



TECHNICAL MEMORANDUM

TO: Andrea Cabral, CEO
Ascend Mass, LLC

FROM: Matthew W. Skelly, PE, PTOE
Katherine Patch, EIT

DATE: January 11, 2021

RE: Traffic Analysis
Southcoast Apothecary – New Bedford, MA
Fuss & O'Neill Reference No. 20191061.T10

The forthcoming memorandum has been completed on behalf of Ascend Mass, LLC to analyze potential traffic impacts of Southcoast Apothecary, a proposed adult use cannabis facility at 115 Coggeshall Street in New Bedford, Massachusetts. The analysis includes an overview of the existing traffic conditions and roadway network, a review of recent crash data, anticipated trip generation and distribution, and capacity analysis at nearby intersections. Additionally, a transportation and parking demand management plan has been included.

Existing Conditions

The development site area is identified as parcel 086 0010 by the City of New Bedford Assessor and occupies approximately 0.22 acres. Currently, the site is occupied by an approximately 5,300 square foot two-story building, with access provided directly onto Coggeshall Street. The site is bounded to the south by Coggeshall Street and to north, east, and west by a mixed-use plaza that includes retail, medical office, and fast food restaurant land uses and provides 146 parking spaces. Access to the southern portion of the plaza is provided by a signalized intersection with Coggeshall Street and the I-195 westbound Exit 17 ramps, as well as a second driveway that provides full access and a left-turn restricted egress onto Coggeshall Street. Access to other portions of the plaza is also provided via Sawyer Street and Mitchell Street. A Southeast Regional Transit Authority (SRTA) bus stop is located in the northeastern corner of the plaza that services routes two and 11.

Coggeshall Street is an east/west roadway under City jurisdiction that extends from the City line with Fairhaven at the Acushnet River east of the site approximately 1.5 miles west where it terminates at its intersection with Hathaway Boulevard. The roadway provides access to primarily commercial and residential land uses. In the vicinity of the site, Coggeshall Street is classified by Massachusetts Department of Transportation (MassDOT) as a minor arterial roadway that provides one 11-foot travel lane in each direction with a speed limit is 30 miles per hour. Sidewalks are provided adjacent to the site on the north side of Coggeshall Street in the vicinity of the proposed site. No dedicated bicycle facilities

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are provided in the immediate vicinity of the site, however on-street bicycle lanes begin approximately 1,500 feet west of the site at the intersection of Coggeshall Street and North Front Street.

Study Area Intersections

The following intersections were reviewed as part of this study:

- Coggeshall Street at I-195 westbound Exit 17 Ramps/Veterans Memorial Way
- Coggeshall Street at Southern Plaza Site Driveway
- Coggeshall Street at Belleville Avenue
- Coggeshall Street at Acushnet Avenue
- Coggeshall Street at Ashley Boulevard

Coggeshall Street and the I-195 westbound Exit 17 Ramps/Veterans Memorial Way is a signalized four way intersection with Coggeshall Street providing the eastbound and westbound approaches while the I-195 westbound Exit 17 Ramp provides the northbound approach, and Veterans Memorial Way provides the southbound approach. Coggeshall Street eastbound and Veterans Memorial Way each provide exclusive left and right turn lanes, respectively, as well as a through lane. The eastbound exclusive right turn on Coggeshall Street is a channelized lane. On the westbound approach, Coggeshall Street provides an exclusive left turn lane and a shared through/right turn lane. The I-195 Westbound Exit 17 Ramp provides an exclusive left turn lane, a through lane, and a shared through/right turn lane. Sidewalks are provided on the north side of Coggeshall Street, and crossing is controlled by an actuated exclusive pedestrian phase for a crosswalk located on Veterans Memorial Way. No bicycle facilities are provided at this intersection.

The intersection of Coggeshall Street and the Southern Plaza Site Driveway is a stop controlled T-style intersection, with Coggeshall Street providing the eastbound and westbound approaches, and the site driveway providing the southbound approach. Coggeshall Street provides an exclusive left turn lane approaching the Veterans Memorial Way signal, and a through lane on the eastbound approach, and a shared through/right turn lane on the westbound approach. The site driveway provides one southbound approach lane restricted to right turns only with left turns onto Coggeshall Street prohibited. Sidewalks are provided on the north side of Coggeshall Street, and no bicycle facilities are present at this intersection.

The intersection of Coggeshall Street and Belleville Avenue is a signalized four way intersection with Coggeshall Street providing the eastbound and westbound approaches, and Belleville Avenue providing the northbound and southbound approaches. Coggeshall Street provides one exclusive left turn lane and one shared through/right turn lane for eastbound traffic. For westbound traffic, exclusive right and left turn lanes and a through lane are provided. Belleville Avenue provides an exclusive right turn lane, and a shared through/left turn lane for northbound traffic, and an exclusive left turn lane with an accompanying shared through/right turn lane for southbound traffic. Sidewalks are provided on all four approaches, and



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pedestrian crossing is permitted during an actuated exclusive pedestrian signal phase. No bicycle facilities are provided at this intersection.

The intersection of Coggeshall Street and Acushnet Avenue is a signalized intersection, with Coggeshall Street providing the eastbound and westbound approaches, and Acushnet Avenue providing a one-way northbound approach. Coggeshall Street provides an exclusive left turn lane and a through lane for eastbound traffic, plus a shared through/right turn lane for westbound traffic. Acushnet Avenue provides exclusive right and left turn lanes, respectively, and one through lane. At this intersection, Coggeshall Street provides on-street bike lanes in the eastbound and westbound directions. Sidewalks are provided on all four approaches, and pedestrian crossing is permitted during an actuated exclusive pedestrian signal phase. Additionally, eastbound and westbound pedestrians may cross Acushnet Avenue with eastbound and westbound vehicle traffic during an unactuated concurrent pedestrian phase.

The intersection of Coggeshall Street and Ashley Boulevard is a signalized intersection, with Coggeshall Street providing the eastbound and westbound approaches, and Ashley Boulevard providing the one-way southbound approach. Along with Acushnet Avenue, Ashley Boulevard serves as the northern terminus of the JFK Memorial Highway (Route 18). Coggeshall Street provides an exclusive right turn lane and a through lane for eastbound traffic, as well as an exclusive left turn lane and a through lane for westbound traffic. Ashley Boulevard provides an exclusive right turn lane, a through lane, and a shared through/left turn lane. At this intersection, Coggeshall Street provides on-street bike lanes in the eastbound and westbound directions. Sidewalks are provided all four approaches, and crossing is permitted during an actuated exclusive pedestrian signal phase.

Traffic Volumes and Counts

The greatest potential for traffic impact on the roadway network by the proposed development will occur during the afternoon peak hour, when commuter related trips are high, and midday Saturday, when the proposed dispensary is expected to generate its highest number of trips. In order to determine the traffic impact on adjacent street traffic, Fuss and O'Neill conducted turning movement counts at each of the five study intersections for the afternoon peak and Saturday midday hours on Thursday, December 3, 2020 and Saturday, December 5, 2020. The count data for each of the aforementioned study intersections is included as an attachment to this memo.

Volumes were increased by four percent for analysis in accordance with the MassDOT 2019 seasonal adjustment factor for an urban minor arterial during the month of December. Additionally, upon comparative review of 2019 and 2020 count data at a permanent count station located approximately 1,000 feet east of the site and consultation with MassDOT and the Southeastern Regional Planning and Economic Development District (SRPEDD), background volumes were increased by 3.5 percent to account for abnormally low traffic volumes as a result of the COVID-19 pandemic. The existing traffic volumes are depicted in the attached Figure 1.

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The count data collected was grown to a design year of 2027, according to the MassDOT Transportation Impact Assessment (TIA) guidelines, at a rate of 0.5 percent per year. This growth rate is based on a thorough review of historical count data as well as consultation with SRPEDD Planning Department. The application of this growth rate develops the No-Build traffic volumes which are depicted in the attached Figure 2.

Proposed Conditions

Ascend Mass, LLC intends to occupy 5,000 square feet of the existing 5,300 square foot building with an adult use cannabis retail facility. Portions of the building will be demolished and rebuilt, with the proposed total square footage just under 5,000. Vehicles are expected to access the dispensary primarily via the two existing plaza driveways onto Coggeshall Street. The existing 115 Coggeshall Street site driveway, approximately 100 feet east of the shared driveway, will be utilized exclusively for loading and deliveries.

The site will provide nine parking spaces on the north side of the building. Additionally, an agreement has been reached between the owner of the proposed site and the owner of the adjacent plaza to provide supplementary parking for the dispensary. A total of 16 parking spaces within the plaza parking lot will be designated for use by patrons of the dispensary. Patrons may also utilize additional parking spaces in the plaza lot when needed.

Trip Distribution

The distribution of traffic entering and exiting the proposed site was applied to the road network based on the existing local traffic distributions and the layout of the adjacent roadway network. During the peak hours, the following arrival distributions of traffic are anticipated:

- 10 percent from Coggeshall Street east of the site
- 30 percent from I-195 Westbound Exit 17 Ramps, south of site
- 60 percent from Coggeshall Street west of the site

A regional arrival/departure pattern for the new site generated traffic traveling to and from the project site is shown in the attached Figure 3.

Trip Generation

The greatest potential for traffic impact on the surrounding roadway network will occur during weekday afternoon and Saturday peak hours. The expected number of peak hour vehicle trips to be generated by the proposed development was calculated using empirical data the Institute of Transportation Engineers (ITE) publication, Trip Generation Manual, 10th edition, 2017. This publication is an industry-accepted resource for determining trip generation.

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Land Use Code (LUC) 882, “Marijuana Dispensary” was used to model the proposed land use of this development. Based on the proposed 5,000 square foot gross floor area, 109 vehicle trips (54 entering, 55 exiting) are expected during the weekday afternoon peak hour, and 182 vehicle trips (91 entering, 91 exiting) are expected during the Saturday peak hour.

For both periods of analysis, the site generated traffic was distributed to the roadway network based on the arrival/departure distributions presented in the previous section, and is shown in the attached Figure 4.

Intersection Capacity Analysis

Capacity analyses for the study area intersections was conducted using Synchro Professional Software, version 10.0.

In discussing intersection capacity analyses results, Level of Service (LOS) is used to describe the operating condition of the road or intersection. LOS is a measure of the delay experienced by stopped vehicles at an intersection. LOS is rated on a scale from A to F, with A describing a condition of very low delay (less than 10 seconds per vehicle), and F describing a condition where delays will exceed 50 seconds per vehicle for unsignalized intersections and 80 seconds per vehicle for signalized intersections. Delay is described as a measure of driver discomfort, frustration, fuel consumption, and lost travel time. Therefore, intersections with longer delay times are less acceptable to most drivers.

The definition for LOS, as well as the methodology for conducting unsignalized intersection capacity analyses, are taken from the “Highway Capacity Manual 6th Edition” published by the Transportation Research Board.

The determination of the traffic impact from the proposed development is made through a comparison of the no-build condition LOS (without the proposed development) versus the build condition LOS (with the proposed development).

Using the above referenced methodologies, weekday afternoon, and Saturday midday peak hour capacity analyses were conducted at the unsignalized intersection of Coggeshall Street and the Southern Plaza Driveway, as well as the following signalized intersections:

- Coggeshall Street at I-195 westbound Exit 17 Ramps/Veterans Memorial Way
- Coggeshall Street at Belleville Avenue
- Coggeshall Street at Acushnet Avenue
- Coggeshall Street at Ashley Boulevard

At the Southern Plaza Driveway, vehicles exiting the site experience approximately 14 seconds of delay during both the afternoon and Saturday peak hours under the build condition. Vehicles entering the site

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experience approximately one second of delay during both the afternoon and Saturday peak hours under the build condition.

In the No-Build condition, the signalized intersection of Coggeshall Street and the I-195 westbound Exit 17 Ramps/Veterans Memorial Way operates acceptably at a LOS C during the weekday afternoon peak hour and at LOS B during the Saturday peak hour. In the Build condition, the intersection operates acceptably at LOS C during both the afternoon and Saturday peak hours. The most significant change in approach delay between the No-Build and Build condition is experienced by the southbound approach during the afternoon peak hour, where vehicles experience an increase in delay of approximately five seconds.

The signalized intersection of Coggeshall Street and Belleville Avenue operates acceptably at LOS C in the No-Build condition during both the afternoon and Saturday peak hours. In the Build condition, the intersection continues to operate at LOS C during both peak hours, and the most significant change in delay is experienced by the eastbound approach. Eastbound vehicles experience an increase in delay of approximately three seconds during both the afternoon and Saturday peak hours.

The signalized intersections of Coggeshall Street and Acushnet Avenue, and Coggeshall Street and Ashley Boulevard, experience a negligible increase of approximately one second of delay between the No-Build and Build conditions on all approaches. Each intersection maintains a LOS C operation in both conditions during both peak hours.

Tables 2 and 3 below present a summary of the levels of service and delay at the study intersections for both the No-Build and Build conditions. Copies of the analysis worksheets for the afternoon and Saturday peak hours have been included as attachments to this memorandum.

Table 2—Unsignalized Intersection Critical Movement Delay per Vehicle

Critical Movement	Afternoon Peak Hour		Saturday Peak Hour	
	No-Build	Build	No-Build	Build
Coggeshall St. at Site Driveway				
Eastbound Left Turn	0.6 sec	0.7 sec	0.9 sec	1.1 sec
Southbound Approach	13.5 sec	14.0 sec	14.0 sec	14.3 sec

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Table 3—Signalized Intersection LOS/Average Delay per Vehicle

Intersection/Approach	Afternoon Peak Hour		Saturday Peak Hour	
	No-Build	Build	No-Build	Build
Coggeshall St. at I-195 WB Exit 17 Ramps/Veterans Memorial Way	LOS C	LOS C	LOS B	LOS C
Eastbound Approach	14.8 sec	15.0 sec	12.6 sec	12.8 sec
Westbound Approach	14.4 sec	15.5 sec	12.6 sec	14.2 sec
Northbound Approach	36.9 sec	37.1 sec	30.6 sec	30.0 sec
Southbound Approach	52.2 sec	57.0 sec	36.0 sec	37.4 sec
Coggeshall St. at Belleville Ave.	LOS C	LOS C	LOS C	LOS C
Eastbound Approach	33.3 sec	36.3 sec	23.9 sec	26.5 sec
Westbound Approach	20.7 sec	21.5 sec	15.6 sec	16.2 sec
Northbound Approach	30.6 sec	30.9 sec	24.2 sec	24.4 sec
Southbound Approach	22.4 sec	22.6 sec	20.9 sec	21.2 sec
Coggeshall St. at Acushnet Ave.	LOS C	LOS C	LOS C	LOS C
Eastbound Approach	11.0 sec	10.9 sec	11.5 sec	11.4 sec
Westbound Approach	22.4 sec	23.0 sec	21.3 sec	21.7 sec
Northbound Approach	26.5 sec	26.5 sec	23.9 sec	23.9 sec
Coggeshall St. at Ashley Blvd.	LOS C	LOS C	LOS C	LOS C
Eastbound Approach	15.2 sec	15.4 sec	11.8 sec	12.1 sec
Westbound Approach	9.1 sec	9.1 sec	6.6 sec	6.6 sec
Southbound Approach	32.3 sec	32.3 sec	34.0 sec	34.0 sec

Queue Analysis

No-Build and Build condition 95th percentile (design) queue lengths were reviewed at each intersection in the study area. The 95th percentile queue lengths represent the maximum queue lengths that can be expected at each of the critical approach lanes of the study area intersections. The queue lengths are provided in the attached Synchro capacity analysis worksheets.

None of the 95th percentile queue lengths studied are expected to increase by more than two vehicle lengths between the No-Build and Build conditions, or overspill provided lane storage areas. At the Southern Plaza driveway, queue lengths are expected to be no more than one vehicle length for both entering and exiting vehicles. Table 4 below provides a summary of the queue lengths for the critical lanes at each study intersection.



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Table 4—Peak Hour Queue Length Summary*

Critical Movements	Afternoon Peak Hour		Saturday Peak Hour	
	No-Build	Build	No-Build	Build
Coggeshall St. at I-195 WB Exit 17 Ramps/ Veterans Memorial Way				
Eastbound Left Turn	40 ft	50 ft	40 ft	50 ft
Eastbound Through	305 ft	305 ft	215 ft	215 ft
Eastbound Right Turn	0 ft	0 ft	0 ft	0 ft
Westbound Left Turn	115 ft	115 ft	100 ft	100 ft
Westbound Through/Right Turn	195 ft	205 ft	155 ft	165 ft
Northbound Left Turn	175 ft	175 ft	80 ft	90 ft
Northbound Through/Right Turn	100 ft	100 ft	55 ft	60 ft
Southbound Left Turn	195 ft	205 ft	185 ft	195 ft
Southbound Through	220 ft	245 ft	160 ft	200 ft
Southbound Right Turn	25 ft	30 ft	30 ft	30 ft
Coggeshall St. at Site Driveway				
Eastbound Left Turn	5 ft	5 ft	5 ft	5 ft
Southbound Right Turn	15 ft	20 ft	15 ft	25 ft
Coggeshall St. at Belleville Ave.				
Eastbound Left Turn	45 ft	45 ft	35 ft	35 ft
Eastbound Through/Right Turn	335 ft	355 ft	280 ft	320 ft
Westbound Left Turn	65 ft	70 ft	55 ft	65 ft
Westbound Through	285 ft	305 ft	205 ft	225 ft
Westbound Right Turn	15 ft	15 ft	0 ft	0 ft
Northbound Left Turn/Through	240 ft	240 ft	150 ft	150 ft
Northbound Right Turn	195 ft	210 ft	85 ft	110 ft
Southbound Left Turn	120 ft	120 ft	90 ft	90 ft
Southbound Through/Right Turn	140 ft	140 ft	110 ft	110 ft
Coggeshall St. at Acushnet Ave.				
Eastbound Left Turn	20 ft	20 ft	45 ft	45 ft
Eastbound Through	190 ft	190 ft	135 ft	140 ft
Westbound Through/Right Turn	335 ft	355 ft	300 ft	310 ft
Northbound Left Turn	105 ft	105 ft	85 ft	85 ft
Northbound Through	315 ft	315 ft	225 ft	225 ft
Northbound Right Turn	50 ft	50 ft	45 ft	45 ft



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Coggeshall St. at Ashley Blvd.				
Eastbound Through	190 ft	200 ft	135 ft	140 ft
Eastbound Right Turn	35 ft	35 ft	25 ft	25 ft
Westbound Left Turn	155 ft	155 ft	125 ft	130 ft
Westbound Through	205 ft	210 ft	130 ft	135 ft
Southbound Left Turn	65 ft	65 ft	85 ft	90 ft
Southbound Through/Right Turn	220 ft	220 ft	190 ft	190 ft

* Queue lengths reported have been rounded to the nearest five feet

Crash Analysis

Crash data was gathered via the MassDOT Interactive Mapping Portal and Crash Tracking (IMPACT) system for the following intersections in the vicinity of the proposed site:

- Coggeshall Street at Veterans Memorial Way
- Coggeshall Street at Belleville Avenue
- Coggeshall Street at Acushnet Avenue
- Coggeshall Street at Ashley Boulevard
- Coggeshall Street within 500 feet of the site

A summary of the crash records for the most recent three years of available data, 2015-2017, is attached to this memorandum.

The intersections of Coggeshall Street and Veterans Memorial Way, Belleville Avenue, Acushnet Avenue, and Ashley Boulevard have been identified by MassDOT as Highway Safety Improvement Program (HSIP) clusters for the years of 2015-2017. Such a designation indicates that the total number of “equivalent property damage only” crashes is within the top 5 percent of the region. “Equivalent property damage only” crashes are determined by assigning a “property damage only” point equivalency to crashes that result in injury or fatality.

The intersection of Coggeshall Street and Ashley Boulevard experienced the most crashes during the study period, averaging approximately 14 crashes per year with a total of 42 crashes. The majority of these crashes (24) were angle collisions. Additionally, the intersection experienced seven sideswipe collisions, six rear end collisions, three collisions with fixed objects, one head on collision, and one collision of which the manner is unknown. Of the 42 total collisions, 32 resulted in property damage only, and nine resulted in non-fatal injuries.

The intersection of Coggeshall Street and Acushnet Avenue experienced 34 crashes during the study period, averaging approximately 11 crashes per year. The majority of these crashes (16) were rear end collisions. Additionally, the intersection experienced seven angle collisions, three head on collisions, three sideswipe collisions, three collisions with a fixed object, one collision with a pedestrian and one collision

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of which the manner is unknown. Of the 34 total crashes, 21 resulted in property damage only, and 13 resulted in non-fatal injuries.

The collision with the pedestrian occurred on December 5, 2017 at 5:14 p.m. The vehicle was travelling west on Coggeshall Street and continuing straight ahead when the pedestrian was struck. The pedestrian suffered a non-fatal injury. It is important to note that this intersection was recently improved as part of a MassDOT State Transportation Improvement Project (STIP) where bicycle and pedestrian facilities were added and enhanced at the intersection.

The intersection of Coggeshall Street and Belleville Avenue experienced 31 crashes during the study period, an average of approximately 10 crashes per year. The most common of these crashes (12) were rear end collisions. Additionally, the intersection experienced eight angle collisions, five collisions with fixed objects, four sideswipe collisions and two head on collisions. With a total of 31 collisions, 20 resulted in property damage only, ten resulted in non-fatal injury, and the severity of one collision is unknown.

The intersection of Coggeshall Street and Veterans Memorial Way experienced 28 crashes during the study period, an average of approximately 9 crashes per year. Many of these crashes (12) were angle collisions. Additionally, the intersection experienced seven rear end collisions, four sideswipe collisions, two collisions with fixed objects, two collisions with cyclists, and one head on collision. With a total of 28 crashes, 18 resulted in property damage only, and nine resulted in non-fatal injury.

The collisions with cyclists took place in May and August of 2016 and resulted in possible injury. The crash reports indicate that the crash in May involved a cyclist crossing Veterans Memorial Way using the provided crosswalk. The cyclist was struck by a southbound vehicle travelling straight ahead. The crash in August was reported to involve a cyclist travelling alongside vehicular traffic when they were struck by a southbound vehicle turning left. It is important to note that this intersection was recently improved and now includes wider shoulders that connect into the bicycle lanes that begin at North Front Street, approximately 1,500 feet west of the site.

Coggeshall Street within 500 feet of the site driveway experienced 21 crashes during the study period, an average of approximately seven crashes per year. The majority of these crashes were rear end collisions (six), and angle collisions (six). Additionally, this site experienced three head on collisions, three sideswipe collisions, and three collisions with fixed objects. The majority of these crashes (15) resulted in property damage only, four resulted in non-fatal injury, and the severity of two of the collisions is unknown.

To reiterate, while the most recent three years of complete data available indicate a significant crash history, the Coggeshall Street corridor has recently been improved with a focus on user safety, making it a safer area to accommodate additional traffic flow.



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Intersection Sight Distance Analysis

Intersection sight distances were calculated at the proposed Southern Plaza driveway in accordance with criteria set forth in the 2006 MassDOT *Project Design and Development Guide* (PDDG). The sight distance is measured from a point 15 feet back from the edge of the travel-way at a height of 3.5 feet, the standard height of a driver's eye.

The design speed on Coggeshall Street is 35 miles per hour, five miles per hour greater than the speed limit. In accordance with the criteria set forth in the 2006 PDDG, 335 feet of intersection sight distance is required for passenger vehicles turning right out of the proposed site.

At the Coggeshall Street site driveway, sight distance for right turning vehicles is approximately 350 feet looking left (east). Egressing left turns are prohibited at this driveway.

Parking Analysis

According to the City of New Bedford Zoning Ordinance, (Ord. of 12-23-03, §1-3130), a retail building consisting of 5,000 square feet will require 25 parking spaces. A total of nine new parking spaces are proposed on site adjacent to the northern building face. In order to meet the zoning requirement, 16 parking spaces within the adjacent plaza are to be designated for use by patrons and employees of the proposed dispensary, and patrons may utilize additional parking in the lot when it is available.

In order to confirm that 16 spaces will be available for use by the dispensary, hourly parking occupancy counts were performed at the plaza on Friday, November 13, 2020 between the hours of noon and 6:30 p.m. to determine the number of occupied and available parking spaces throughout the afternoon and early evening hours. The plaza has a capacity of 146 parking spaces. Of these spaces, ten are accessible spaces, and seven are reserved for patrons of the urgent care facility on the western portion of the plaza.

As depicted in Table 1 below, the peak occupancy of the parking lot occurred at 1:00 p.m. with the lot being approximately 44 percent occupied. At this time, 62 parking spaces were occupied while 84 remained vacant.

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Table 1—Parking Occupancy Count Summary

Time	Parking Occupancy Counts		
	Vacant Spaces	Occupied Spaces	Percent Occupied
12:00 PM	90	56	38%
1:00 PM	84	62	42%
2:00 PM	90	56	38%
3:00 PM	95	51	34%
4:00 PM	87	59	35%
5:00 PM	98	48	33%
6:00 PM	104	42	29%
6:30 PM	107	39	27%

Additionally, it is important to note that the plaza parking lot services two fast food restaurants. Trips associated with these types of establishments are typically short in duration, therefore high turnover within the parking lot is expected. Consequently, the shared lot is expected to continue to sufficiently accommodate the demand of the existing plaza while also meeting the demand of the dispensary.

Point of Sale Analysis

In order to determine the appropriate number of points of sale for this cannabis dispensary, three parameters have been reviewed:

1. Gross floor area of the dispensary in total square feet
2. Number of parking spaces available
3. Number of allowable employees on the peak shift

Note that it is assumed that the customer demand is equal to or greater than the supply of available points of sale. As more and more dispensaries come into operation in Massachusetts, demand will dissipate and the number of points of sale will no longer typically govern the number of sales completed, except for during peak periods of demand such as Friday evenings and Saturdays, similarly to how most liquor stores operate.

To establish a baseline of customer flow, it is assumed that the average customer requires five minutes per sale, and therefore each point of sale can accommodate twelve customers per hour. If five points of sale are operating within the dispensary, then the dispensary has a capacity of 60 customers per hour. In the most conservative scenario where each of those customers arrives via personal vehicle, this would result in a total of 120 vehicle trips during the peak hour.

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As mentioned earlier in this memorandum, the ITE Trip Generation Manual indicates that a dispensary of this size is expected to generate 109 vehicle trips (54 entering, 55 exiting) during the weekday afternoon peak hour, and 182 vehicle trips (91 entering, 91 exiting) during the Saturday peak hour.

Each of these trips represents a customer coming or going from the dispensary, which means 54 customers would be expected during the morning peak hour, and 91 during the Saturday peak hour. If it is assumed that each transaction takes approximately five minutes to complete, this metric would indicate that to accommodate the Saturday peak hour this dispensary should provide seven points of sale.

In order to determine the required number of parking spaces for a dispensary with seven points of sale, it is again assumed that each transaction will take five to six minutes per customer. Assuming people spend approximately five additional minutes with their car parked on site, maximum occupancy in the parking lot would equal two times the number of points of sale, plus the number of employee vehicles on site. The operational characteristics of each dispensary will be determined individually, however it is assumed that operating seven points of sale will require no more than 12 employees on shift at any given time. To manage employee parking demand, Ascend Mass, LLC intends to employ residents who live locally and may commute via local transit, by bicycle, or on foot, and employees will be incentivized to select alternatives to single occupancy vehicle (SOV) trips, as outlined in the transportation demand management plan provided later in this memorandum. Generally, it is expected that one parking space will be required for every two employees.

In summary, during peak periods of dispensary use, we anticipate the dispensary using 14 parking spaces for customers and six spaces for employees, totaling 20, five fewer than required by zoning and provided for on site.

Transportation Demand Management Plan

In order to reduce the number of single occupancy vehicles (SOV) trips to and from the proposed cannabis dispensary, Ascend Mass, LLC has developed the following Transportation Demand Management (TDM) Plan. This plan is intended to promote the use of the Southeast Regional Transit Authority (SRTA) bus system, specifically Routes 2 and 11 that service the nearby bus stop. SRTA bus fares can be paid using a Massachusetts Bay Transportation Authority (MBTA) CharlieCard.

This plan assumes that COVID-19 related concerns about the use of public transit will subside, and patrons of the dispensary will regain a level of comfort with using public transit.

The following actions will be taken by Ascend Mass, LLC in order to promote the use of the above referenced bus lines, as well as other modes of transportation:

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- Provide a pre-paid pass to any employee who is able to utilize the SRTA system to commute to the dispensary.
- Prominently display all public transit schedules in a visible location at the dispensary.
- Provide SRTA maps depicting station locations to both employees and customers in order to supply transit users with the information required to utilize the system.
- Prioritize the hiring of employees that live locally and may commute via local transit, by bicycle, or on foot.
- Reimburse employees who regularly walk to work the cost of a new pair of walking shoes each calendar year.
- Install a secure bicycle storage area on site, with longer term storage for employees and shorter term storage for customers.
- Incentivize employees to carpool with small bonuses or other programs as appropriate.

Conclusion

The purpose of preparing this traffic analysis memorandum is to identify the impact of the proposed adult use cannabis facility at 115 Coggeshall Street in New Bedford, Massachusetts on existing local traffic. The study efforts have indicated that the proposed development will generate a total of 109 vehicle trips (54 entering, 55 exiting) during the weekday afternoon peak hour and 182 vehicle trips (91 entering, 91 exiting) during the Saturday midday peak hour.

The capacity analysis revealed that all study intersections will operate at a LOS C or better during the afternoon and Saturday peak hours of the build condition.

Upon review of the queue analysis, it has been determined that no 95th percentile queue length in the study area is expected to increase by more than two vehicle lengths. Additionally, anticipated 95th percentile queues at the site driveway are no more than one vehicle in length, and all queues are adequately stored in the provided dedicated lanes.

Crash data was gathered from the MassDOT IMPACT portal at the five study intersections for the most recent three years of available data, 2015-2017. Of the five study intersections, four have been identified by MassDOT as HSIP clusters for the years of 2015-2017, indicating exceptionally high crash rates compared to the region. Since 2017, a portion of Coggeshall Street underwent MassDOT Transportation Improvement Program (TIP) funded roadway improvements partially intended to mitigate safety concerns. It is expected that these improvements will ultimately reduce the number of crashes at the HSIP intersections and along Coggeshall Street. Additionally, though crash rates themselves during the study period were high, the types of crashes are not abnormal for the geometry of the roadway. The proposed development is not expected to exacerbate existing crash patterns or negatively impact overall traffic safety.

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Site access will be provided primarily via two driveways on Coggeshall Street. Both driveways provide full access for entering vehicles, but left turns are prohibited for vehicles exiting the Southern Plaza Coggeshall Street driveway. Sight lines looking left at the Coggeshall Street driveway were measured and found to be adequate.

A total of nine parking spaces are proposed on site and will be accompanied by 16 designated parking spaces within the adjacent plaza parking lot. Hourly parking counts performed as part of this analysis indicated that the peak occupancy of the parking lot occurred at 1:00 p.m. with the lot being approximately 44 percent occupied. At this time, 62 parking spaces were occupied while 84 remained vacant. Therefore, parking will be sufficient to meet the requirements of the proposed development.

Ascend Mass, LLC intends to provide seven available points of sale in the proposed dispensary. Point of Sale analysis was performed to ensure the proposed number of points of sale can sufficiently accommodate the expected number of vehicle trips, and that available parking will satisfy customer and employee parking demand. Seven points of sale were found to adequately accommodate expected vehicle trips, and parking will sufficiently accommodate both customer and employee demand.

Ascend Mass, LLC intends to implement a transportation demand management plan to reduce the number of SOV trips visiting the site, thereby mitigating impacts on surrounding traffic. Carpooling or using alternate modes of transportation will be incentivized for employees, and regional transit information will be made readily available to customers.

Based on the results of the foregoing analysis, it is the professional opinion of Fuss and O'Neill, Inc. that the proposed development at 115 Coggeshall Street will not have a significant impact on traffic operations within the study area.

Attachments:

- Peak Hour Traffic Counts
- Traffic Volume Figures
- Synchro Capacity Analysis Worksheets
- Crash Data Summary Table

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061001
 Site Code : 91061001
 Start Date : 12/3/2020
 Page No : 1

Groups Printed- Cars - Trucks

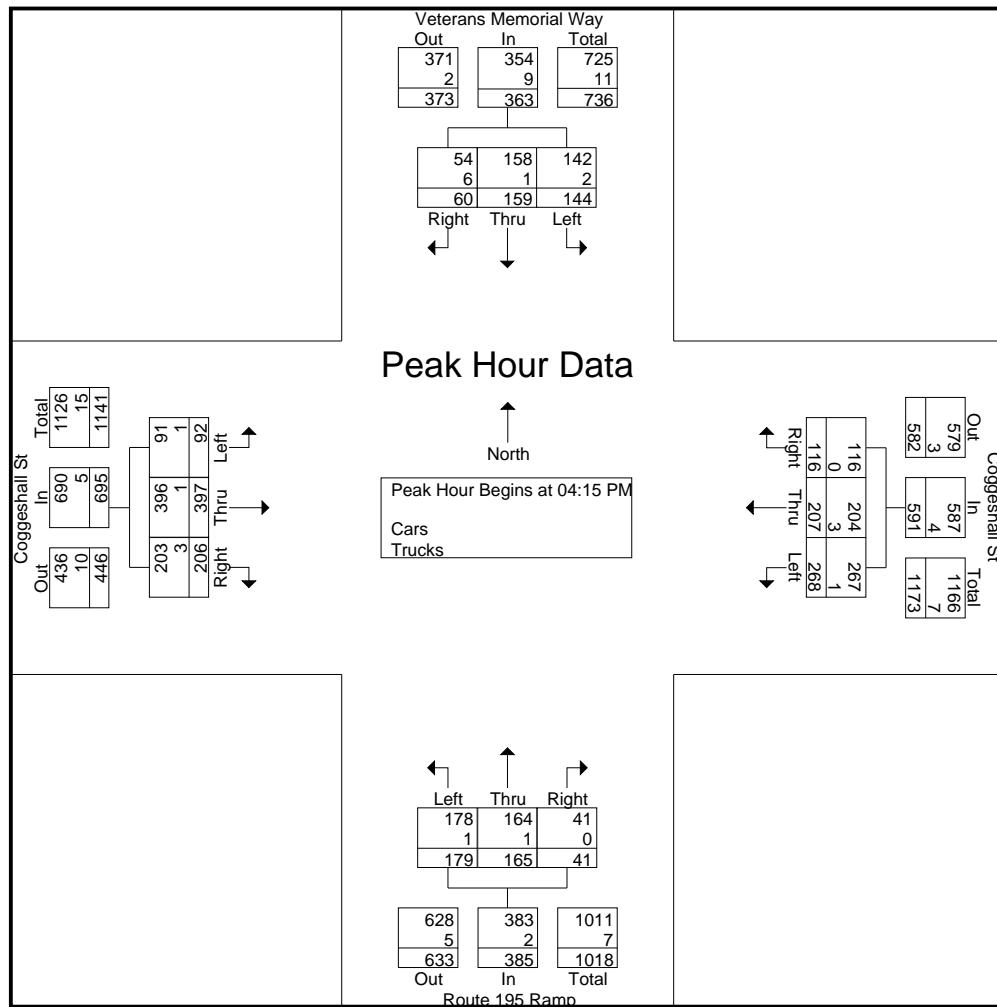
		Veterans Memorial Way From North			Coggeshall St From East			Route 195 Ramp From South			Coggeshall St From West			
Start Time		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM		45	40	20	63	40	36	38	54	9	20	102	61	528
04:15 PM		45	39	14	72	48	30	43	47	15	24	103	49	529
04:30 PM		25	45	20	68	56	38	38	43	9	20	89	49	500
04:45 PM		38	28	13	56	47	23	43	30	9	25	110	53	475
Total		153	152	67	259	191	127	162	174	42	89	404	212	2032
05:00 PM		36	47	13	72	56	25	55	45	8	23	95	55	530
05:15 PM		37	33	12	56	39	30	28	38	8	14	99	42	436
05:30 PM		35	30	17	49	41	22	36	28	7	17	81	32	395
05:45 PM		30	24	10	53	36	17	38	32	10	15	88	24	377
Total		138	134	52	230	172	94	157	143	33	69	363	153	1738
Grand Total		291	286	119	489	363	221	319	317	75	158	767	365	3770
Apprch %		41.8	41.1	17.1	45.6	33.8	20.6	44.9	44.6	10.5	12.2	59.5	28.3	
Total %		7.7	7.6	3.2	13	9.6	5.9	8.5	8.4	2	4.2	20.3	9.7	
Cars		287	285	106	488	357	221	318	316	75	157	765	356	3731
% Cars		98.6	99.7	89.1	99.8	98.3	100	99.7	99.7	100	99.4	99.7	97.5	99
Trucks		4	1	13	1	6	0	1	1	0	1	2	9	39
% Trucks		1.4	0.3	10.9	0.2	1.7	0	0.3	0.3	0	0.6	0.3	2.5	1

		Veterans Memorial Way From North			Coggeshall St From East			Route 195 Ramp From South			Coggeshall St From West					
Start Time		Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:15 PM																
04:15 PM		45	39	14	98	72	48	30	150	43	47	15	105	176	529	
04:30 PM		25	45	20	90	68	56	38	162	38	43	9	90	20	500	
04:45 PM		38	28	13	79	56	47	23	126	43	30	9	82	25	188	
05:00 PM		36	47	13	96	72	56	25	153	55	45	8	108	23	475	
Total Volume		144	159	60	363	268	207	116	591	179	165	41	385	92	695	2034
% App. Total		39.7	43.8	16.5		45.3	35	19.6		46.5	42.9	10.6		13.2	29.6	
PHF		.800	.846	.750	.926	.931	.924	.763	.912	.814	.878	.683	.891	.920	.936	.924
Cars		142	158	54	354	267	204	116	587	178	164	41	383	91	690	2014
% Cars		98.6	99.4	90.0	97.5	99.6	98.6	100	99.3	99.4	99.4	100	99.5	98.9	99.7	99.0
Trucks		2	1	6	9	1	3	0	4	1	1	0	2	1	3	5
% Trucks		1.4	0.6	10.0	2.5	0.4	1.4	0	0.7	0.6	0.6	0	0.5	1.1	0.3	1.0

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061001
Site Code : 91061001
Start Date : 12/3/2020
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

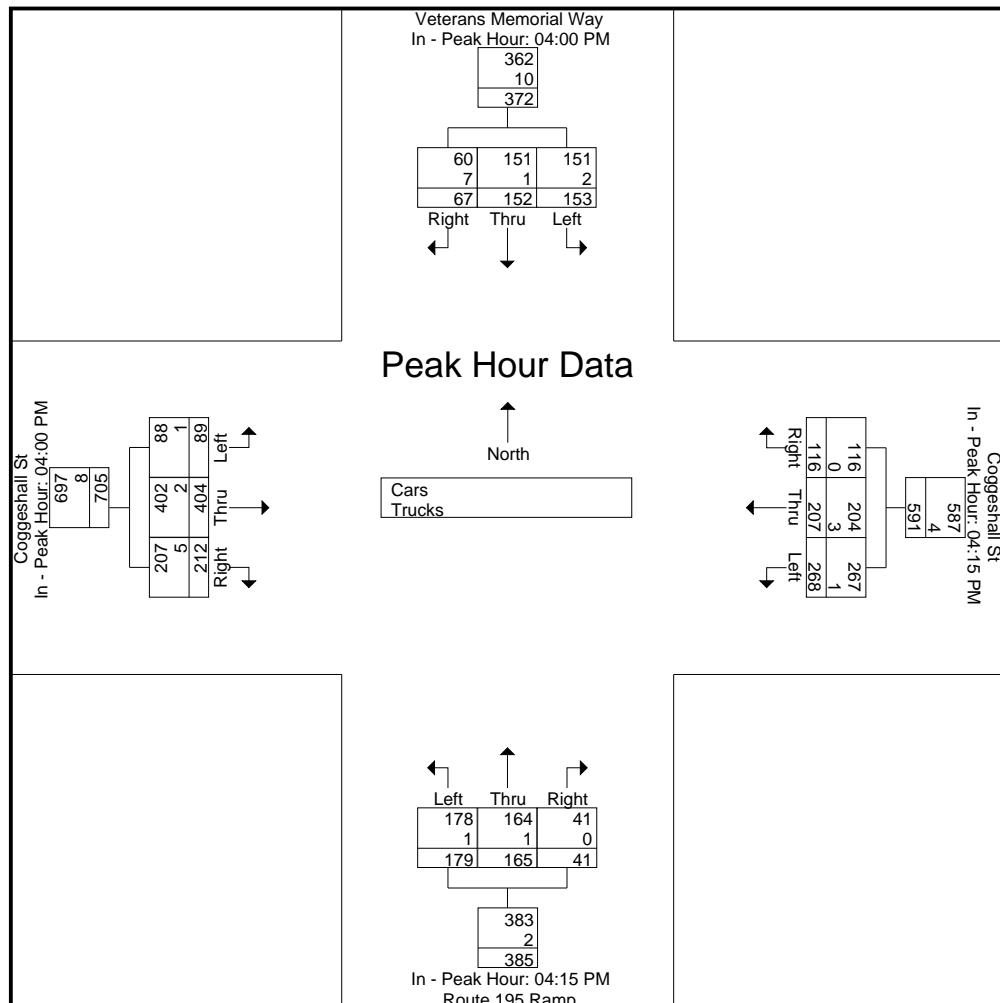
Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:15 PM				04:00 PM			
+0 mins.	45	40	20	105	72	48	30	150	43	47	15	105	20	102	61	183
+15 mins.	45	39	14	98	68	56	38	162	38	43	9	90	24	103	49	176
+30 mins.	25	45	20	90	56	47	23	126	43	30	9	82	20	89	49	158
+45 mins.	38	28	13	79	72	56	25	153	55	45	8	108	25	110	53	188
Total Volume	153	152	67	372	268	207	116	591	179	165	41	385	89	404	212	705
% App. Total	41.1	40.9	18		45.3	35	19.6		46.5	42.9	10.6		12.6	57.3	30.1	
PHF	.850	.844	.838	.886	.931	.924	.763	.912	.814	.878	.683	.891	.890	.918	.869	.938
Cars	151	151	60	362	267	204	116	587	178	164	41	383	88	402	207	697
% Cars	98.7	99.3	89.6	97.3	99.6	98.6	100	99.3	99.4	99.4	100	99.5	98.9	99.5	97.6	98.9
Trucks	2	1	7	10	1	3	0	4	1	1	0	2	1	2	5	8
% Trucks	1.3	0.7	10.4	2.7	0.4	1.4	0	0.7	0.6	0.6	0	0.5	1.1	0.5	2.4	1.1

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061001
Site Code : 91061001
Start Date : 12/3/2020
Page No : 3



Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061001
 Site Code : 91061001
 Start Date : 12/3/2020
 Page No : 4

Groups Printed- Cars

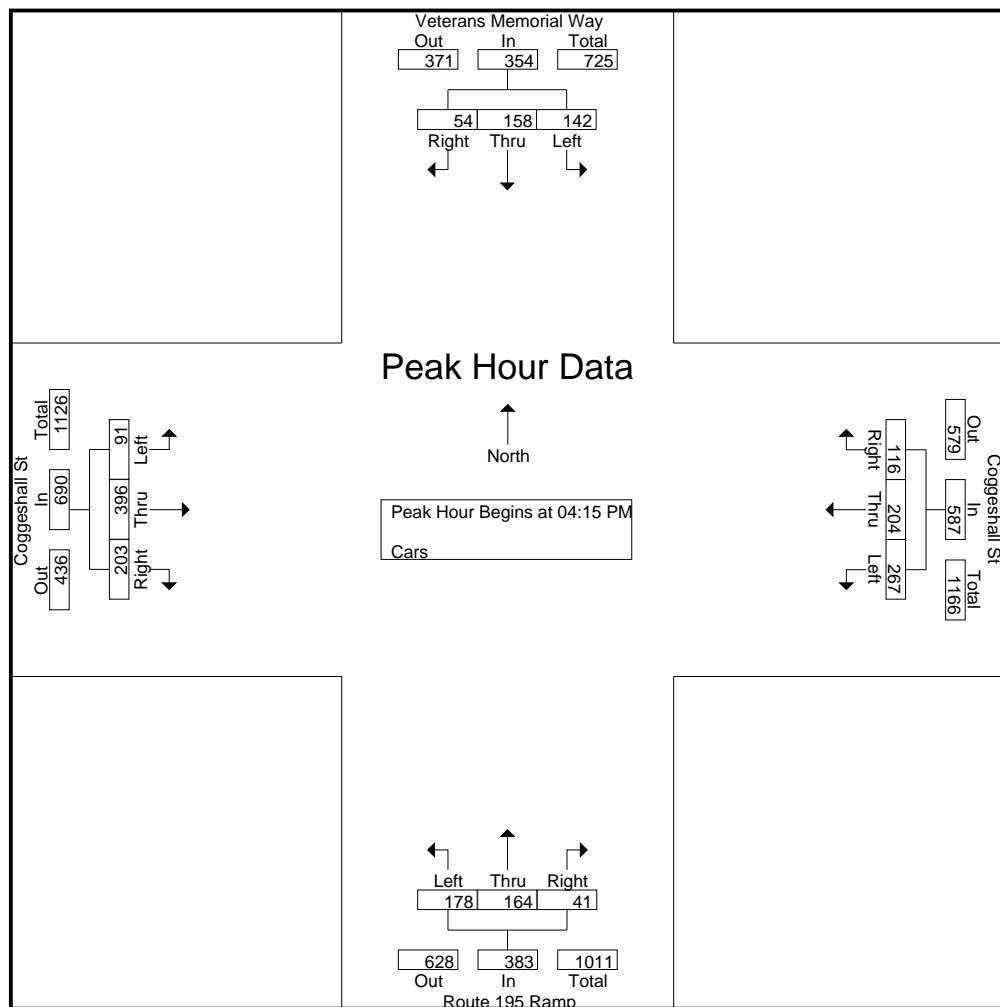
	Veterans Memorial Way From North			Coggeshall St From East			Route 195 Ramp From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	45	40	18	63	39	36	38	54	9	20	101	57	520
04:15 PM	44	39	13	71	47	30	43	47	15	24	103	49	525
04:30 PM	25	45	19	68	56	38	38	43	9	20	88	49	498
04:45 PM	37	27	10	56	46	23	42	30	9	24	110	52	466
Total	151	151	60	258	188	127	161	174	42	88	402	207	2009
05:00 PM	36	47	12	72	55	25	55	44	8	23	95	53	525
05:15 PM	36	33	10	56	38	30	28	38	8	14	99	40	430
05:30 PM	35	30	16	49	41	22	36	28	7	17	81	32	394
05:45 PM	29	24	8	53	35	17	38	32	10	15	88	24	373
Total	136	134	46	230	169	94	157	142	33	69	363	149	1722
Grand Total	287	285	106	488	357	221	318	316	75	157	765	356	3731
Apprch %	42.3	42	15.6	45.8	33.5	20.7	44.9	44.6	10.6	12.3	59.9	27.9	
Total %	7.7	7.6	2.8	13.1	9.6	5.9	8.5	8.5	2	4.2	20.5	9.5	

