2.0		2.0	0.5	0.5		2.0	2.0			2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0			0.0			0.0	0.0
Total Lost Time (s)	6.0		6.0		4.0			6.0			6.0	6.0
Lead/Lag	Lag		Lag	Lead	Lead							Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes							Yes
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode	None		None	None	None		Min	Min			Min	None
Walk Time (s)	7.0		7.0	7.0	7.0		7.0	7.0			7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0		14.0	14.0			14.0	11.0
Pedestrian Calls (#/hr)	22		22	5	5		88	88			13	22
Act Effect Green (s)	26.3		26.3		8.3			24.4			24.4	50.8
Actuated g/C Ratio	0.37		0.37		0.12			0.34			0.34	0.72

Lanes, Volumes, Timings
 21: Washington Blvd & Pulaski St

06/07/2018

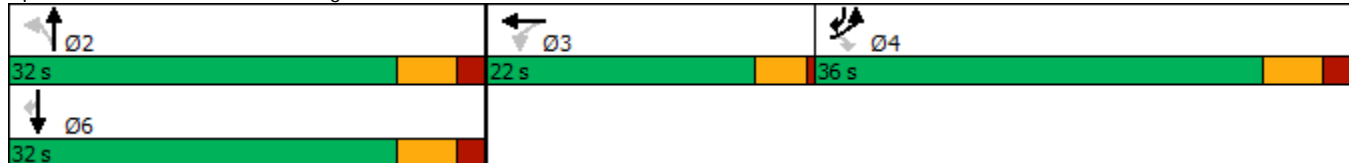


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.67		0.80		0.16			0.59			0.73	0.40
Control Delay	27.9		38.5		26.2			26.2			34.1	1.8
Queue Delay	0.0		0.0		0.0			0.0			1.0	0.0
Total Delay	27.9		38.5		26.2			26.2			35.2	1.8
LOS	C		D		C			C			D	A
Approach Delay		33.0			26.2			26.2			18.0	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	151		149		9			88			166	0
Queue Length 95th (ft)	#327		#355		33			165			#371	26
Internal Link Dist (ft)		289			114			709			235	
Turn Bay Length (ft)	140											
Base Capacity (vph)	687		529		418			792			588	1047
Starvation Cap Reductn	0		0		0			0			62	49
Spillback Cap Reductn	0		0		0			0			0	0
Storage Cap Reductn	0		0		0			0			0	0
Reduced v/c Ratio	0.56		0.67		0.07			0.53			0.73	0.41

Intersection Summary




















Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 70.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 25.5
 Intersection LOS: C
 Intersection Capacity Utilization 81.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 21: Washington Blvd & Pulaski St



Lanes, Volumes, Timings
22: Greenwich Ave & Pulaski St

06/07/2018

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	280	440	0	0	390	110	0	0	0	290	0	210	
Future Volume (vph)	280	440	0	0	390	110	0	0	0	290	0	210	
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	10	
Storage Length (ft)	150		0	0		150	0		0	0		0	
Storage Lanes	1		0	0		1	0		0	0		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													
Frt							0.850					0.943	
Flt Protected	0.950											0.972	
Satd. Flow (prot)	1562	1862	0	0	1629	1439	0	1676	0	0	1537	0	
Flt Permitted	0.950											0.972	
Satd. Flow (perm)	1562	1862	0	0	1629	1439	0	1676	0	0	1537	0	
Link Speed (mph)					25					30			25
Link Distance (ft)					474					594			273
Travel Time (s)					12.9					16.2			6.2
Confl. Peds. (#/hr)	19											1	1
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96	
Heavy Vehicles (%)	4%	1%	2%	2%	5%	1%	2%	2%	2%	2%	2%	2%	
Adj. Flow (vph)	292	458	0	0	406	115	0	0	0	302	0	219	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	292	458	0	0	406	115	0	0	0	0	521	0	
Sign Control	Yield			Yield			Yield			Yield			