	Veterans Memorial Way From North				Coggeshall St From East				Route 195 Ramp From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	44	39	13	96	71	47	30	148	43	47	15	105	24	103	49	176	525
04:30 PM	25	45	19	89	68	56	38	162	38	43	9	90	20	88	49	157	498
04:45 PM	37	27	10	74	56	46	23	125	42	30	9	81	24	110	52	186	466
05:00 PM	36	47	12	95	72	55	25	152	55	44	8	107	23	95	53	171	525
Total Volume	142	158	54	354	267	204	116	587	178	164	41	383	91	396	203	690	2014
% App. Total	40.1	44.6	15.3		45.5	34.8	19.8		46.5	42.8	10.7		13.2	57.4	29.4		
PHF	.807	.840	.711	.922	.927	.911	.763	.906	.809	.872	.683	.895	.948	.900	.958	.927	.959

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061001
 Site Code : 91061001
 Start Date : 12/3/2020
 Page No : 5



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

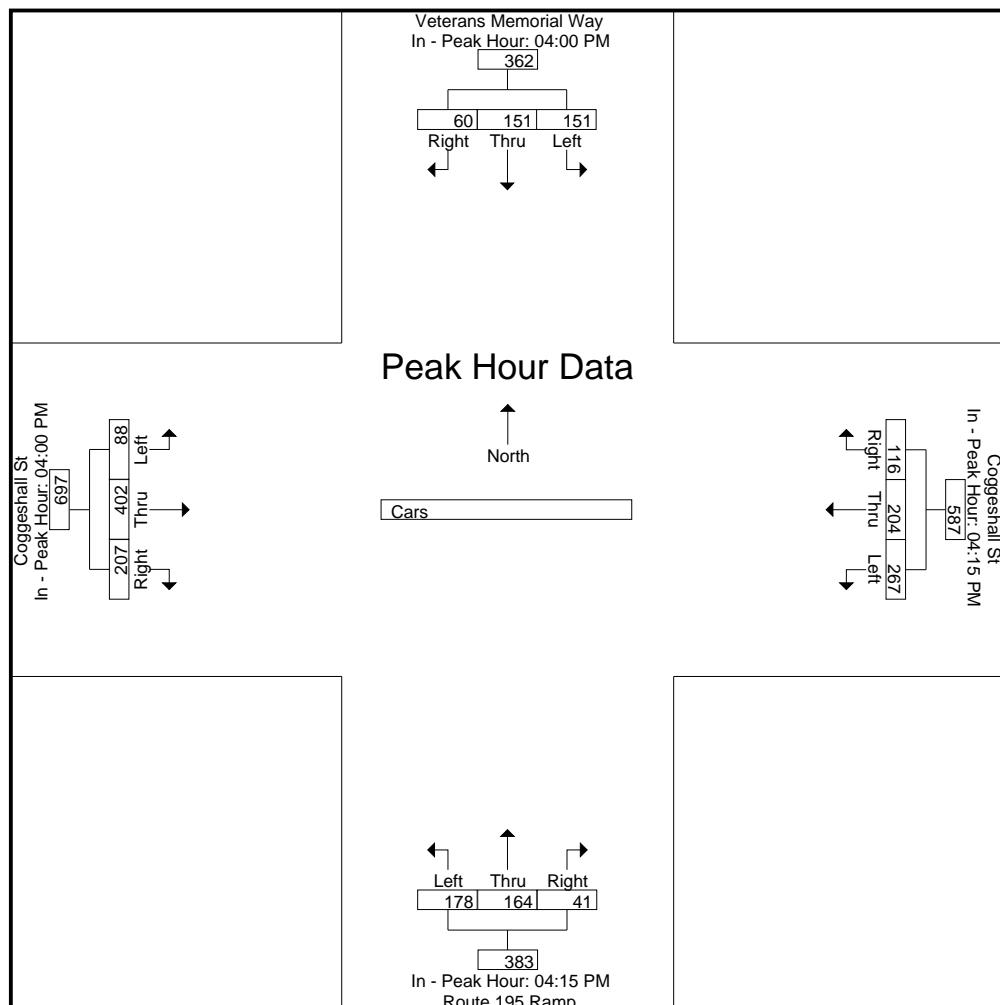
Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:15 PM				04:00 PM			
+0 mins.	45	40	18	103	71	47	30	148	43	47	15	105	20	101	57	178
+15 mins.	44	39	13	96	68	56	38	162	38	43	9	90	24	103	49	176
+30 mins.	25	45	19	89	56	46	23	125	42	30	9	81	20	88	49	157
+45 mins.	37	27	10	74	72	55	25	152	55	44	8	107	24	110	52	186
Total Volume	151	151	60	362	267	204	116	587	178	164	41	383	88	402	207	697
% App. Total	41.7	41.7	16.6		45.5	34.8	19.8		46.5	42.8	10.7		12.6	57.7	29.7	
PHF	.839	.839	.789	.879	.927	.911	.763	.906	.809	.872	.683	.895	.917	.914	.908	.937

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061001
Site Code : 91061001
Start Date : 12/3/2020
Page No : 6



Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061001
 Site Code : 91061001
 Start Date : 12/3/2020
 Page No : 7

Groups Printed- Trucks

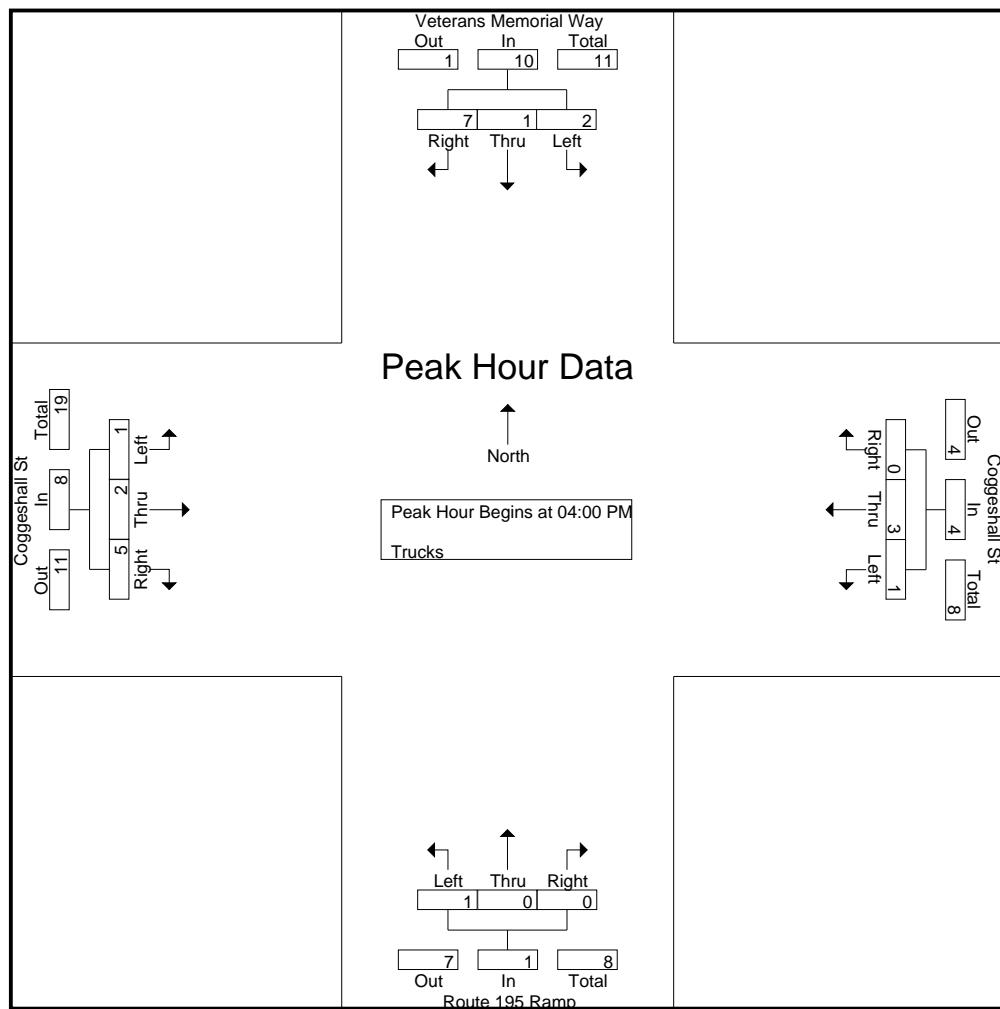
	Veterans Memorial Way From North			Coggeshall St From East			Route 195 Ramp From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	2	0	1	0	0	0	0	0	1	4	8
04:15 PM	1	0	1	1	1	0	0	0	0	0	0	0	4
04:30 PM	0	0	1	0	0	0	0	0	0	0	1	0	2
04:45 PM	1	1	3	0	1	0	1	0	0	1	0	1	9
Total	2	1	7	1	3	0	1	0	0	1	2	5	23
05:00 PM	0	0	1	0	1	0	0	1	0	0	0	2	5
05:15 PM	1	0	2	0	1	0	0	0	0	0	0	2	6
05:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
05:45 PM	1	0	2	0	1	0	0	0	0	0	0	0	4
Total	2	0	6	0	3	0	0	1	0	0	0	4	16
Grand Total	4	1	13	1	6	0	1	1	0	1	2	9	39
Apprch %	22.2	5.6	72.2	14.3	85.7	0	50	50	0	8.3	16.7	75	
Total %	10.3	2.6	33.3	2.6	15.4	0	2.6	2.6	0	2.6	5.1	23.1	

	Veterans Memorial Way From North				Coggeshall St From East				Route 195 Ramp From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	2	2	0	1	0	1	0	0	0	0	0	1	4	5	8
04:15 PM	1	0	1	2	1	1	0	2	0	0	0	0	0	0	0	0	4
04:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
04:45 PM	1	1	3	5	0	1	0	1	1	0	0	1	1	0	1	2	9
Total Volume	2	1	7	10	1	3	0	4	1	0	0	1	1	2	5	8	23
% App. Total	20	10	70		25	75	0		100	0	0		12.5	25	62.5		
PHF	.500	.250	.583	.500	.250	.750	.000	.500	.250	.000	.000	.250	.250	.500	.313	.400	.639

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061001
 Site Code : 91061001
 Start Date : 12/3/2020
 Page No : 8



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

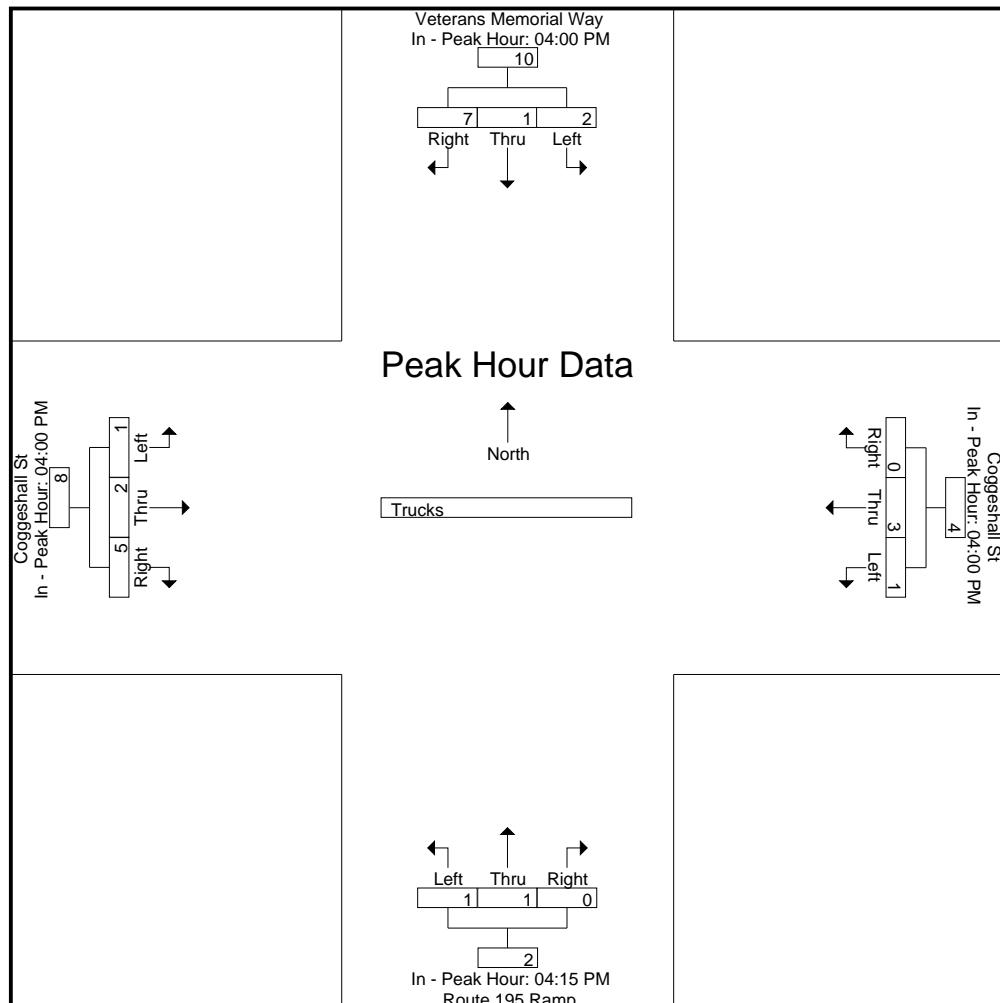
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	0	0	2	2	0	1	0	1	0	0	0	0	0	1	4	5
+15 mins.	1	0	1	2	1	1	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	1	1	0	0	0	0	1	0	0	1	0	1	0	1
+45 mins.	1	1	3	5	0	1	0	1	0	1	0	1	1	0	1	2
Total Volume	2	1	7	10	1	3	0	4	1	1	0	2	1	2	5	8
% App. Total	20	10	70		25	75	0		50	50	0		12.5	25	62.5	
PHF	.500	.250	.583	.500	.250	.750	.000	.500	.250	.250	.000	.500	.250	.500	.313	.400

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061001
Site Code : 91061001
Start Date : 12/3/2020
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Veterans Memorial Wy/Route195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061001
Site Code : 91061001
Start Date : 12/3/2020
Page No : 10

Groups Printed- Bikes Peds

	Veterans Memorial Way From North				Coggeshall St From East				Route 195 Ramp From South				Coggeshall St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Apprch %	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	50

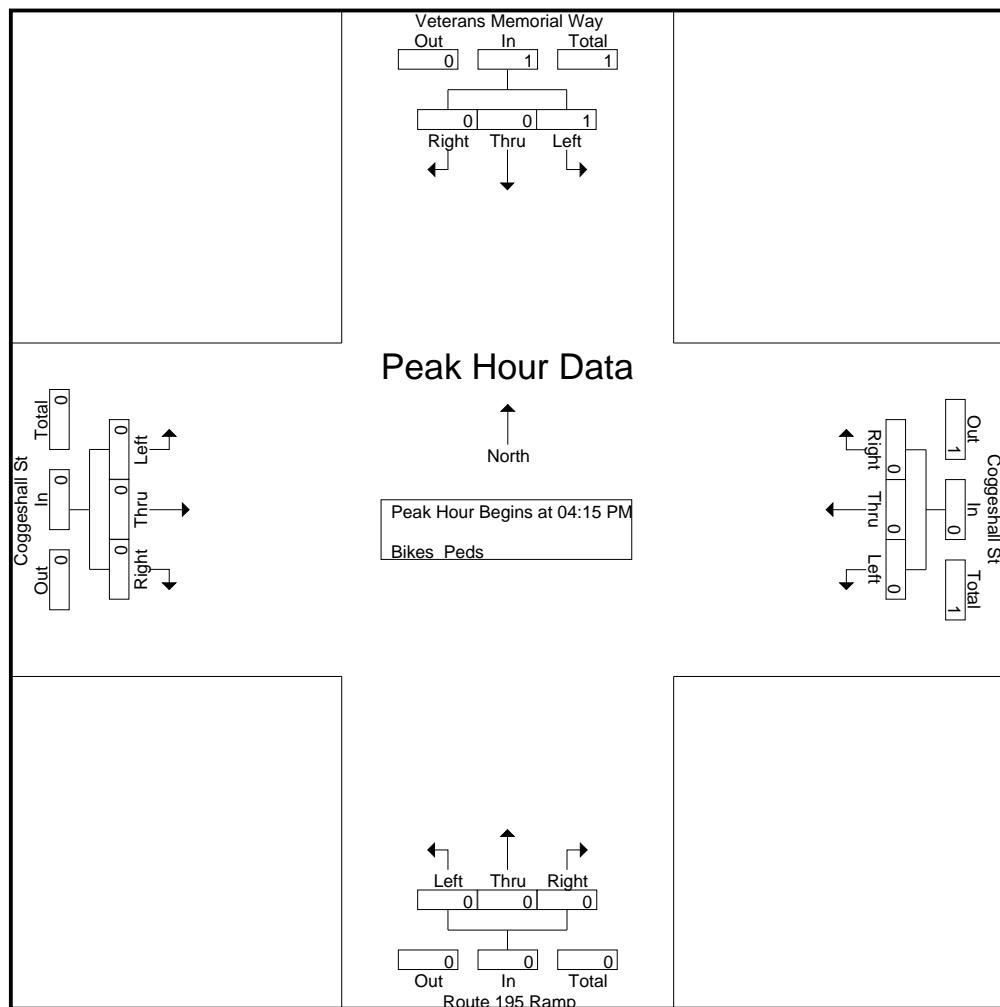
Accurate Counts

978-664-2565

978-664-2565

N/S Street : Veterans Memorial Wy/Route195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061001
Site Code : 91061001
Start Date : 12/3/2020
Page No : 11



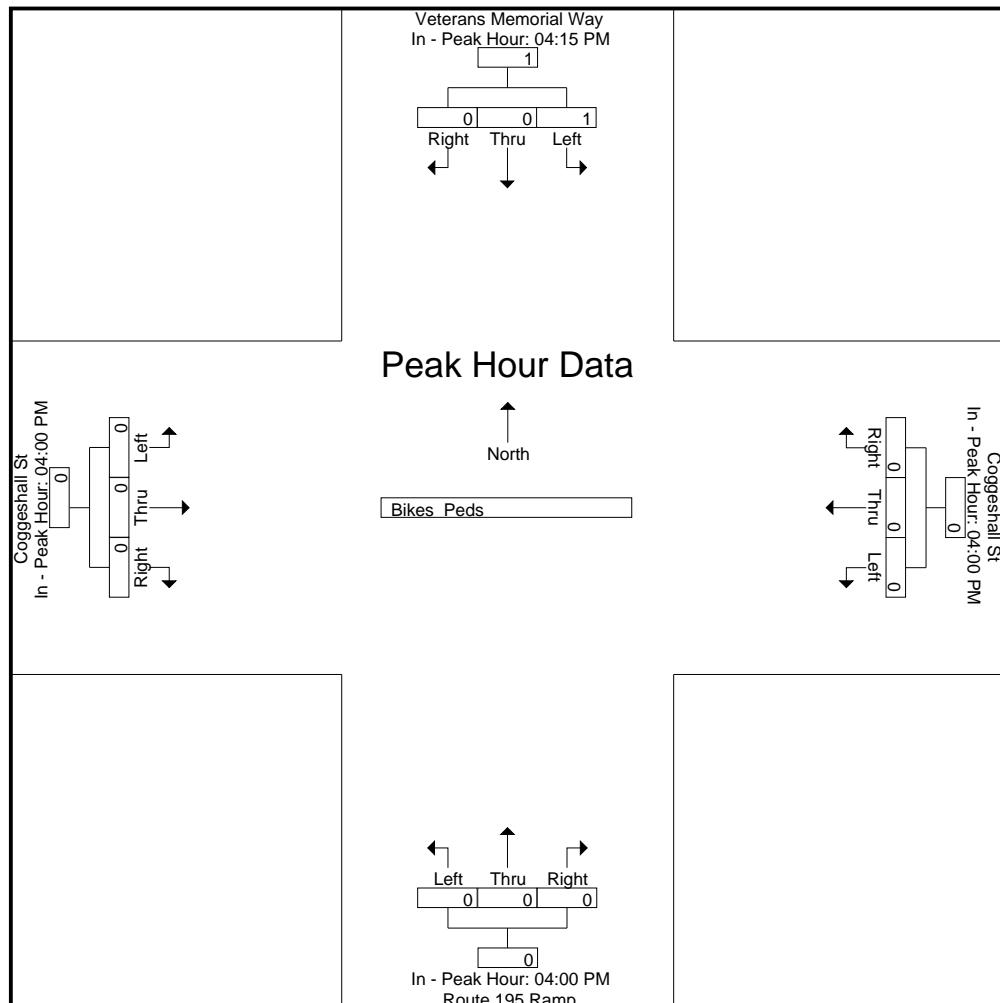
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial Wy/Route195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061001
Site Code : 91061001
Start Date : 12/3/2020
Page No : 12



Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S1
 Site Code : 91061001
 Start Date : 12/5/2020
 Page No : 1

Groups Printed- Cars - Trucks

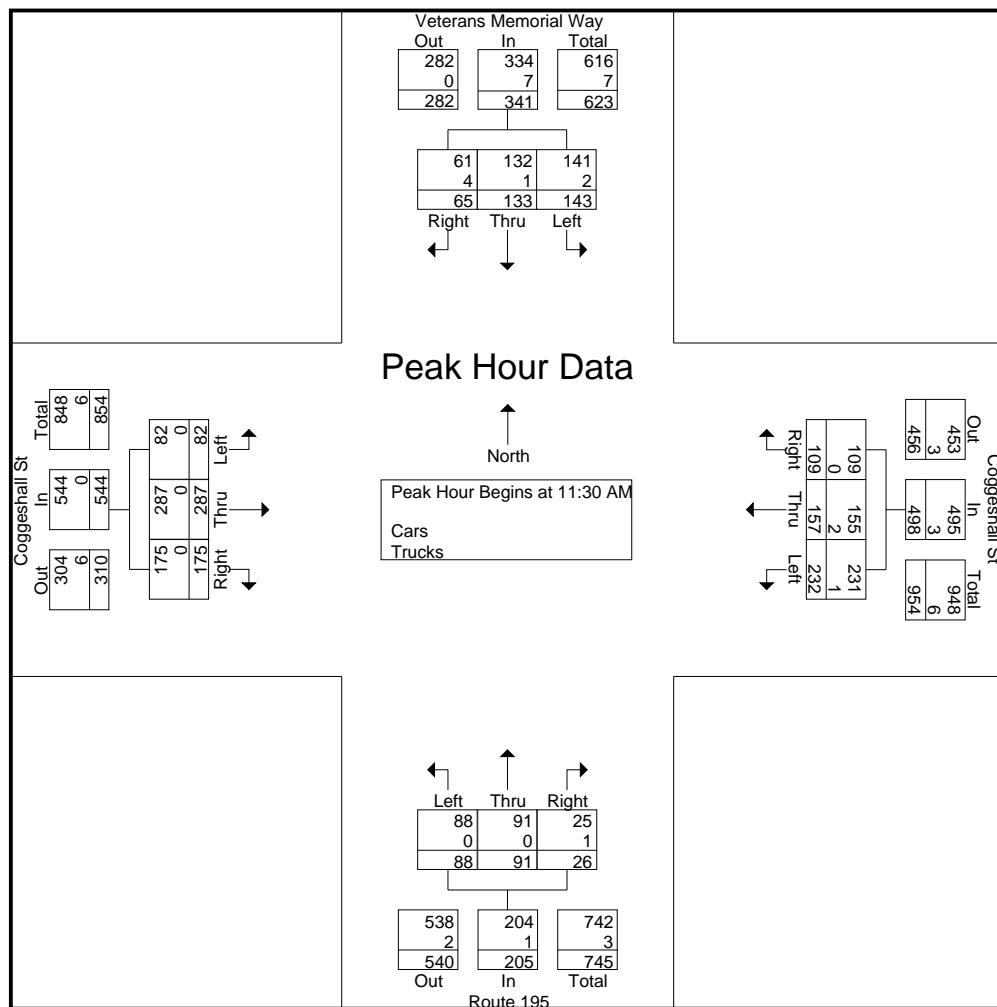
		Veterans Memorial Way From North			Coggeshall St From East			Route 195 From South			Coggeshall St From West			
Start Time		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM		42	40	12	56	46	26	23	35	3	16	66	32	397
11:15 AM		34	27	20	62	44	29	13	18	5	11	72	35	370
11:30 AM		47	35	18	52	48	24	18	24	10	21	80	42	419
11:45 AM		36	30	12	73	33	30	22	18	3	19	61	42	379
Total		159	132	62	243	171	109	76	95	21	67	279	151	1565
12:00 PM		27	38	18	54	38	20	24	19	8	17	70	51	384
12:15 PM		33	30	17	53	38	35	24	30	5	25	76	40	406
12:30 PM		29	35	17	52	38	24	27	25	4	28	51	33	363
12:45 PM		34	38	16	43	38	22	20	33	8	22	63	44	381
Total		123	141	68	202	152	101	95	107	25	92	260	168	1534
Grand Total		282	273	130	445	323	210	171	202	46	159	539	319	3099
Apprch %		41.2	39.9	19	45.5	33	21.5	40.8	48.2	11	15.6	53	31.4	
Total %		9.1	8.8	4.2	14.4	10.4	6.8	5.5	6.5	1.5	5.1	17.4	10.3	
Cars		278	270	123	444	319	210	171	201	44	158	539	318	3075
% Cars		98.6	98.9	94.6	99.8	98.8	100	100	99.5	95.7	99.4	100	99.7	99.2
Trucks		4	3	7	1	4	0	0	1	2	1	0	1	24
% Trucks		1.4	1.1	5.4	0.2	1.2	0	0	0.5	4.3	0.6	0	0.3	0.8

		Veterans Memorial Way From North			Coggeshall St From East			Route 195 From South			Coggeshall St From West			
Start Time		Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 11:30 AM														
11:30 AM		47	35	18	100	52	48	24	124	18	24	10	52	21
11:45 AM		36	30	12	78	73	33	30	136	22	18	3	43	19
12:00 PM		27	38	18	83	54	38	20	112	24	19	8	51	17
12:15 PM		33	30	17	80	53	38	35	126	24	30	5	59	25
Total Volume		143	133	65	341	232	157	109	498	88	91	26	205	82
% App. Total		41.9	39	19.1		46.6	31.5	21.9		42.9	44.4	12.7		15.1
PHF		.761	.875	.903	.853	.795	.818	.779	.915	.917	.758	.650	.869	.820
Cars		141	132	61	334	231	155	109	495	88	91	25	204	82
% Cars		98.6	99.2	93.8	97.9	99.6	98.7	100	99.4	100	100	96.2	99.5	100
Trucks		2	1	4	7	1	2	0	3	0	0	1	1	0
% Trucks		1.4	0.8	6.2	2.1	0.4	1.3	0	0.6	0	0	3.8	0.5	0

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S1
 Site Code : 91061001
 Start Date : 12/5/2020
 Page No : 2



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

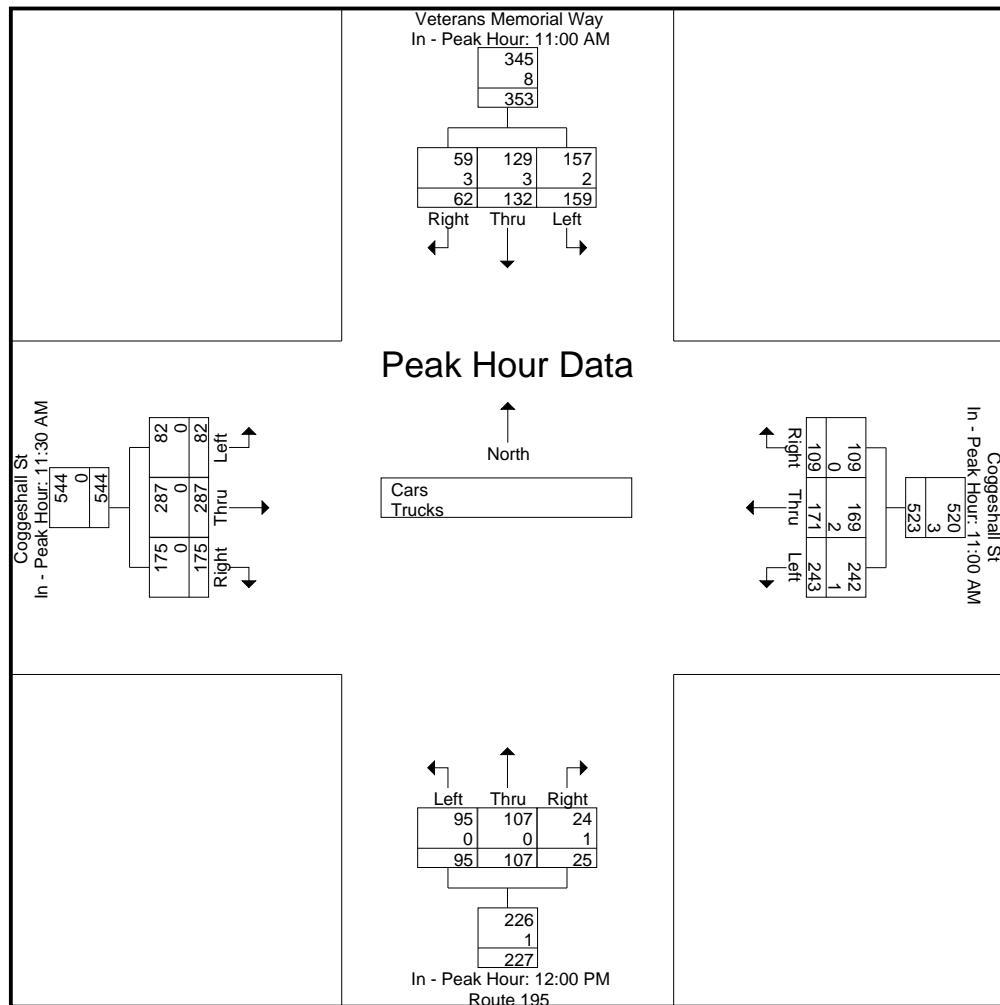
Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				12:00 PM				11:30 AM			
+0 mins.	42	40	12	94	56	46	26	128	24	19	8	51	21	80	42	143
+15 mins.	34	27	20	81	62	44	29	135	24	30	5	59	19	61	42	122
+30 mins.	47	35	18	100	52	48	24	124	27	25	4	56	17	70	51	138
+45 mins.	36	30	12	78	73	33	30	136	20	33	8	61	25	76	40	141
Total Volume	159	132	62	353	243	171	109	523	95	107	25	227	82	287	175	544
% App. Total	45	37.4	17.6		46.5	32.7	20.8		41.9	47.1	11		15.1	52.8	32.2	
PHF	.846	.825	.775	.883	.832	.891	.908	.961	.880	.811	.781	.930	.820	.897	.858	.951
Cars	157	129	59	345	242	169	109	520	95	107	24	226	82	287	175	544
% Cars	98.7	97.7	95.2	97.7	99.6	98.8	100	99.4	100	100	96	99.6	100	100	100	100
Trucks	2	3	3	8	1	2	0	3	0	0	1	1	0	0	0	0
% Trucks	1.3	2.3	4.8	2.3	0.4	1.2	0	0.6	0	0	4	0.4	0	0	0	0

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S1
 Site Code : 91061001
 Start Date : 12/5/2020
 Page No : 3



Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S1
 Site Code : 91061001
 Start Date : 12/5/2020
 Page No : 4

Groups Printed- Cars

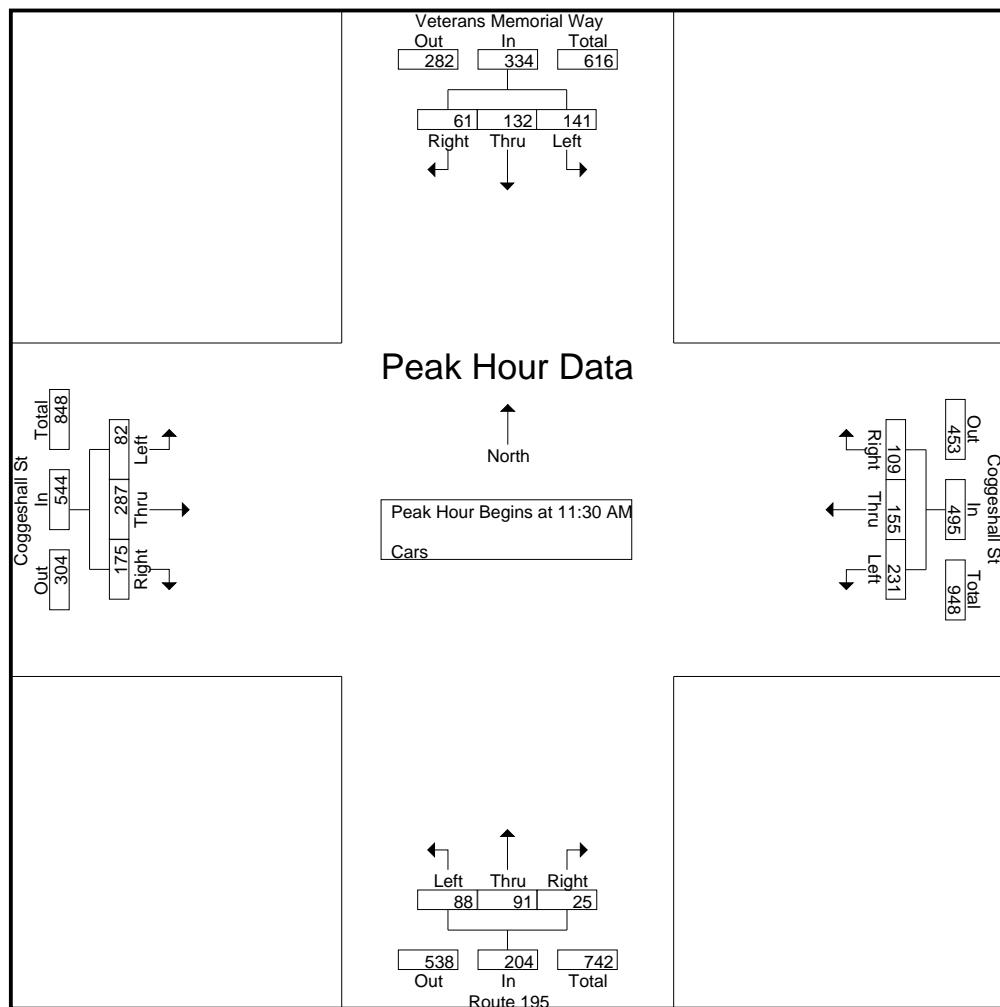
	Veterans Memorial Way From North			Coggeshall St From East			Route 195 From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	41	40	11	56	45	26	23	34	2	16	66	32	392
11:15 AM	34	25	20	62	44	29	13	18	5	11	72	34	367
11:30 AM	46	34	16	52	47	24	18	24	10	21	80	42	414
11:45 AM	36	30	12	72	33	30	22	18	3	19	61	42	378
Total	157	129	59	242	169	109	76	94	20	67	279	150	1551
12:00 PM	26	38	16	54	37	20	24	19	7	17	70	51	379
12:15 PM	33	30	17	53	38	35	24	30	5	25	76	40	406
12:30 PM	28	35	16	52	37	24	27	25	4	28	51	33	360
12:45 PM	34	38	15	43	38	22	20	33	8	21	63	44	379
Total	121	141	64	202	150	101	95	107	24	91	260	168	1524
Grand Total	278	270	123	444	319	210	171	201	44	158	539	318	3075
Apprch %	41.4	40.2	18.3	45.6	32.8	21.6	41.1	48.3	10.6	15.6	53.1	31.3	
Total %	9	8.8	4	14.4	10.4	6.8	5.6	6.5	1.4	5.1	17.5	10.3	

	Veterans Memorial Way From North				Coggeshall St From East				Route 195 From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	46	34	16	96	52	47	24	123	18	24	10	52	21	80	42	143	414
11:45 AM	36	30	12	78	72	33	30	135	22	18	3	43	19	61	42	122	378
12:00 PM	26	38	16	80	54	37	20	111	24	19	7	50	17	70	51	138	379
12:15 PM	33	30	17	80	53	38	35	126	24	30	5	59	25	76	40	141	406
Total Volume	141	132	61	334	231	155	109	495	88	91	25	204	82	287	175	544	1577
% App. Total	42.2	39.5	18.3		46.7	31.3	22		43.1	44.6	12.3		15.1	52.8	32.2		
PHF	.766	.868	.897	.870	.802	.824	.779	.917	.917	.758	.625	.864	.820	.897	.858	.951	.952

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S1
Site Code : 91061001
Start Date : 12/5/2020
Page No : 5



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

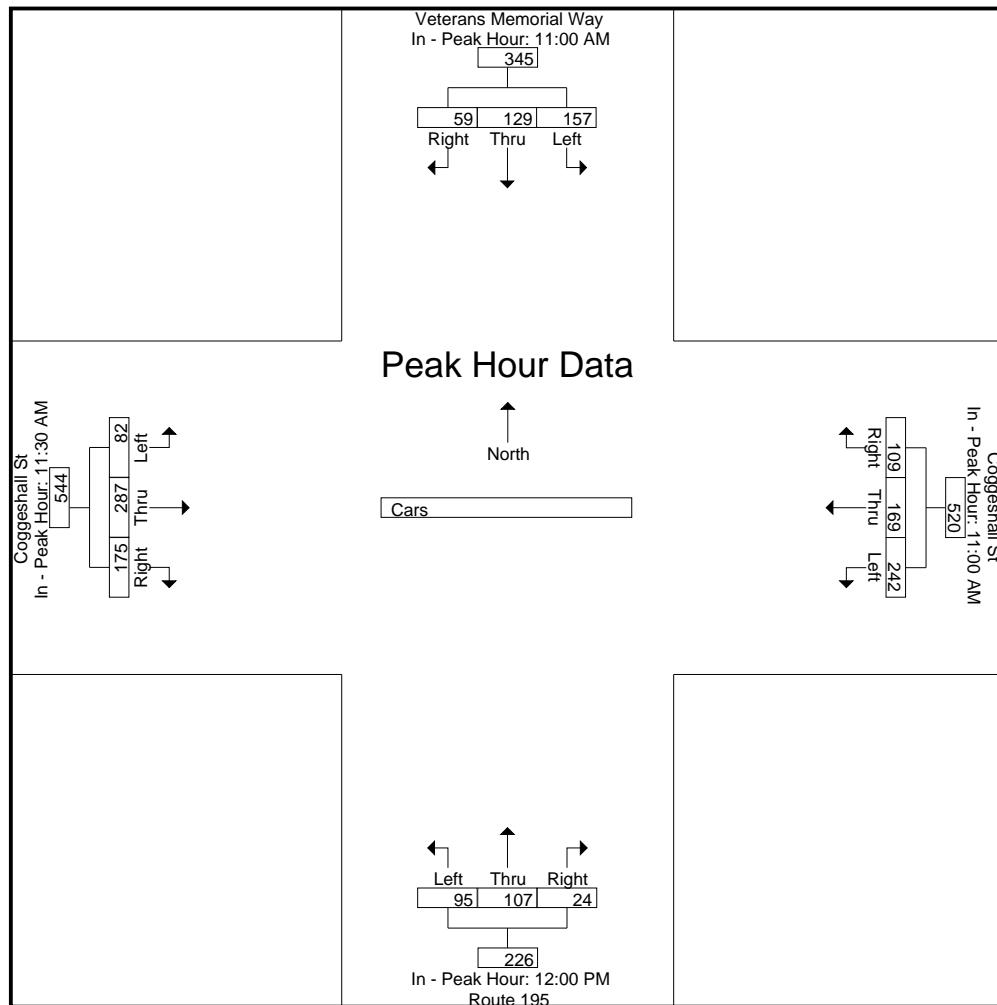
Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				12:00 PM				11:30 AM			
+0 mins.	41	40	11	92	56	45	26	127	24	19	7	50	21	80	42	143
+15 mins.	34	25	20	79	62	44	29	135	24	30	5	59	19	61	42	122
+30 mins.	46	34	16	96	52	47	24	123	27	25	4	56	17	70	51	138
+45 mins.	36	30	12	78	72	33	30	135	20	33	8	61	25	76	40	141
Total Volume	157	129	59	345	242	169	109	520	95	107	24	226	82	287	175	544
% App. Total	45.5	37.4	17.1		46.5	32.5	21		42	47.3	10.6		15.1	52.8	32.2	
PHF	.853	.806	.738	.898	.840	.899	.908	.963	.880	.811	.750	.926	.820	.897	.858	.951

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S1
Site Code : 91061001
Start Date : 12/5/2020
Page No : 6



Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S1
 Site Code : 91061001
 Start Date : 12/5/2020
 Page No : 7

Groups Printed- Trucks

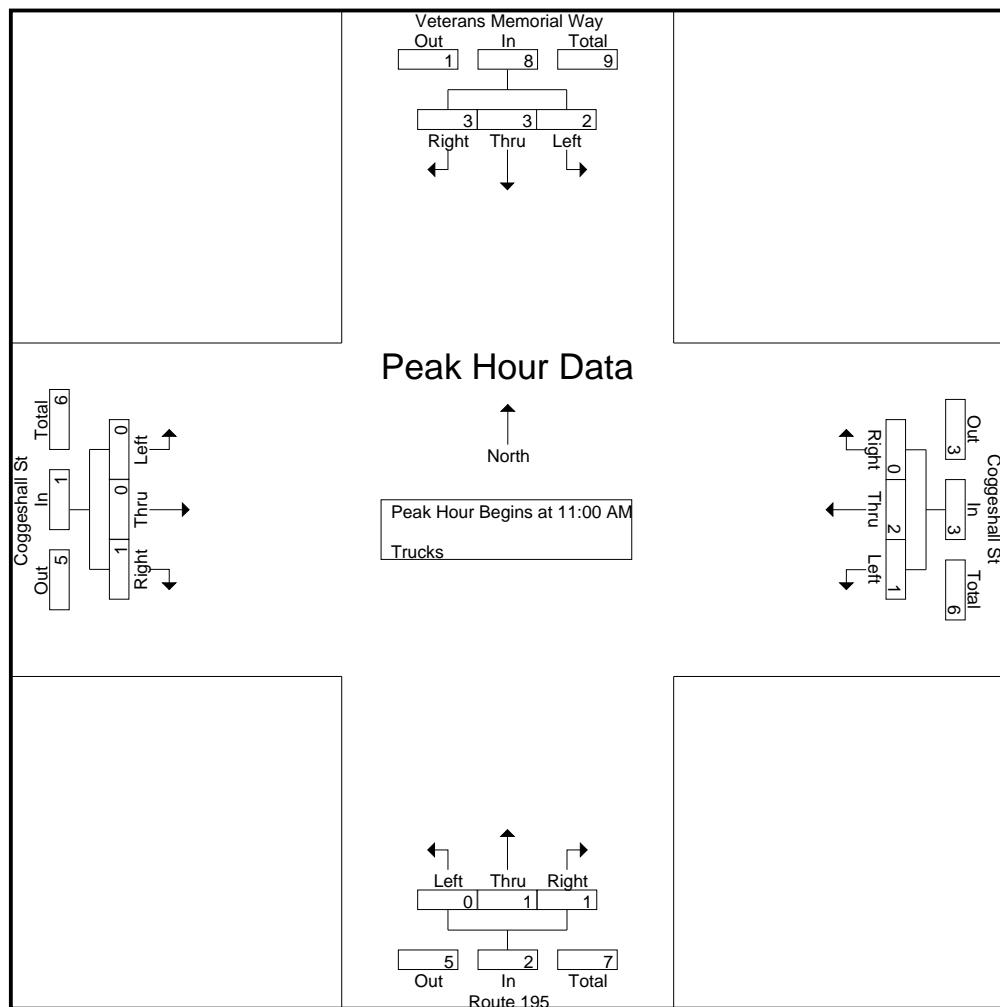
	Veterans Memorial Way From North			Coggeshall St From East			Route 195 From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	1	0	1	0	1	0	0	1	1	0	0	0	5
11:15 AM	0	2	0	0	0	0	0	0	0	0	0	1	3
11:30 AM	1	1	2	0	1	0	0	0	0	0	0	0	5
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	2	3	3	1	2	0	0	1	1	0	0	1	14
12:00 PM	1	0	2	0	1	0	0	0	1	0	0	0	5
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	1	0	1	0	1	0	0	0	0	0	0	0	3
12:45 PM	0	0	1	0	0	0	0	0	0	1	0	0	2
Total	2	0	4	0	2	0	0	0	1	1	0	0	10
Grand Total	4	3	7	1	4	0	0	1	2	1	0	1	24
Apprch %	28.6	21.4	50	20	80	0	0	33.3	66.7	50	0	50	
Total %	16.7	12.5	29.2	4.2	16.7	0	0	4.2	8.3	4.2	0	4.2	

	Veterans Memorial Way From North				Coggeshall St From East				Route 195 From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	1	0	1	2	0	1	0	1	0	1	1	2	0	0	0	0	5
11:15 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	1	3
11:30 AM	1	1	2	4	0	1	0	1	0	0	0	0	0	0	0	0	5
11:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	2	3	3	8	1	2	0	3	0	1	1	2	0	0	1	1	14
% App. Total	25	37.5	37.5		33.3	66.7	0		0	50	50		0	0	100		
PHF	.500	.375	.375	.500	.250	.500	.000	.750	.000	.250	.250	.250	.000	.000	.250	.250	.700

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S1
 Site Code : 91061001
 Start Date : 12/5/2020
 Page No : 8



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

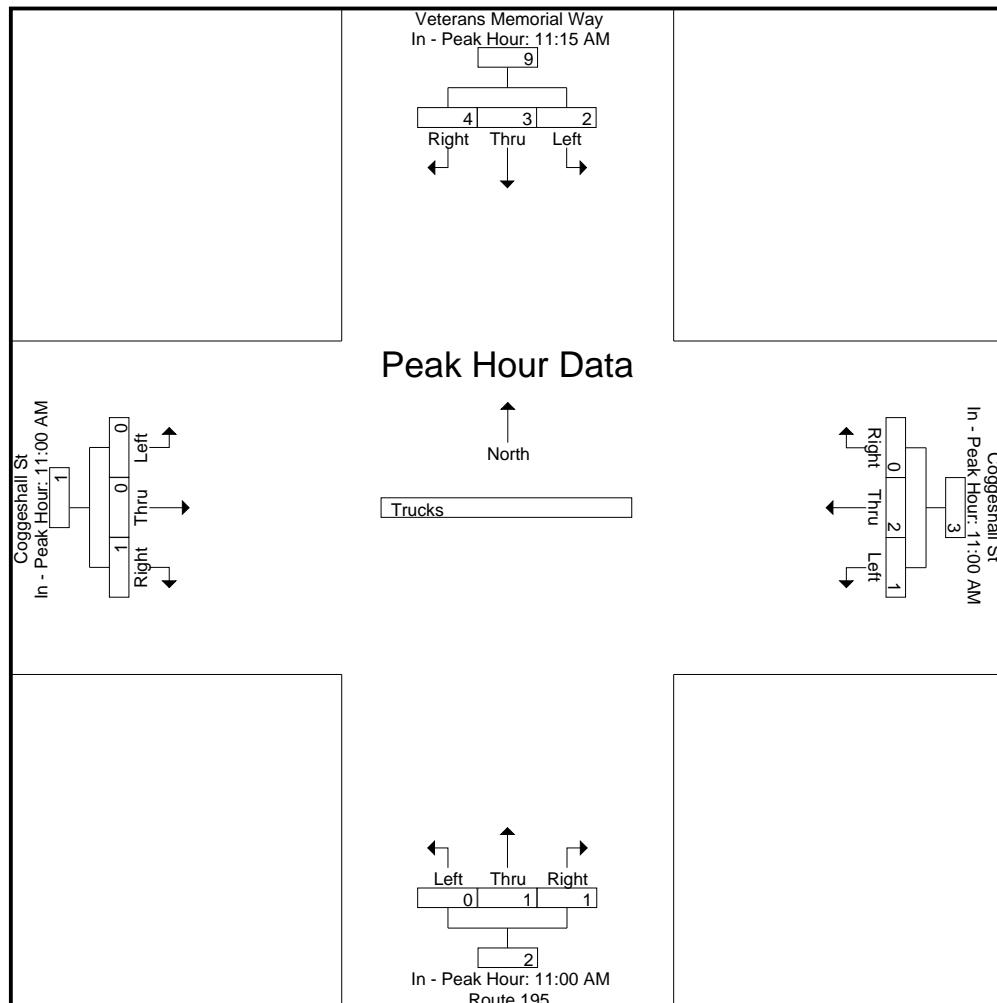
Peak Hour for Each Approach Begins at:

	11:15 AM				11:00 AM				11:00 AM				11:00 AM			
+0 mins.	0	2	0	2	0	1	0	1	0	1	1	2	0	0	0	0
+15 mins.	1	1	2	4	0	0	0	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	1	0	2	3	1	0	0	1	0	0	0	0	0	0	0	0
Total Volume	2	3	4	9	1	2	0	3	0	1	1	2	0	0	1	1
% App. Total	22.2	33.3	44.4		33.3	66.7	0		0	50	50	0	0	0	100	
PHF	.500	.375	.500	.563	.250	.500	.000	.750	.000	.250	.250	.250	.000	.000	.250	.250

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S1
Site Code : 91061001
Start Date : 12/5/2020
Page No : 9



Accurate Counts

N/S Street : Veterans Memorial / Route 195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S1
Site Code : 91061001
Start Date : 12/5/2020
Page No : 10

Groups Printed- Bikes Peds

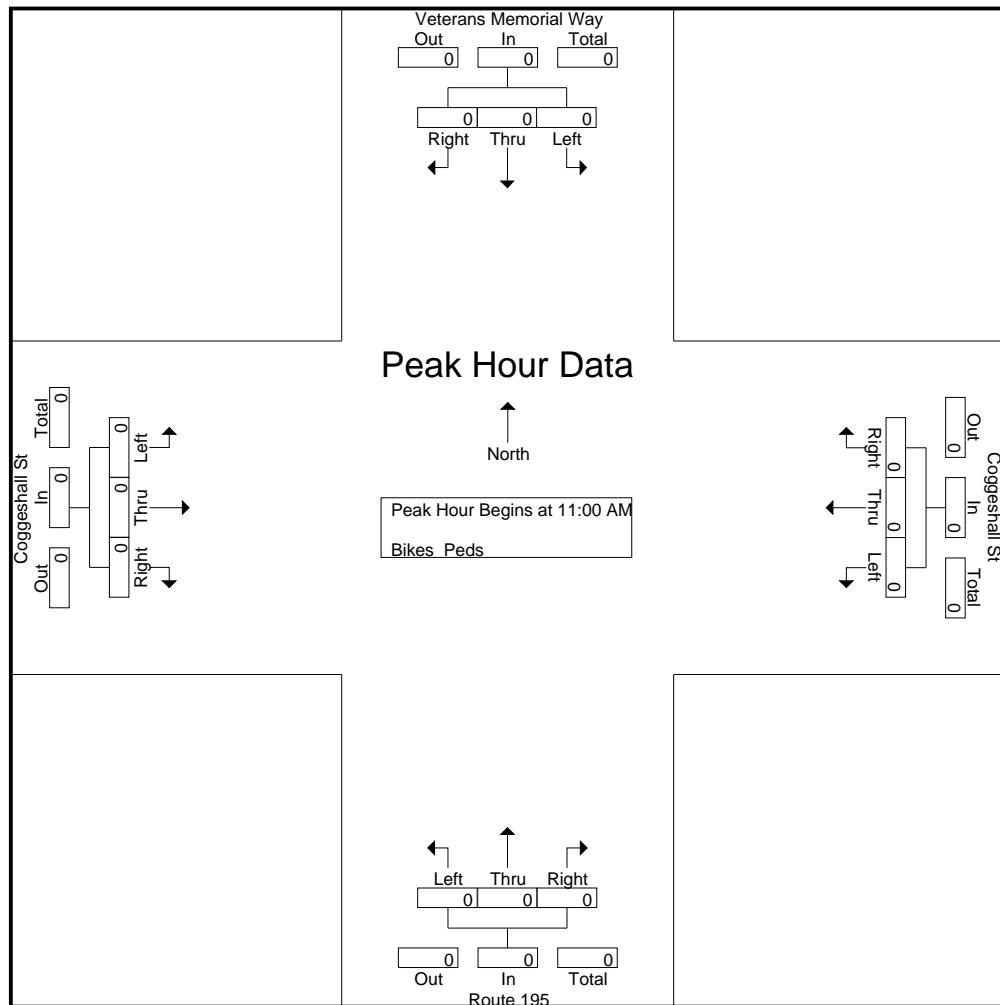
	Veterans Memorial Way From North				Coggeshall St From East				Route 195 From South				Coggeshall St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %																	0	0	0

Accurate Counts

978-664-2565

N/S Street : Veterans Memorial / Route 195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S1
Site Code : 91061001
Start Date : 12/5/2020
Page No : 11



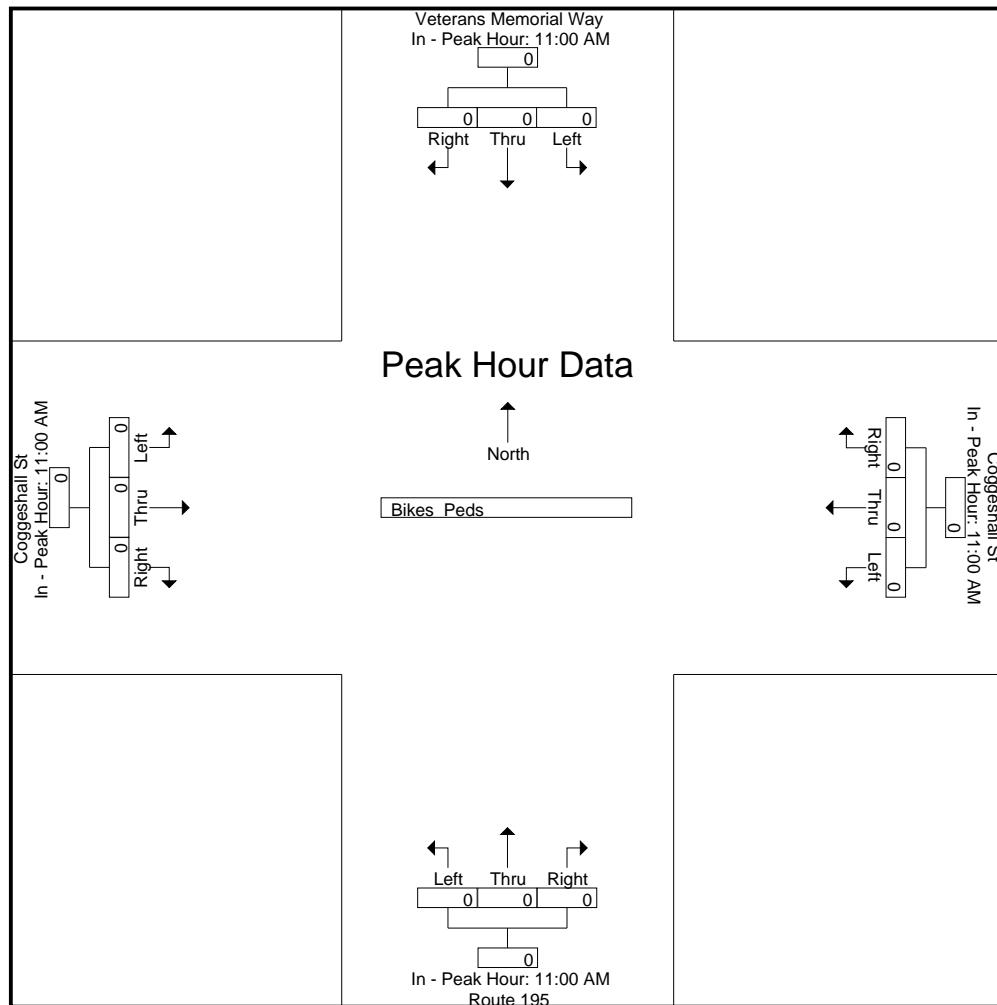
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Accurate Counts
978-664-2565

N/S Street : Veterans Memorial / Route 195
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S1
Site Code : 91061001
Start Date : 12/5/2020
Page No : 12



Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061002
 Site Code : 91061002
 Start Date : 12/3/2020
 Page No : 1

Groups Printed- Cars - Trucks

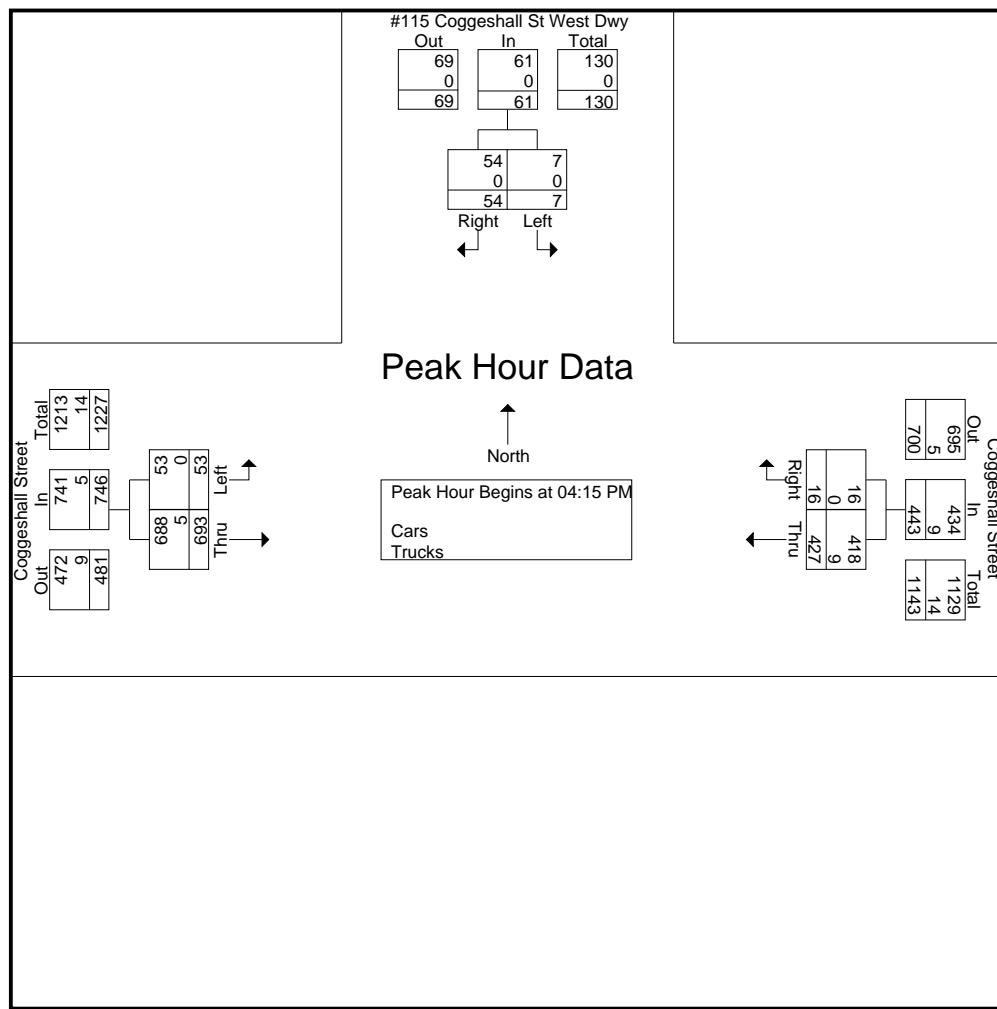
	#115 Coggeshall St West Dwy From North		Coggeshall Street From East		Coggeshall Street From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
04:00 PM	3	11	98	2	19	171	304
04:15 PM	3	12	100	4	7	177	303
04:30 PM	1	10	109	2	11	160	293
04:45 PM	2	18	98	2	18	180	318
Total	9	51	405	10	55	688	1218
05:00 PM	1	14	120	8	17	176	336
05:15 PM	3	14	77	0	15	150	259
05:30 PM	3	17	89	5	25	130	269
05:45 PM	1	11	81	4	12	118	227
Total	8	56	367	17	69	574	1091
Grand Total	17	107	772	27	124	1262	2309
Apprch %	13.7	86.3	96.6	3.4	8.9	91.1	
Total %	0.7	4.6	33.4	1.2	5.4	54.7	
Cars	17	107	753	27	124	1250	2278
% Cars	100	100	97.5	100	100	99	98.7
Trucks	0	0	19	0	0	12	31
% Trucks	0	0	2.5	0	0	1	1.3

	#115 Coggeshall St West Dwy From North			Coggeshall Street From East			Coggeshall Street From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	3	12	15	100	4	104	7	177	184	303
04:30 PM	1	10	11	109	2	111	11	160	171	293
04:45 PM	2	18	20	98	2	100	18	180	198	318
05:00 PM	1	14	15	120	8	128	17	176	193	336
Total Volume	7	54	61	427	16	443	53	693	746	1250
% App. Total	11.5	88.5		96.4	3.6		7.1	92.9		
PHF	.583	.750	.763	.890	.500	.865	.736	.963	.942	.930
Cars	7	54	61	418	16	434	53	688	741	1236
% Cars	100	100	100	97.9	100	98.0	100	99.3	99.3	98.9
Trucks	0	0	0	9	0	9	0	5	5	14
% Trucks	0	0	0	2.1	0	2.0	0	0.7	0.7	1.1

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061002
 Site Code : 91061002
 Start Date : 12/3/2020
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

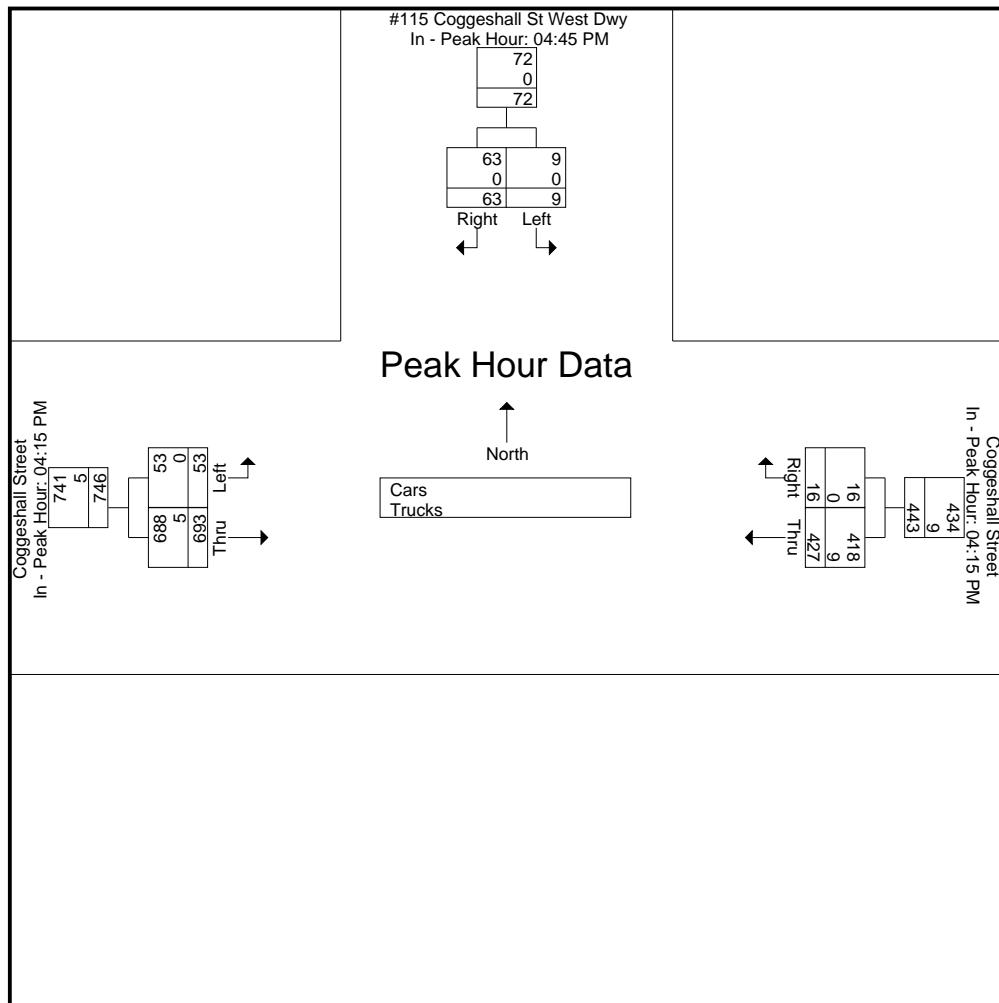
Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			04:15 PM		
+0 mins.	2	18	20	100	4	104	7	177	184
+15 mins.	1	14	15	109	2	111	11	160	171
+30 mins.	3	14	17	98	2	100	18	180	198
+45 mins.	3	17	20	120	8	128	17	176	193
Total Volume	9	63	72	427	16	443	53	693	746
% App. Total	12.5	87.5		96.4	3.6		7.1	92.9	
PHF	.750	.875	.900	.890	.500	.865	.736	.963	.942
Cars	9	63	72	418	16	434	53	688	741
% Cars	100	100	100	97.9	100	98	100	99.3	99.3
Trucks	0	0	0	9	0	9	0	5	5
% Trucks	0	0	0	2.1	0	2	0	0.7	0.7

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061002
Site Code : 91061002
Start Date : 12/3/2020
Page No : 3



Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061002
 Site Code : 91061002
 Start Date : 12/3/2020
 Page No : 4

Groups Printed- Cars

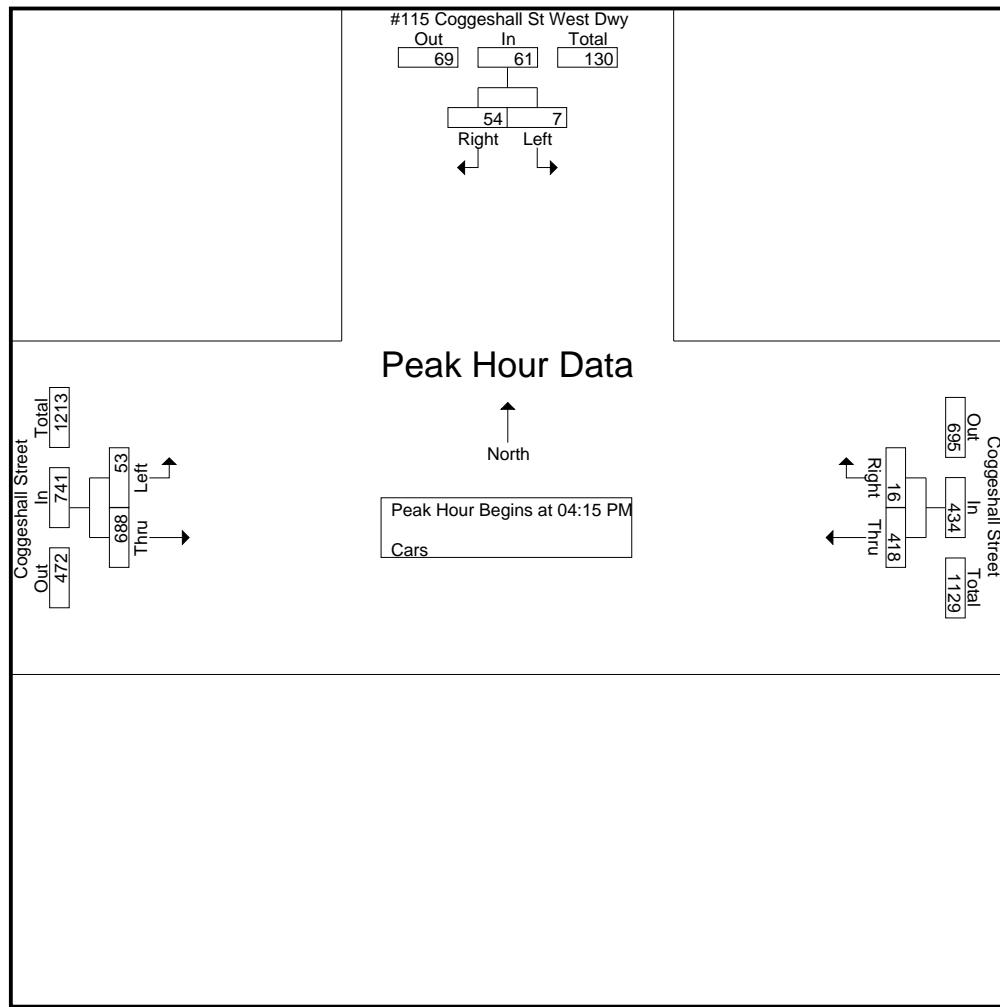
		#115 Coggeshall St West Dwy From North		Coggeshall Street From East		Coggeshall Street From West		
Start Time		Left	Right	Thru	Right	Left	Thru	Int. Total
	04:00 PM	3	11	95	2	19	166	296
	04:15 PM	3	12	98	4	7	177	301
	04:30 PM	1	10	107	2	11	159	290
	04:45 PM	2	18	94	2	18	178	312
	Total	9	51	394	10	55	680	1199
	05:00 PM	1	14	119	8	17	174	333
	05:15 PM	3	14	74	0	15	148	254
	05:30 PM	3	17	88	5	25	130	268
	05:45 PM	1	11	78	4	12	118	224
	Total	8	56	359	17	69	570	1079
Grand Total		17	107	753	27	124	1250	2278
Apprch %		13.7	86.3	96.5	3.5	9	91	
Total %		0.7	4.7	33.1	1.2	5.4	54.9	

		#115 Coggeshall St West Dwy From North			Coggeshall Street From East			Coggeshall Street From West			
Start Time		Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:15 PM											
	04:15 PM	3	12	15	98	4	102	7	177	184	301
	04:30 PM	1	10	11	107	2	109	11	159	170	290
	04:45 PM	2	18	20	94	2	96	18	178	196	312
	05:00 PM	1	14	15	119	8	127	17	174	191	333
Total Volume		7	54	61	418	16	434	53	688	741	1236
% App. Total		11.5	88.5		96.3	3.7		7.2	92.8		
PHF		.583	.750	.763	.878	.500	.854	.736	.966	.945	.928

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061002
 Site Code : 91061002
 Start Date : 12/3/2020
 Page No : 5



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

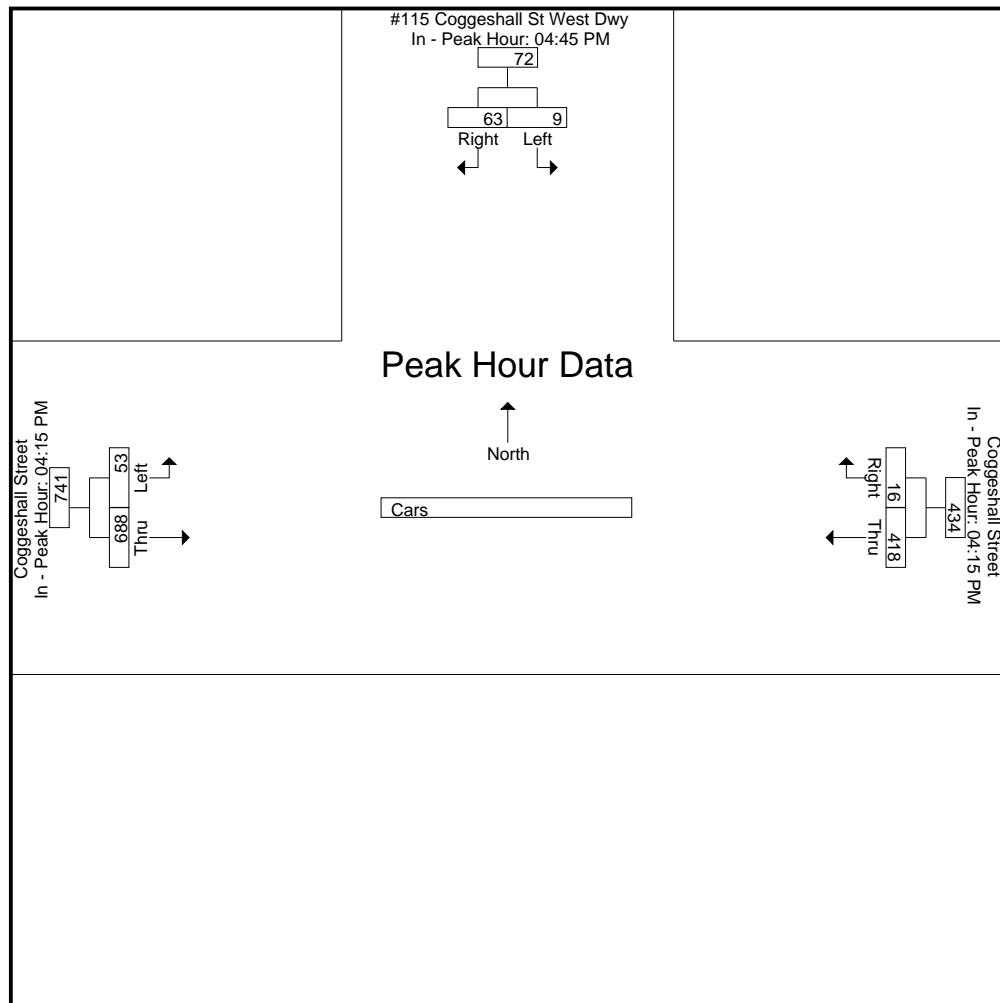
Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			04:15 PM		
+0 mins.	2	18	20	98	4	102	7	177	184
+15 mins.	1	14	15	107	2	109	11	159	170
+30 mins.	3	14	17	94	2	96	18	178	196
+45 mins.	3	17	20	119	8	127	17	174	191
Total Volume	9	63	72	418	16	434	53	688	741
% App. Total	12.5	87.5		96.3	3.7		7.2	92.8	
PHF	.750	.875	.900	.878	.500	.854	.736	.966	.945

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061002
Site Code : 91061002
Start Date : 12/3/2020
Page No : 6



Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061002
 Site Code : 91061002
 Start Date : 12/3/2020
 Page No : 7

Groups Printed- Trucks

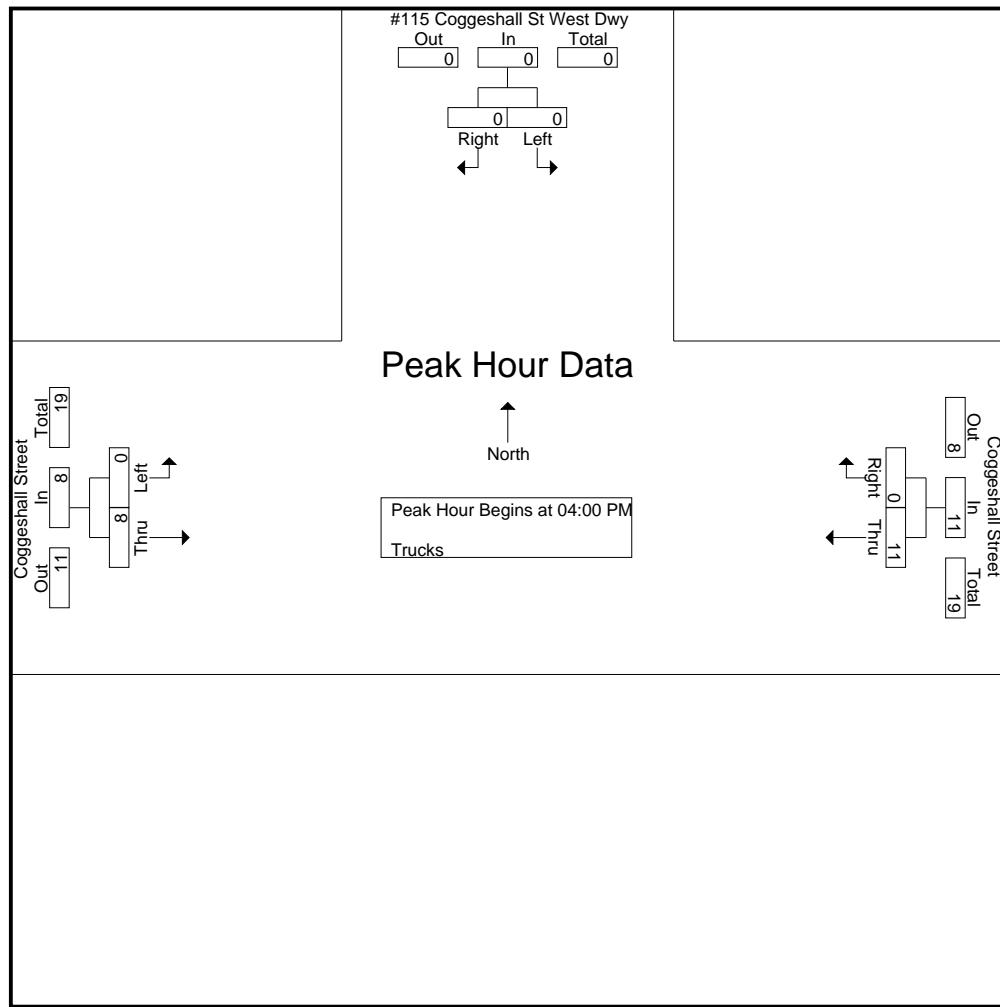
		#115 Coggeshall St West Dwy From North		Coggeshall Street From East		Coggeshall Street From West		
Start Time		Left	Right	Thru	Right	Left	Thru	Int. Total
04:00 PM		0	0	3	0	0	5	8
04:15 PM		0	0	2	0	0	0	2
04:30 PM		0	0	2	0	0	1	3
04:45 PM		0	0	4	0	0	2	6
Total		0	0	11	0	0	8	19
05:00 PM		0	0	1	0	0	2	3
05:15 PM		0	0	3	0	0	2	5
05:30 PM		0	0	1	0	0	0	1
05:45 PM		0	0	3	0	0	0	3
Total		0	0	8	0	0	4	12
Grand Total		0	0	19	0	0	12	31
Apprch %		0	0	100	0	0	100	
Total %		0	0	61.3	0	0	38.7	

		#115 Coggeshall St West Dwy From North			Coggeshall Street From East			Coggeshall Street From West			
Start Time		Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:00 PM											
04:00 PM		0	0	0	3	0	3	0	5	5	8
04:15 PM		0	0	0	2	0	2	0	0	0	2
04:30 PM		0	0	0	2	0	2	0	1	1	3
04:45 PM		0	0	0	4	0	4	0	2	2	6
Total Volume		0	0	0	11	0	11	0	8	8	19
% App. Total		0	0		100	0		0	100		
PHF		.000	.000	.000	.688	.000	.688	.000	.400	.400	.594

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061002
 Site Code : 91061002
 Start Date : 12/3/2020
 Page No : 8



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

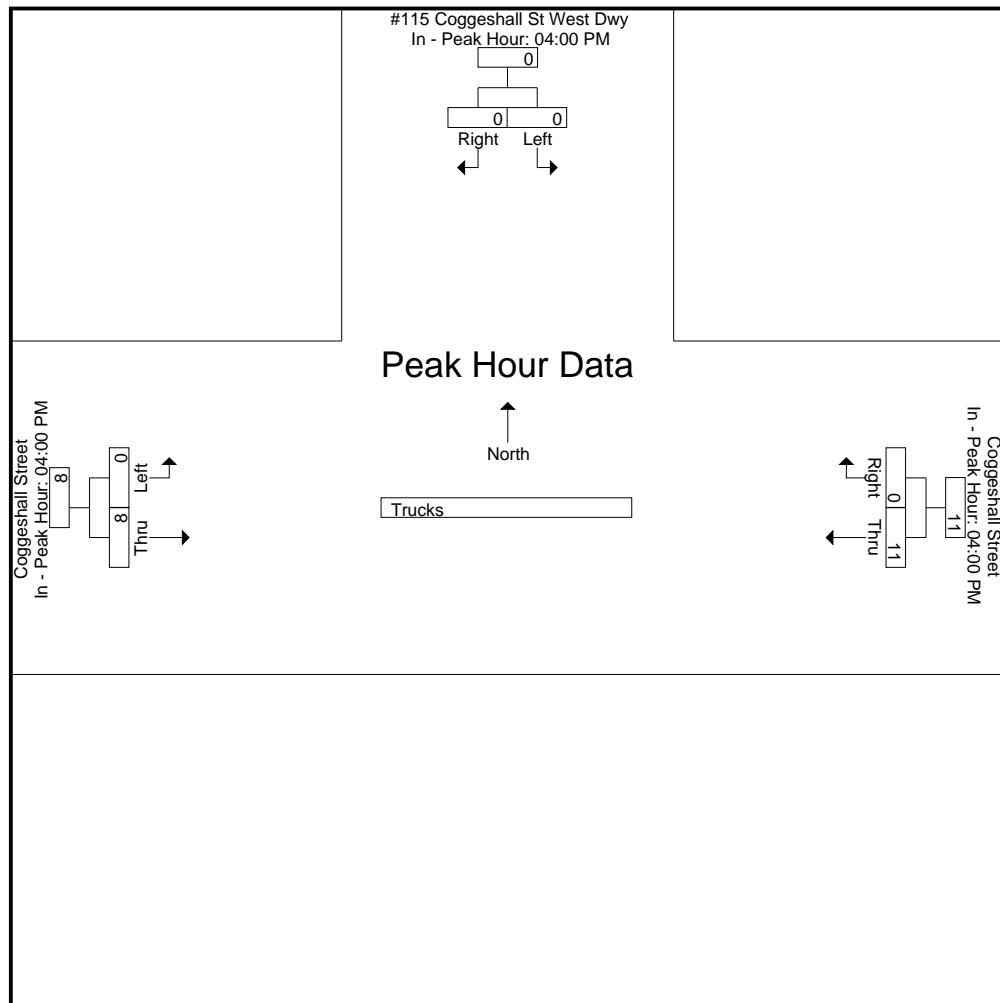
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM			
+0 mins.	0	0	0	3	0	3	0	5	5	5
+15 mins.	0	0	0	2	0	2	0	0	0	0
+30 mins.	0	0	0	2	0	2	0	1	1	1
+45 mins.	0	0	0	4	0	4	0	2	2	2
Total Volume	0	0	0	11	0	11	0	8	8	8
% App. Total	0	0	0	100	0	100	0	100	100	100
PHF	.000	.000	.000	.688	.000	.688	.000	.400	.400	.400

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061002
Site Code : 91061002
Start Date : 12/3/2020
Page No : 9



Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061002
 Site Code : 91061002
 Start Date : 12/3/2020
 Page No : 10

Groups Printed- Bikes Peds

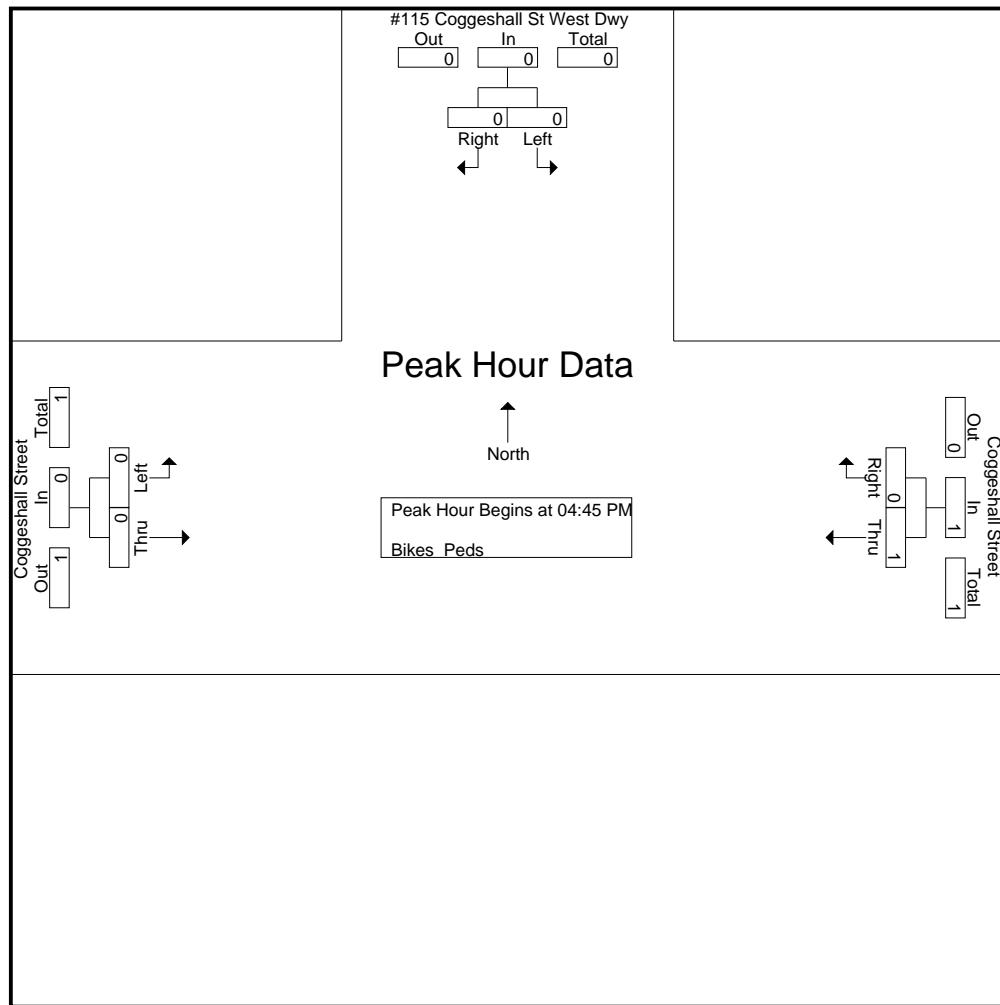
	#115 Coggeshall St West Dwy From North			Coggeshall Street From East			Coggeshall Street From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Excl. Total	Incl. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	1	0	0	0	0	0	0	1	0	1
04:45 PM	0	0	3	0	0	0	0	0	0	3	0	3
Total	0	0	4	0	0	0	0	0	0	4	0	4
05:00 PM	0	0	1	0	0	0	0	0	0	1	0	1
05:15 PM	0	0	1	0	0	0	0	0	0	1	0	1
05:30 PM	0	0	0	1	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	1	0	0	0	0	0	2	1	3
Grand Total	0	0	6	1	0	0	0	0	0	6	1	7
Apprch %	0	0		100	0		0	0				
Total %	0	0		100	0		0	0		85.7	14.3	

	#115 Coggeshall St West Dwy From North			Coggeshall Street From East			Coggeshall Street From West					
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total			Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 04:45 PM												
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	1	0	1	0	0	0	0	0	1
Total Volume	0	0	0	1	0	1	0	0	0	0	0	1
% App. Total	0	0		100	0		0	0				
PHF	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061002
 Site Code : 91061002
 Start Date : 12/3/2020
 Page No : 11



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

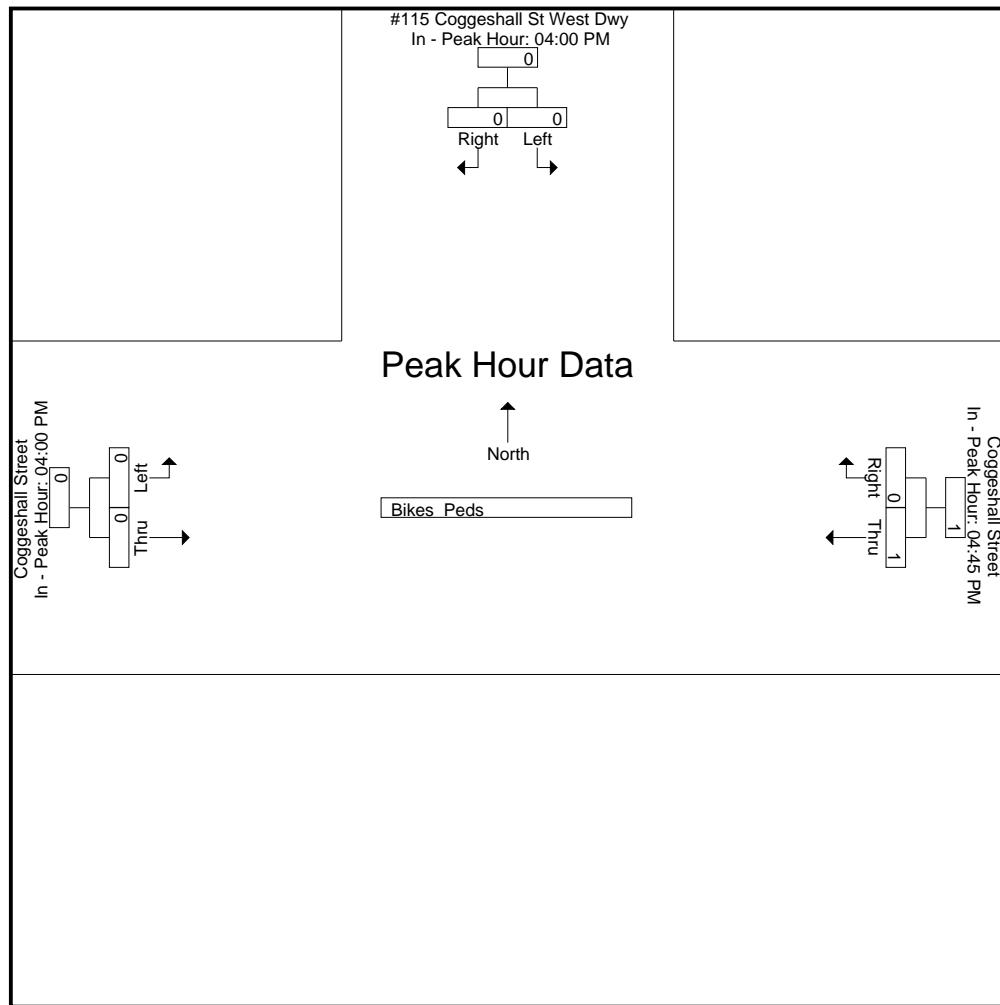
Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	0	0	1	0	1	0	0	0
% App. Total	0	0		100	0		0	0	
PHF	.000	.000	.000	.250	.000	.250	.000	.000	.000

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061002
Site Code : 91061002
Start Date : 12/3/2020
Page No : 12



Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S2
 Site Code : 91061002
 Start Date : 12/5/2020
 Page No : 1

Groups Printed- Cars - Trucks

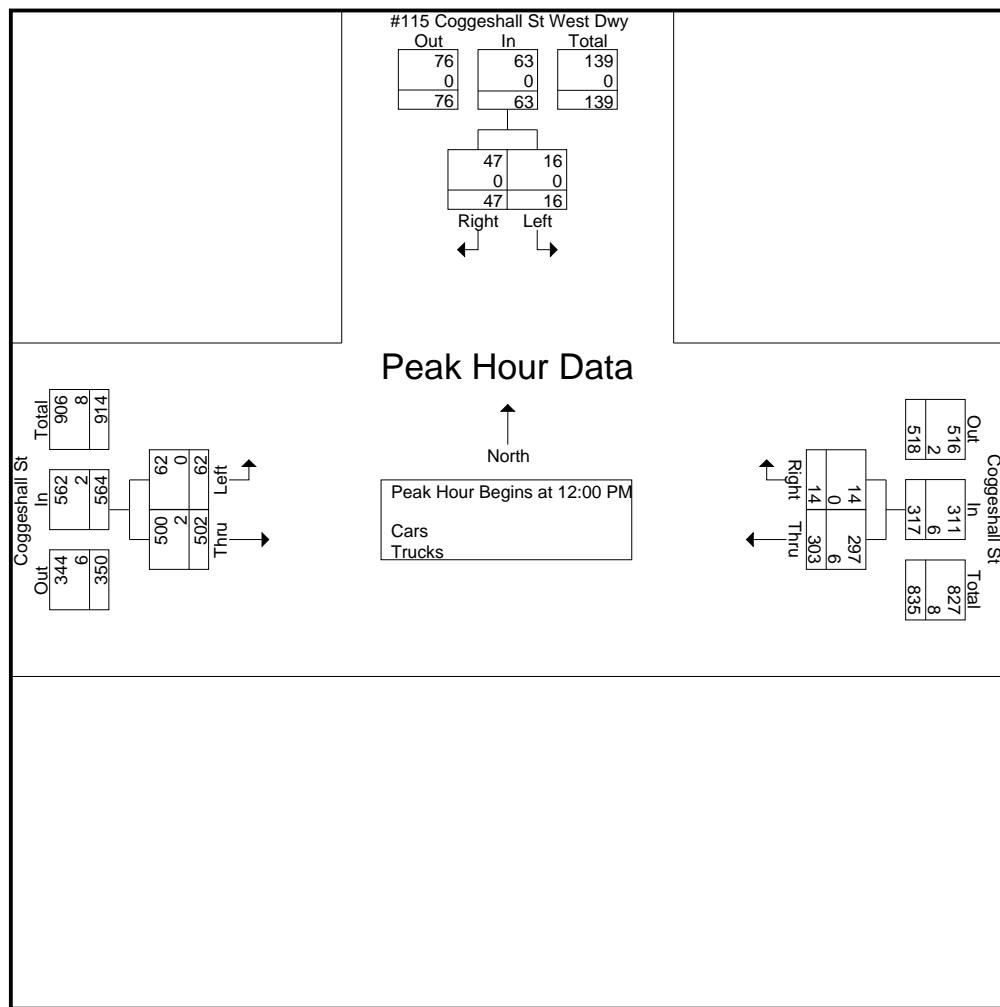
	#115 Coggeshall St West Dwy From North		Coggeshall St From East		Coggeshall St From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
11:00 AM	4	4	82	0	9	119	218
11:15 AM	1	12	77	5	11	118	224
11:30 AM	1	12	79	5	10	136	243
11:45 AM	2	10	66	2	11	121	212
Total	8	38	304	12	41	494	897
12:00 PM	7	12	74	3	11	129	236
12:15 PM	4	11	78	4	15	129	241
12:30 PM	2	12	81	3	18	110	226
12:45 PM	3	12	70	4	18	134	241
Total	16	47	303	14	62	502	944
Grand Total	24	85	607	26	103	996	1841
Apprch %	22	78	95.9	4.1	9.4	90.6	
Total %	1.3	4.6	33	1.4	5.6	54.1	
Cars	24	85	596	26	103	993	1827
% Cars	100	100	98.2	100	100	99.7	99.2
Trucks	0	0	11	0	0	3	14
% Trucks	0	0	1.8	0	0	0.3	0.8

	#115 Coggeshall St West Dwy From North			Coggeshall St From East			Coggeshall St From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	7	12	19	74	3	77	11	129	140	236
12:15 PM	4	11	15	78	4	82	15	129	144	241
12:30 PM	2	12	14	81	3	84	18	110	128	226
12:45 PM	3	12	15	70	4	74	18	134	152	241
Total Volume	16	47	63	303	14	317	62	502	564	944
% App. Total	25.4	74.6		95.6	4.4		11	89		
PHF	.571	.979	.829	.935	.875	.943	.861	.937	.928	.979
Cars	16	47	63	297	14	311	62	500	562	936
% Cars	100	100	100	98.0	100	98.1	100	99.6	99.6	99.2
Trucks	0	0	0	6	0	6	0	2	2	8
% Trucks	0	0	0	2.0	0	1.9	0	0.4	0.4	0.8

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S2
 Site Code : 91061002
 Start Date : 12/5/2020
 Page No : 2



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

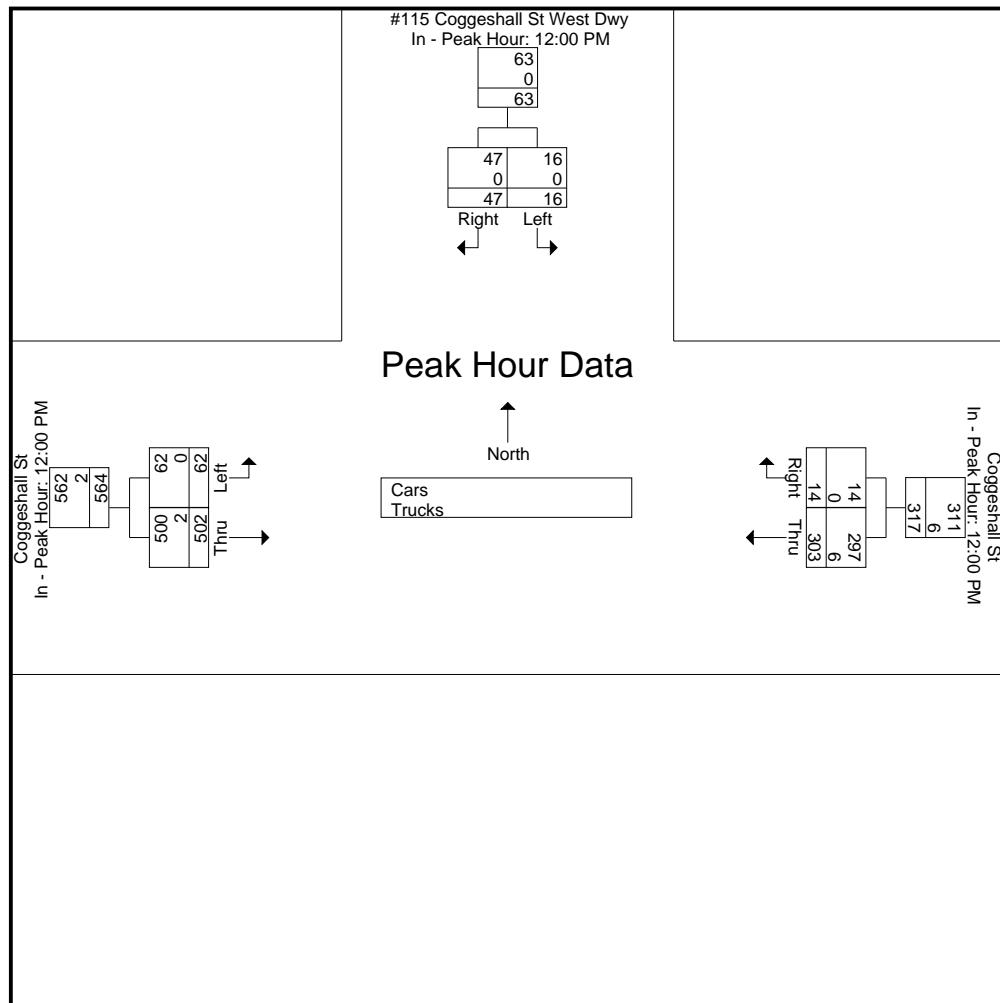
Peak Hour for Each Approach Begins at:

	12:00 PM			12:00 PM			12:00 PM		
+0 mins.	7	12	19	74	3	77	11	129	140
+15 mins.	4	11	15	78	4	82	15	129	144
+30 mins.	2	12	14	81	3	84	18	110	128
+45 mins.	3	12	15	70	4	74	18	134	152
Total Volume	16	47	63	303	14	317	62	502	564
% App. Total	25.4	74.6		95.6	4.4		11	89	
PHF	.571	.979	.829	.935	.875	.943	.861	.937	.928
Cars	16	47	63	297	14	311	62	500	562
% Cars	100	100	100	98	100	98.1	100	99.6	99.6
Trucks	0	0	0	6	0	6	0	2	2
% Trucks	0	0	0	2	0	1.9	0	0.4	0.4

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S2
Site Code : 91061002
Start Date : 12/5/2020
Page No : 3



Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S2
 Site Code : 91061002
 Start Date : 12/5/2020
 Page No : 4

Groups Printed- Cars

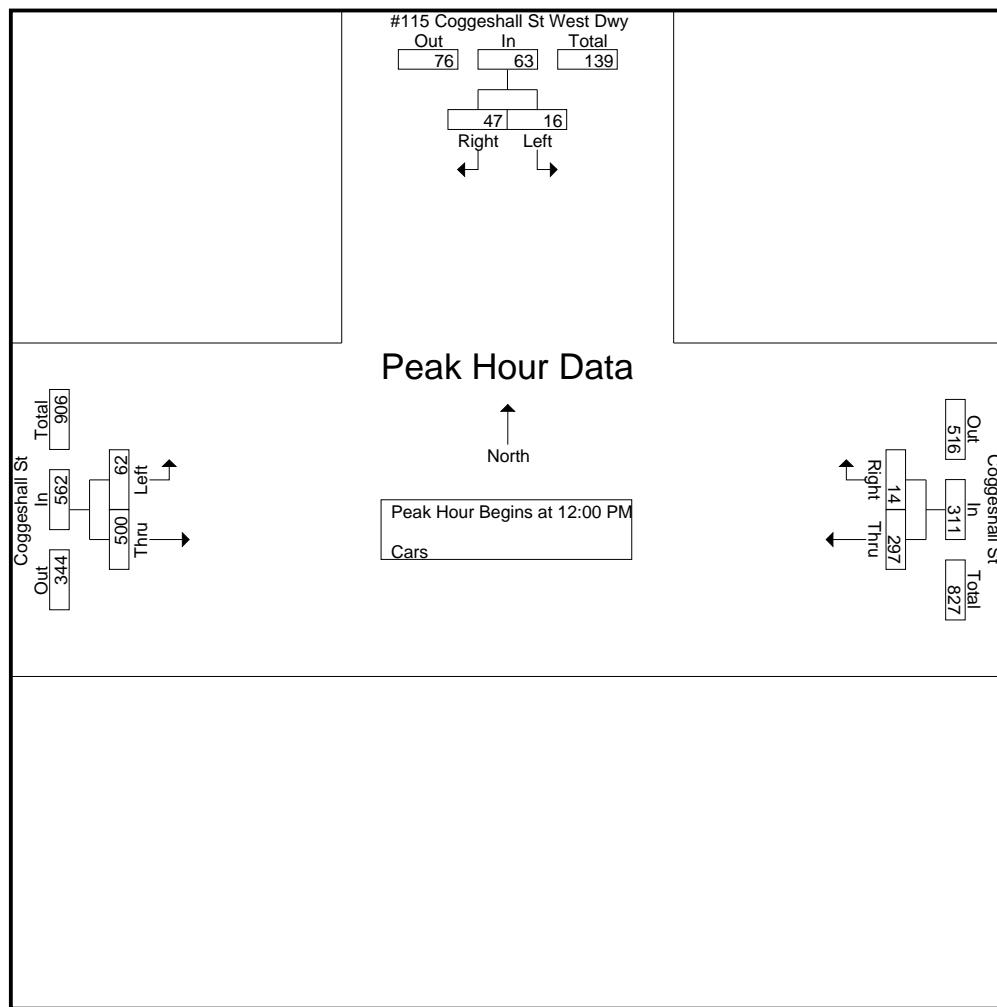
		#115 Coggeshall St West Dwy From North		Coggeshall St From East		Coggeshall St From West		
Start Time		Left	Right	Thru	Right	Left	Thru	Int. Total
11:00 AM		4	4	80	0	9	119	216
11:15 AM		1	12	77	5	11	117	223
11:30 AM		1	12	76	5	10	136	240
11:45 AM		2	10	66	2	11	121	212
Total		8	38	299	12	41	493	891
12:00 PM		7	12	71	3	11	129	233
12:15 PM		4	11	78	4	15	129	241
12:30 PM		2	12	79	3	18	109	223
12:45 PM		3	12	69	4	18	133	239
Total		16	47	297	14	62	500	936
Grand Total		24	85	596	26	103	993	1827
Apprch %		22	78	95.8	4.2	9.4	90.6	
Total %		1.3	4.7	32.6	1.4	5.6	54.4	

		#115 Coggeshall St West Dwy From North			Coggeshall St From East			Coggeshall St From West			
Start Time		Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 12:00 PM											
12:00 PM		7	12	19	71	3	74	11	129	140	233
12:15 PM		4	11	15	78	4	82	15	129	144	241
12:30 PM		2	12	14	79	3	82	18	109	127	223
12:45 PM		3	12	15	69	4	73	18	133	151	239
Total Volume		16	47	63	297	14	311	62	500	562	936
% App. Total		25.4	74.6		95.5	4.5		11	89		
PHF		.571	.979	.829	.940	.875	.948	.861	.940	.930	.971

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S2
 Site Code : 91061002
 Start Date : 12/5/2020
 Page No : 5



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

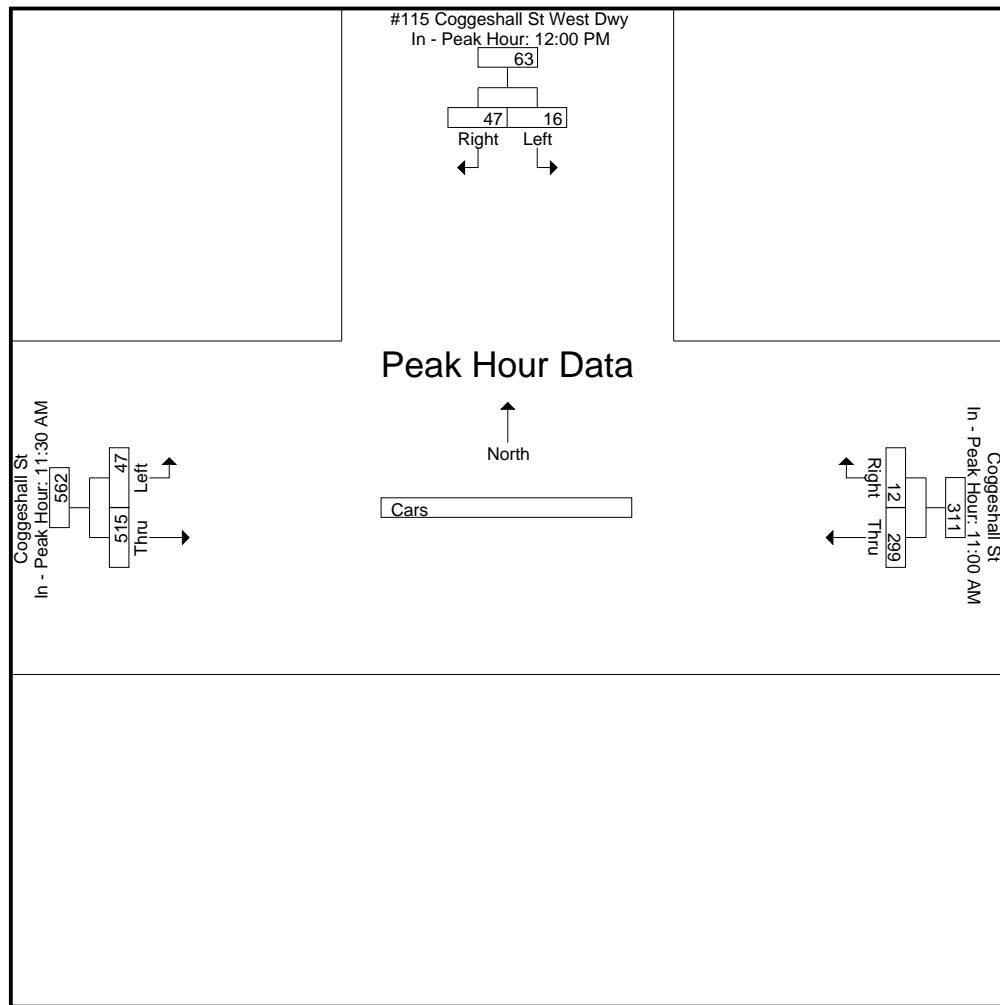
Peak Hour for Each Approach Begins at:

	12:00 PM			11:00 AM			11:30 AM		
+0 mins.	7	12	19	80	0	80	10	136	146
+15 mins.	4	11	15	77	5	82	11	121	132
+30 mins.	2	12	14	76	5	81	11	129	140
+45 mins.	3	12	15	66	2	68	15	129	144
Total Volume	16	47	63	299	12	311	47	515	562
% App. Total	25.4	74.6		96.1	3.9		8.4	91.6	
PHF	.571	.979	.829	.934	.600	.948	.783	.947	.962

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S2
Site Code : 91061002
Start Date : 12/5/2020
Page No : 6



Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S2
 Site Code : 91061002
 Start Date : 12/5/2020
 Page No : 7

Groups Printed- Trucks

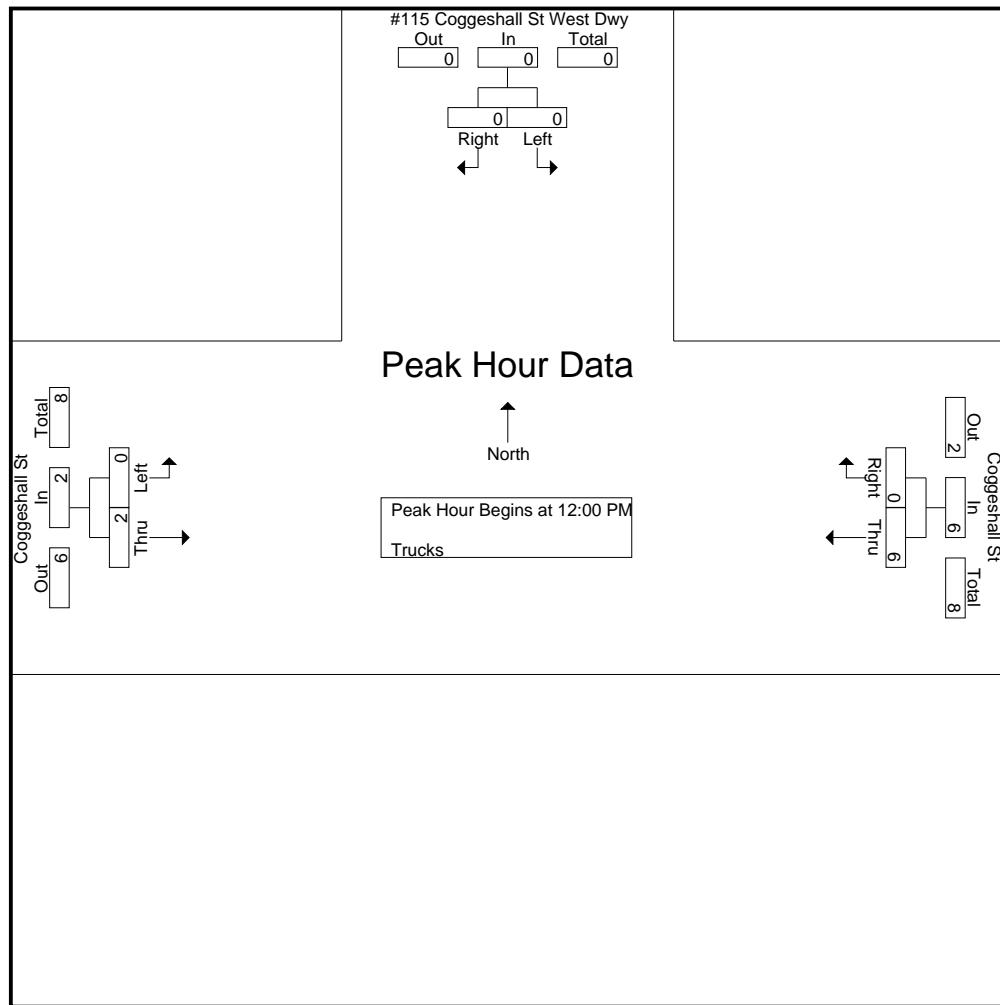
		#115 Coggeshall St West Dwy From North		Coggeshall St From East		Coggeshall St From West		
Start Time		Left	Right	Thru	Right	Left	Thru	Int. Total
11:00 AM		0	0	2	0	0	0	2
11:15 AM		0	0	0	0	0	1	1
11:30 AM		0	0	3	0	0	0	3
11:45 AM		0	0	0	0	0	0	0
Total		0	0	5	0	0	1	6
12:00 PM		0	0	3	0	0	0	3
12:15 PM		0	0	0	0	0	0	0
12:30 PM		0	0	2	0	0	1	3
12:45 PM		0	0	1	0	0	1	2
Total		0	0	6	0	0	2	8
Grand Total		0	0	11	0	0	3	14
Apprch %		0	0	100	0	0	100	
Total %		0	0	78.6	0	0	21.4	

		#115 Coggeshall St West Dwy From North			Coggeshall St From East			Coggeshall St From West			
Start Time		Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 12:00 PM											
12:00 PM		0	0	0	3	0	3	0	0	0	3
12:15 PM		0	0	0	0	0	0	0	0	0	0
12:30 PM		0	0	0	2	0	2	0	1	1	3
12:45 PM		0	0	0	1	0	1	0	1	1	2
Total Volume		0	0	0	6	0	6	0	2	2	8
% App. Total		0	0		100	0		0	100		
PHF		.000	.000	.000	.500	.000	.500	.000	.500	.500	.667

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S2
 Site Code : 91061002
 Start Date : 12/5/2020
 Page No : 8



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

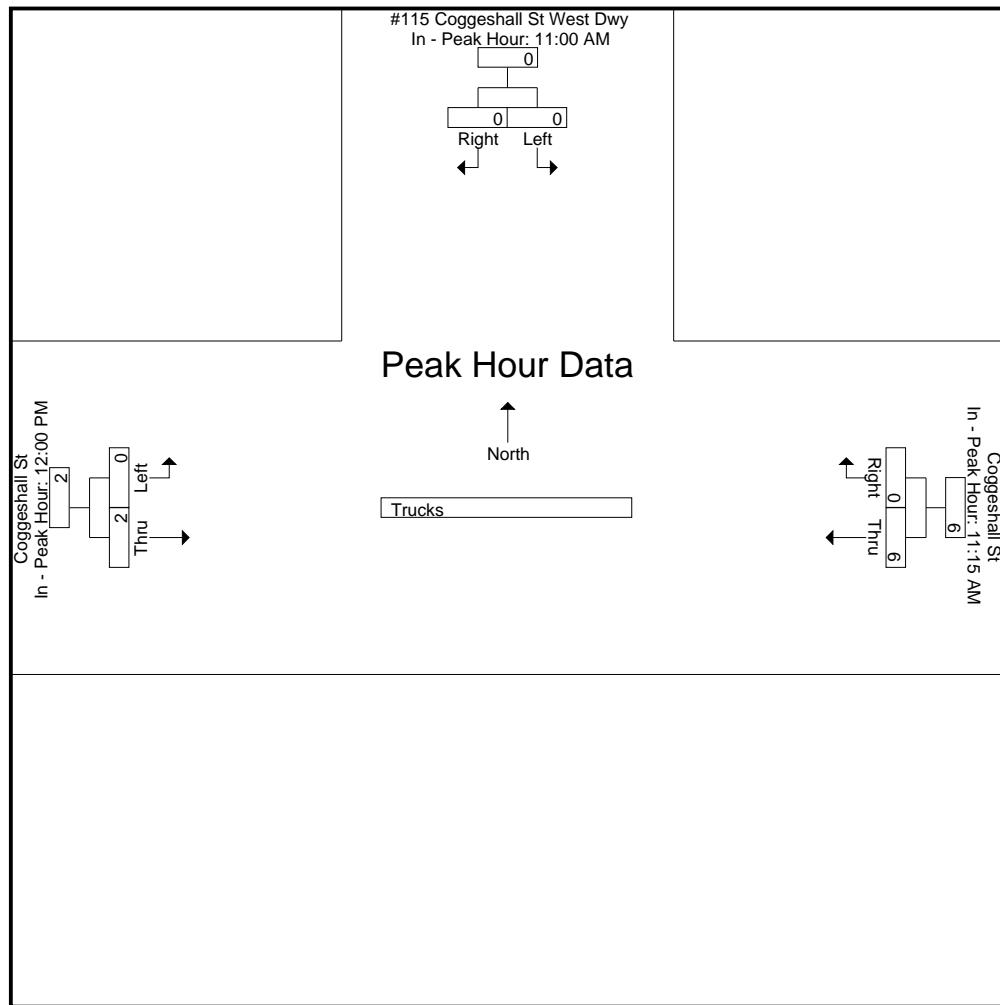
Peak Hour for Each Approach Begins at:

	11:00 AM	11:15 AM	12:00 PM	
+0 mins.	0	0	0	0
+15 mins.	0	0	3	0
+30 mins.	0	0	0	1
+45 mins.	0	3	3	1
Total Volume	0	6	6	2
% App. Total	0	100	0	100
PHF	.000	.500	.500	.500

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S2
Site Code : 91061002
Start Date : 12/5/2020
Page No : 9



Accurate Counts

N/S Street : #115 Coggeshall St West Dwy
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

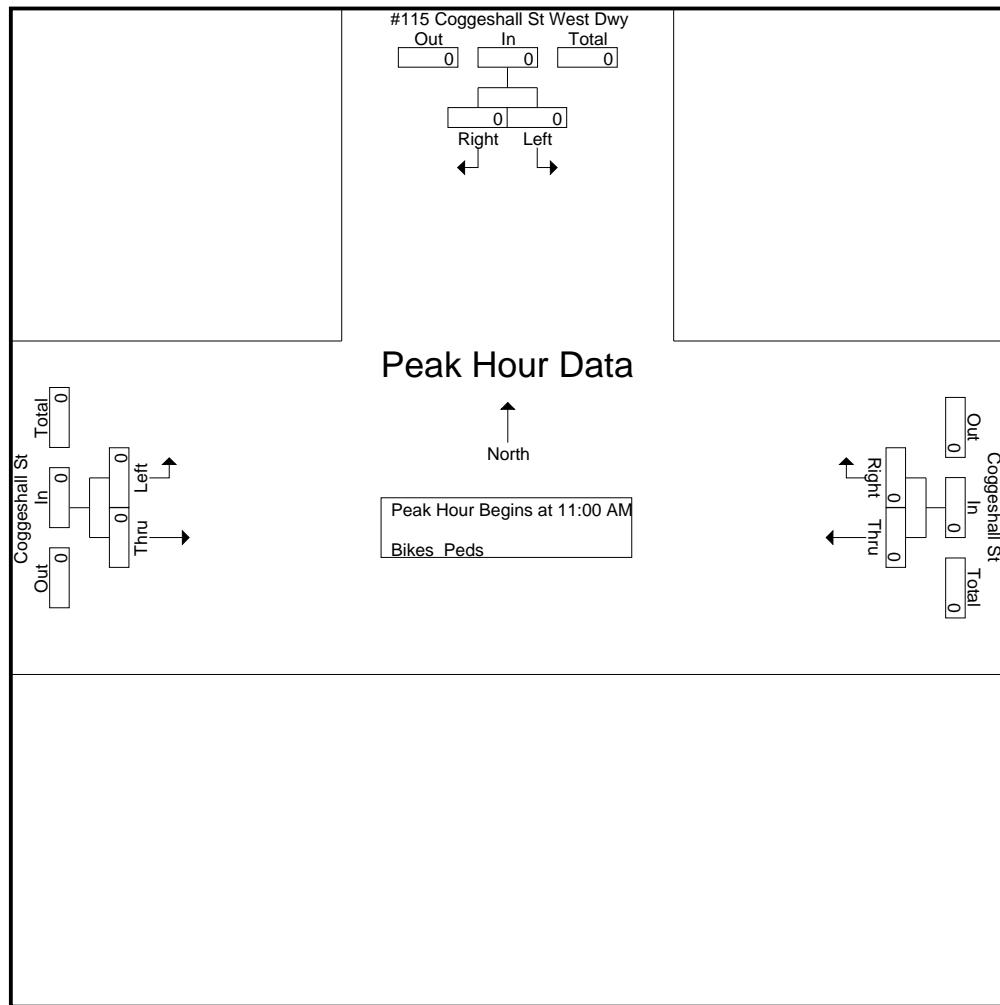
File Name : 910610S2
Site Code : 91061002
Start Date : 12/5/2020
Page No : 10

	#115 Coggeshall St West Dwy From North			Coggeshall St From East			Coggeshall St From West			Groups Printed- Bikes Peds		
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Excl. Total	Incl. Total	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	2	0	0	0	0	0	0	2	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	0	0	0	0	0	0	2	0	2
Grand Total	0	0	2	0	0	0	0	0	0	2	0	2
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0
Total %										100	0	0

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwyr
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S2
Site Code : 91061002
Start Date : 12/5/2020
Page No : 11



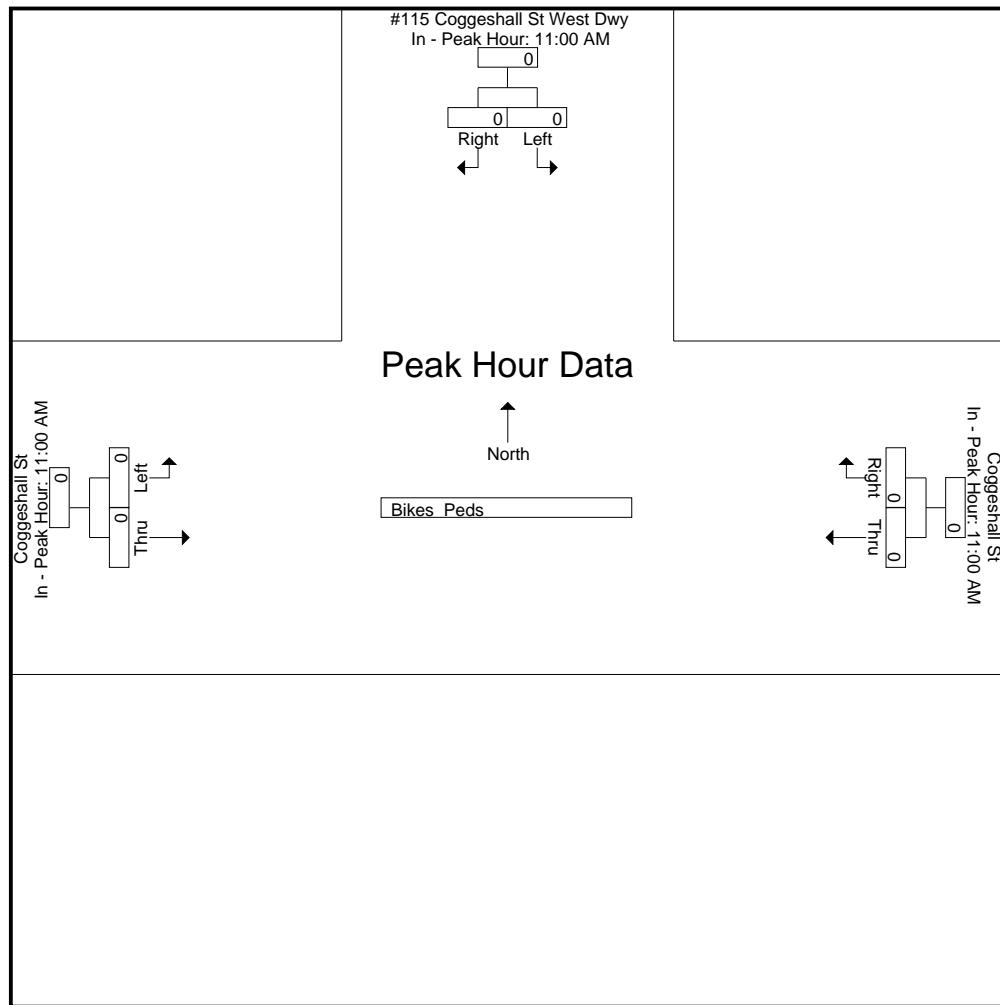
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

Peak Hour Analysis From 11:00 AM to 12:00 PM

Accurate Counts
978-664-2565

N/S Street : #115 Coggeshall St West Dwy
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S2
Site Code : 91061002
Start Date : 12/5/2020
Page No : 12



Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061003
 Site Code : 91061003
 Start Date : 12/3/2020
 Page No : 1

Groups Printed- Cars - Trucks

		Bellevue Ave From North			Coggeshall St From East			Bellevue Ave From South			Coggeshall St From West			
Start Time		Left	Thru	Right	Int. Total									
04:00 PM		39	35	33	34	81	25	16	45	116	24	85	14	547
04:15 PM		36	36	45	30	78	18	17	54	99	21	86	7	527
04:30 PM		28	29	25	35	92	26	9	51	100	18	78	14	505
04:45 PM		41	27	31	32	97	23	5	39	107	23	93	6	524
Total		144	127	134	131	348	92	47	189	422	86	342	41	2103
05:00 PM		38	39	34	36	94	24	12	44	106	24	80	9	540
05:15 PM		31	34	36	28	80	22	12	42	92	19	74	10	480
05:30 PM		30	27	37	27	83	18	8	34	86	20	69	10	449
05:45 PM		28	26	27	21	76	21	10	44	66	14	60	12	405
Total		127	126	134	112	333	85	42	164	350	77	283	41	1874
Grand Total		271	253	268	243	681	177	89	353	772	163	625	82	3977
Apprch %		34.2	31.9	33.8	22.1	61.9	16.1	7.3	29.1	63.6	18.7	71.8	9.4	
Total %		6.8	6.4	6.7	6.1	17.1	4.5	2.2	8.9	19.4	4.1	15.7	2.1	
Cars		267	252	265	242	667	177	89	352	768	162	617	82	3940
% Cars		98.5	99.6	98.9	99.6	97.9	100	100	99.7	99.5	99.4	98.7	100	99.1
Trucks		4	1	3	1	14	0	0	1	4	1	8	0	37
% Trucks		1.5	0.4	1.1	0.4	2.1	0	0	0.3	0.5	0.6	1.3	0	0.9

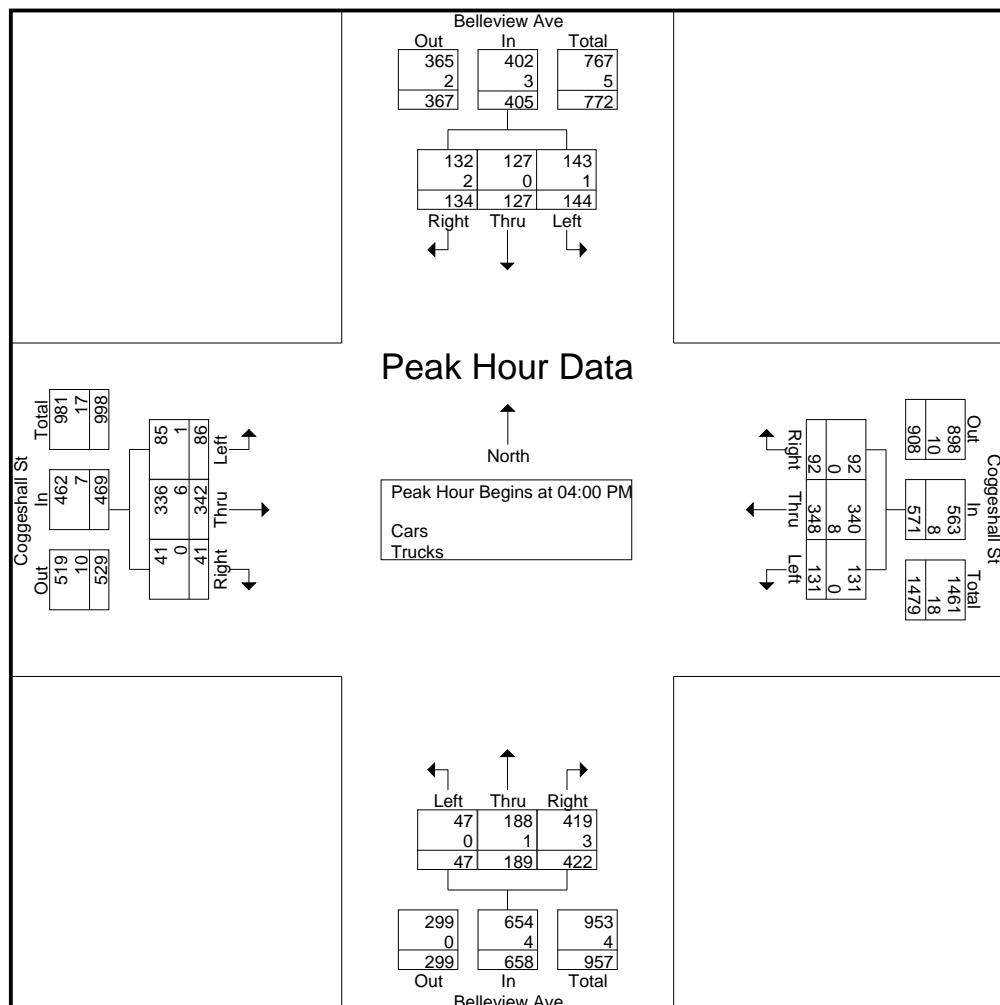
		Bellevue Ave From North			Coggeshall St From East			Bellevue Ave From South			Coggeshall St From West							
Start Time		Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total				
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:00 PM																		
04:00 PM		39	35	33	107	34	81	25	140	16	45	116	177	24	85	14	123	547
04:15 PM		36	36	45	117	30	78	18	126	17	54	99	170	21	86	7	114	527
04:30 PM		28	29	25	82	35	92	26	153	9	51	100	160	18	78	14	110	505
04:45 PM		41	27	31	99	32	97	23	152	5	39	107	151	23	93	6	122	524
Total Volume		144	127	134	405	131	348	92	571	47	189	422	658	86	342	41	469	2103
% App. Total		35.6	31.4	33.1		22.9	60.9	16.1		7.1	28.7	64.1		18.3	72.9	8.7		
PHF		.878	.882	.744	.865	.936	.897	.885	.933	.691	.875	.909	.929	.896	.919	.732	.953	.961
Cars		143	127	132	402	131	340	92	563	47	188	419	654	85	336	41	462	2081
% Cars		99.3	100	98.5	99.3	100	97.7	100	98.6	100	99.5	99.3	99.4	98.8	98.2	100	98.5	99.0
Trucks		1	0	2	3	0	8	0	8	0	1	3	4	1	6	0	7	22
% Trucks		0.7	0	1.5	0.7	0	2.3	0	1.4	0	0.5	0.7	0.6	1.2	1.8	0	1.5	1.0

Accurate Counts

978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061003
Site Code : 91061003
Start Date : 12/3/2020
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

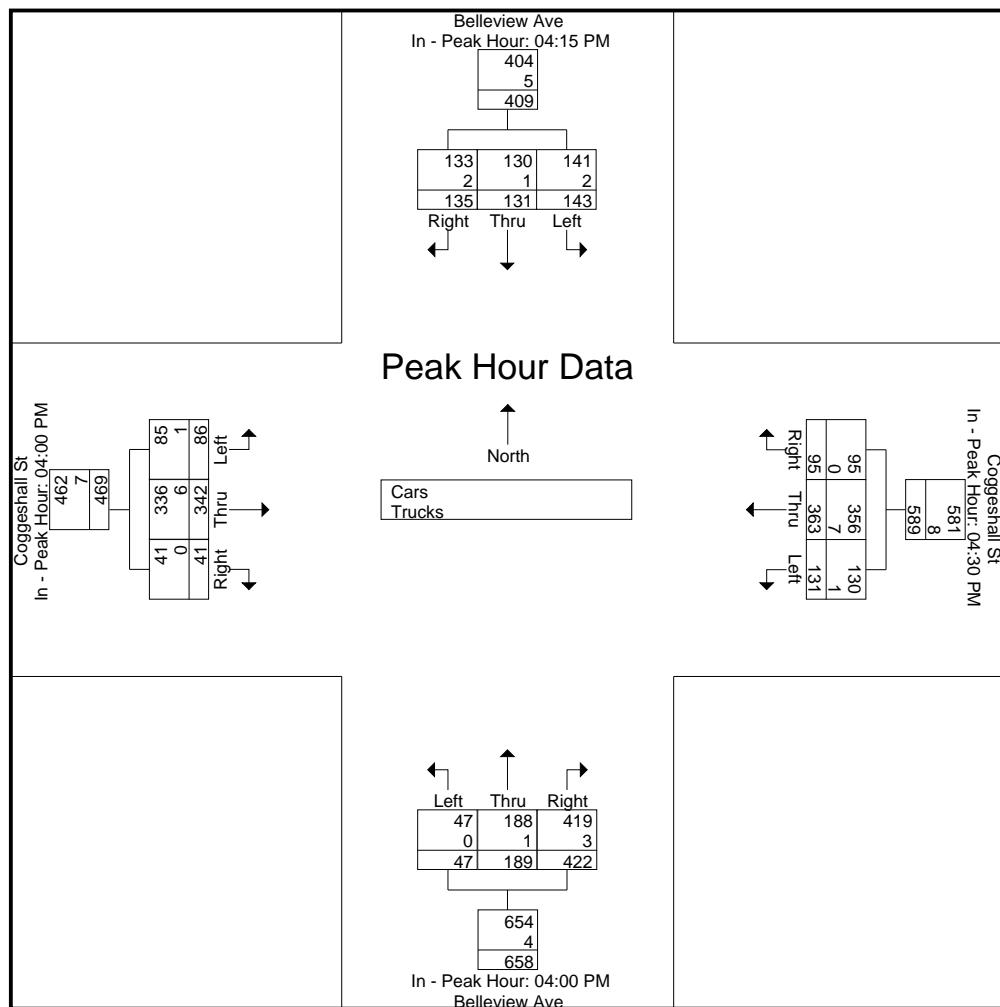
Peak Hour Analysis From 04:00 PM to 05:00 PM

	04:15 PM				04:30 PM				04:00 PM				04:00 PM			
+0 mins.	36	36	45	117	35	92	26	153	16	45	116	177	24	85	14	123
+15 mins.	28	29	25	82	32	97	23	152	17	54	99	170	21	86	7	114
+30 mins.	41	27	31	99	36	94	24	154	9	51	100	160	18	78	14	110
+45 mins.	38	39	34	111	28	80	22	130	5	39	107	151	23	93	6	122
Total Volume	143	131	135	409	131	363	95	589	47	189	422	658	86	342	41	469
% App. Total	35	32	33		22.2	61.6	16.1		7.1	28.7	64.1		18.3	72.9	8.7	
PHF	.872	.840	.750	.874	.910	.936	.913	.956	.691	.875	.909	.929	.896	.919	.732	.953
Cars	141	130	133	404	130	356	95	581	47	188	419	654	85	336	41	462
% Cars	98.6	99.2	98.5	98.8	99.2	98.1	100	98.6	100	99.5	99.3	99.4	98.8	98.2	100	98.5
Trucks	2	1	2	5	1	7	0	8	0	1	3	4	1	6	0	7
% Trucks	1.4	0.8	1.5	1.2	0.8	1.9	0	1.4	0	0.5	0.7	0.6	1.2	1.8	0	1.5

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061003
Site Code : 91061003
Start Date : 12/3/2020
Page No : 3



Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061003
 Site Code : 91061003
 Start Date : 12/3/2020
 Page No : 4

Groups Printed- Cars

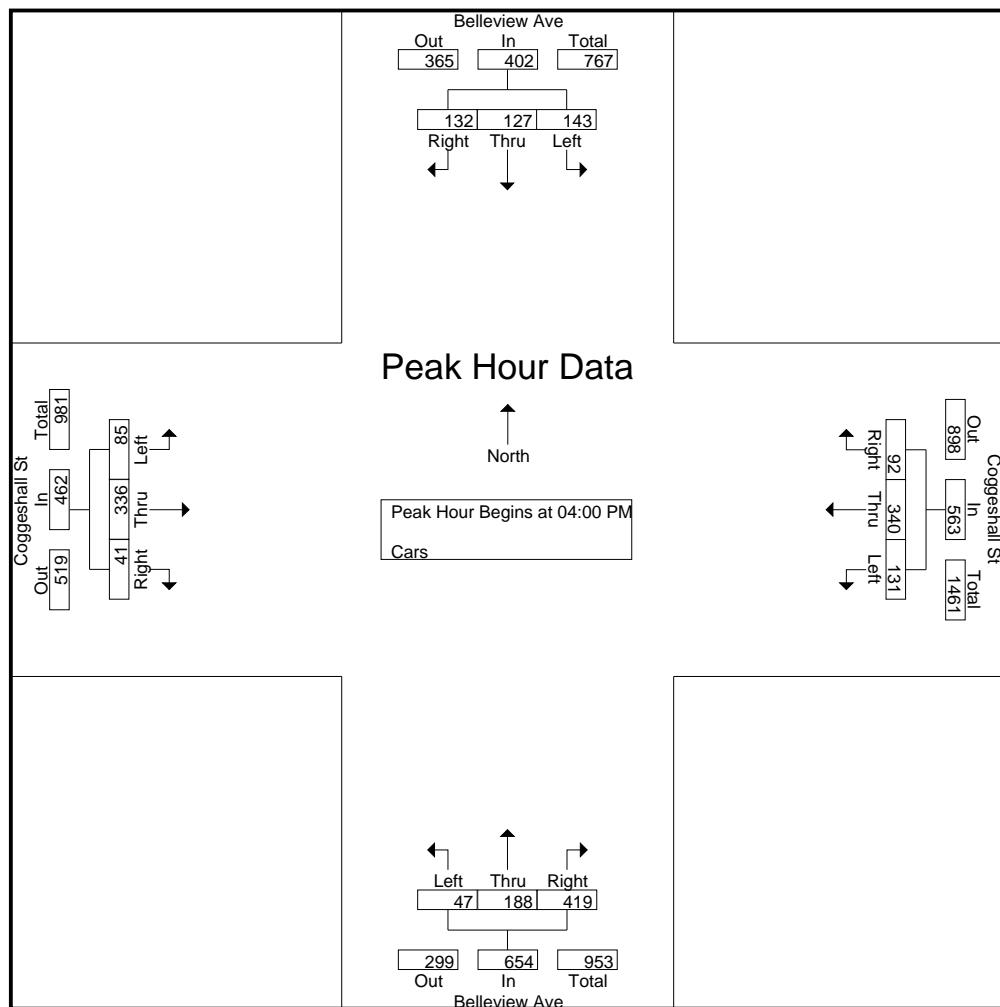
	Bellevue Ave From North			Coggeshall St From East			Bellevue Ave From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Int. Total									
04:00 PM	39	35	33	34	78	25	16	45	114	23	81	14	537
04:15 PM	36	36	43	30	77	18	17	54	99	21	86	7	524
04:30 PM	28	29	25	35	91	26	9	51	99	18	78	14	503
04:45 PM	40	27	31	32	94	23	5	38	107	23	91	6	517
Total	143	127	132	131	340	92	47	188	419	85	336	41	2081
05:00 PM	37	38	34	35	93	24	12	44	105	24	79	9	534
05:15 PM	29	34	35	28	78	22	12	42	92	19	74	10	475
05:30 PM	30	27	37	27	82	18	8	34	86	20	68	10	447
05:45 PM	28	26	27	21	74	21	10	44	66	14	60	12	403
Total	124	125	133	111	327	85	42	164	349	77	281	41	1859
Grand Total	267	252	265	242	667	177	89	352	768	162	617	82	3940
Apprch %	34.1	32.1	33.8	22.3	61.4	16.3	7.4	29.1	63.5	18.8	71.7	9.5	
Total %	6.8	6.4	6.7	6.1	16.9	4.5	2.3	8.9	19.5	4.1	15.7	2.1	

	Bellevue Ave From North				Coggeshall St From East				Bellevue Ave From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	39	35	33	107	34	78	25	137	16	45	114	175	23	81	14	118	537
04:15 PM	36	36	43	115	30	77	18	125	17	54	99	170	21	86	7	114	524
04:30 PM	28	29	25	82	35	91	26	152	9	51	99	159	18	78	14	110	503
04:45 PM	40	27	31	98	32	94	23	149	5	38	107	150	23	91	6	120	517
Total Volume	143	127	132	402	131	340	92	563	47	188	419	654	85	336	41	462	2081
% App. Total	35.6	31.6	32.8		23.3	60.4	16.3		7.2	28.7	64.1		18.4	72.7	8.9		
PHF	.894	.882	.767	.874	.936	.904	.885	.926	.691	.870	.919	.934	.924	.923	.732	.963	.969

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061003
 Site Code : 91061003
 Start Date : 12/3/2020
 Page No : 5