Intersection Summary

Area Type:	CBD
Control Type:	Roundabout
Intersection Capacity Utilization	90.7%
ICU Level of Service	E
Analysis Period (min)	15

Lanes, Volumes, Timings
23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕	↕	↕	↕	
Traffic Volume (vph)	80	40	10	140	20	100	10	220	90	230	380	30
Future Volume (vph)	80	40	10	140	20	100	10	220	90	230	380	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	11	11	11	12	11	10	11	11	11
Storage Length (ft)	0		0	0		120	0		220	250		0
Storage Lanes	0		0	0		1	0		1	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	0.98		1.00	0.90	0.94	0.99	
Frt		0.989				0.850			0.850		0.989	
Flt Protected		0.970			0.958			0.998		0.950		
Satd. Flow (prot)	0	1799	0	0	1584	1338	0	1574	1330	1510	1523	0
Flt Permitted		0.734			0.708			0.978		0.604		
Satd. Flow (perm)	0	1355	0	0	1157	1310	0	1537	1195	905	1523	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		5				109			98			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		355			1254			478			789	
Travel Time (s)		9.7			34.2			13.0			21.5	
Confl. Peds. (#/hr)	7		8	8		7	94		37	37		94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%	0%	5%	2%	4%	6%	3%
Adj. Flow (vph)	87	43	11	152	22	109	11	239	98	250	413	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	174	109	0	250	98	250	446	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0	15.0	20.0	20.0	20.0	20.0	20.0	
Minimum Split (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	29.0	29.0	
Total Split (s)	33.0	33.0		33.0	33.0	33.0	57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%	36.7%	63.3%	63.3%	63.3%	63.3%	63.3%	
Maximum Green (s)	28.0	28.0		28.0	28.0	28.0	52.0	52.0	52.0	52.0	52.0	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0	5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Recall Mode	None	None		None	None	None	Min	Min	Min	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	13.0	13.0		13.0	13.0	13.0	13.0	13.0	13.0	17.0	17.0	
Pedestrian Calls (#/hr)	4	4		3	3	3	18	18	18	47	47	
Act Effct Green (s)		16.6			16.6	16.6		24.4	24.4	24.4	24.4	
Actuated g/C Ratio		0.32			0.32	0.32		0.48	0.48	0.48	0.48	

Lanes, Volumes, Timings
 23: Washington Blvd & Atlantic St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.32			0.47	0.22		0.34	0.16	0.58	0.62	
Control Delay		16.7			20.4	5.3		9.9	2.7	16.3	14.3	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		16.7			20.4	5.3		9.9	2.7	16.3	14.3	
LOS		B			C	A		A	A	B	B	
Approach Delay		16.7			14.6			7.9			15.0	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		25			34	0		40	0	46	83	
Queue Length 95th (ft)		89			117	32		98	19	128	196	
Internal Link Dist (ft)		275			1174			398			709	
Turn Bay Length (ft)						120			220	250		
Base Capacity (vph)		765			651	785		1454	1136	856	1441	
Starvation Cap Reductn		0			0	0		0	0	0	0	
Spillback Cap Reductn		0			0	0		0	0	0	0	
Storage Cap Reductn		0			0	0		0	0	0	0	
Reduced v/c Ratio		0.18			0.27	0.14		0.17	0.09	0.29	0.31	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	51.3
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization:	69.0%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 23: Washington Blvd & Atlantic St



Lanes, Volumes, Timings

24: Pulaski St

06/07/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	0	720	10	10	500	0	0	0	0	0	0	10
Future Volume (vph)	0	720	10	10	500	0	0	0	0	0	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.998										0.865
Fl _t Protected					0.999							
Satd. Flow (prot)	0	1859	0	0	1861	0	0	1900	0	0	1644	0
Fl _t Permitted					0.999							
Satd. Flow (perm)	0	1859	0	0	1861	0	0	1900	0	0	1644	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		594			369			245			153	
Travel Time (s)		16.2			10.1			5.6			3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	2%	2%	2%	0%	2%	0%	2%	0%	0%	0%
Adj. Flow (vph)	0	783	11	11	543	0	0	0	0	0	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	794	0	0	554	0	0	0	0	0	11	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 25: S. State St & S. State Lot