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

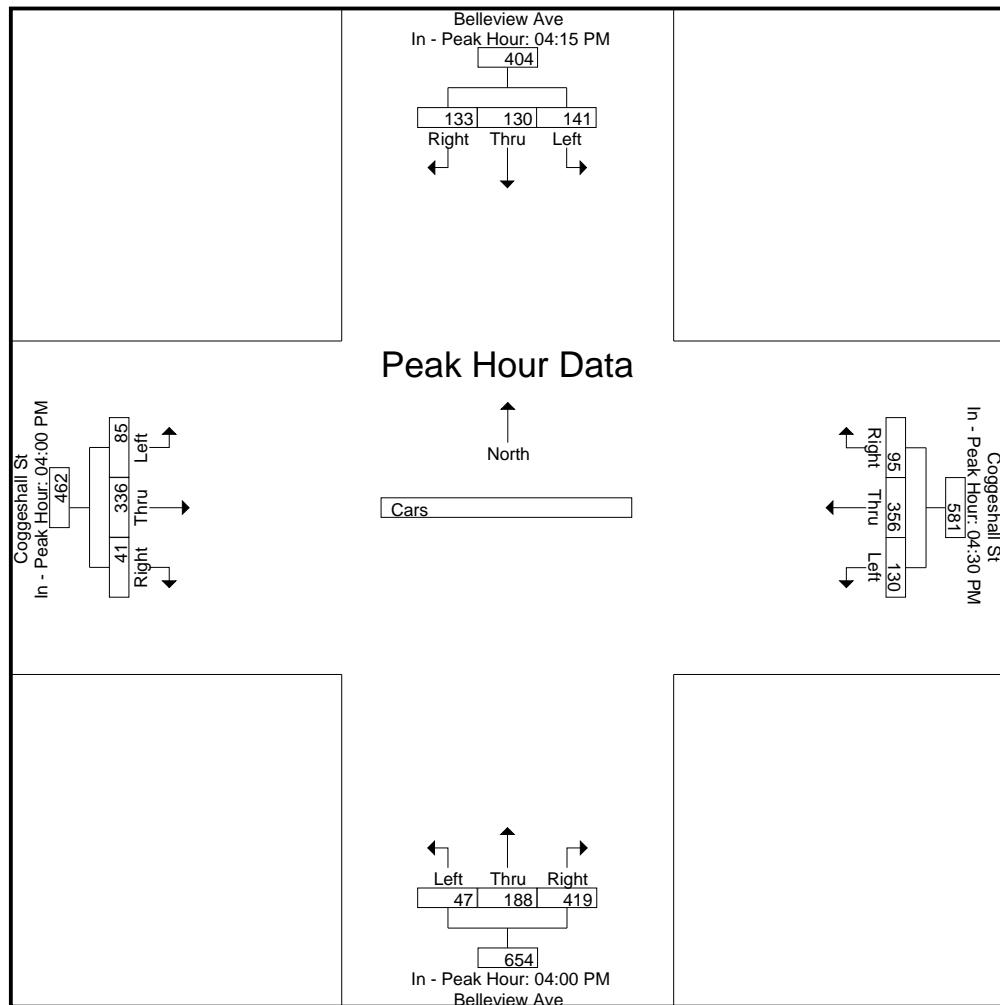
Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				04:00 PM				04:00 PM			
	36	36	43	115	35	91	26	152	16	45	114	175	23	81	14	118
+0 mins.	36	36	43	115	35	91	26	152	16	45	114	175	23	81	14	118
+15 mins.	28	29	25	82	32	94	23	149	17	54	99	170	21	86	7	114
+30 mins.	40	27	31	98	35	93	24	152	9	51	99	159	18	78	14	110
+45 mins.	37	38	34	109	28	78	22	128	5	38	107	150	23	91	6	120
Total Volume	141	130	133	404	130	356	95	581	47	188	419	654	85	336	41	462
% App. Total	34.9	32.2	32.9		22.4	61.3	16.4		7.2	28.7	64.1		18.4	72.7	8.9	
PHF	.881	.855	.773	.878	.929	.947	.913	.956	.691	.870	.919	.934	.924	.923	.732	.963

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061003
Site Code : 91061003
Start Date : 12/3/2020
Page No : 6



Accurate Counts

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061003
Site Code : 91061003
Start Date : 12/3/2020
Page No : 7

Groups Printed- Trucks

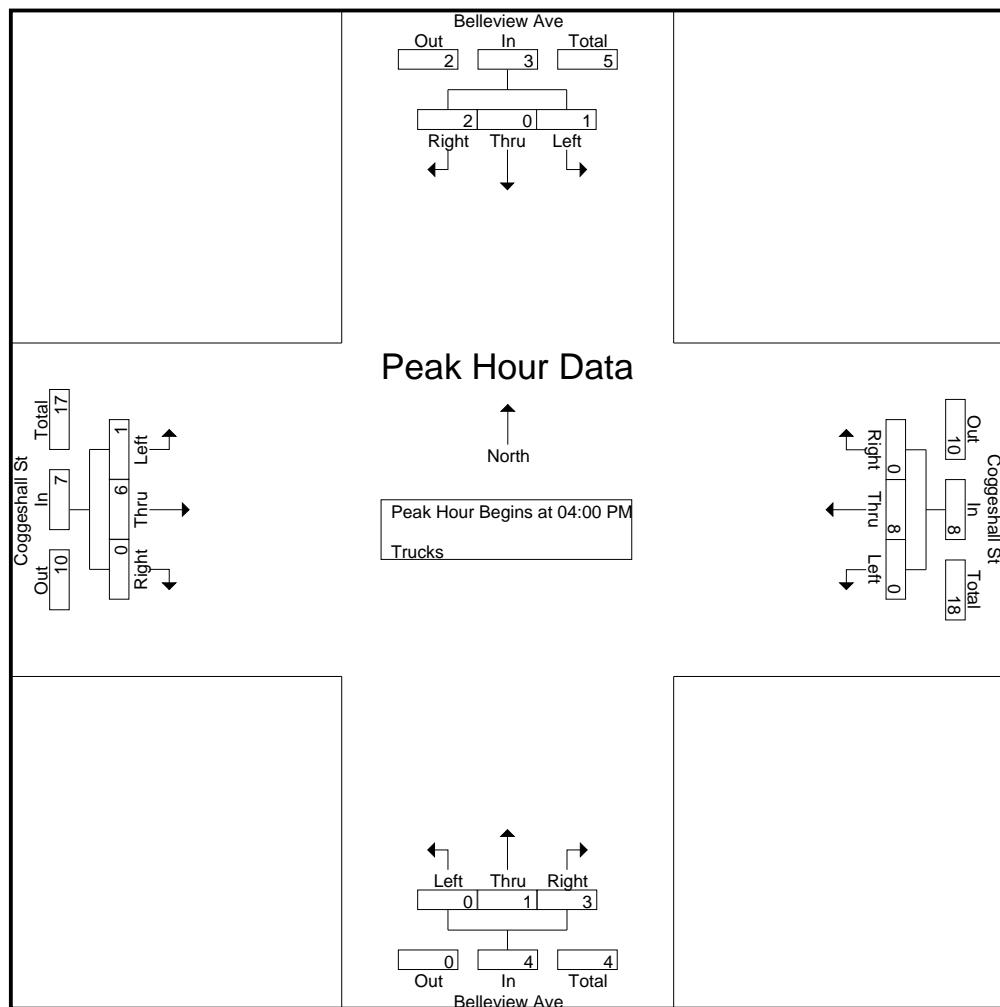
	Bellevue Ave From North			Coggeshall St From East			Bellevue Ave From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Int. Total									
04:00 PM	0	0	0	0	3	0	0	0	2	1	4	0	10
04:15 PM	0	0	2	0	1	0	0	0	0	0	0	0	3
04:30 PM	0	0	0	0	1	0	0	0	1	0	0	0	2
04:45 PM	1	0	0	0	3	0	0	1	0	0	2	0	7
Total	1	0	2	0	8	0	0	1	3	1	6	0	22
05:00 PM	1	1	0	1	1	0	0	0	1	0	1	0	6
05:15 PM	2	0	1	0	2	0	0	0	0	0	0	0	5
05:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
05:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
Total	3	1	1	1	6	0	0	0	1	0	2	0	15
Grand Total	4	1	3	1	14	0	0	1	4	1	8	0	37
Apprch %	50	12.5	37.5	6.7	93.3	0	0	20	80	11.1	88.9	0	
Total %	10.8	2.7	8.1	2.7	37.8	0	0	2.7	10.8	2.7	21.6	0	

	Bellevue Ave From North				Coggeshall St From East				Bellevue Ave From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	3	0	3	0	0	2	2	1	4	0	5	10
04:15 PM	0	0	2	2	0	1	0	1	0	0	0	0	0	0	0	0	3
04:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
04:45 PM	1	0	0	1	0	3	0	3	0	1	0	1	0	2	0	2	7
Total Volume	1	0	2	3	0	8	0	8	0	1	3	4	1	6	0	7	22
% App. Total	33.3	0	66.7		0	100	0		0	25	75		14.3	85.7	0		
PHF	.250	.000	.250	.375	.000	.667	.000	.667	.000	.250	.375	.500	.250	.375	.000	.350	.550

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061003
Site Code : 91061003
Start Date : 12/3/2020
Page No : 8



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

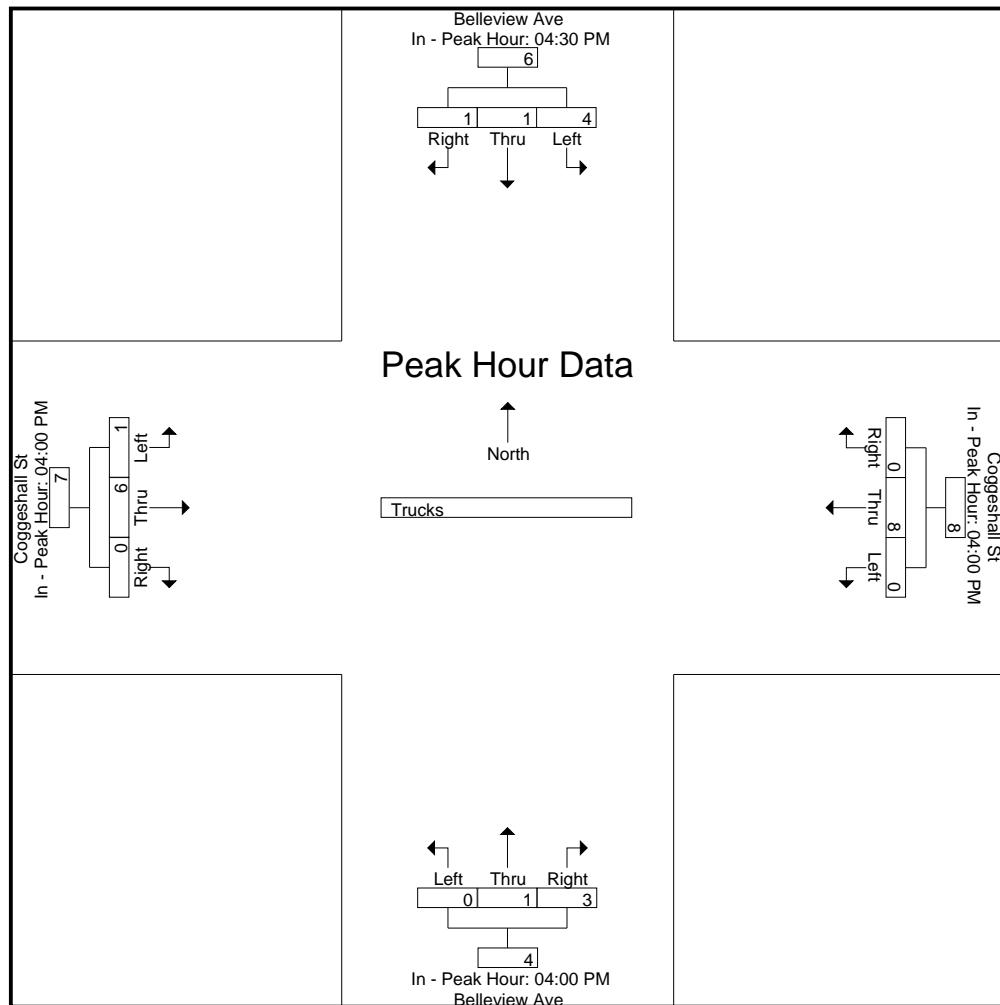
Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	3	0	3	0	0	2	2	1	4	0	5
+15 mins.	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	1	1	0	2	0	1	0	1	0	0	1	1	0	0	0	0
+45 mins.	2	0	1	3	0	3	0	3	0	1	0	1	0	2	0	2
Total Volume	4	1	1	6	0	8	0	8	0	1	3	4	1	6	0	7
% App. Total	66.7	16.7	16.7		0	100	0		0	25	75		14.3	85.7	0	
PHF	.500	.250	.250	.500	.000	.667	.000	.667	.000	.250	.375	.500	.250	.375	.000	.350

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061003
Site Code : 91061003
Start Date : 12/3/2020
Page No : 9



Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061003
 Site Code : 91061003
 Start Date : 12/3/2020
 Page No : 10

Groups Printed- Bikes Peds

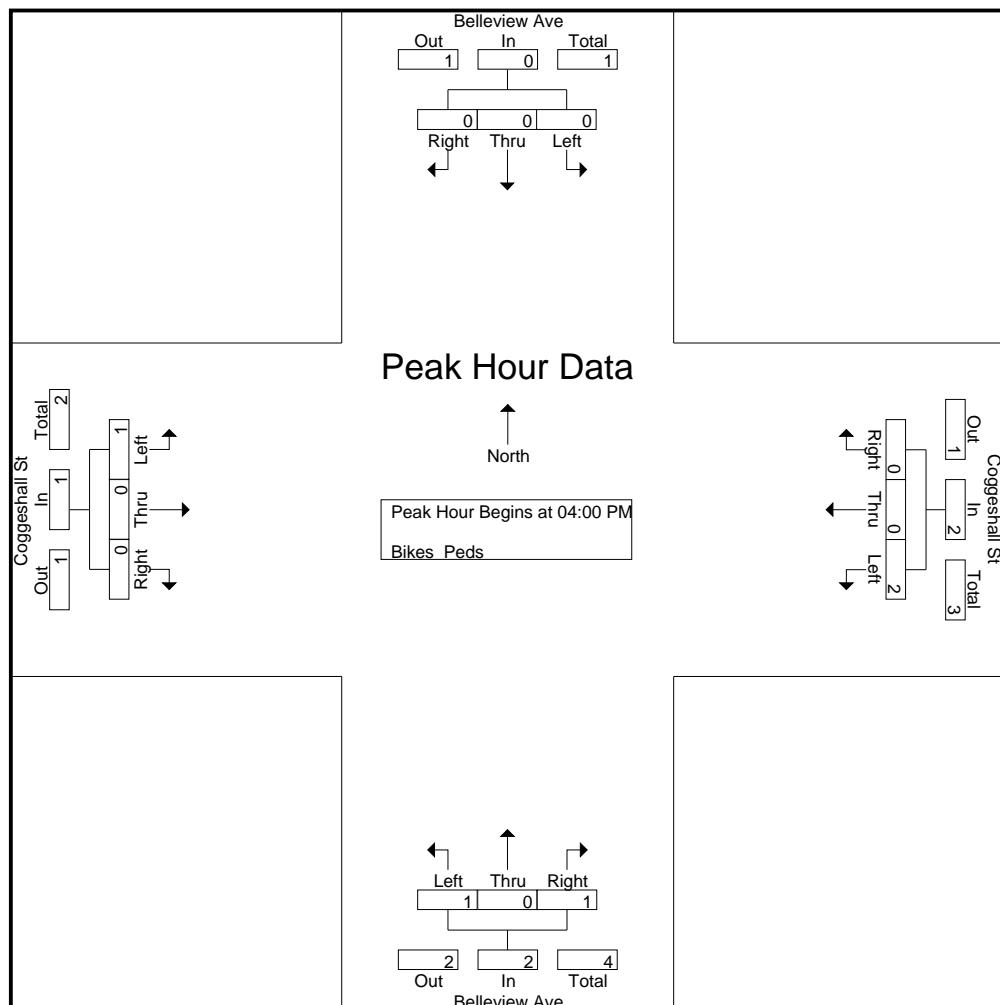
	Bellevue Ave From North				Coggeshall St From East				Bellevue Ave From South				Coggeshall St From West							
Start Time	Left	Thru	Right	Peds	Excl. Total	Inclu. Total	Int. Total													
04:00 PM	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	2	3	2	5
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
04:30 PM	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	1	2	2	4
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	2	1	3
Total	0	0	0	2	2	0	0	1	1	0	1	1	1	0	0	0	5	9	5	14
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
05:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	5	0	5
Grand Total	0	0	0	3	2	0	0	1	1	0	1	1	1	0	0	0	9	14	5	19
Apprch %	0	0	0		100	0	0		50	0	50		100	0	0	0				
Total %	0	0	0		40	0	0		20	0	20		20	0	0	0		73.7	26.3	

	Bellevue Ave From North				Coggeshall St From East				Bellevue Ave From South				Coggeshall St From West								
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total Volume	0	0	0	0	2	0	0	2	1	0	1	2	1	0	0	0	1	0	0	1	5
% App. Total	0	0	0		100	0	0		50	0	50		100	0	0	0					
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.250	.000	.250	.500	.250	.000	.000	.250	.625				

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061003
 Site Code : 91061003
 Start Date : 12/3/2020
 Page No : 11



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

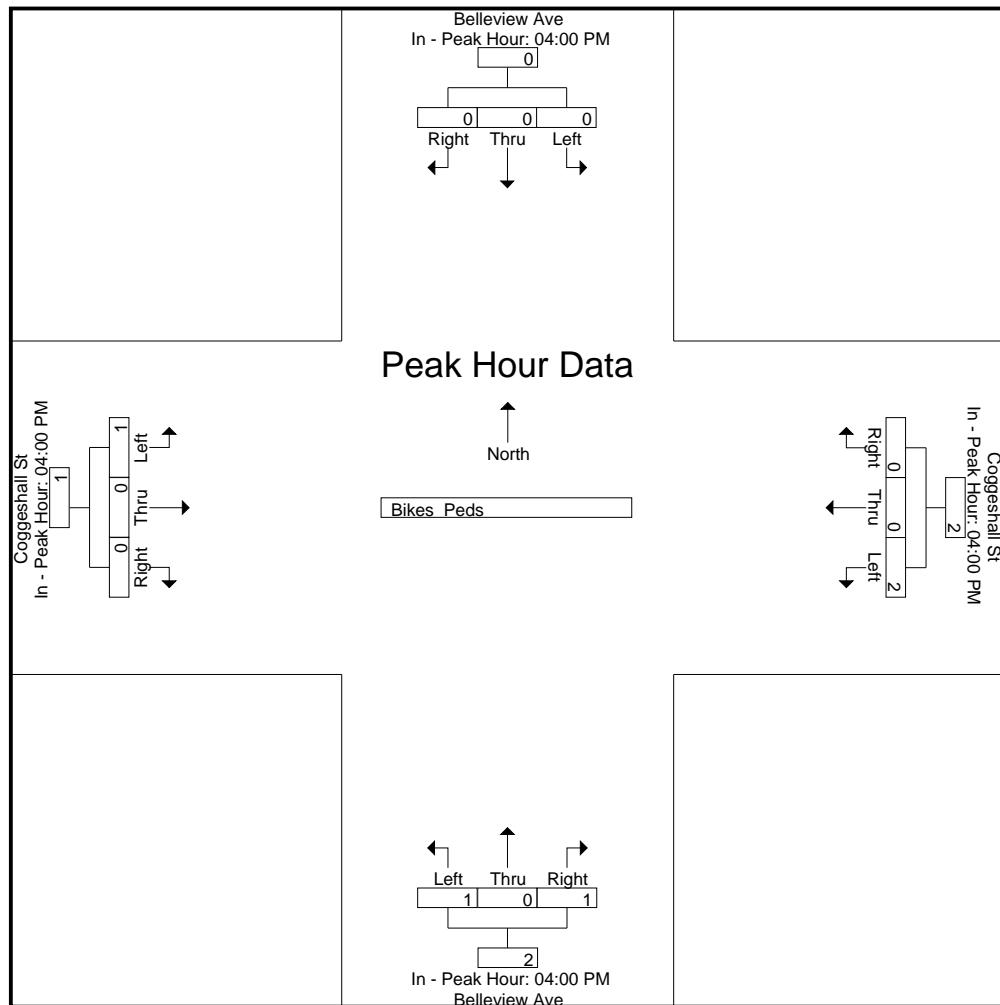
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total Volume	0	0	0	0	2	0	0	2	1	0	1	2	1	0	0	0	1
% App. Total	0	0	0	0	100	0	0	100	50	0	50	100	0	0	0	0	1
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.250	.000	.250	.500	.250	.000	.000	.250	

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061003
Site Code : 91061003
Start Date : 12/3/2020
Page No : 12



Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S3
 Site Code : 91061003
 Start Date : 12/5/2020
 Page No : 1

Groups Printed- Cars - Trucks

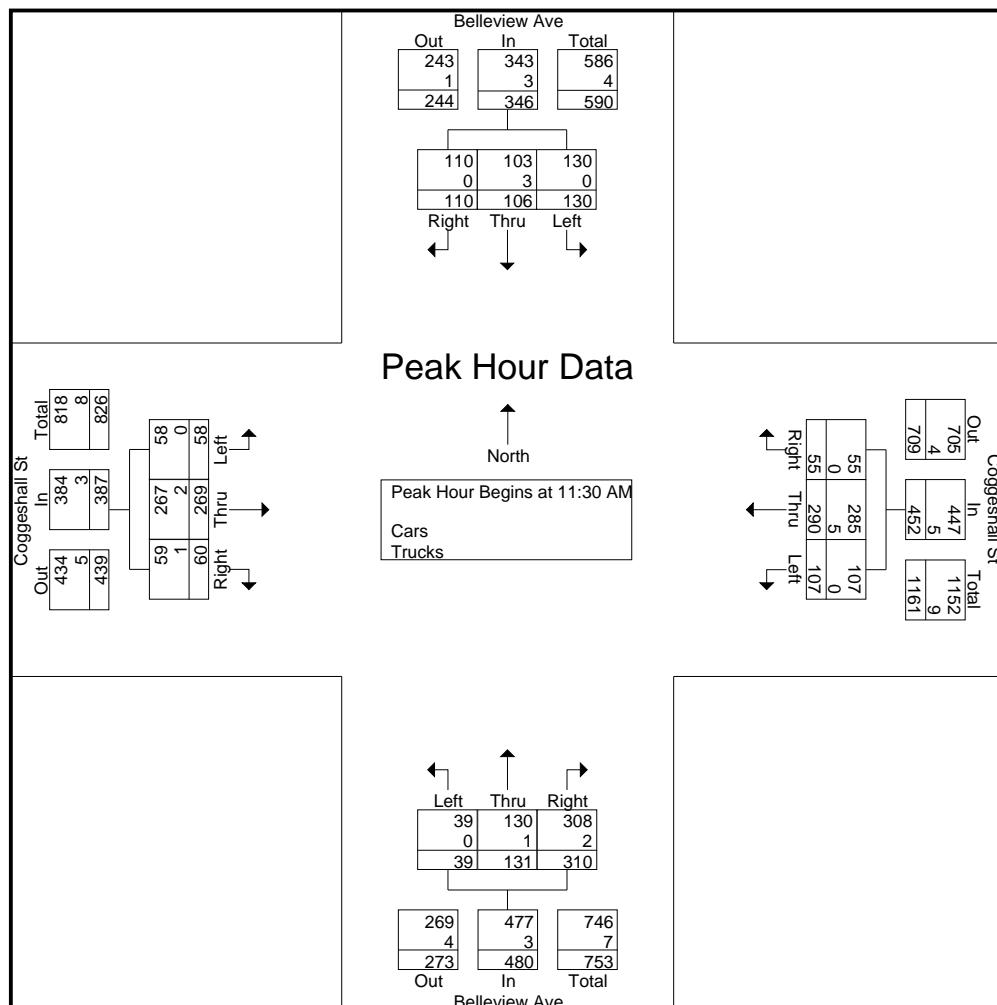
		Bellevue Ave From North			Coggeshall St From East			Bellevue Ave From South			Coggeshall St From West			
Start Time		Left	Thru	Right	Int. Total									
11:00 AM		11	12	10	37	70	22	16	23	89	12	73	21	396
11:15 AM		27	21	14	40	79	12	10	47	65	11	71	13	410
11:30 AM		36	42	18	29	77	8	10	36	71	12	65	16	420
11:45 AM		25	23	26	22	74	6	11	26	74	16	68	13	384
Total		99	98	68	128	300	48	47	132	299	51	277	63	1610
12:00 PM		42	23	37	28	60	21	11	33	76	15	68	15	429
12:15 PM		27	18	29	28	79	20	7	36	89	15	68	16	432
12:30 PM		26	36	24	27	70	15	2	21	59	17	70	13	380
12:45 PM		37	20	21	33	64	16	10	33	74	14	69	6	397
Total		132	97	111	116	273	72	30	123	298	61	275	50	1638
Grand Total		231	195	179	244	573	120	77	255	597	112	552	113	3248
Apprch %		38.2	32.2	29.6	26	61.2	12.8	8.3	27.4	64.3	14.4	71	14.5	
Total %		7.1	6	5.5	7.5	17.6	3.7	2.4	7.9	18.4	3.4	17	3.5	
Cars		228	191	179	244	565	120	77	254	594	112	548	112	3224
% Cars		98.7	97.9	100	100	98.6	100	100	99.6	99.5	100	99.3	99.1	99.3
Trucks		3	4	0	0	8	0	0	1	3	0	4	1	24
% Trucks		1.3	2.1	0	0	1.4	0	0	0.4	0.5	0	0.7	0.9	0.7

		Bellevue Ave From North			Coggeshall St From East			Bellevue Ave From South			Coggeshall St From West							
Start Time		Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total				
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 11:30 AM																		
11:30 AM		36	42	18	96	29	77	8	114	10	36	71	117	12	65	16	93	420
11:45 AM		25	23	26	74	22	74	6	102	11	26	74	111	16	68	13	97	384
12:00 PM		42	23	37	102	28	60	21	109	11	33	76	120	15	68	15	98	429
12:15 PM		27	18	29	74	28	79	20	127	7	36	89	132	15	68	16	99	432
Total Volume		130	106	110	346	107	290	55	452	39	131	310	480	58	269	60	387	1665
% App. Total		37.6	30.6	31.8		23.7	64.2	12.2		8.1	27.3	64.6		15	69.5	15.5		
PHF		.774	.631	.743	.848	.922	.918	.655	.890	.886	.910	.871	.909	.906	.989	.938	.977	.964
Cars		130	103	110	343	107	285	55	447	39	130	308	477	58	267	59	384	1651
% Cars		100	97.2	100	99.1	100	98.3	100	98.9	100	99.2	99.4	99.4	100	99.3	98.3	99.2	99.2
Trucks		0	3	0	3	0	5	0	5	0	1	2	3	0	2	1	3	14
% Trucks		0	2.8	0	0.9	0	1.7	0	1.1	0	0.8	0.6	0.6	0	0.7	1.7	0.8	0.8

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S3
 Site Code : 91061003
 Start Date : 12/5/2020
 Page No : 2



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

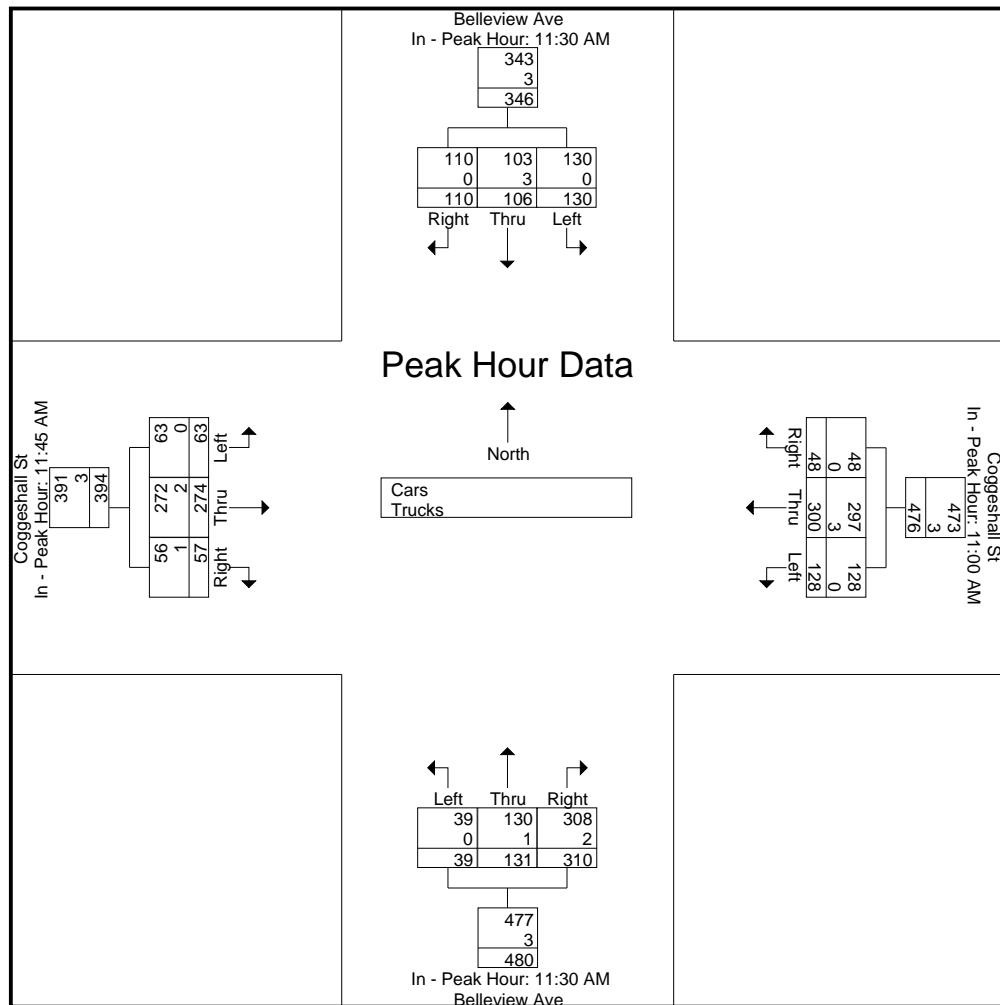
Peak Hour for Each Approach Begins at:

	11:30 AM				11:00 AM				11:30 AM				11:45 AM			
+0 mins.	36	42	18	96	37	70	22	129	10	36	71	117	16	68	13	97
+15 mins.	25	23	26	74	40	79	12	131	11	26	74	111	15	68	15	98
+30 mins.	42	23	37	102	29	77	8	114	11	33	76	120	15	68	16	99
+45 mins.	27	18	29	74	22	74	6	102	7	36	89	132	17	70	13	100
Total Volume	130	106	110	346	128	300	48	476	39	131	310	480	63	274	57	394
% App. Total	37.6	30.6	31.8		26.9	63	10.1		8.1	27.3	64.6		16	69.5	14.5	
PHF	.774	.631	.743	.848	.800	.949	.545	.908	.886	.910	.871	.909	.926	.979	.891	.985
Cars	130	103	110	343	128	297	48	473	39	130	308	477	63	272	56	391
% Cars	100	97.2	100	99.1	100	99	100	99.4	100	99.2	99.4	99.4	100	99.3	98.2	99.2
Trucks	0	3	0	3	0	3	0	3	0	1	2	3	0	2	1	3
% Trucks	0	2.8	0	0.9	0	1	0	0.6	0	0.8	0.6	0.6	0	0.7	1.8	0.8

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S3
Site Code : 91061003
Start Date : 12/5/2020
Page No : 3



Accurate Counts
978-664-2565

File Name : 910610S3
 Site Code : 91061003
 Start Date : 12/5/2020
 Page No : 4

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

Groups Printed- Cars

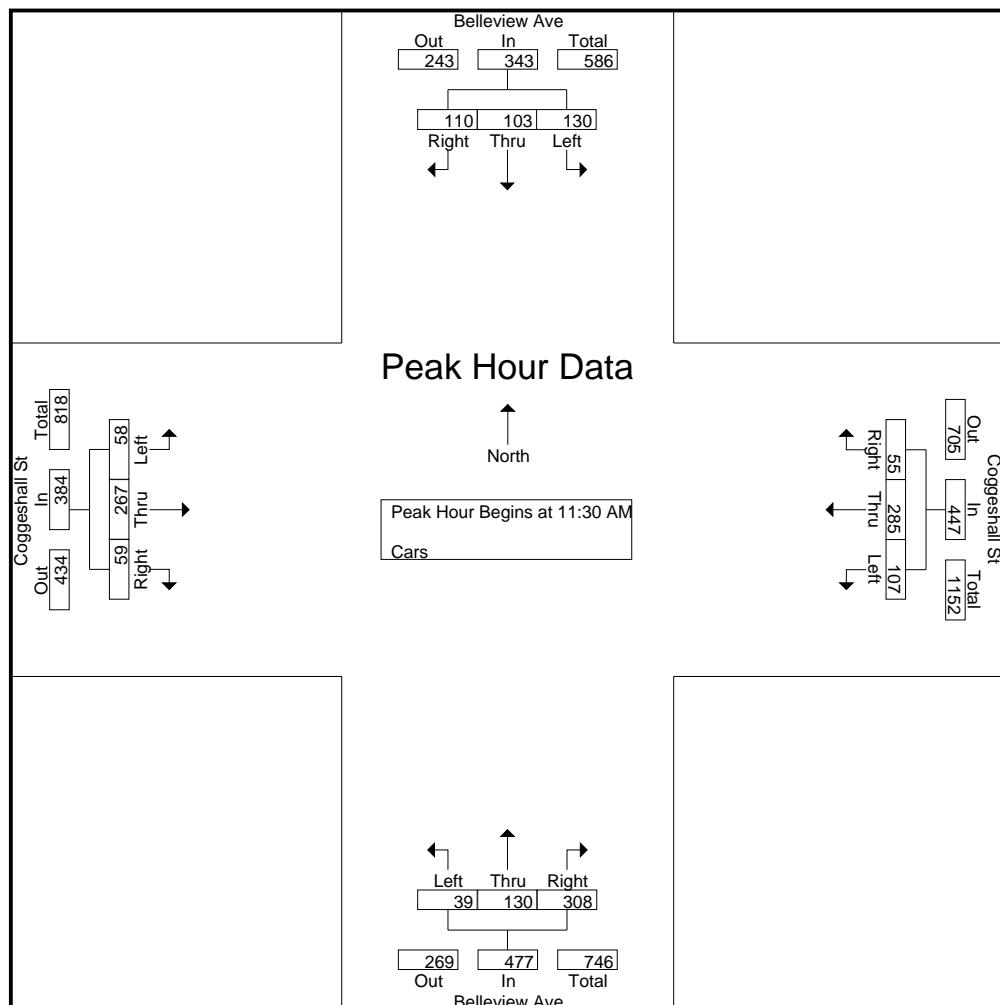
	Bellevue Ave From North			Coggeshall St From East			Bellevue Ave From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Int. Total									
11:00 AM	9	11	10	37	70	22	16	23	89	12	72	21	392
11:15 AM	26	21	14	40	78	12	10	47	65	11	71	13	408
11:30 AM	36	41	18	29	75	8	10	35	71	12	64	16	415
11:45 AM	25	22	26	22	74	6	11	26	72	16	68	13	381
Total	96	95	68	128	297	48	47	131	297	51	275	63	1596
12:00 PM	42	23	37	28	58	21	11	33	76	15	67	15	426
12:15 PM	27	17	29	28	78	20	7	36	89	15	68	15	429
12:30 PM	26	36	24	27	69	15	2	21	59	17	69	13	378
12:45 PM	37	20	21	33	63	16	10	33	73	14	69	6	395
Total	132	96	111	116	268	72	30	123	297	61	273	49	1628
Grand Total	228	191	179	244	565	120	77	254	594	112	548	112	3224
Apprch %	38.1	31.9	29.9	26.3	60.8	12.9	8.3	27.5	64.2	14.5	71	14.5	
Total %	7.1	5.9	5.6	7.6	17.5	3.7	2.4	7.9	18.4	3.5	17	3.5	

	Bellevue Ave From North			Coggeshall St From East			Bellevue Ave From South			Coggeshall St From West							
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total				
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	36	41	18	95	29	75	8	112	10	35	71	116	12	64	16	92	415
11:45 AM	25	22	26	73	22	74	6	102	11	26	72	109	16	68	13	97	381
12:00 PM	42	23	37	102	28	58	21	107	11	33	76	120	15	67	15	97	426
12:15 PM	27	17	29	73	28	78	20	126	7	36	89	132	15	68	15	98	429
Total Volume	130	103	110	343	107	285	55	447	39	130	308	477	58	267	59	384	1651
% App. Total	37.9	30	32.1		23.9	63.8	12.3		8.2	27.3	64.6		15.1	69.5	15.4		
PHF	.774	.628	.743	.841	.922	.913	.655	.887	.886	.903	.865	.903	.906	.982	.922	.980	.962

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S3
 Site Code : 91061003
 Start Date : 12/5/2020
 Page No : 5



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

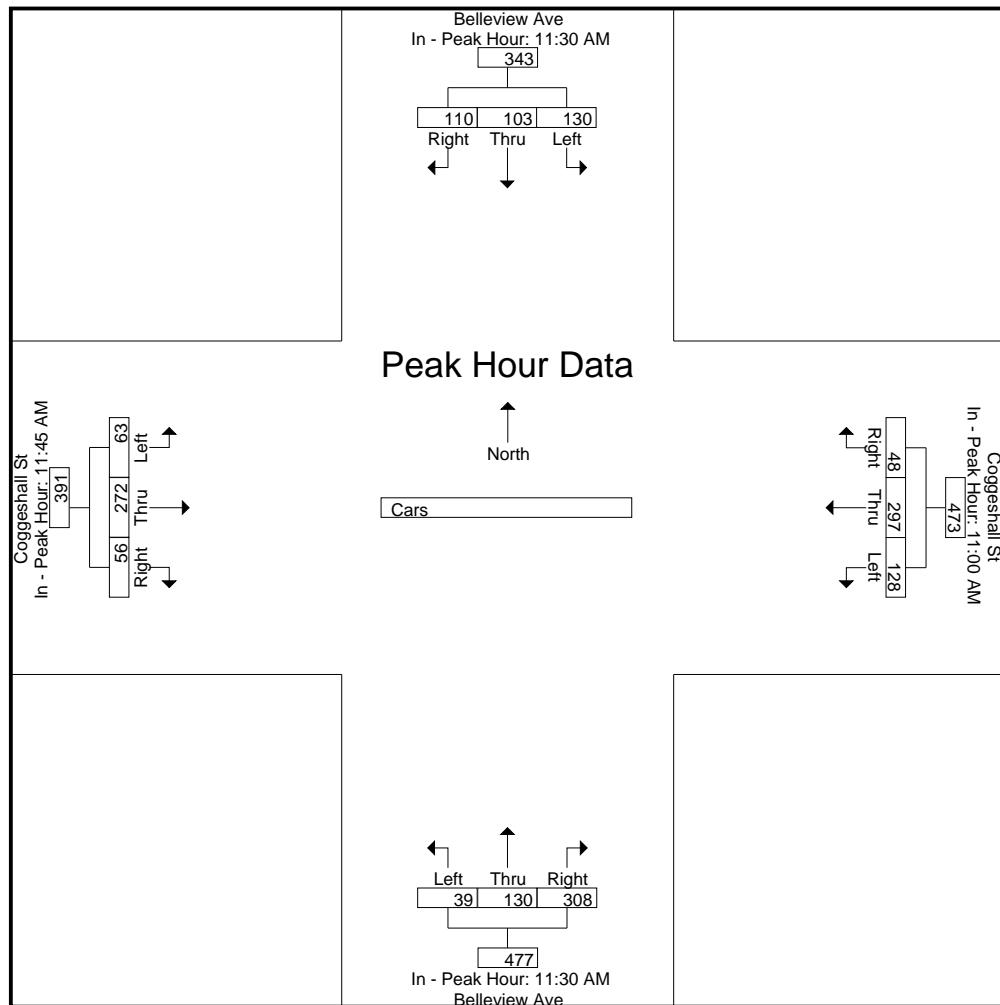
Peak Hour for Each Approach Begins at:

	11:30 AM				11:00 AM				11:30 AM				11:45 AM			
+0 mins.	36	41	18	95	37	70	22	129	10	35	71	116	16	68	13	97
+15 mins.	25	22	26	73	40	78	12	130	11	26	72	109	15	67	15	97
+30 mins.	42	23	37	102	29	75	8	112	11	33	76	120	15	68	15	98
+45 mins.	27	17	29	73	22	74	6	102	7	36	89	132	17	69	13	99
Total Volume	130	103	110	343	128	297	48	473	39	130	308	477	63	272	56	391
% App. Total	37.9	30	32.1		27.1	62.8	10.1		8.2	27.3	64.6		16.1	69.6	14.3	
PHF	.774	.628	.743	.841	.800	.952	.545	.910	.886	.903	.865	.903	.926	.986	.933	.987

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S3
Site Code : 91061003
Start Date : 12/5/2020
Page No : 6



Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S3
 Site Code : 91061003
 Start Date : 12/5/2020
 Page No : 7

Groups Printed- Trucks

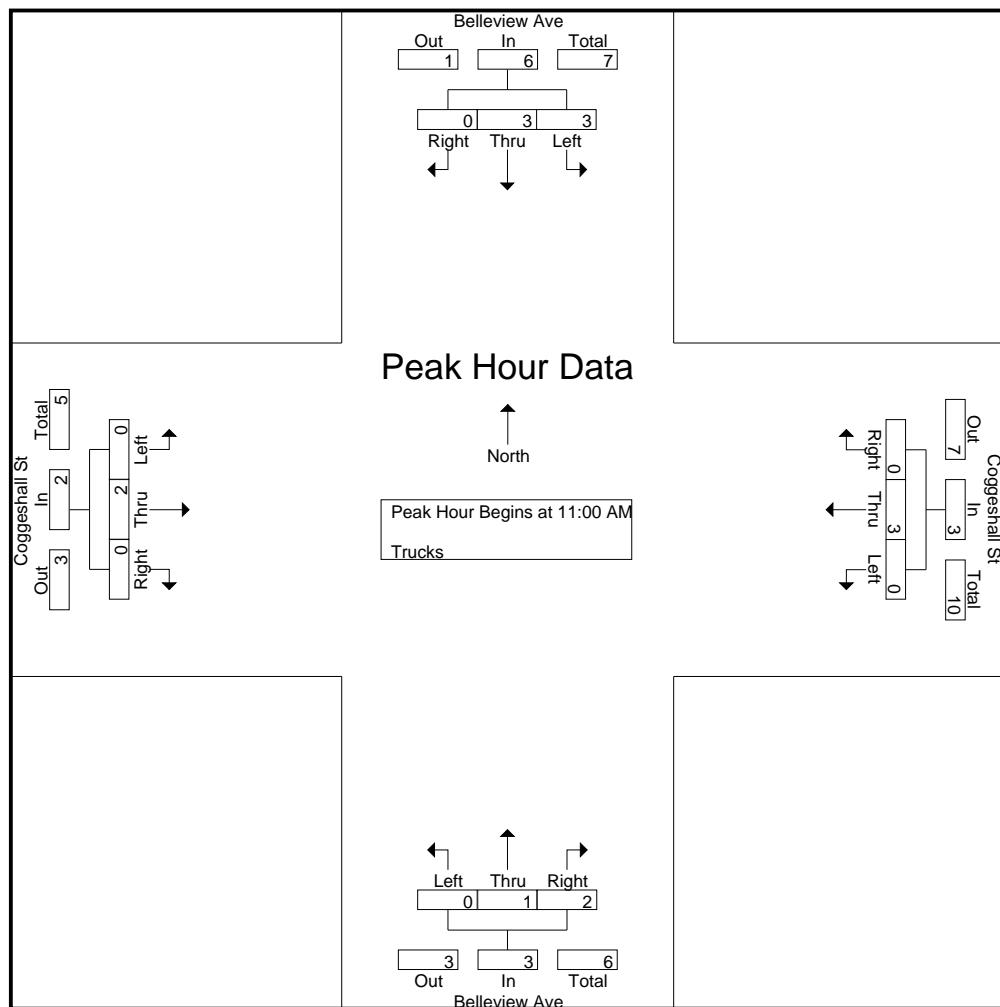
	Bellevue Ave From North			Coggeshall St From East			Bellevue Ave From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Int. Total									
11:00 AM	2	1	0	0	0	0	0	0	0	0	1	0	4
11:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
11:30 AM	0	1	0	0	2	0	0	1	0	0	1	0	5
11:45 AM	0	1	0	0	0	0	0	0	2	0	0	0	3
Total	3	3	0	0	3	0	0	1	2	0	2	0	14
12:00 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
12:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	3
12:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
12:45 PM	0	0	0	0	1	0	0	0	1	0	0	0	2
Total	0	1	0	0	5	0	0	0	1	0	2	1	10
Grand Total	3	4	0	0	8	0	0	1	3	0	4	1	24
Apprch %	42.9	57.1	0	0	100	0	0	25	75	0	80	20	
Total %	12.5	16.7	0	0	33.3	0	0	4.2	12.5	0	16.7	4.2	

	Bellevue Ave From North				Coggeshall St From East				Bellevue Ave From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	2	1	0	3	0	0	0	0	0	0	0	0	0	1	0	1	4
11:15 AM.	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
11:30 AM	0	1	0	1	0	2	0	2	0	1	0	1	0	1	0	1	5
11:45 AM	0	1	0	1	0	0	0	0	0	0	2	2	0	0	0	0	3
Total Volume	3	3	0	6	0	3	0	3	0	1	2	3	0	2	0	2	14
% App. Total	50	50	0		0	100	0		0	33.3	66.7		0	100	0		
PHF	.375	.750	.000	.500	.000	.375	.000	.375	.000	.250	.250	.375	.000	.500	.000	.500	.700

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S3
 Site Code : 91061003
 Start Date : 12/5/2020
 Page No : 8



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

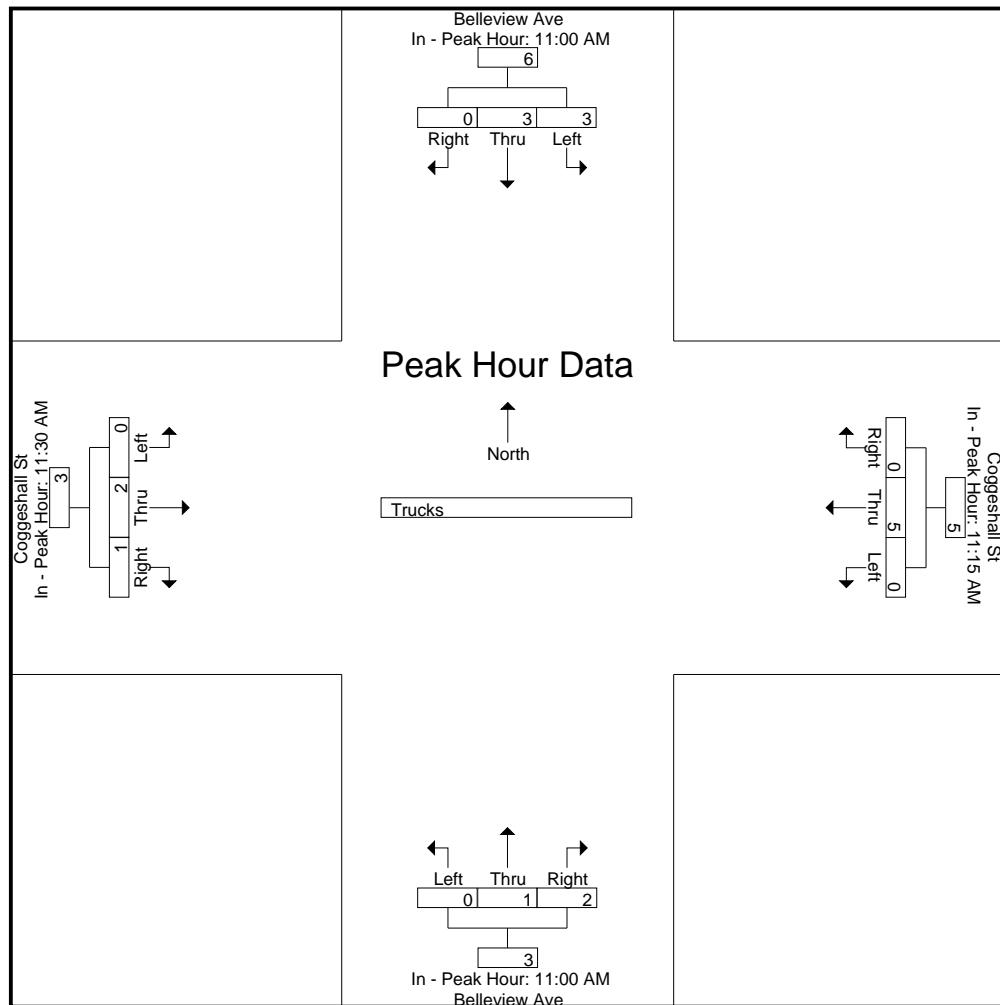
Peak Hour for Each Approach Begins at:

	11:00 AM				11:15 AM				11:00 AM				11:30 AM			
+0 mins.	2	1	0	3	0	1	0	1	0	0	0	0	0	1	0	1
+15 mins.	1	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	1	0	1
+45 mins.	0	1	0	1	0	2	0	2	0	0	2	2	0	0	1	1
Total Volume	3	3	0	6	0	5	0	5	0	1	2	3	0	2	1	3
% App. Total	50	50	0		0	100	0		0	33.3	66.7		0	66.7	33.3	
PHF	.375	.750	.000	.500	.000	.625	.000	.625	.000	.250	.250	.375	.000	.500	.250	.750

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S3
Site Code : 91061003
Start Date : 12/5/2020
Page No : 9



Accurate Counts

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S3
Site Code : 91061003
Start Date : 12/5/2020
Page No : 10

Groups Printed- Bikes Peds

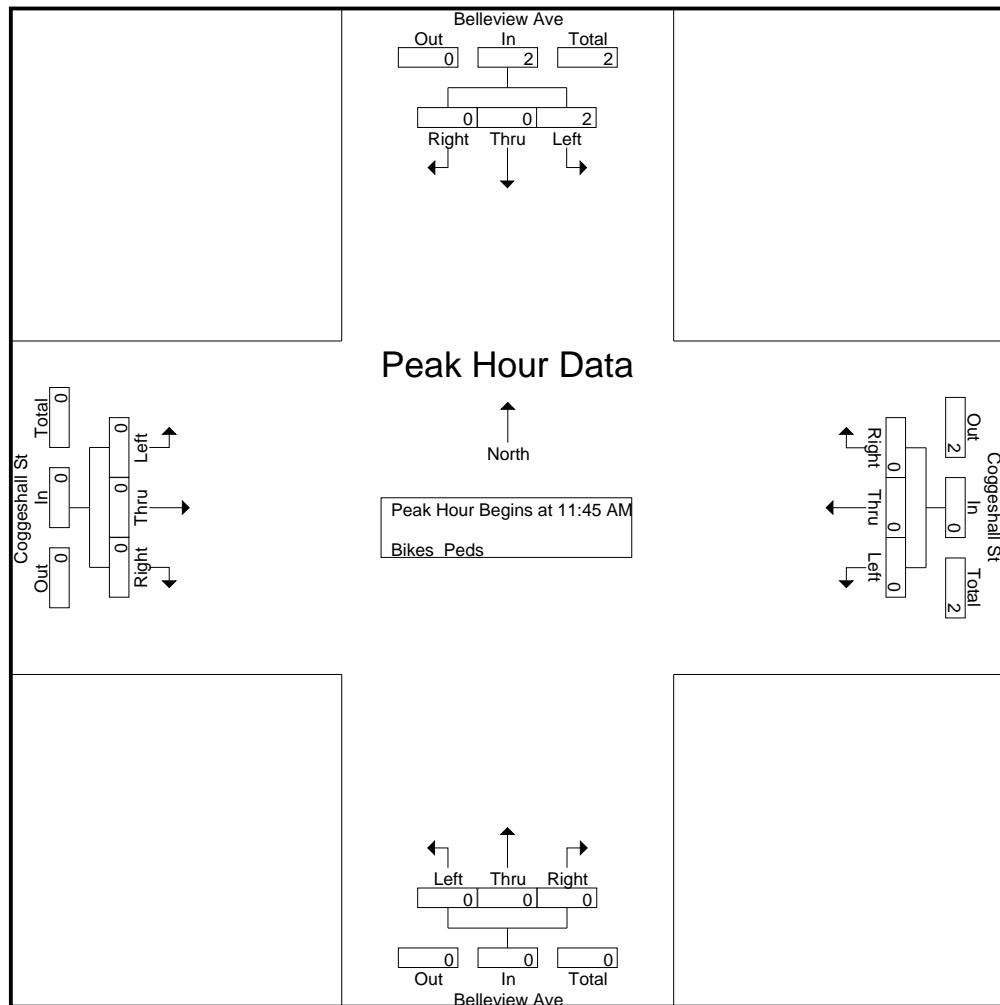
	Bellevue Ave From North				Coggeshall St From East				Bellevue Ave From South				Coggeshall St From West						
Start Time	Left	Thru	Right	Peds	Excl. Total	Incl. Total	Int. Total												
11:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1
12:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
12:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
12:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
12:45 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3	0	3
Total	2	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	4	2	6
Grand Total	2	0	0	2	0	0	1	0	0	0	0	2	0	0	0	0	4	3	7
Apprch %	100	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0
Total %	66.7	0	0	0	0	0	33.3	0	0	0	0	0	0	0	0	0	57.1	42.9	

Accurate Counts

978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S3
Site Code : 91061003
Start Date : 12/5/2020
Page No : 11



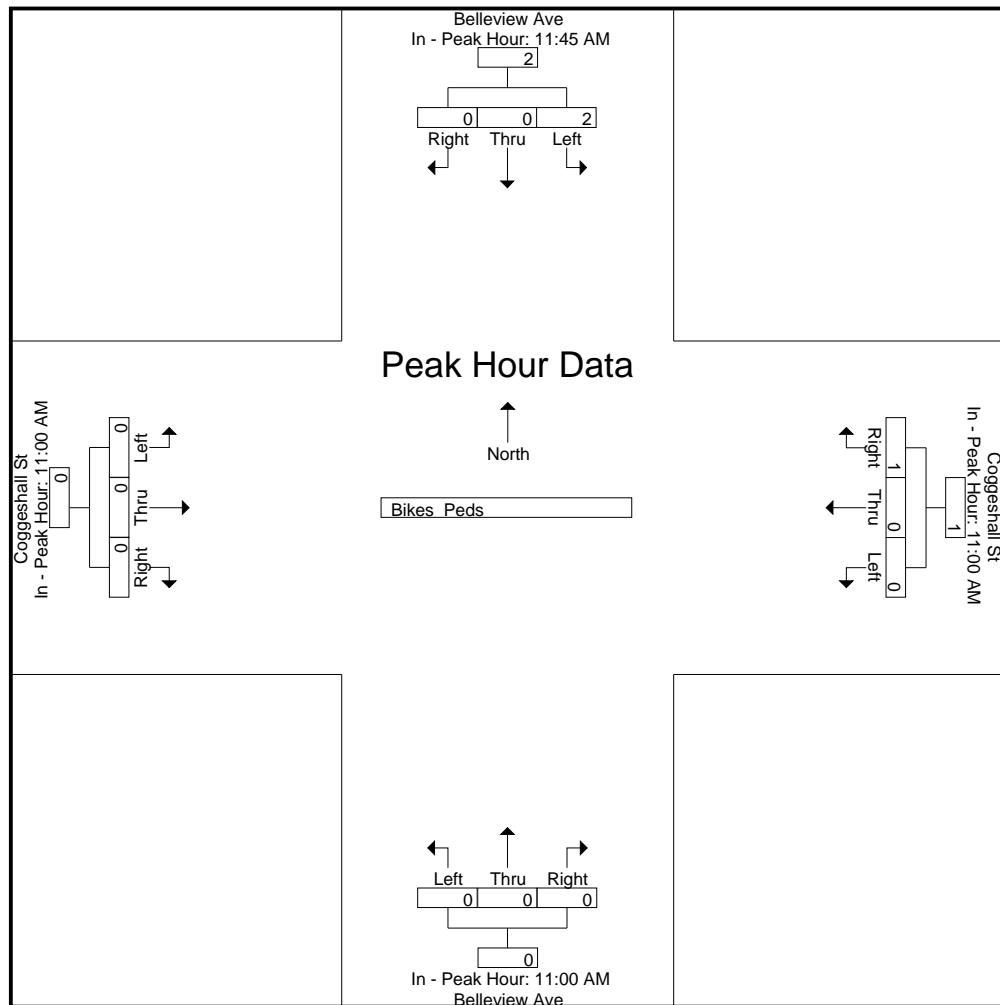
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Accurate Counts
978-664-2565

N/S Street : Bellevue Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S3
Site Code : 91061003
Start Date : 12/5/2020
Page No : 12



Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061004
 Site Code : 91061004
 Start Date : 12/3/2020
 Page No : 1

Groups Printed- Cars - Trucks

		Acushnet Ave From North			Coggeshall St From East			Acushnet Ave From South			Coggeshall St From West			
Start Time		Left	Thru	Right	Int. Total									
04:00 PM		0	0	0	0	98	21	31	83	67	17	69	0	386
04:15 PM		0	0	0	0	96	11	25	91	45	17	60	0	345
04:30 PM		0	0	0	0	86	25	36	96	59	11	75	0	388
04:45 PM		0	0	0	0	91	22	30	109	67	6	65	0	390
Total		0	0	0	0	371	79	122	379	238	51	269	0	1509
05:00 PM		0	0	0	0	95	20	29	82	64	6	74	0	370
05:15 PM		0	0	0	0	91	18	35	68	50	13	54	0	329
05:30 PM		0	0	0	0	93	15	26	75	62	9	51	0	331
05:45 PM		0	0	0	0	75	17	18	86	46	17	52	0	311
Total		0	0	0	0	354	70	108	311	222	45	231	0	1341
Grand Total		0	0	0	0	725	149	230	690	460	96	500	0	2850
Apprch %		0	0	0	0	83	17	16.7	50	33.3	16.1	83.9	0	
Total %		0	0	0	0	25.4	5.2	8.1	24.2	16.1	3.4	17.5	0	
Cars		0	0	0	0	721	149	229	688	460	96	497	0	2840
% Cars		0	0	0	0	99.4	100	99.6	99.7	100	100	99.4	0	99.6
Trucks		0	0	0	0	4	0	1	2	0	0	3	0	10
% Trucks		0	0	0	0	0.6	0	0.4	0.3	0	0	0.6	0	0.4

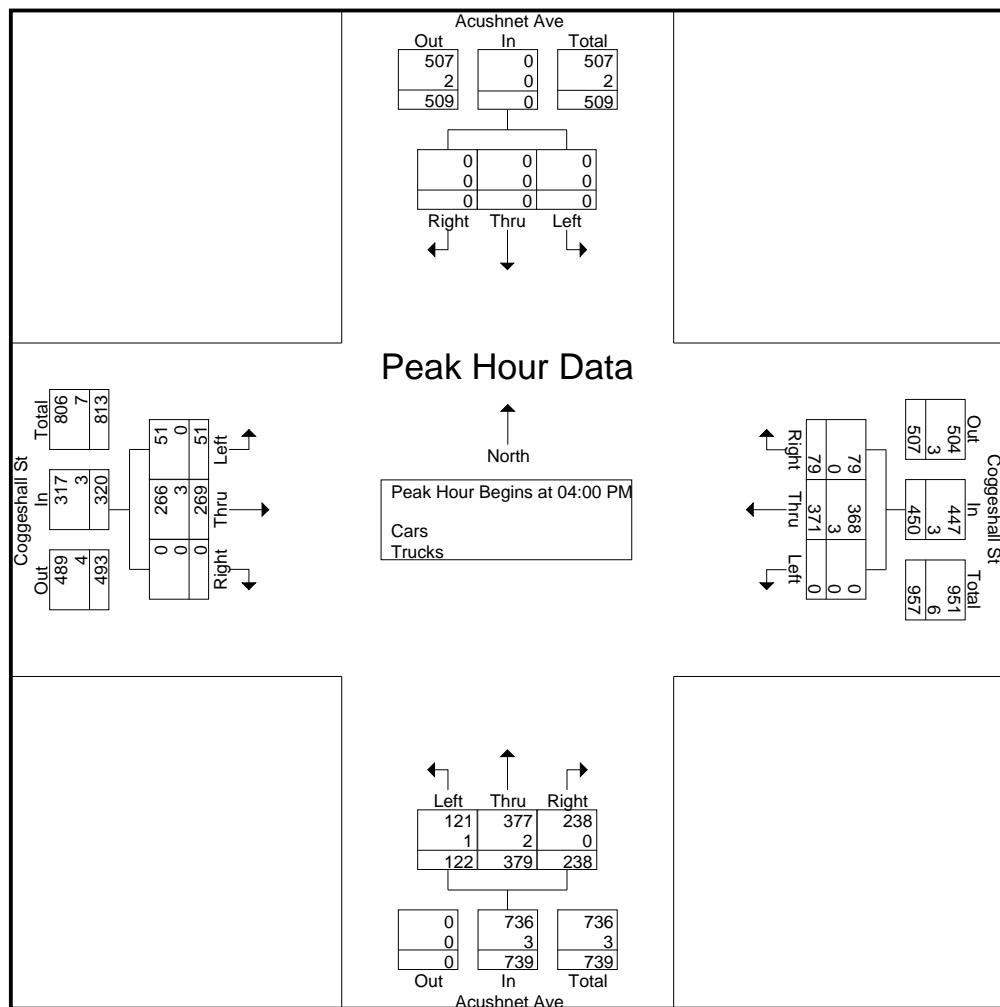
		Acushnet Ave From North			Coggeshall St From East			Acushnet Ave From South			Coggeshall St From West						
Start Time		Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total			
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM		0	0	0	0	0	98	21	119	31	83	67	181	86	386		
04:15 PM		0	0	0	0	0	96	11	107	25	91	45	161	17	345		
04:30 PM		0	0	0	0	0	86	25	111	36	96	59	191	11	388		
04:45 PM		0	0	0	0	0	91	22	113	30	109	67	206	6	390		
Total Volume		0	0	0	0	0	371	79	450	122	379	238	739	51	320	1509	
% App. Total		0	0	0	0	0	82.4	17.6		16.5	51.3	32.2		15.9	84.1		
PHF	.000	.000	.000	.000	.000	.946	.790	.945	.847	.869	.888	.897	.750	.897	.000	.930	.967
Cars	0	0	0	0	0	368	79	447	121	377	238	736	51	266	0	317	1500
% Cars	0	0	0	0	0	99.2	100	99.3	99.2	99.5	100	99.6	100	98.9	0	99.1	99.4
Trucks	0	0	0	0	0	3	0	3	1	2	0	3	0	3	0	3	9
% Trucks	0	0	0	0	0	0.8	0	0.7	0.8	0.5	0	0.4	0	1.1	0	0.9	0.6

Accurate Counts

978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061004
Site Code : 91061004
Start Date : 12/3/2020
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

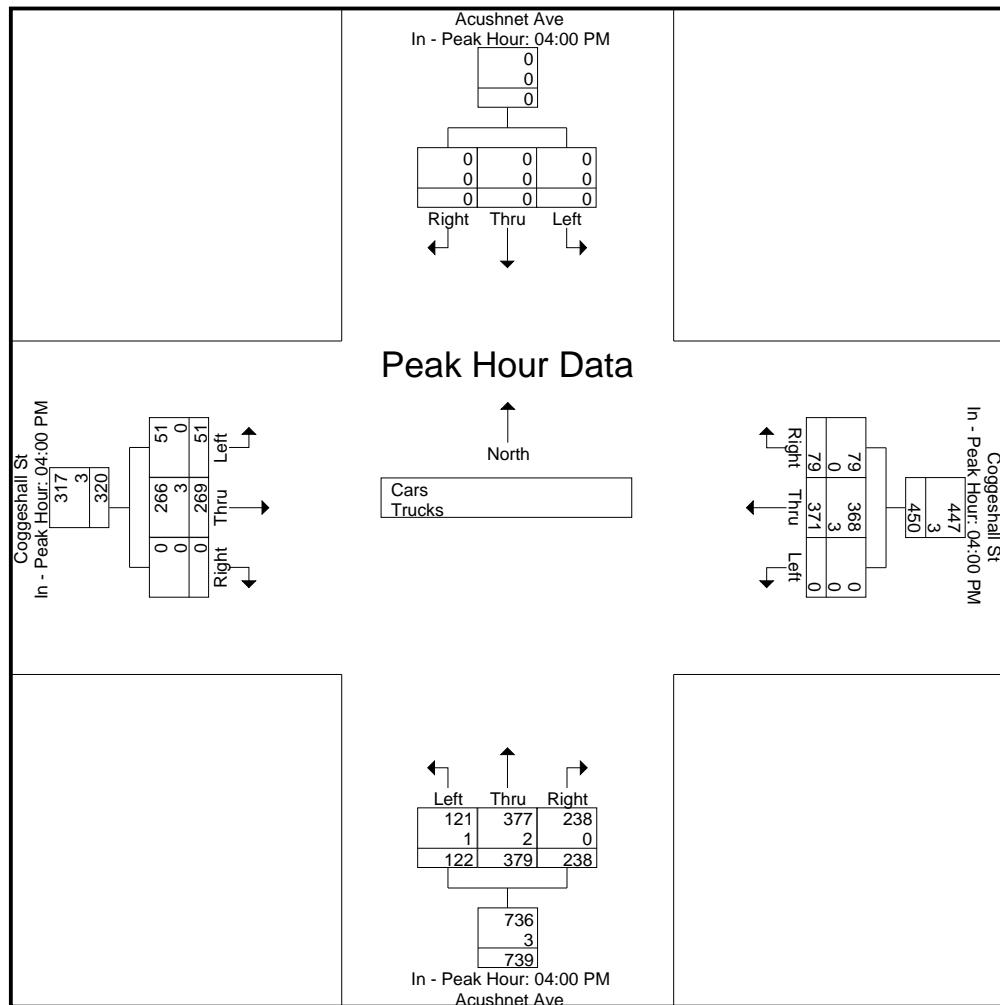
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	98	21	119	31	83	67	181	17	69	0	86
+15 mins.	0	0	0	0	0	96	11	107	25	91	45	161	17	60	0	77
+30 mins.	0	0	0	0	0	86	25	111	36	96	59	191	11	75	0	86
+45 mins.	0	0	0	0	0	91	22	113	30	109	67	206	6	65	0	71
Total Volume	0	0	0	0	0	371	79	450	122	379	238	739	51	269	0	320
% App. Total	0	0	0		0	82.4	17.6		16.5	51.3	32.2		15.9	84.1	0	
PHF	.000	.000	.000	.000	.000	.946	.790	.945	.847	.869	.888	.897	.750	.897	.000	.930
Cars	0	0	0	0	0	368	79	447	121	377	238	736	51	266	0	317
% Cars	0	0	0	0	0	99.2	100	99.3	99.2	99.5	100	99.6	100	98.9	0	99.1
Trucks	0	0	0	0	0	3	0	3	1	2	0	3	0	3	0	3
% Trucks	0	0	0	0	0	0.8	0	0.7	0.8	0.5	0	0.4	0	1.1	0	0.9

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061004
Site Code : 91061004
Start Date : 12/3/2020
Page No : 3



Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061004
 Site Code : 91061004
 Start Date : 12/3/2020
 Page No : 4

Groups Printed- Cars

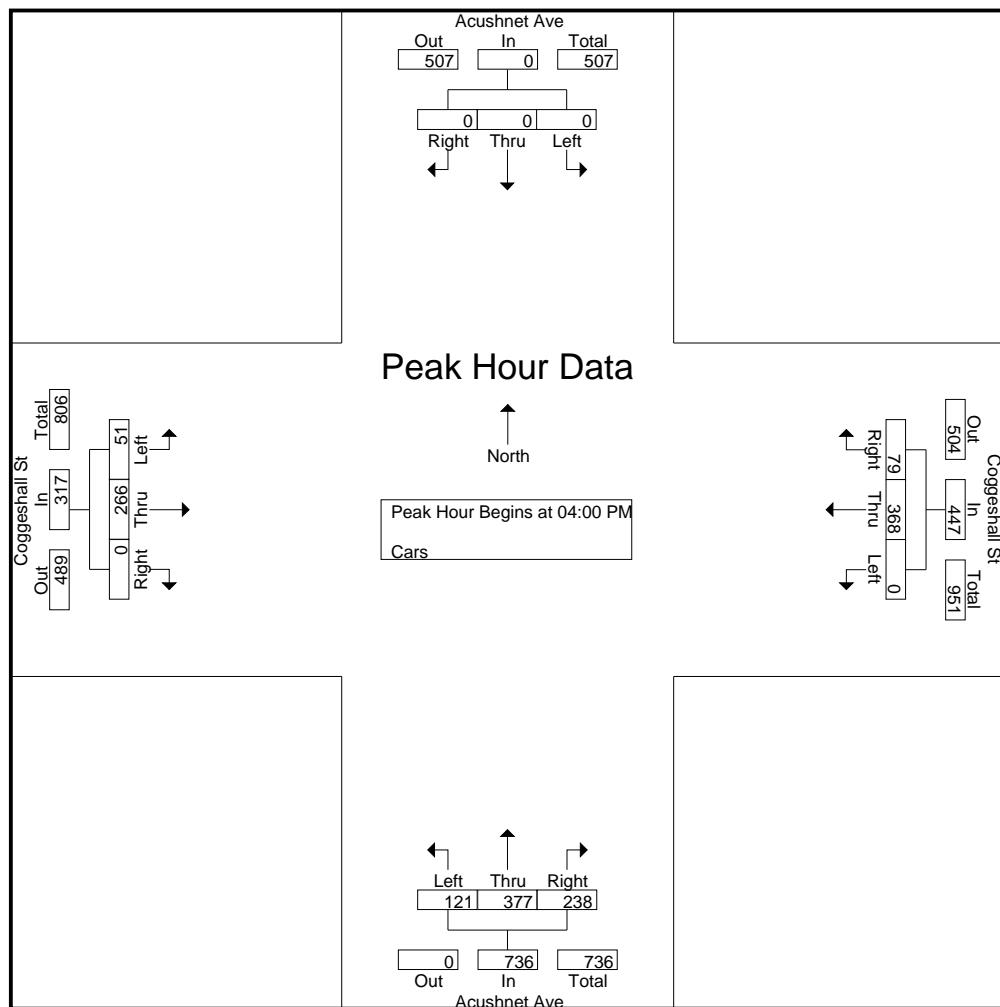
	Acushnet Ave From North			Coggeshall St From East			Acushnet Ave From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Int. Total									
04:00 PM	0	0	0	0	97	21	30	83	67	17	67	0	382
04:15 PM	0	0	0	0	94	11	25	90	45	17	60	0	342
04:30 PM	0	0	0	0	86	25	36	96	59	11	75	0	388
04:45 PM	0	0	0	0	91	22	30	108	67	6	64	0	388
Total	0	0	0	0	368	79	121	377	238	51	266	0	1500
05:00 PM	0	0	0	0	95	20	29	82	64	6	74	0	370
05:15 PM	0	0	0	0	90	18	35	68	50	13	54	0	328
05:30 PM	0	0	0	0	93	15	26	75	62	9	51	0	331
05:45 PM	0	0	0	0	75	17	18	86	46	17	52	0	311
Total	0	0	0	0	353	70	108	311	222	45	231	0	1340
Grand Total	0	0	0	0	721	149	229	688	460	96	497	0	2840
Apprch %	0	0	0	0	82.9	17.1	16.6	50	33.4	16.2	83.8	0	
Total %	0	0	0	0	25.4	5.2	8.1	24.2	16.2	3.4	17.5	0	

	Acushnet Ave From North				Coggeshall St From East				Acushnet Ave From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	97	21	118	30	83	67	180	17	67	0	84	382
04:15 PM	0	0	0	0	0	94	11	105	25	90	45	160	17	60	0	77	342
04:30 PM	0	0	0	0	0	86	25	111	36	96	59	191	11	75	0	86	388
04:45 PM	0	0	0	0	0	91	22	113	30	108	67	205	6	64	0	70	388
Total Volume	0	0	0	0	0	368	79	447	121	377	238	736	51	266	0	317	1500
% App. Total	0	0	0	0	0	82.3	17.7		16.4	51.2	32.3		16.1	83.9	0		
PHF	.000	.000	.000	.000	.000	.948	.790	.947	.840	.873	.888	.898	.750	.887	.000	.922	.966

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061004
 Site Code : 91061004
 Start Date : 12/3/2020
 Page No : 5



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

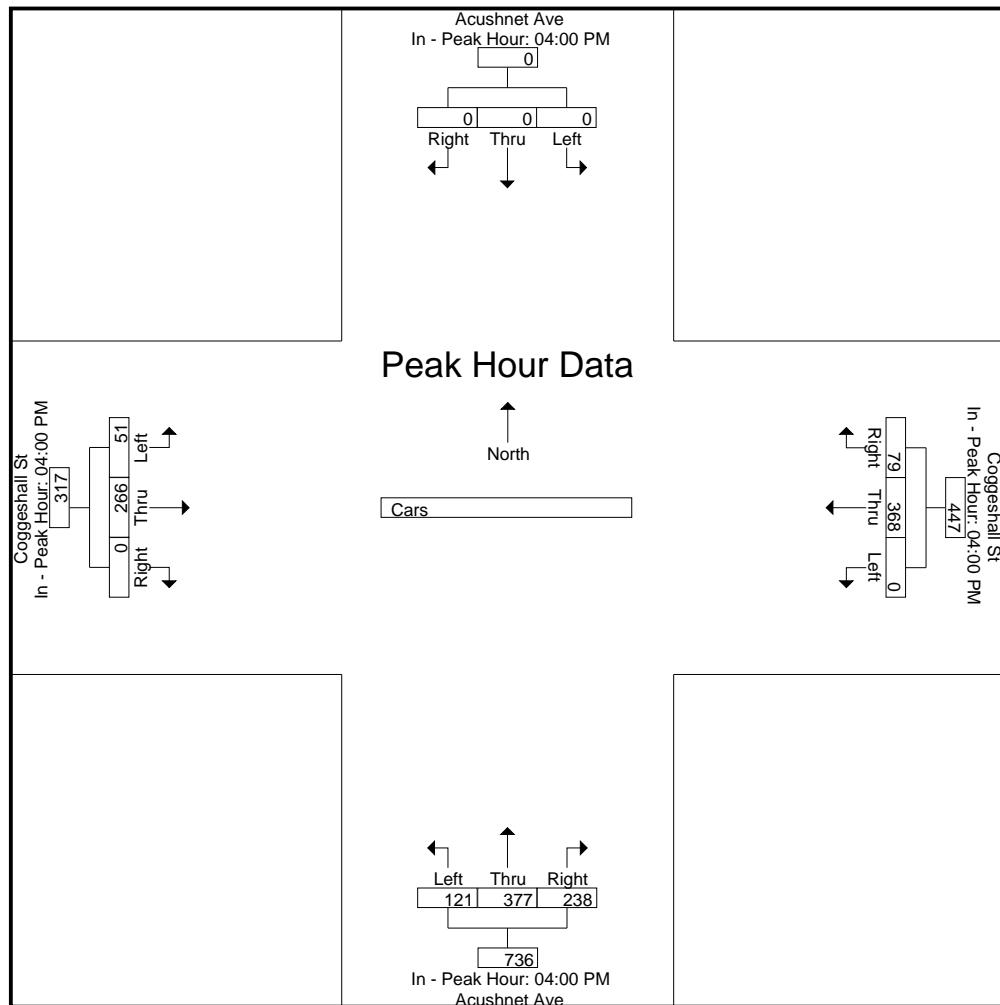
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	97	21	118	30	83	67	180	17	67	0	84
+15 mins.	0	0	0	0	0	94	11	105	25	90	45	160	17	60	0	77
+30 mins.	0	0	0	0	0	86	25	111	36	96	59	191	11	75	0	86
+45 mins.	0	0	0	0	0	91	22	113	30	108	67	205	6	64	0	70
Total Volume	0	0	0	0	0	368	79	447	121	377	238	736	51	266	0	317
% App. Total	0	0	0	0	0	82.3	17.7		16.4	51.2	32.3		16.1	83.9	0	
PHF	.000	.000	.000	.000	.000	.948	.790	.947	.840	.873	.888	.898	.750	.887	.000	.922

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061004
Site Code : 91061004
Start Date : 12/3/2020
Page No : 6



Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061004
 Site Code : 91061004
 Start Date : 12/3/2020
 Page No : 7

Groups Printed- Trucks

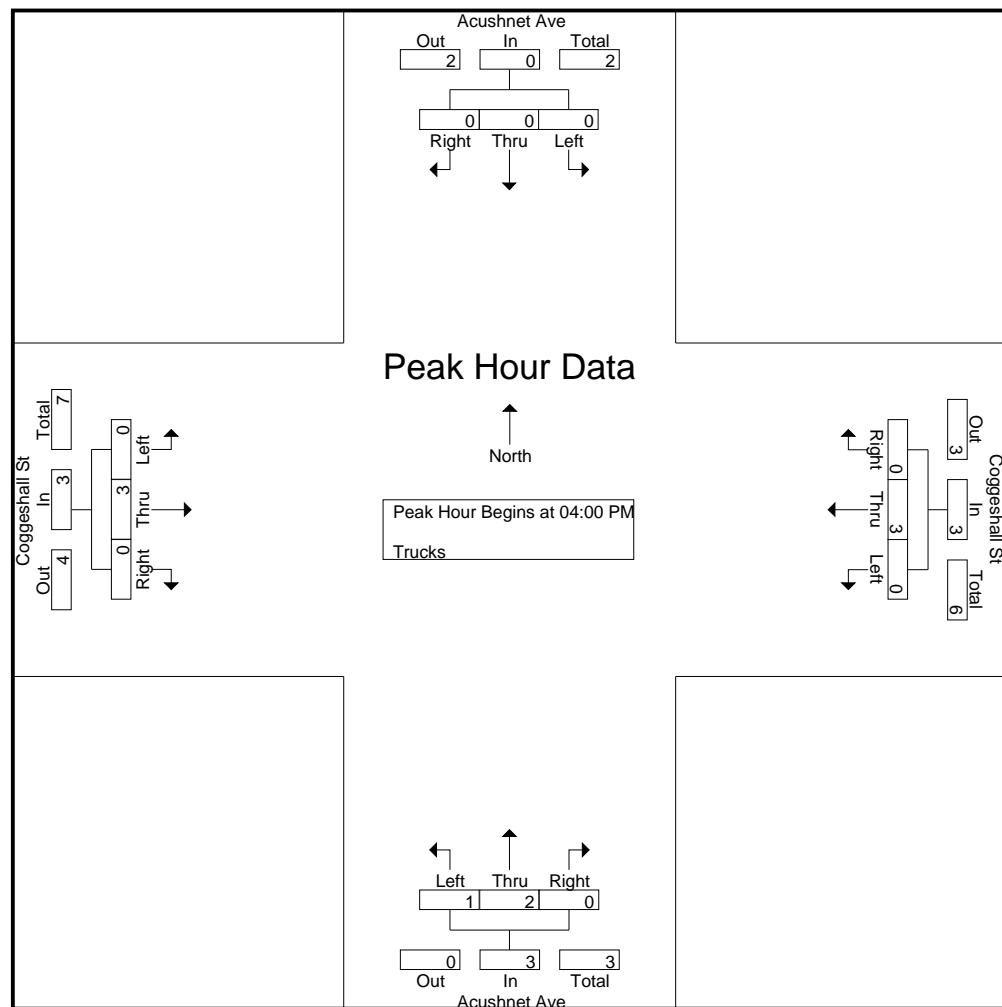
	Acushnet Ave From North			Coggeshall St From East			Acushnet Ave From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Int. Total									
04:00 PM	0	0	0	0	1	0	1	0	0	0	2	0	4
04:15 PM	0	0	0	0	2	0	0	1	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
Total	0	0	0	0	3	0	1	2	0	0	3	0	9
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	4	0	1	2	0	0	3	0	10
Apprch %	0	0	0	0	100	0	33.3	66.7	0	0	100	0	
Total %	0	0	0	0	40	0	10	20	0	0	30	0	

	Acushnet Ave From North				Coggeshall St From East				Acushnet Ave From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	2	0	2	4
04:15 PM	0	0	0	0	0	2	0	2	0	1	0	1	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
Total Volume	0	0	0	0	0	3	0	3	1	2	0	3	0	3	0	3	9
% App. Total	0	0	0	0	0	100	0	33.3	66.7	0	0	100	0	100	0	100	
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.250	.500	.000	.750	.000	.375	.000	.375	.563

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061004
Site Code : 91061004
Start Date : 12/3/2020
Page No : 8



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

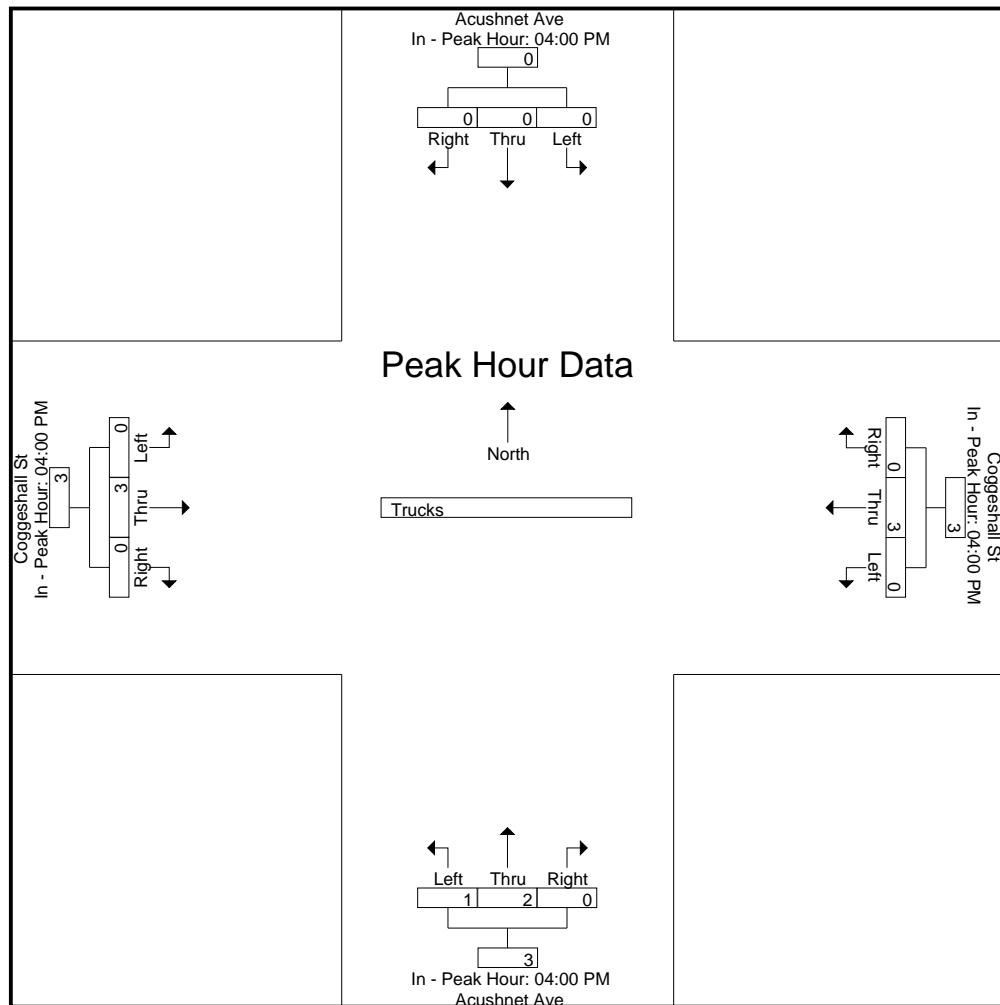
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	1	0	1	1	0	0	1	0	2	0	2
+15 mins.	0	0	0	0	0	2	0	2	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1
Total Volume	0	0	0	0	0	3	0	3	1	2	0	3	0	3	0	3
% App. Total	0	0	0	0	0	100	0	33.3	66.7	0	0	100	0	100	0	100
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.250	.500	.000	.750	.000	.375	.000	.375

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061004
Site Code : 91061004
Start Date : 12/3/2020
Page No : 9



Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061004
 Site Code : 91061004
 Start Date : 12/3/2020
 Page No : 10

Groups Printed- Bikes Peds

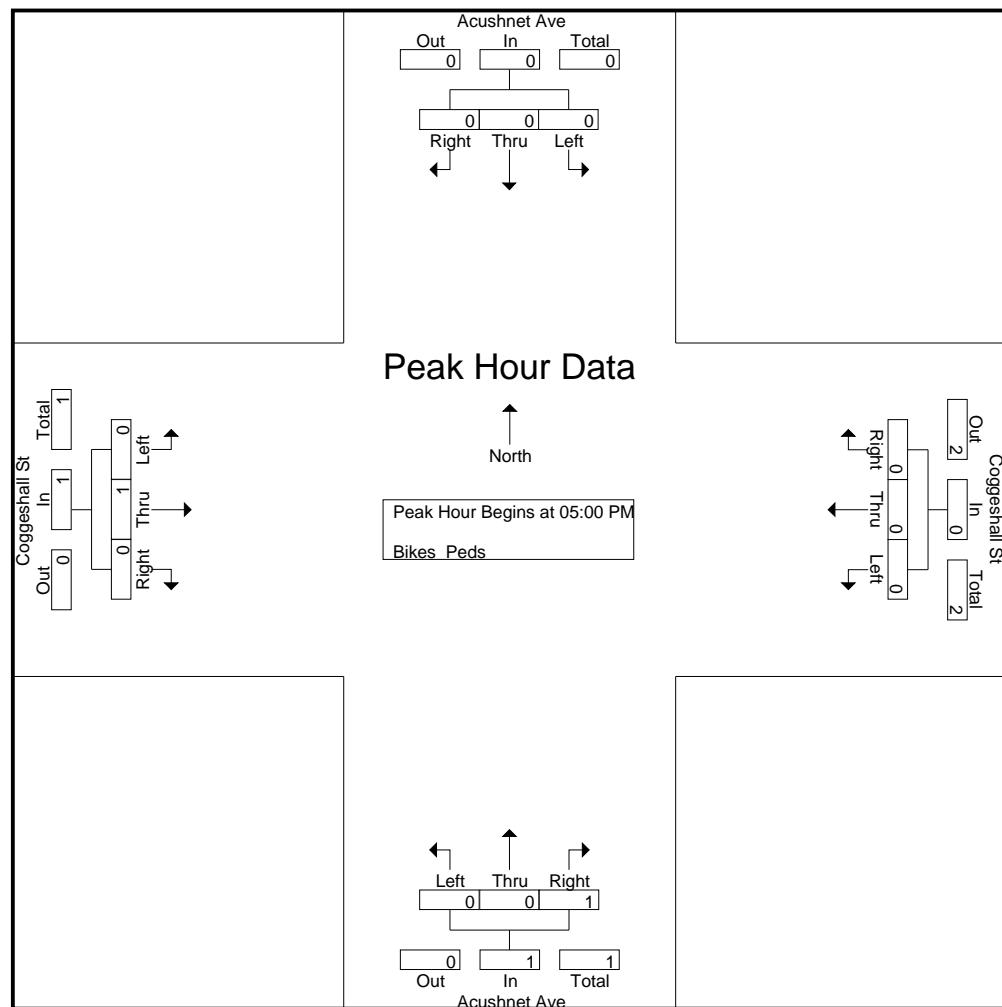
	Acushnet Ave From North				Coggeshall St From East				Acushnet Ave From South				Coggeshall St From West						
Start Time	Left	Thru	Right	Peds	Excl. Total	Inclu. Total	Int. Total												
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
05:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
05:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	2
Total	0	0	0	0	0	0	0	3	0	0	1	0	0	1	0	1	4	2	6
Grand Total	0	0	0	2	0	0	0	3	0	0	1	0	0	1	0	4	9	2	11
Apprch %	0	0	0		0	0	0		0	0	100		0	0	100	0			
Total %	0	0	0		0	0	0		0	0	50		0	0	50	0	81.8	18.2	

	Acushnet Ave From North				Coggeshall St From East				Acushnet Ave From South				Coggeshall St From West								
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	1	0	1	2
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	1	0	1	2
% App. Total	0	0	0		0	0	0		0	0	100		0	0	100	0	0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.000	.250	.000	.250	.000	.250	

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061004
 Site Code : 91061004
 Start Date : 12/3/2020
 Page No : 11



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

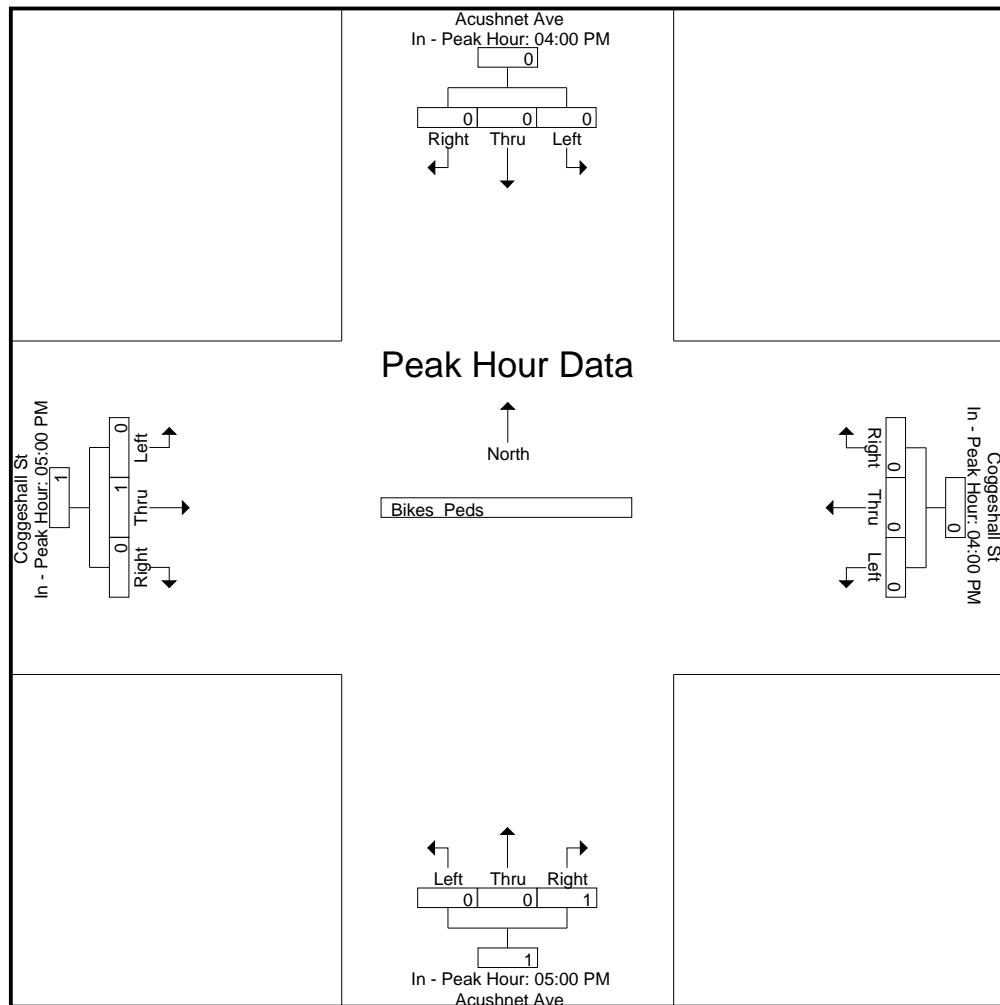
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1
% App. Total	0	0	0	0	0	0	0	0	0	100	0	100	0	100	0	100
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.000	.250

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061004
Site Code : 91061004
Start Date : 12/3/2020
Page No : 12



Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S4
 Site Code : 91061004
 Start Date : 12/5/2020
 Page No : 1

Groups Printed- Cars - Trucks

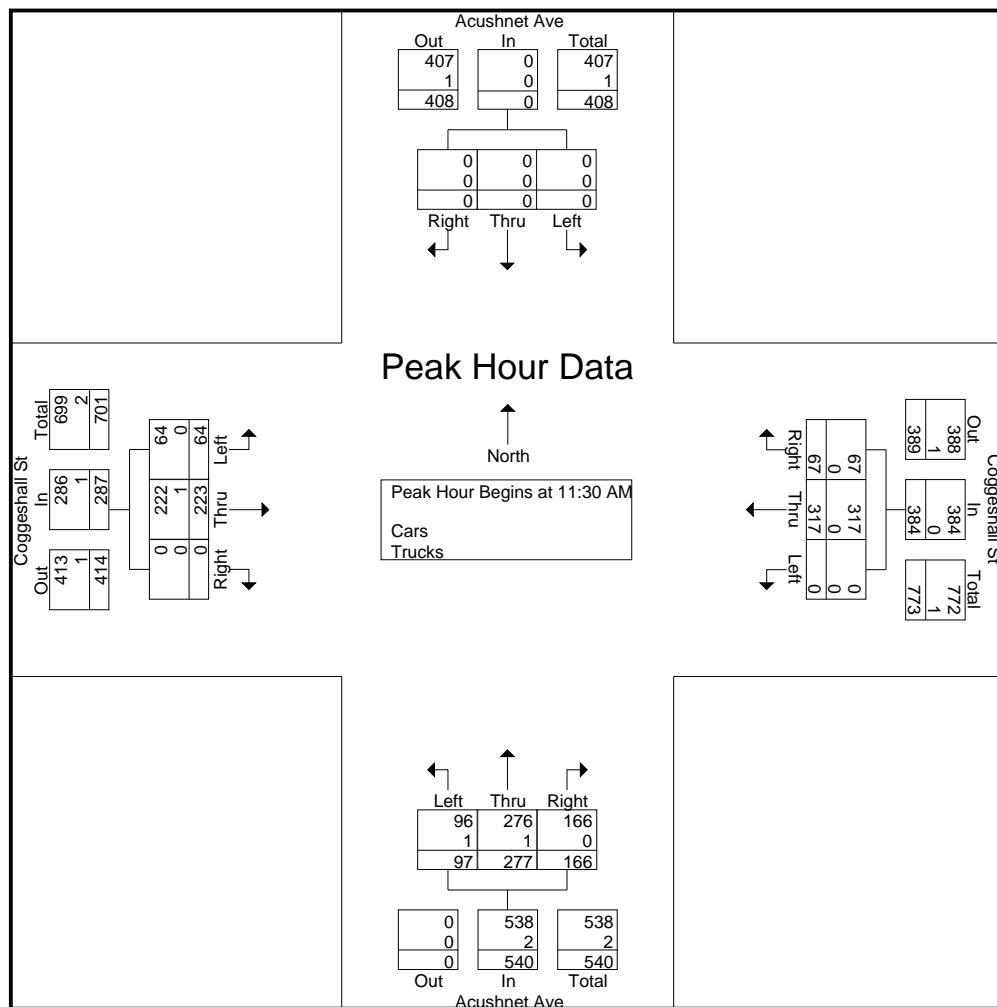
	Acushnet Ave From North			Coggeshall St From East			Acushnet Ave From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Int. Total									
11:00 AM	0	0	0	0	67	18	15	66	43	21	60	0	290
11:15 AM	0	0	0	0	68	18	17	50	42	8	56	0	259
11:30 AM	0	0	0	0	69	25	27	81	42	19	52	0	315
11:45 AM	0	0	0	0	79	16	18	65	41	17	54	0	290
Total	0	0	0	0	283	77	77	262	168	65	222	0	1154
12:00 PM	0	0	0	0	78	13	22	68	43	13	60	0	297
12:15 PM	0	0	0	0	91	13	30	63	40	15	57	0	309
12:30 PM	0	0	0	0	61	11	14	57	55	12	55	0	265
12:45 PM	0	0	0	1	77	11	22	59	46	14	53	0	283
Total	0	0	0	1	307	48	88	247	184	54	225	0	1154
Grand Total	0	0	0	1	590	125	165	509	352	119	447	0	2308
Apprch %	0	0	0	0.1	82.4	17.5	16.1	49.6	34.3	21	79	0	
Total %	0	0	0	0	25.6	5.4	7.1	22.1	15.3	5.2	19.4	0	
Cars	0	0	0	1	590	125	164	508	352	119	446	0	2305
% Cars	0	0	0	100	100	100	99.4	99.8	100	100	99.8	0	99.9
Trucks	0	0	0	0	0	0	1	1	0	0	1	0	3
% Trucks	0	0	0	0	0	0	0.6	0.2	0	0	0.2	0	0.1