06/07/2018



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↑			↕	
Traffic Volume (vph)	5	1080	0	0	280	0
Future Volume (vph)	5	1080	0	0	280	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3185	0	0	1593	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3185	0	0	1593	0
Link Speed (mph)		25	25		30	
Link Distance (ft)		384	522		215	
Travel Time (s)		10.5	14.2		4.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	1137	0	0	295	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1142	0	0	295	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	CBD
Control Type:	Unsignalized
Intersection Capacity Utilization	57.2%
Analysis Period (min)	15
	ICU Level of Service B

Lanes, Volumes, Timings
26: Parking Garage & Station Pl

06/07/2018



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	400	0	20	200	0	0
Future Volume (vph)	400	0	20	200	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected				0.995		
Satd. Flow (prot)	1863	0	0	1857	0	0
Flt Permitted				0.995		
Satd. Flow (perm)	1863	0	0	1857	0	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	158			343	181	
Travel Time (s)	4.3			9.4	4.9	
Confl. Peds. (#/hr)		123	123			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Adj. Flow (vph)	417	0	21	208	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	417	0	0	229	0	0
Sign Control	Free			Free	Stop	
















Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.5%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

27: Station PI

06/07/2018

														
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Traffic Volume (vph)	0	390	0	0	210	130	0	0	60	0	0	0		
Future Volume (vph)	0	390	0	0	210	130	0	0	60	0	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Ped Bike Factor														
Frt	0.948					0.865								
Flt Protected														
Satd. Flow (prot)	0	1863	0	0	1779	0	0	1644	0	0	0	0		
Flt Permitted														
Satd. Flow (perm)	0	1863	0	0	1779	0	0	1644	0	0	0	0		
Link Speed (mph)	25				25				25					
Link Distance (ft)	343				271				93					
Travel Time (s)	9.4				7.4				2.5					
Confl. Peds. (#/hr)						2		17		84				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%		
Adj. Flow (vph)	0	415	0	0	223	138	0	0	64	0	0	0		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	415	0	0	361	0	0	64	0	0	0	0		
Sign Control	Stop				Free				Stop					

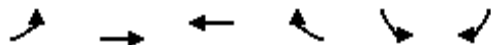
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.3%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

36: S. State St

06/07/2018

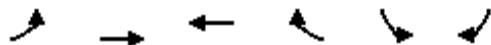


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑			↑↑	
Traffic Volume (vph)	0	720	0	0	1080	0
Future Volume (vph)	0	720	0	0	1080	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	1.00	1.00	0.97	1.00
Fr						
Flt Protected					0.950	
Satd. Flow (prot)	0	3252	0	0	3400	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3252	0	0	3400	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					225	
Link Speed (mph)		30	30		30	
Link Distance (ft)		708	454		415	
Travel Time (s)		16.1	10.3		9.4	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	11%	2%	2%	3%	2%
Adj. Flow (vph)	0	735	0	0	1102	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	735	0	0	1102	0
Turn Type		NA			Prot	
Protected Phases		4			6	
Permitted Phases						
Detector Phase		4			6	
Switch Phase						
Minimum Initial (s)		26.0			26.0	
Minimum Split (s)		30.0			30.0	
Total Split (s)		30.0			30.0	
Total Split (%)		50.0%			50.0%	
Maximum Green (s)		26.0			26.0	
Yellow Time (s)		3.0			3.0	
All-Red Time (s)		1.0			1.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.0			4.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0			3.0	
Recall Mode		None			Max	
Act Effct Green (s)		26.0			26.0	
Actuated g/C Ratio		0.43			0.43	
v/c Ratio		0.52			0.69	
Control Delay		14.1			13.4	
Queue Delay		0.0			0.0	
Total Delay		14.1			13.4	
LOS		B			B	
Approach Delay		14.1			13.4	
Approach LOS		B			B	
Queue Length 50th (ft)		97			123	
Queue Length 95th (ft)		142			185	

Lanes, Volumes, Timings

36: S. State St

06/07/2018

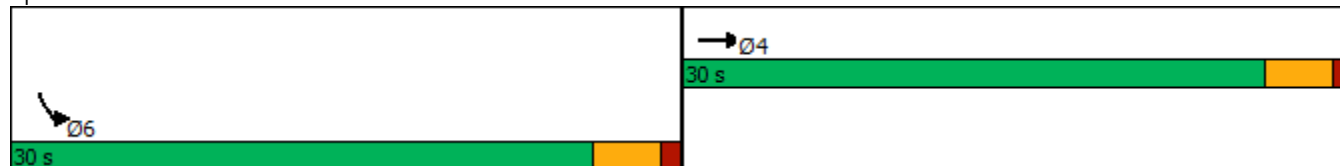


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Internal Link Dist (ft)		628	374		335	
Turn Bay Length (ft)						
Base Capacity (vph)		1409			1600	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.52			0.69	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	13.7
Intersection LOS:	B
Intersection Capacity Utilization	59.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 36: S. State St



APPENDIX F

Accident Analysis

EXHIBIT 1

Stamford Station Parking Garage
Stamford, CT

TRAFFIC SAFETY SUMMARY

January 1, 2015 to December 31, 2017

Intersection	Intersection Crash Severity					Intersection Crash Types											
	Fatal Injury	Non-Fatal Injury	Property Damage Only	Non-Reportable	Total	Head On	Right Angle	Rear End	Left Turn	Fixed Object	Overtake	Sideswipe	Pedestrian / Bike	Parking	Backing	Other	Total
TRESSER BLVD & GREENWICH AVE	1	6	15		22		4	9				6			1	2	22
TRESSER BLVD & WASHINGTON BLVD		14	31		45		15	21				6				3	45
TRESSER BLVD & ATLANTIC ST		22	34		56		16	27				11				2	56
TRESSER BLVD & CANAL ST		14	45		59		25	19				12				3	59
RICHMOND HILL AVE & GREENWICH AVE		2	7		9		2	4				2				1	9
N STATE ST & WASHINGTON BLVD			9		9		2	6							1		9
N STATE ST & ATLANTIC ST		18	45		63		24	10				23			1	5	63
N STATE ST & CANAL ST		9	57		66	1	24	13				27				1	66
S STATE ST & GREENWICH AVE		6	6		12		3	4				2				3	12
S STATE ST & WASHINGTON BLVD					0												0
S STATE ST & ATLANTIC ST		10	23		33	1	12	5				12				3	33
S STATE ST & CANAL ST		4	37		41		10	15				15				1	41
FIRST STAMFORD PL & GREENWICH AVE		1	1		2			1								1	2
STATION PL & WASHINGTON BLVD		1	17		18		5	5				5				3	18
STATION PL & ATLANTIC ST		3	16		19	1	2	6				8				2	19
STATION PL & 2004 PARKING GARAGE					0												0
DOCK ST & CANAL ST		8	17		25		9	10				3				3	25
2004 PARKING GARAGE & ATLANTIC ST					0												0
HENRY ST & WASHINGTON BLVD		1	10		11		4	4				2				1	11
HENRY ST & ATLANTIC ST		3	7		10		6	1				3					10
PULASKI ST & WASHINGTON BLVD		1	14		15	1	3	5				5				1	15
PULASKI ST & GREENWICH BLVD		2	4		6		1	2				2				1	6
ATLANTIC ST & WASHINGTON BLVD		2	12		14		3	6				3				2	14
Total	1	127	407	0	535	4	170	173	0	0	0	147	0	0	3	38	535