	Acushnet Ave From North				Coggeshall St From East				Acushnet Ave From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	0	0	0	0	0	69	25	94	27	81	42	150	19	52	0	71	315
11:45 AM	0	0	0	0	0	79	16	95	18	65	41	124	17	54	0	71	290
12:00 PM	0	0	0	0	0	78	13	91	22	68	43	133	13	60	0	73	297
12:15 PM	0	0	0	0	0	91	13	104	30	63	40	133	15	57	0	72	309
Total Volume	0	0	0	0	0	317	67	384	97	277	166	540	64	223	0	287	1211
% App. Total	0	0	0	0	0	82.6	17.4		18	51.3	30.7		22.3	77.7	0		
PHF	.000	.000	.000	.000	.000	.871	.670	.923	.808	.855	.965	.900	.842	.929	.000	.983	.961
Cars	0	0	0	0	0	317	67	384	96	276	166	538	64	222	0	286	1208
% Cars	0	0	0	0	0	100	100	100	99.0	99.6	100	99.6	100	99.6	0	99.7	99.8
Trucks	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	1	3
% Trucks	0	0	0	0	0	0	0	0	1.0	0.4	0	0.4	0	0.4	0	0.3	0.2

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S4
 Site Code : 91061004
 Start Date : 12/5/2020
 Page No : 2



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

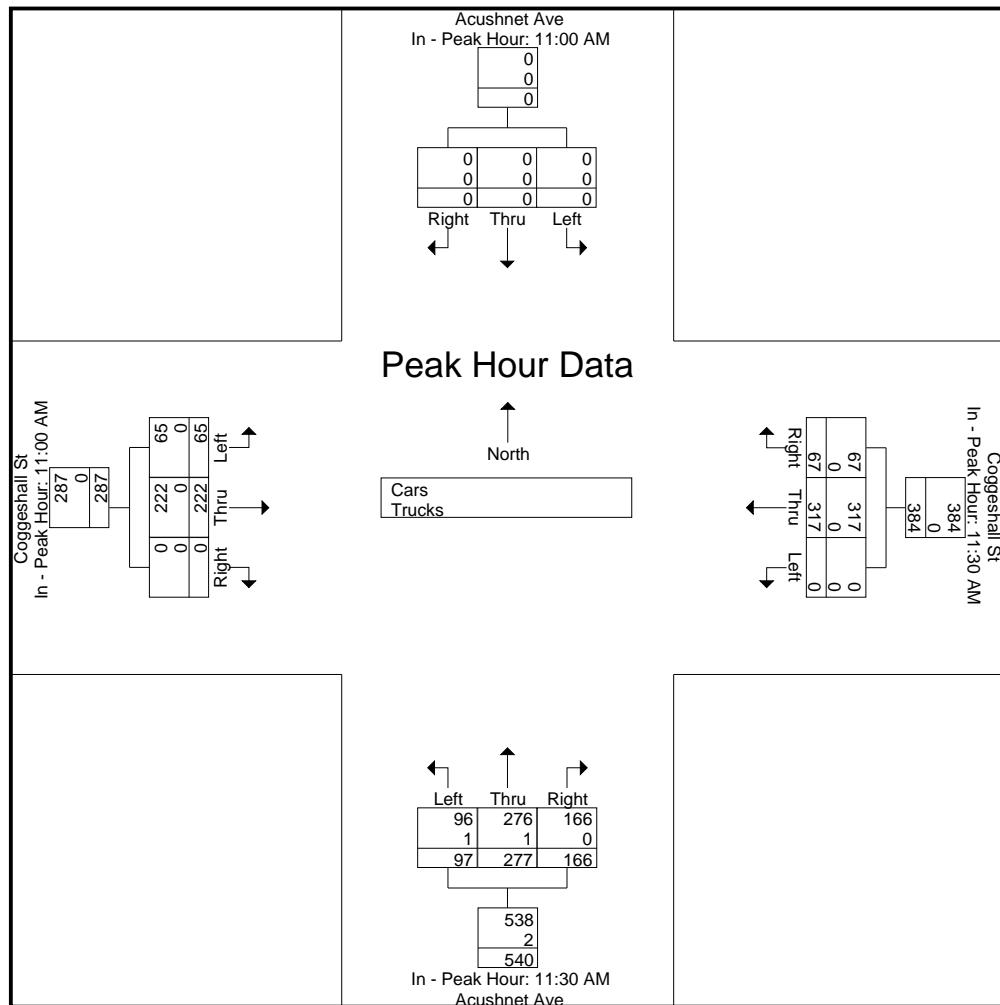
Peak Hour for Each Approach Begins at:

	11:00 AM		11:30 AM		11:30 AM		11:30 AM		11:00 AM		
+0 mins.	0	0	0	0	0	69	25	94	27	81	42
+15 mins.	0	0	0	0	0	79	16	95	18	65	41
+30 mins.	0	0	0	0	0	78	13	91	22	68	43
+45 mins.	0	0	0	0	0	91	13	104	30	63	40
Total Volume	0	0	0	0	0	317	67	384	97	277	166
% App. Total	0	0	0	0	0	82.6	17.4		18	51.3	30.7
PHF	.000	.000	.000	.000	.000	.871	.670	.923	.808	.855	.965
Cars	0	0	0	0	0	317	67	384	96	276	166
% Cars	0	0	0	0	0	100	100	100	99	99.6	100
Trucks	0	0	0	0	0	0	0	0	1	1	0
% Trucks	0	0	0	0	0	0	0	0	0.4	0	0.4

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S4
Site Code : 91061004
Start Date : 12/5/2020
Page No : 3



Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S4
 Site Code : 91061004
 Start Date : 12/5/2020
 Page No : 4

Groups Printed- Cars

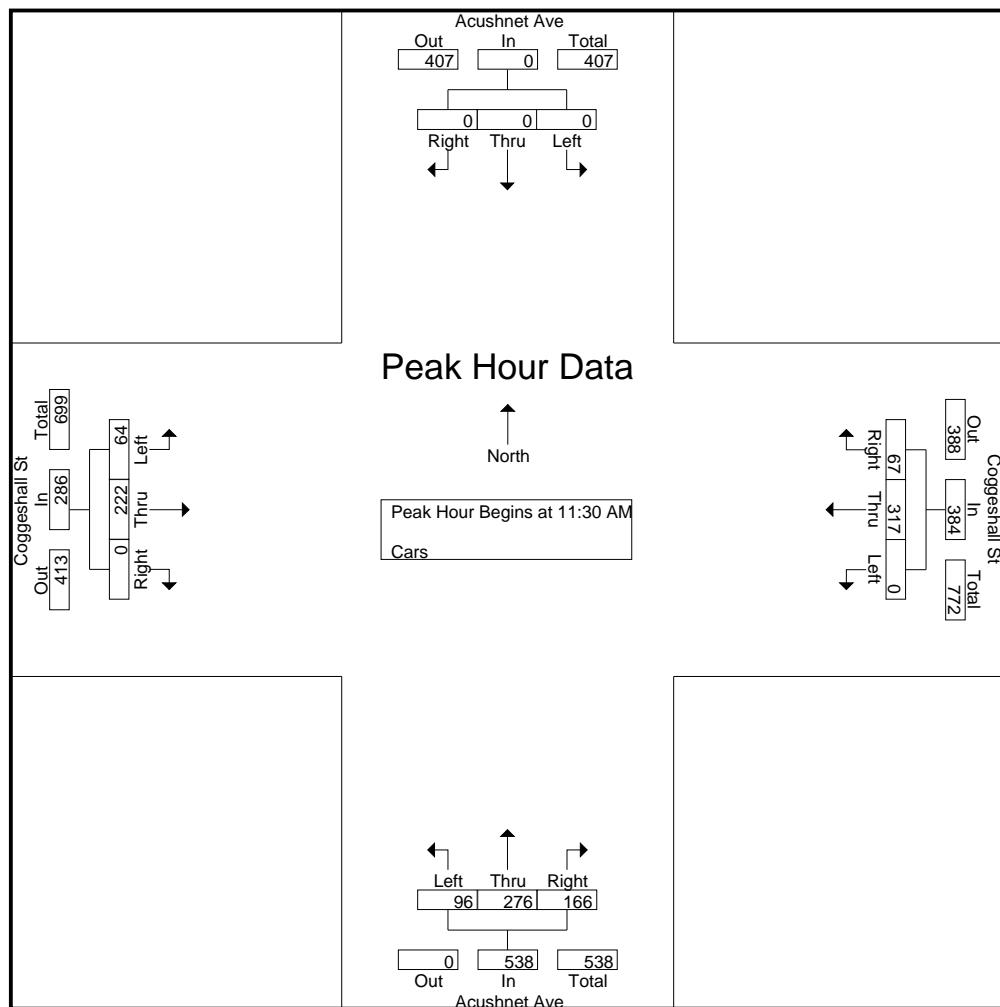
	Acushnet Ave From North			Coggeshall St From East			Acushnet Ave From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Int. Total									
11:00 AM	0	0	0	0	67	18	15	66	43	21	60	0	290
11:15 AM	0	0	0	0	68	18	17	50	42	8	56	0	259
11:30 AM	0	0	0	0	69	25	26	81	42	19	52	0	314
11:45 AM	0	0	0	0	79	16	18	64	41	17	54	0	289
Total	0	0	0	0	283	77	76	261	168	65	222	0	1152
12:00 PM	0	0	0	0	78	13	22	68	43	13	60	0	297
12:15 PM	0	0	0	0	91	13	30	63	40	15	56	0	308
12:30 PM	0	0	0	0	61	11	14	57	55	12	55	0	265
12:45 PM	0	0	0	1	77	11	22	59	46	14	53	0	283
Total	0	0	0	1	307	48	88	247	184	54	224	0	1153
Grand Total	0	0	0	1	590	125	164	508	352	119	446	0	2305
Apprch %	0	0	0	0.1	82.4	17.5	16	49.6	34.4	21.1	78.9	0	
Total %	0	0	0	0	25.6	5.4	7.1	22	15.3	5.2	19.3	0	

	Acushnet Ave From North				Coggeshall St From East				Acushnet Ave From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	0	0	0	0	0	69	25	94	26	81	42	149	19	52	0	71	314
11:45 AM	0	0	0	0	0	79	16	95	18	64	41	123	17	54	0	71	289
12:00 PM	0	0	0	0	0	78	13	91	22	68	43	133	13	60	0	73	297
12:15 PM	0	0	0	0	0	91	13	104	30	63	40	133	15	56	0	71	308
Total Volume	0	0	0	0	0	317	67	384	96	276	166	538	64	222	0	286	1208
% App. Total	0	0	0	0	0	82.6	17.4		17.8	51.3	30.9		22.4	77.6	0		
PHF	.000	.000	.000	.000	.000	.871	.670	.923	.800	.852	.965	.903	.842	.925	.000	.979	.962

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S4
 Site Code : 91061004
 Start Date : 12/5/2020
 Page No : 5



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

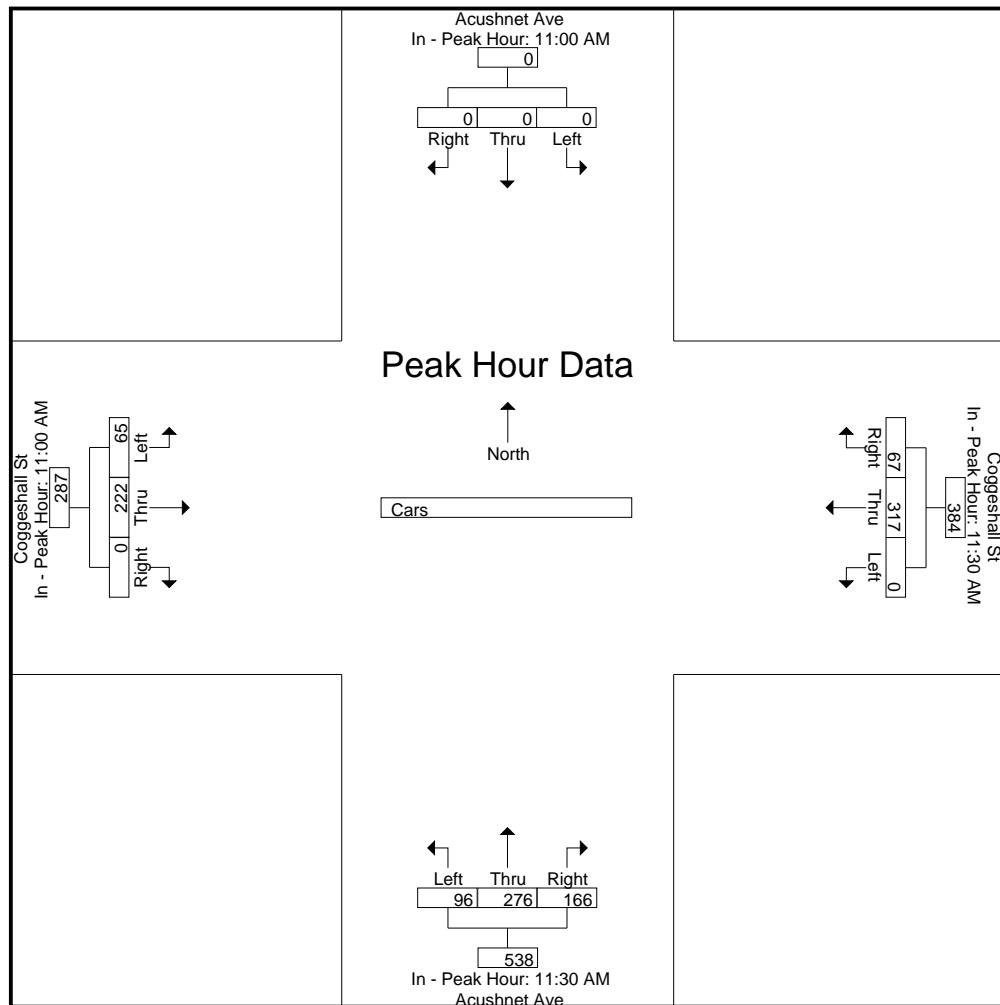
Peak Hour for Each Approach Begins at:

	11:00 AM				11:30 AM				11:30 AM				11:00 AM			
+0 mins.	0	0	0	0	0	69	25	94	26	81	42	149	21	60	0	81
+15 mins.	0	0	0	0	0	79	16	95	18	64	41	123	8	56	0	64
+30 mins.	0	0	0	0	0	78	13	91	22	68	43	133	19	52	0	71
+45 mins.	0	0	0	0	0	91	13	104	30	63	40	133	17	54	0	71
Total Volume	0	0	0	0	0	317	67	384	96	276	166	538	65	222	0	287
% App. Total	0	0	0	0	0	82.6	17.4		17.8	51.3	30.9		22.6	77.4	0	
PHF	.000	.000	.000	.000	.000	.871	.670	.923	.800	.852	.965	.903	.774	.925	.000	.886

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S4
Site Code : 91061004
Start Date : 12/5/2020
Page No : 6



Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S4
 Site Code : 91061004
 Start Date : 12/5/2020
 Page No : 7

Groups Printed- Trucks

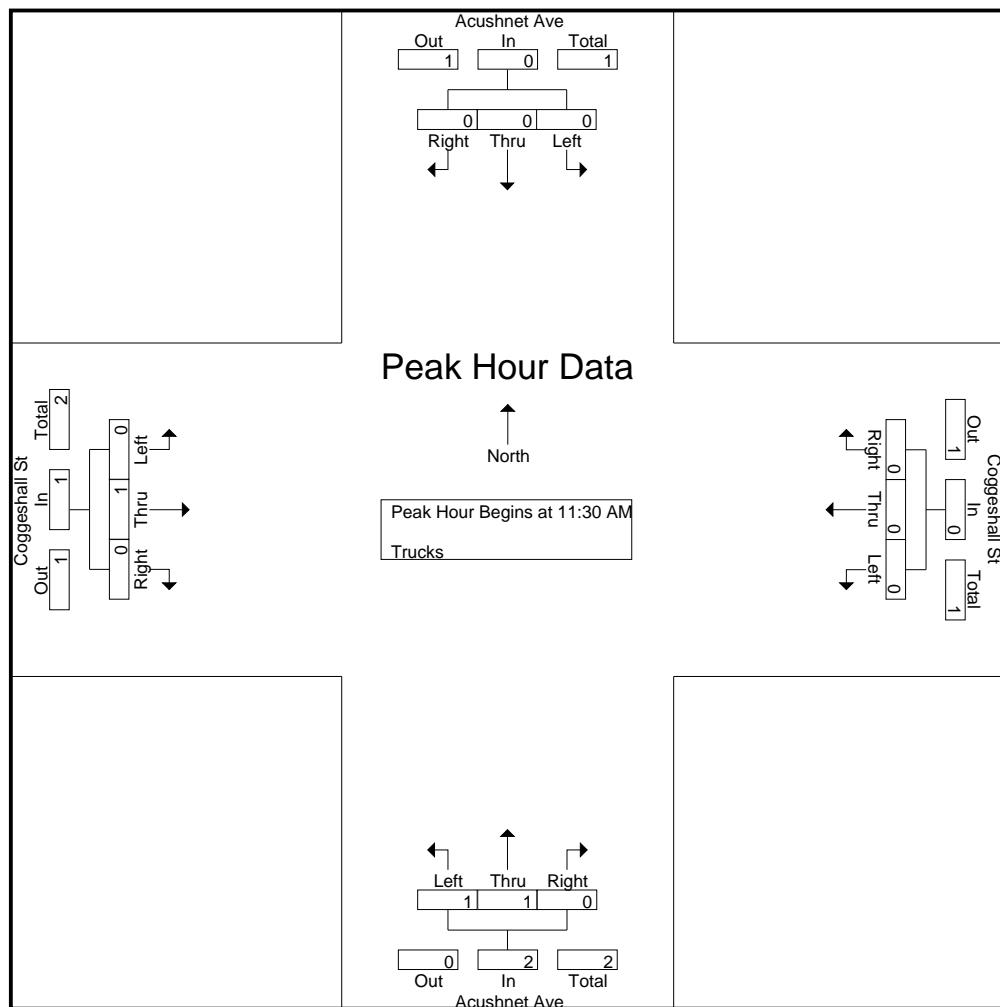
	Acushnet Ave From North			Coggeshall St From East			Acushnet Ave From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Int. Total									
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	1	1	0	0	0	0	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	0	0	0	0	1	1	0	0	1	0	3
Apprch %	0	0	0	0	0	0	50	50	0	0	100	0	
Total %	0	0	0	0	0	0	33.3	33.3	0	0	33.3	0	

	Acushnet Ave From North				Coggeshall St From East				Acushnet Ave From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	1	3
% App. Total	0	0	0		0	0	0		50	50	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.500	.000	.250	.000	.250	.750

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S4
 Site Code : 91061004
 Start Date : 12/5/2020
 Page No : 8



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

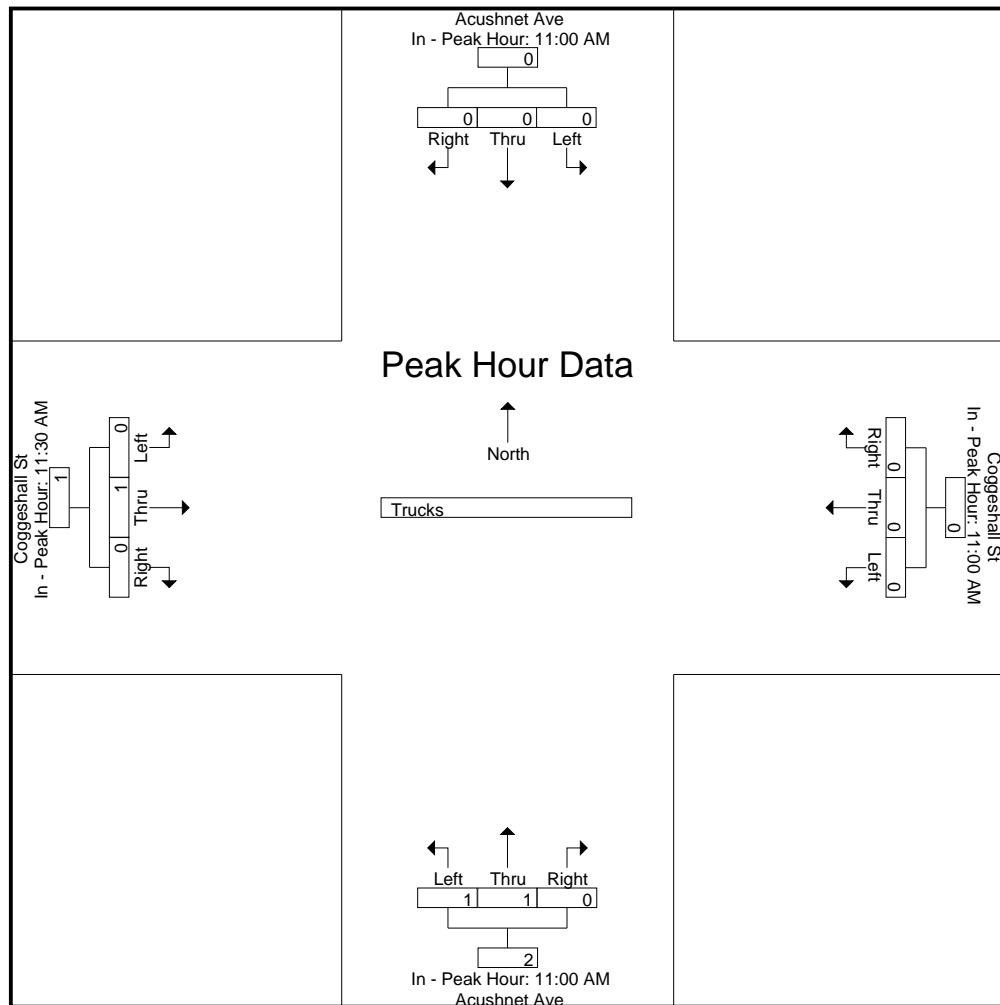
Peak Hour for Each Approach Begins at:

	11:00 AM				11:00 AM				11:00 AM				11:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1
Total Volume	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	1
% App. Total	0	0	0	0	0	0	0	0	50	50	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.500	.000	.250	.000	.250

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S4
Site Code : 91061004
Start Date : 12/5/2020
Page No : 9



Accurate Counts

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S4
Site Code : 91061004
Start Date : 12/5/2020
Page No : 10

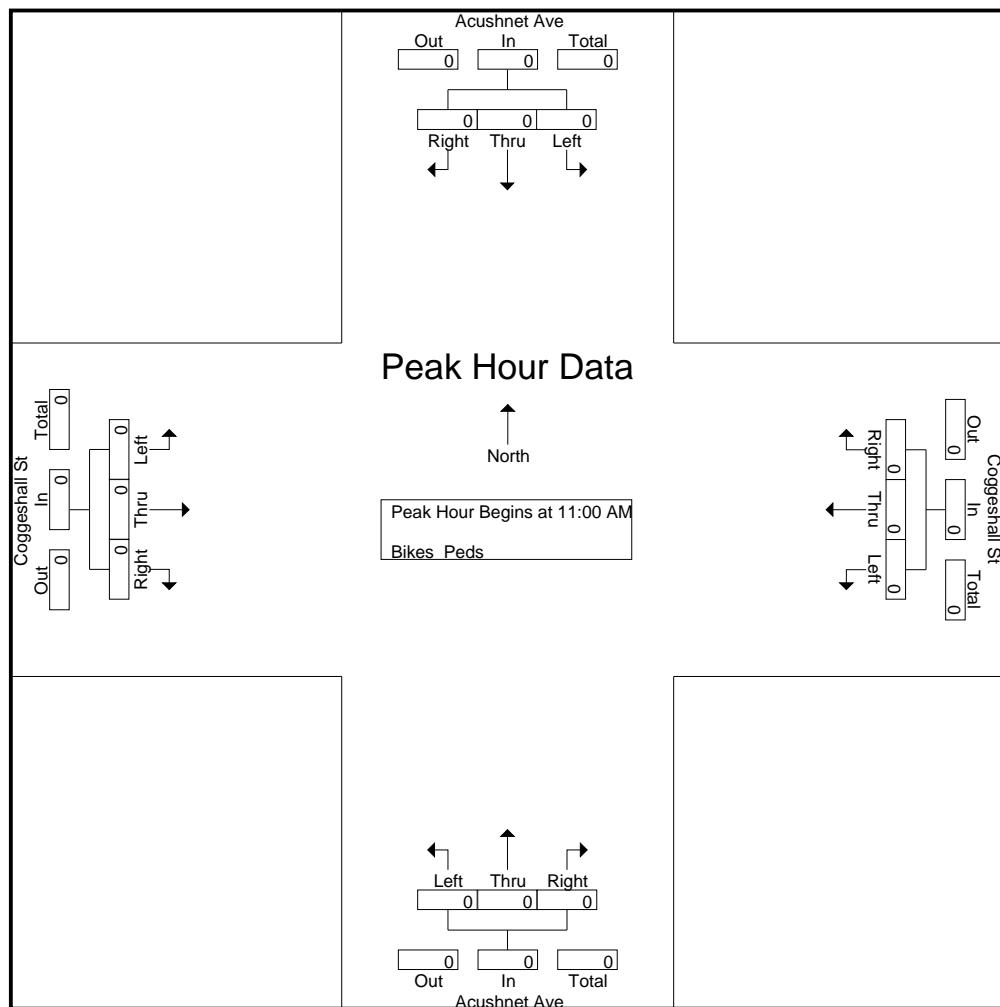
Groups Printed- Bikes Peds

	Acushnet Ave From North				Coggeshall St From East				Acushnet Ave From South				Coggeshall St From West							
Start Time	Left	Thru	Right	Peds	Excl. Total	Incl. Total	Int. Total													
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	0	11
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	4
11:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	8
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	0	13
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	35	36	0	36
12:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	6
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	6
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	16	17	0	17
Grand Total	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	51	53	0	53
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total %																		100	0	

Accurate Counts

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S4
Site Code : 91061004
Start Date : 12/5/2020
Page No : 11



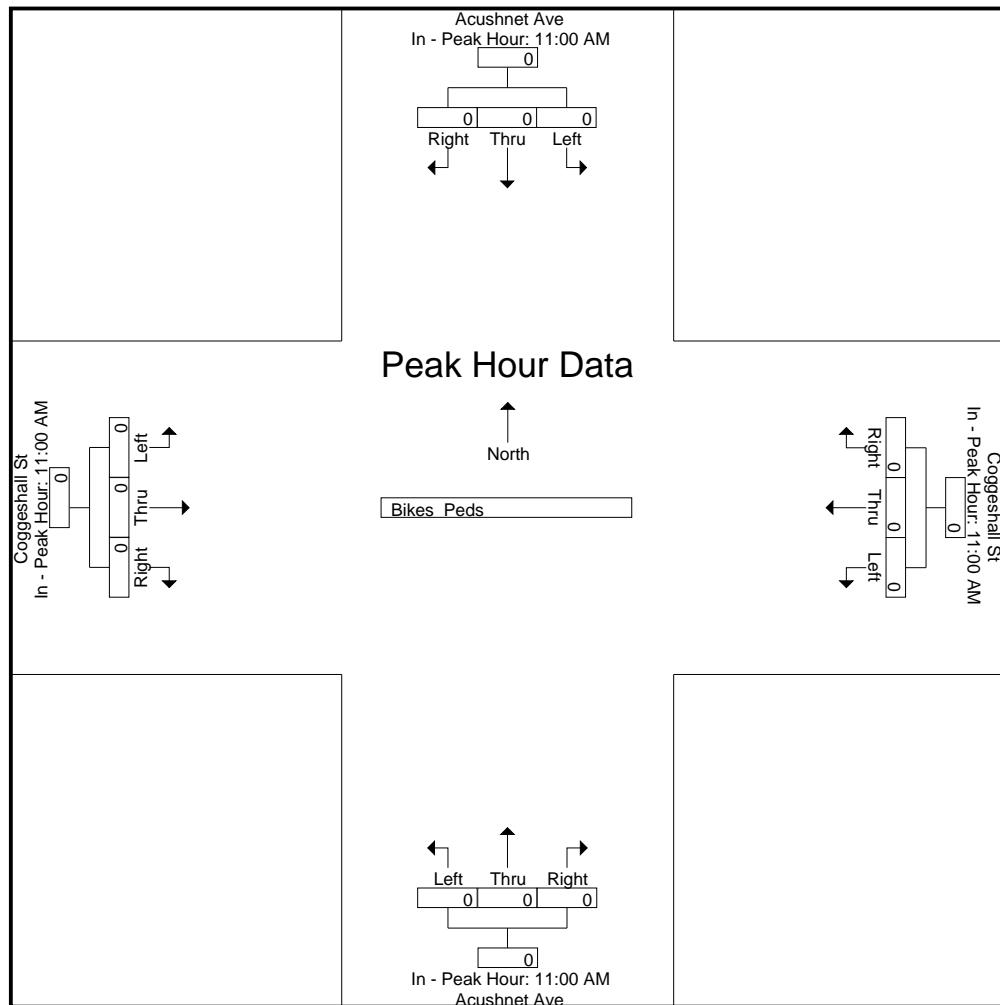
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

Peak Hour Analysis From 11:00 AM to 12:00 PM

Accurate Counts
978-664-2565

N/S Street : Acushnet Avenue
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S4
Site Code : 91061004
Start Date : 12/5/2020
Page No : 12



Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061005
 Site Code : 91061005
 Start Date : 12/3/2020
 Page No : 1

Groups Printed- Cars - Trucks

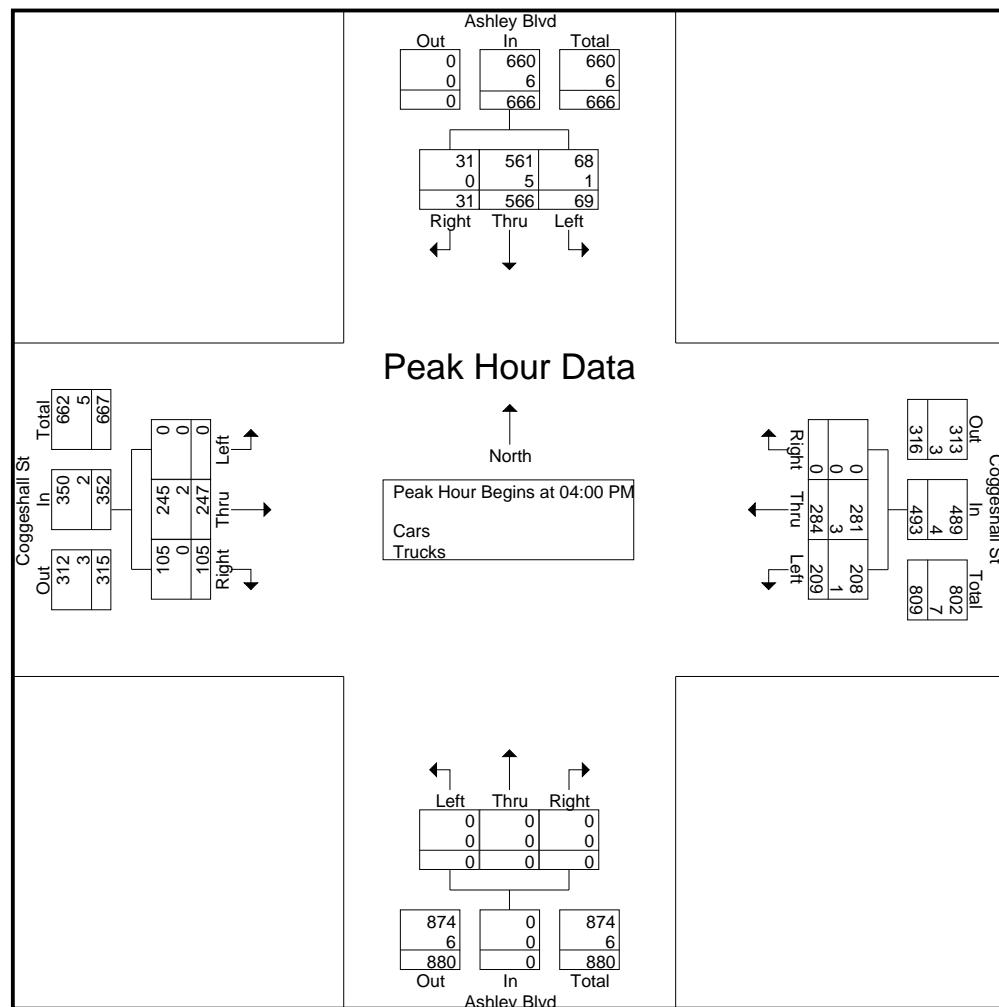
		Ashley Blvd From North			Coggeshall St From East			Ashley Blvd From South			Coggeshall St From West			
Start Time		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM		22	148	4	55	76	0	0	0	0	0	63	23	391
04:15 PM		12	144	7	52	60	0	0	0	0	0	62	22	359
04:30 PM		21	134	7	48	71	0	0	0	0	0	66	30	377
04:45 PM		14	140	13	54	77	0	0	0	0	0	56	30	384
Total		69	566	31	209	284	0	0	0	0	0	247	105	1511
05:00 PM		14	142	7	45	71	0	0	0	0	0	62	28	369
05:15 PM		22	114	5	59	70	0	0	0	0	0	50	24	344
05:30 PM		14	99	11	54	66	0	0	0	0	0	48	17	309
05:45 PM		20	120	6	40	54	0	0	0	0	0	52	22	314
Total		70	475	29	198	261	0	0	0	0	0	212	91	1336
Grand Total		139	1041	60	407	545	0	0	0	0	0	459	196	2847
Apprch %		11.2	84	4.8	42.8	57.2	0	0	0	0	0	70.1	29.9	
Total %		4.9	36.6	2.1	14.3	19.1	0	0	0	0	0	16.1	6.9	
Cars		138	1035	60	405	542	0	0	0	0	0	457	196	2833
% Cars		99.3	99.4	100	99.5	99.4	0	0	0	0	0	99.6	100	99.5
Trucks		1	6	0	2	3	0	0	0	0	0	2	0	14
% Trucks		0.7	0.6	0	0.5	0.6	0	0	0	0	0	0.4	0	0.5

		Ashley Blvd From North			Coggeshall St From East			Ashley Blvd From South			Coggeshall St From West			
Start Time		Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 04:00 PM														
04:00 PM		22	148	4	174	55	76	0	131	0	0	0	0	391
04:15 PM		12	144	7	163	52	60	0	112	0	0	0	0	359
04:30 PM		21	134	7	162	48	71	0	119	0	0	0	0	377
04:45 PM		14	140	13	167	54	77	0	131	0	0	0	0	384
Total Volume		69	566	31	666	209	284	0	493	0	0	0	0	1511
% App. Total		10.4	85	4.7		42.4	57.6	0		0	0	0	0	
PHF		.784	.956	.596	.957	.950	.922	.000	.941	.000	.000	.000	.000	.966
Cars		68	561	31	660	208	281	0	489	0	0	0	0	350
% Cars		98.6	99.1	100	99.1	99.5	98.9	0	99.2	0	0	0	0	99.4
Trucks		1	5	0	6	1	3	0	4	0	0	0	0	12
% Trucks		1.4	0.9	0	0.9	0.5	1.1	0	0.8	0	0	0	0	0.8

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061005
Site Code : 91061005
Start Date : 12/3/2020
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

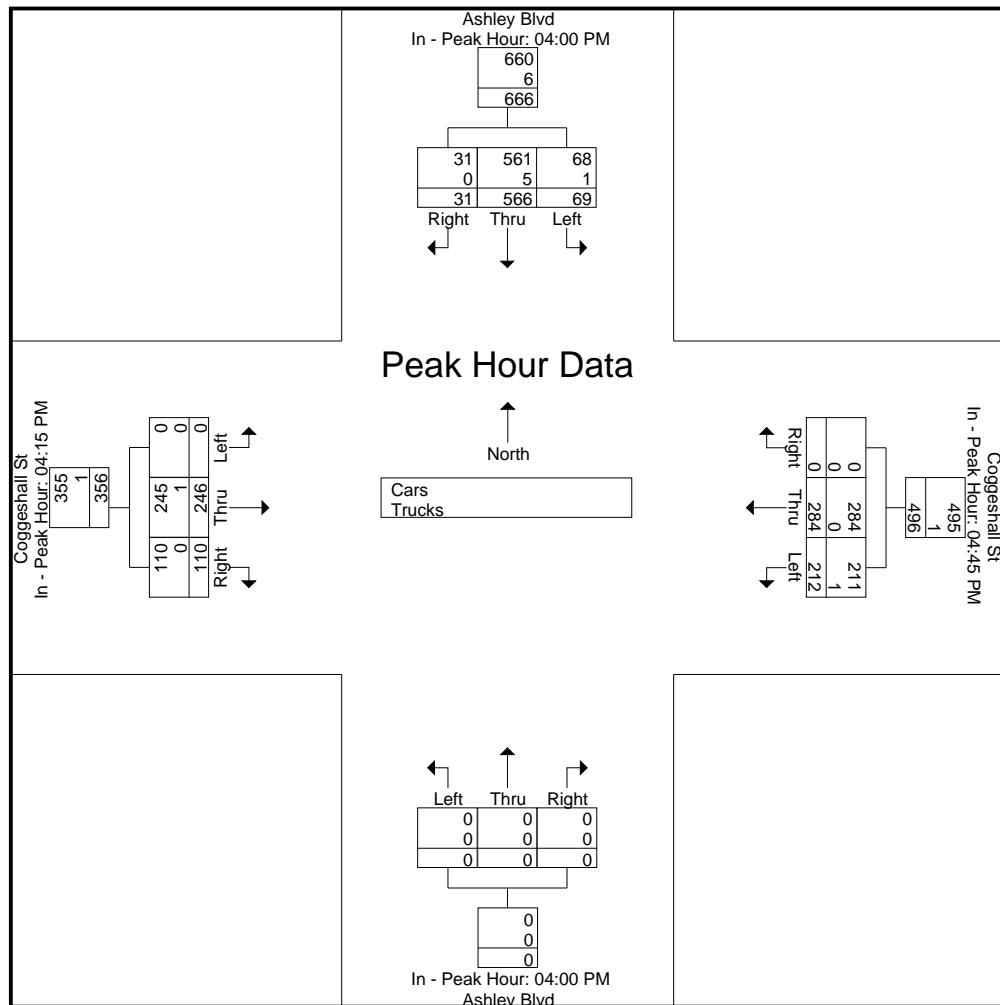
Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				04:00 PM				04:15 PM			
+0 mins.	22	148	4	174	54	77	0	131	0	0	0	0	0	62	22	84
+15 mins.	12	144	7	163	45	71	0	116	0	0	0	0	0	66	30	96
+30 mins.	21	134	7	162	59	70	0	129	0	0	0	0	0	56	30	86
+45 mins.	14	140	13	167	54	66	0	120	0	0	0	0	0	62	28	90
Total Volume	69	566	31	666	212	284	0	496	0	0	0	0	0	246	110	356
% App. Total	10.4	85	4.7		42.7	57.3	0		0	0	0	0	0	69.1	30.9	
PHF	.784	.956	.596	.957	.898	.922	.000	.947	.000	.000	.000	.000	.000	.932	.917	.927
Cars	68	561	31	660	211	284	0	495	0	0	0	0	0	245	110	355
% Cars	98.6	99.1	100	99.1	99.5	100	0	99.8	0	0	0	0	0	99.6	100	99.7
Trucks	1	5	0	6	1	0	0	1	0	0	0	0	0	1	0	1
% Trucks	1.4	0.9	0	0.9	0.5	0	0	0.2	0	0	0	0	0	0.4	0	0.3

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061005
Site Code : 91061005
Start Date : 12/3/2020
Page No : 3



Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061005
 Site Code : 91061005
 Start Date : 12/3/2020
 Page No : 4

Groups Printed- Cars

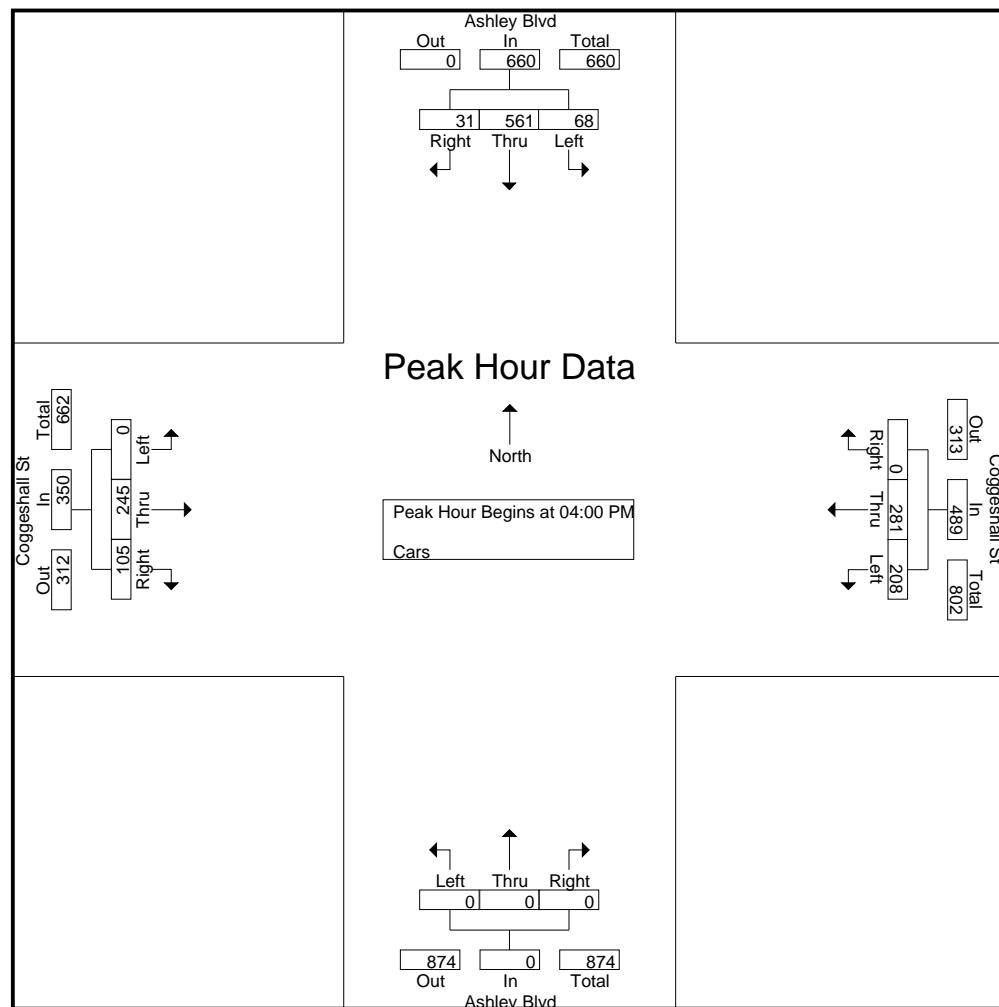
	Ashley Blvd From North			Coggeshall St From East			Ashley Blvd From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	21	147	4	55	74	0	0	0	0	0	62	23	386
04:15 PM	12	142	7	51	59	0	0	0	0	0	62	22	355
04:30 PM	21	133	7	48	71	0	0	0	0	0	66	30	376
04:45 PM	14	139	13	54	77	0	0	0	0	0	55	30	382
Total	68	561	31	208	281	0	0	0	0	0	245	105	1499
05:00 PM	14	142	7	45	71	0	0	0	0	0	62	28	369
05:15 PM	22	113	5	58	70	0	0	0	0	0	50	24	342
05:30 PM	14	99	11	54	66	0	0	0	0	0	48	17	309
05:45 PM	20	120	6	40	54	0	0	0	0	0	52	22	314
Total	70	474	29	197	261	0	0	0	0	0	212	91	1334
Grand Total	138	1035	60	405	542	0	0	0	0	0	457	196	2833
Apprch %	11.2	83.9	4.9	42.8	57.2	0	0	0	0	0	70	30	
Total %	4.9	36.5	2.1	14.3	19.1	0	0	0	0	0	16.1	6.9	

	Ashley Blvd From North				Coggeshall St From East				Ashley Blvd From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	21	147	4	172	55	74	0	129	0	0	0	0	0	62	23	85	386
04:15 PM	12	142	7	161	51	59	0	110	0	0	0	0	0	62	22	84	355
04:30 PM	21	133	7	161	48	71	0	119	0	0	0	0	0	66	30	96	376
04:45 PM	14	139	13	166	54	77	0	131	0	0	0	0	0	55	30	85	382
Total Volume	68	561	31	660	208	281	0	489	0	0	0	0	0	245	105	350	1499
% App. Total	10.3	85	4.7		42.5	57.5	0		0	0	0	0	0	70	30		
PHF	.810	.954	.596	.959	.945	.912	.000	.933	.000	.000	.000	.000	.000	.928	.875	.911	.971

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061005
 Site Code : 91061005
 Start Date : 12/3/2020
 Page No : 5