1 - accidents per million entering vehicles

2 - source: Uconn's Connecticut Crash Data Repository based on accident data January, 2015 To December, 2017

EXHIBIT 2

Stamford Station Parking Garage
Stamford, CT

TRAFFIC SAFETY SUMMARY

January 1, 2015 to December 31, 2017

Link	Link Crash Severity					Link Crash Types											
	Personal Injury	Property Damage Only	Non-Reportable	Fatality	Total	Head On	Right Angle	Rear End	Left Turn	Fixed Object	Overtake	Sideswipe	Pedestrian/ Bike	Parking	Backing	Other (Unknown)	Total
TRESSER BLVD BETWEEN GREENWICH AVE & WASHINGTON BLVD	3	13			16		4	4				4				4	16
TRESSER BLVD BETWEEN WASHINGTON BLVD & ATLANTIC ST	2	5			7		2	3				1				1	7
TRESSER BLVD BETWEEN ATLANTIC ST & CANAL ST	5	12		1	18		2	7				8				1	18
GREENWICH AVE BETWEEN TRESSER BLVD & RICHMOND HILL AVE		9			9			3				5				1	9
GREENWICH AVE BETWEEN RICHMOND HILL AVE & S STATE ST	2	6			8		2					3				3	8
GREENWICH AVE BETWEEN S STATE ST & PULASKI ST		2			2			1								1	2
WASHINGTON BLVD BETWEEN TRESSER BLVD & N STATE ST					0												0
WASHINGTON BLVD BETWEEN N STATE ST & S STATE ST					0												0
WASHINGTON BLVD BETWEEN S STATE ST & STATION PL					0												0
WASHINGTON BLVD BETWEEN STATION PL & HENRY ST		4			4		2	1				1					4
WASHINGTON BLVD BETWEEN HENRY ST & PULASKI ST		1			1			1									1
WASHINGTON BLVD BETWEEN PULASKI ST & ATLANTIC ST		6			6		2	3				1					6
ATLANTIC ST BETWEEN TRESSER BLVD & N STATE ST	3	15			18		1	8				6				3	18
ATLANTIC ST BETWEEN N STATE ST & S STATE ST		3			3			1				2					3
ATLANTIC ST BETWEEN S STATE ST & STATION PL		4			4			2								2	4
ATLANTIC ST BETWEEN STATION PL & GARAGE		1			1			1									1
ATLANTIC ST BETWEEN GARAGE & HENRY ST					0												0
ATLANTIC ST BETWEEN HENRY ST & WASHINGTON BLVD	2	11			13	1	4	6				2					13
CANAL ST BETWEEN TRESSER BLVD & N STATE ST	1	1			2			2									2
CANAL ST BETWEEN N STATE ST & S STATE ST		2			2			1				1					2
CANAL ST BETWEEN S STATE ST & DOCK ST		1			1							1					1
N STATE ST BETWEEN CANAL ST & ATLANTIC ST	2	5			7		1	1				4				1	7
N STATE ST BETWEEN ATLANTIC ST & WASHINGTON BLVD	2	6			8		1	2				5					8
DOCK ST BETWEEN CANAL ST & ATLANTIC ST	2	4			6		3	1				1				1	6
HENRY ST BETWEEN ATLANTIC ST & WASHINGTON BLVD	1	5			6		1	1				4					6
PULASKI ST BETWEEN WASHINGTON BLVD & GREENWICH AVE	1	3			4	1		3									4
Total	26	119	0	1	146	2	25	52	0	0	0	49	0	0	0	18	146

1 - accidents per million entering vehicles

2 - source: Uconn's Connecticut Crash Data Repository based on accident data January, 2015 To December, 2017