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

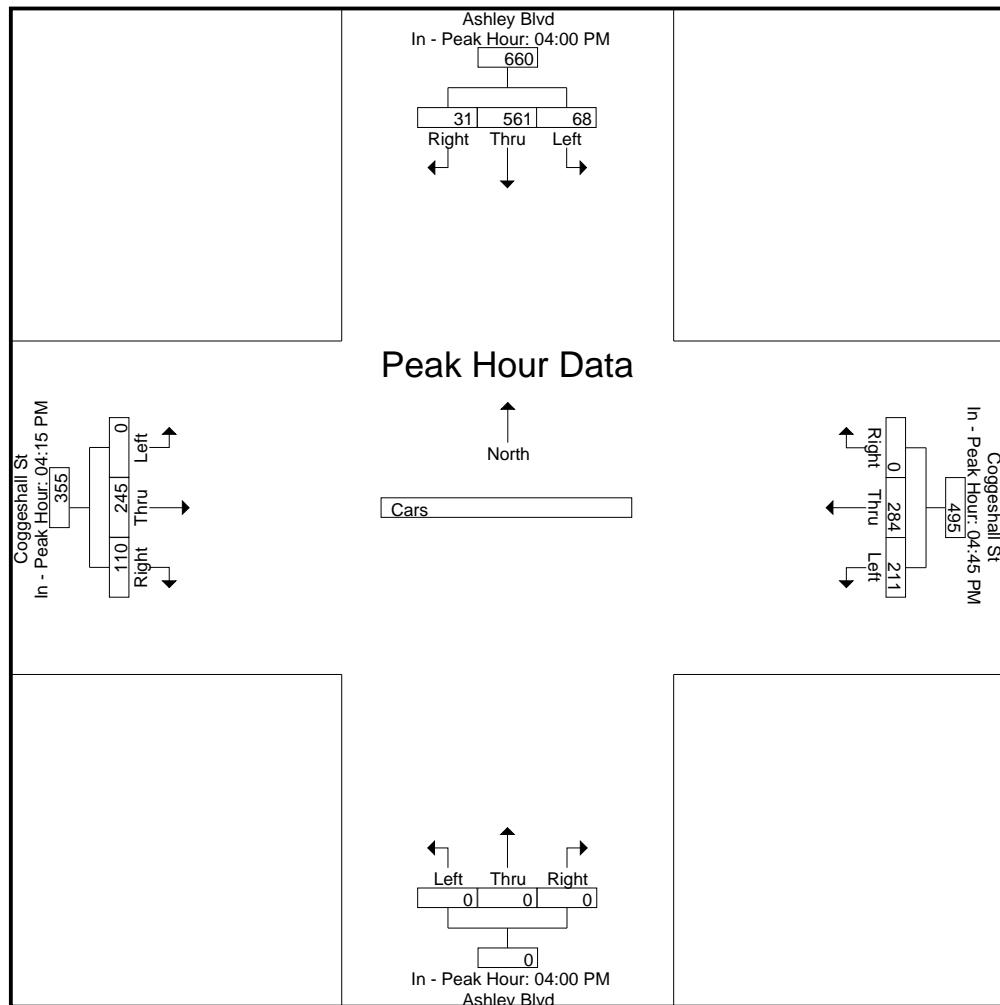
Peak Hour for Each Approach Begins at:

	04:00 PM				04:45 PM				04:00 PM				04:15 PM			
+0 mins.	21	147	4	172	54	77	0	131	0	0	0	0	0	62	22	84
+15 mins.	12	142	7	161	45	71	0	116	0	0	0	0	0	66	30	96
+30 mins.	21	133	7	161	58	70	0	128	0	0	0	0	0	55	30	85
+45 mins.	14	139	13	166	54	66	0	120	0	0	0	0	0	62	28	90
Total Volume	68	561	31	660	211	284	0	495	0	0	0	0	0	245	110	355
% App. Total	10.3	85	4.7		42.6	57.4	0		0	0	0	0	0	69	31	
PHF	.810	.954	.596	.959	.909	.922	.000	.945	.000	.000	.000	.000	.000	.928	.917	.924

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061005
Site Code : 91061005
Start Date : 12/3/2020
Page No : 6



Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061005
 Site Code : 91061005
 Start Date : 12/3/2020
 Page No : 7

Groups Printed- Trucks

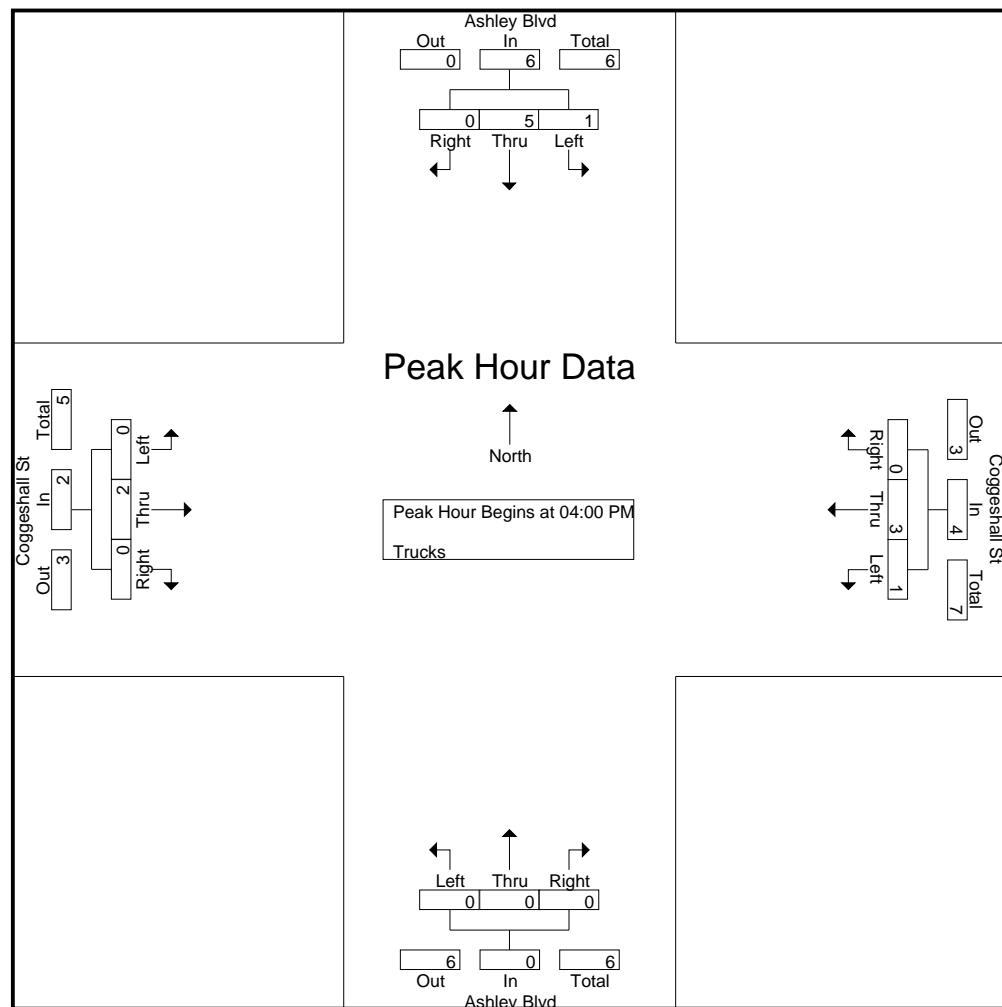
	Ashley Blvd From North			Coggeshall St From East			Ashley Blvd From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	1	1	0	0	2	0	0	0	0	0	1	0	5
04:15 PM	0	2	0	1	1	0	0	0	0	0	0	0	4
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
Total	1	5	0	1	3	0	0	0	0	0	2	0	12
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	2
Grand Total	1	6	0	2	3	0	0	0	0	0	2	0	14
Apprch %	14.3	85.7	0	40	60	0	0	0	0	0	100	0	
Total %	7.1	42.9	0	14.3	21.4	0	0	0	0	0	14.3	0	

	Ashley Blvd From North				Coggeshall St From East				Ashley Blvd From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	1	0	2	0	2	0	2	0	0	0	0	0	1	0	1	5
04:15 PM	0	2	0	2	1	1	0	2	0	0	0	0	0	0	0	0	4
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total Volume	1	5	0	6	1	3	0	4	0	0	0	0	0	2	0	2	12
% App. Total	16.7	83.3	0		25	75	0		0	0	0		0	100	0		
PHF	.250	.625	.000	.750	.250	.375	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.600

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061005
Site Code : 91061005
Start Date : 12/3/2020
Page No : 8



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

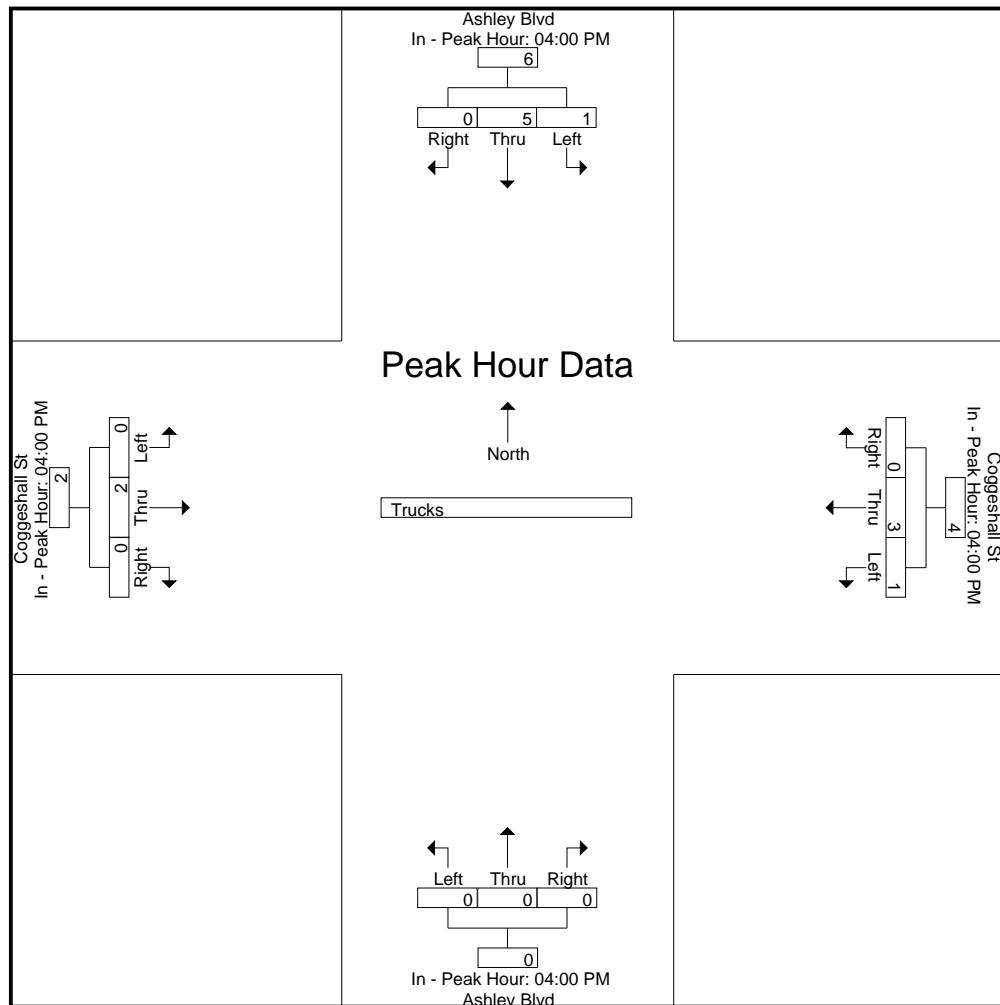
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	1	1	0	2	0	2	0	2	0	0	0	0	0	0	1	0	1
+15 mins.	0	2	0	2	1	1	0	2	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	1	5	0	6	1	3	0	4	0	0	0	0	0	0	2	0	2
% App. Total	16.7	83.3	0		25	75	0		0	0	0	0	0	100	0		
PHF	.250	.625	.000	.750	.250	.375	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061005
Site Code : 91061005
Start Date : 12/3/2020
Page No : 9



Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061005
 Site Code : 91061005
 Start Date : 12/3/2020
 Page No : 10

Groups Printed- Bikes Peds

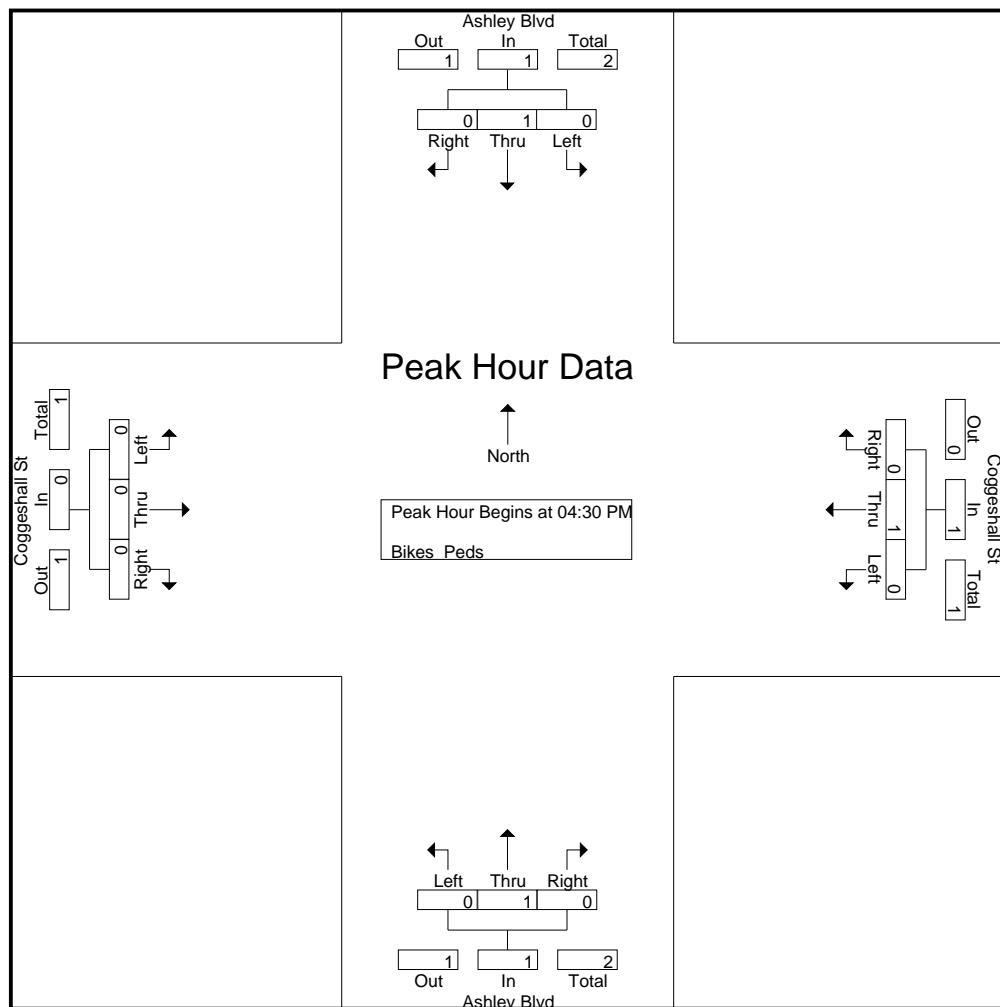
	Ashley Blvd From North				Coggeshall St From East				Ashley Blvd From South				Coggeshall St From West							
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Excl. Total	Inclu. Total	Int. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	
04:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
04:45 PM	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	
Total	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1	4	1	5	
05:00 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2	
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	2	
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
Total	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	2	3	5	
Grand Total	0	1	0	4	0	1	0	0	0	1	0	1	0	0	0	1	1	6	4	10
Apprch %	0	100	0		0	100	0		0	100	0		0	0	0	100				
Total %	0	25	0		0	25	0		0	25	0		0	0	0	25		60	40	

	Ashley Blvd From North				Coggeshall St From East				Ashley Blvd From South				Coggeshall St From West								
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	2
Total Volume	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	3
% App. Total	0	100	0		0	100	0		0	100	0		0	100	0		0	0	0	0	
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.250	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000	.375

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Cloudy

File Name : 91061005
 Site Code : 91061005
 Start Date : 12/3/2020
 Page No : 11



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

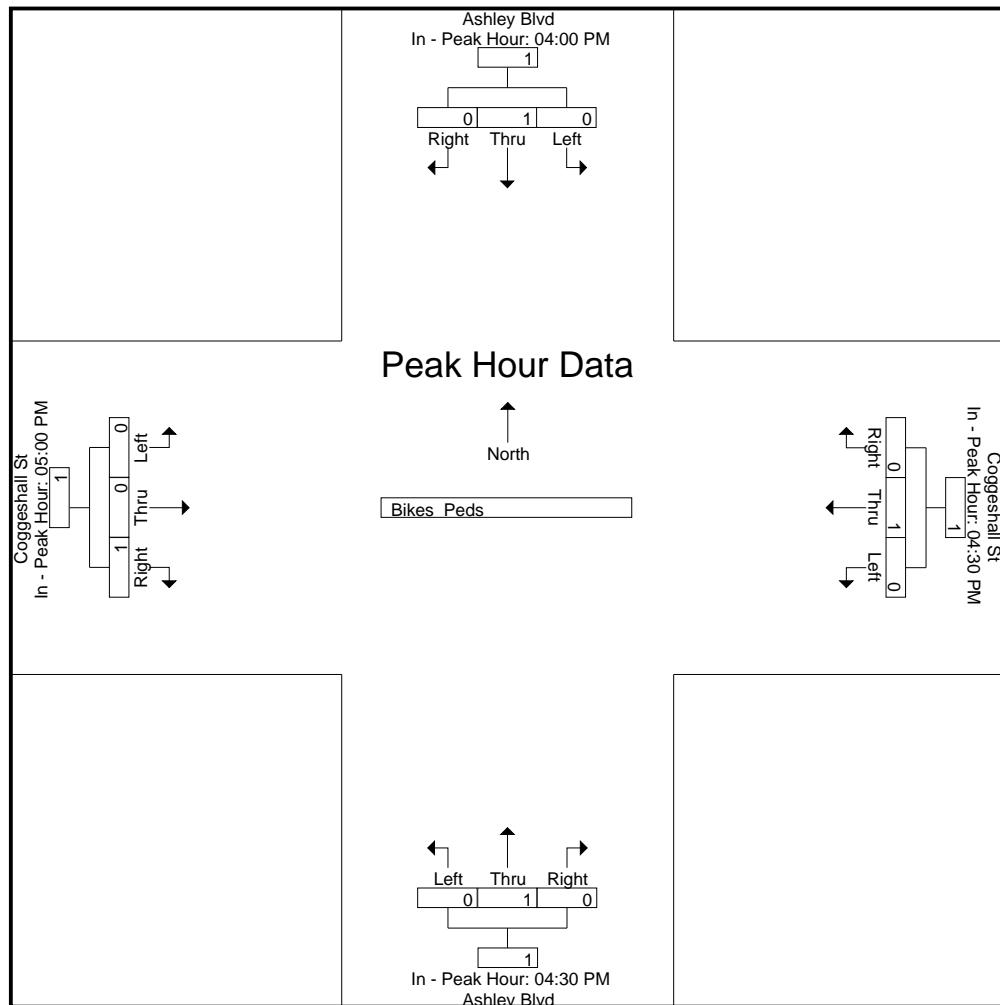
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:30 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	1
Total Volume	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	1
% App. Total	0	100	0	100	0	100	0	100	0	100	0	100	0	0	100	100
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.250	.000	.250	.000	.250	.250	.250

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Cloudy

File Name : 91061005
Site Code : 91061005
Start Date : 12/3/2020
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 1

Groups Printed- Cars - Trucks

Ashely Blvd
From North

Coggeshall St
From East

Ashely Blvd
From South

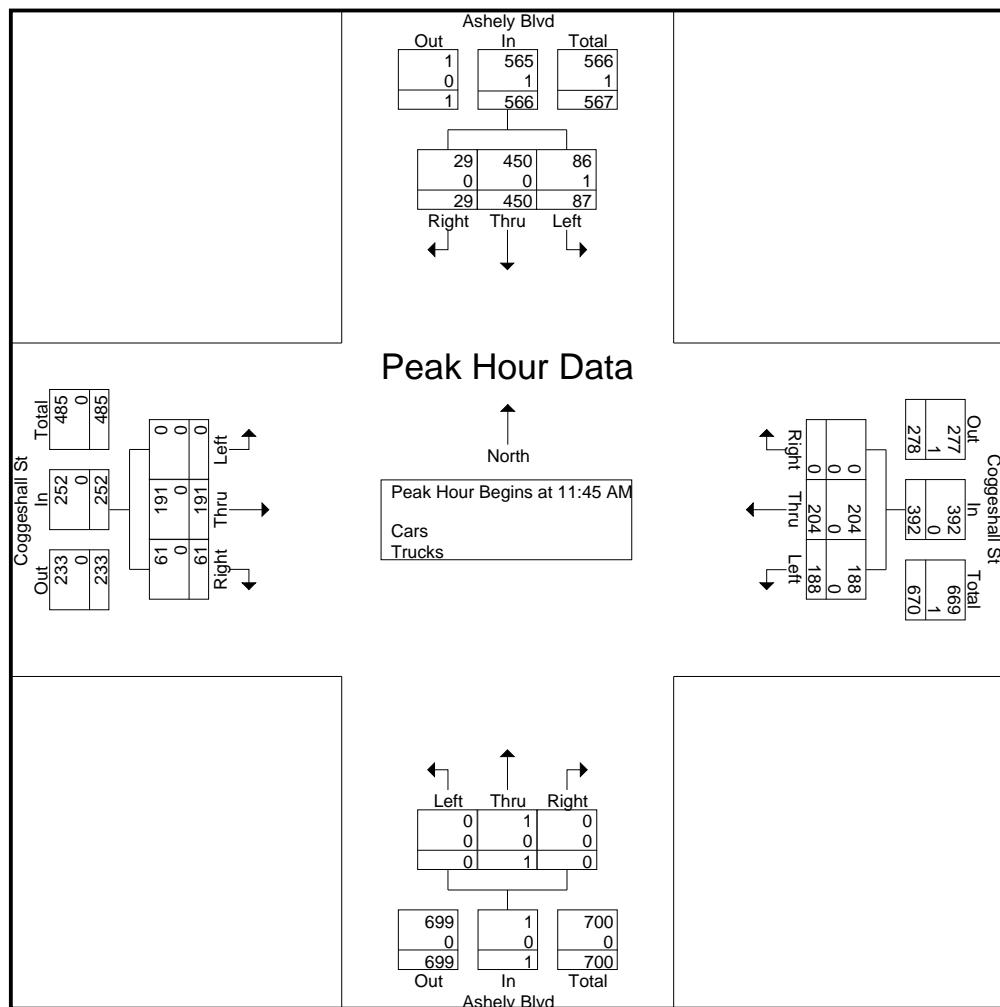
Coggeshall St
From West

Accurate Counts

978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 2



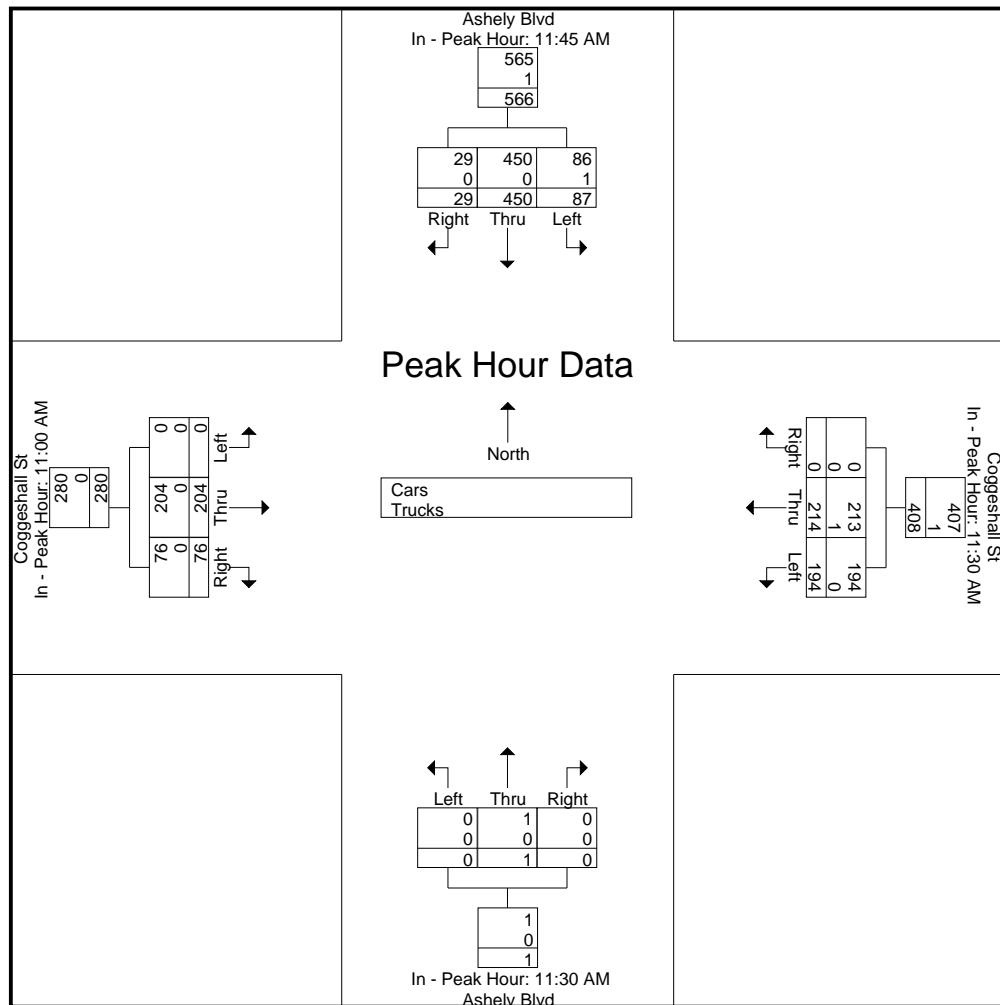
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 3



Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S5
 Site Code : 91061005
 Start Date : 12/5/2020
 Page No : 4

Groups Printed- Cars

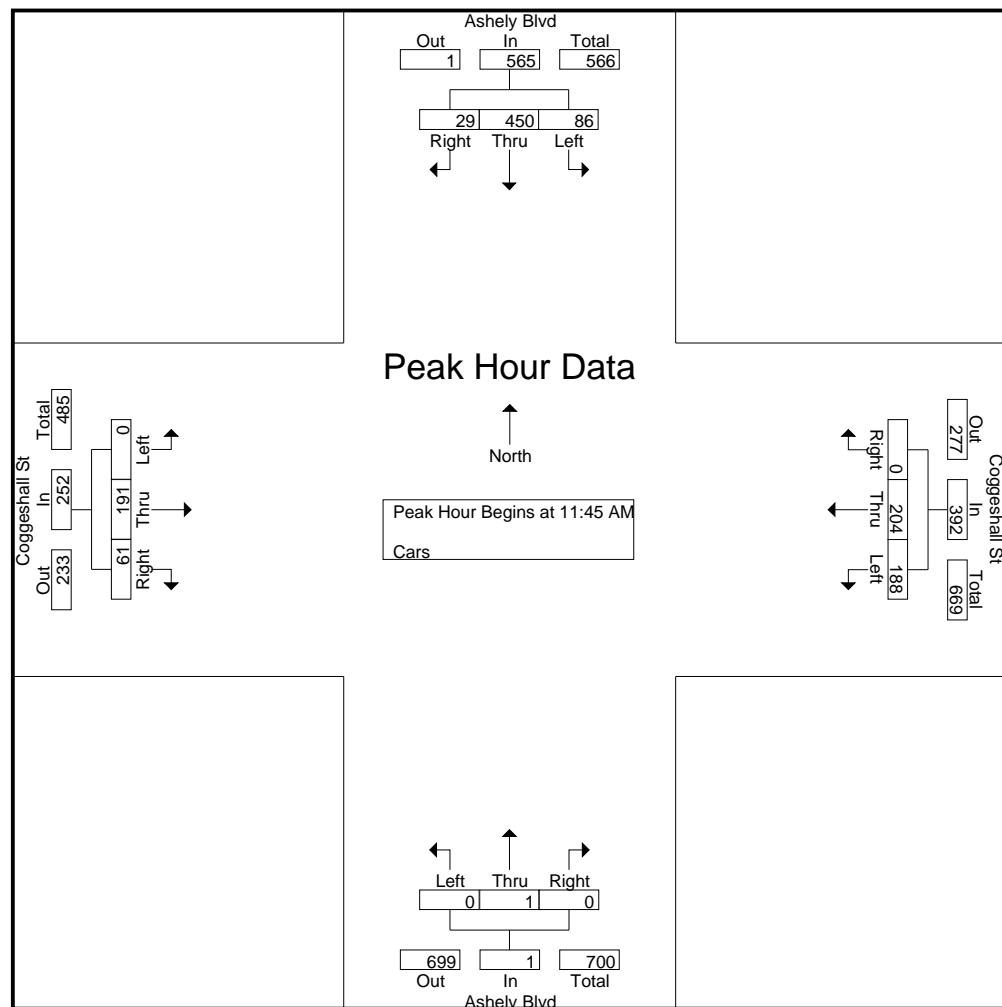
	Ashely Blvd From North			Coggeshall St From East			Ashely Blvd From South			Coggeshall St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	28	105	8	24	50	0	0	0	0	0	57	15	287
11:15 AM	20	91	8	38	50	0	0	0	0	0	46	19	272
11:30 AM	15	78	9	39	50	0	0	0	0	0	54	20	265
11:45 AM	29	109	7	48	48	0	0	0	0	0	47	22	310
Total	92	383	32	149	198	0	0	0	0	0	204	76	1134
12:00 PM	17	111	10	50	52	0	0	0	0	0	55	9	304
12:15 PM	27	123	7	57	63	0	0	1	0	0	41	9	328
12:30 PM	13	107	5	33	41	0	0	0	0	0	48	21	268
12:45 PM	18	103	5	45	58	0	0	0	0	0	49	19	297
Total	75	444	27	185	214	0	0	1	0	0	193	58	1197
Grand Total	167	827	59	334	412	0	0	1	0	0	397	134	2331
Apprch %	15.9	78.5	5.6	44.8	55.2	0	0	100	0	0	74.8	25.2	
Total %	7.2	35.5	2.5	14.3	17.7	0	0	0	0	0	17	5.7	

	Ashely Blvd From North				Coggeshall St From East				Ashely Blvd From South				Coggeshall St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	29	109	7	145	48	48	0	96	0	0	0	0	0	47	22	69	310
12:00 PM	17	111	10	138	50	52	0	102	0	0	0	0	0	55	9	64	304
12:15 PM	27	123	7	157	57	63	0	120	0	1	0	1	0	41	9	50	328
12:30 PM	13	107	5	125	33	41	0	74	0	0	0	0	0	48	21	69	268
Total Volume	86	450	29	565	188	204	0	392	0	1	0	1	0	191	61	252	1210
% App. Total	15.2	79.6	5.1		48	52	0		0	100	0		0	75.8	24.2		
PHF	.741	.915	.725	.900	.825	.810	.000	.817	.000	.250	.000	.250	.000	.868	.693	.913	.922

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
 E/W Street : Coggeshall Street
 City/State : New Bedford, MA
 Weather : Rain

File Name : 910610S5
 Site Code : 91061005
 Start Date : 12/5/2020
 Page No : 5



Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

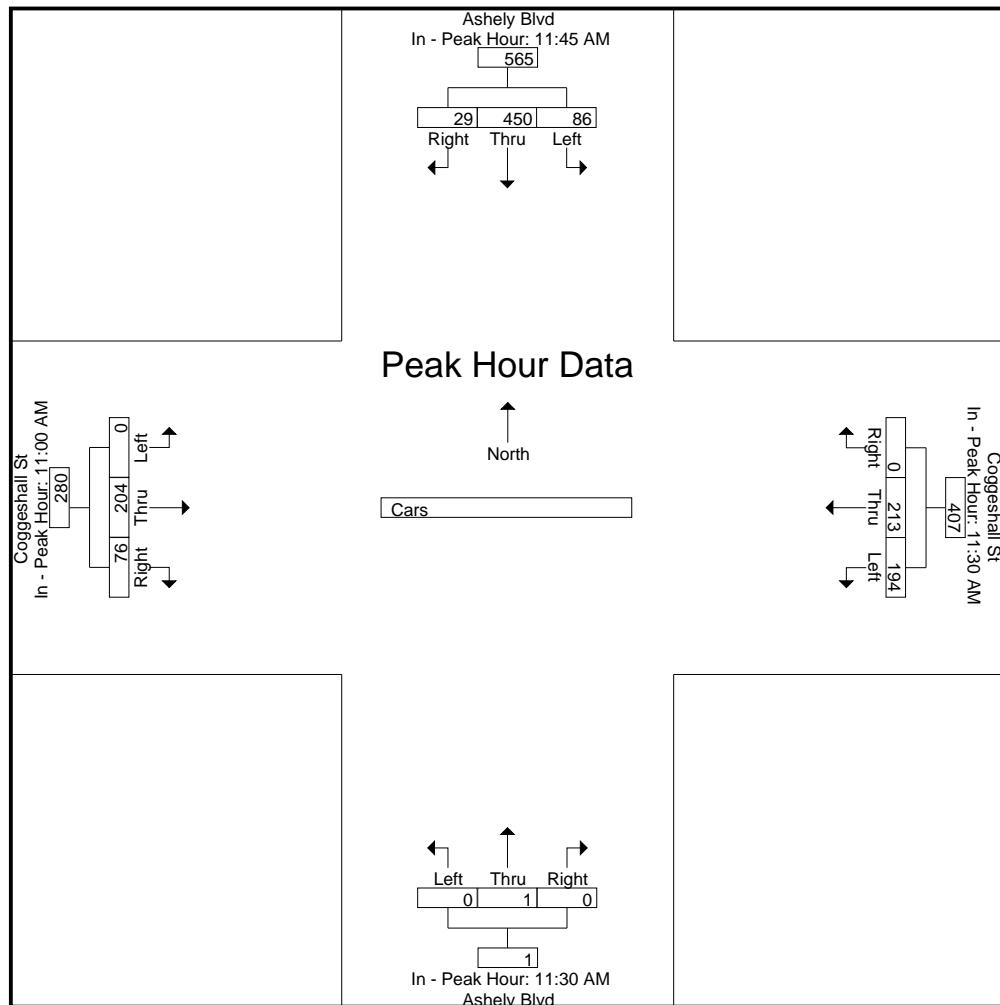
Peak Hour for Each Approach Begins at:

	11:45 AM				11:30 AM				11:30 AM				11:00 AM			
+0 mins.	29	109	7	145	39	50	0	89	0	0	0	0	0	57	15	72
+15 mins.	17	111	10	138	48	48	0	96	0	0	0	0	0	46	19	65
+30 mins.	27	123	7	157	50	52	0	102	0	0	0	0	0	54	20	74
+45 mins.	13	107	5	125	57	63	0	120	0	1	0	1	0	47	22	69
Total Volume	86	450	29	565	194	213	0	407	0	1	0	1	0	204	76	280
% App. Total	15.2	79.6	5.1		47.7	52.3	0		0	100	0	0	0	72.9	27.1	
PHF	.741	.915	.725	.900	.851	.845	.000	.848	.000	.250	.000	.250	.000	.895	.864	.946

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 6



Accurate Counts

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 7

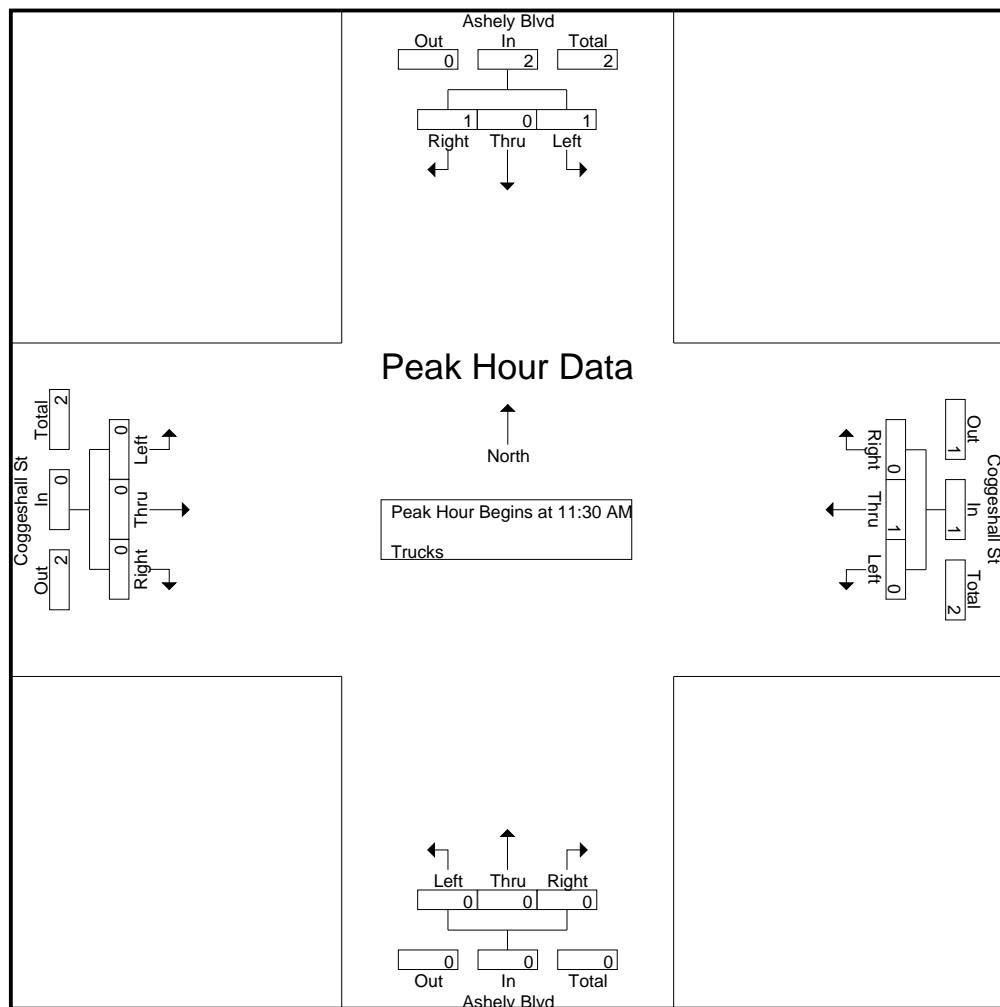
Groups Printed- Trucks

Accurate Counts

978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 8



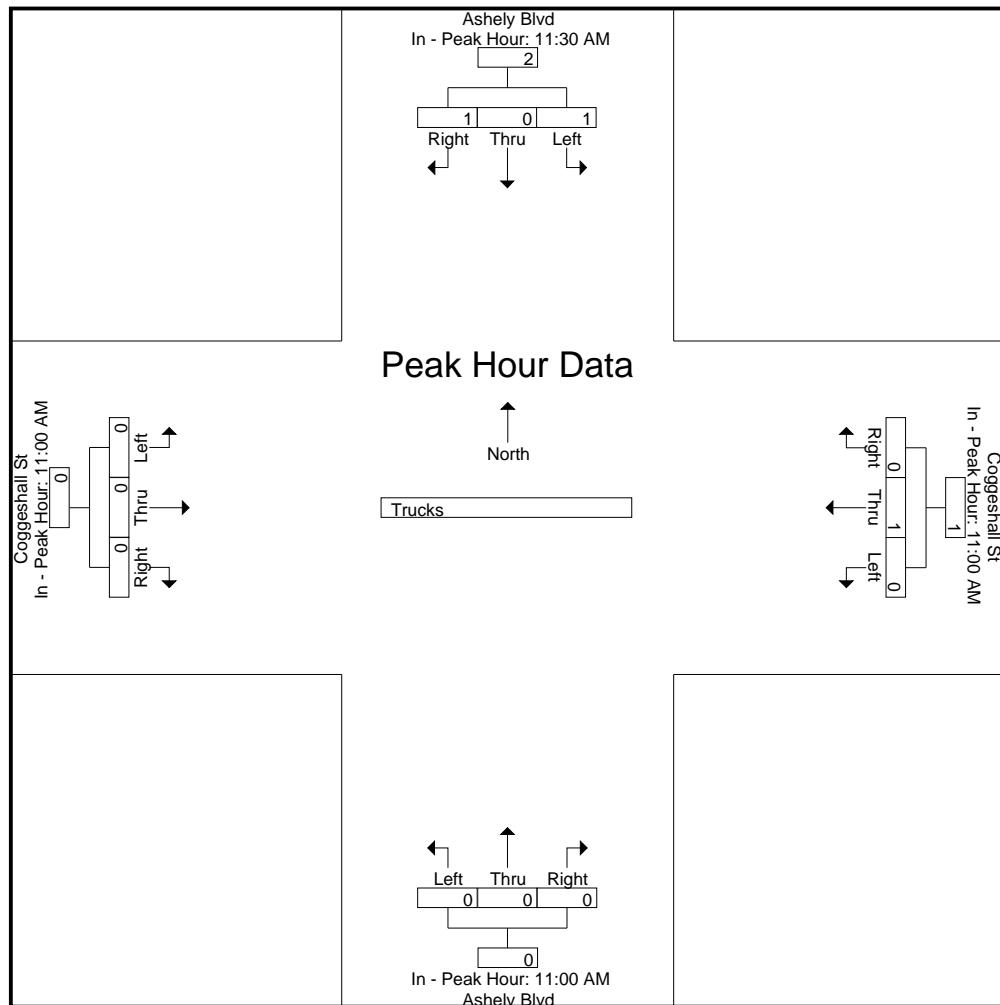
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 9



Accurate Counts

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 10

Groups Printed- Bikes Peds

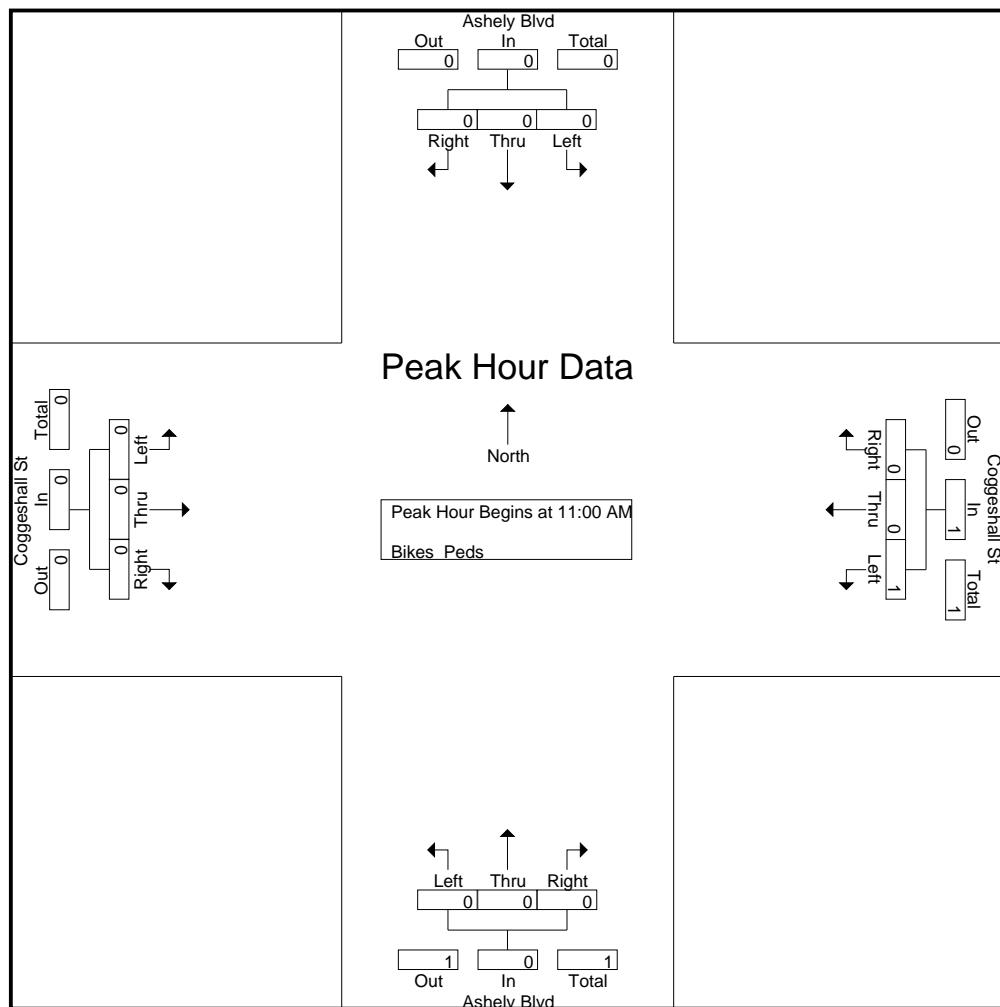
	Ashely Blvd From North				Coggeshall St From East				Ashely Blvd From South				Coggeshall St From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
11:00 AM	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	2	1	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	2	1	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	0	1	1	0	0	0	0	0	0	2	0	0	0	0	3	1	4
Apprch %	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	75	25	

Accurate Counts

978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 11



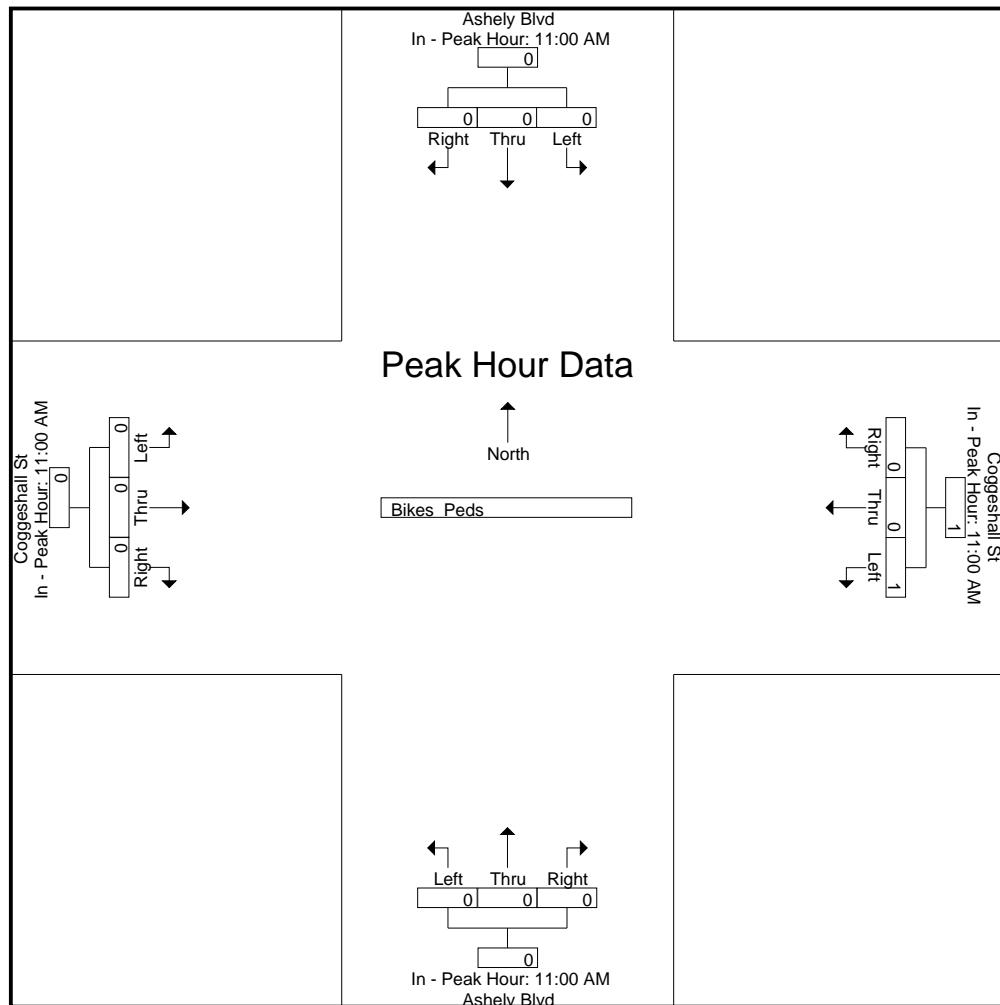
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

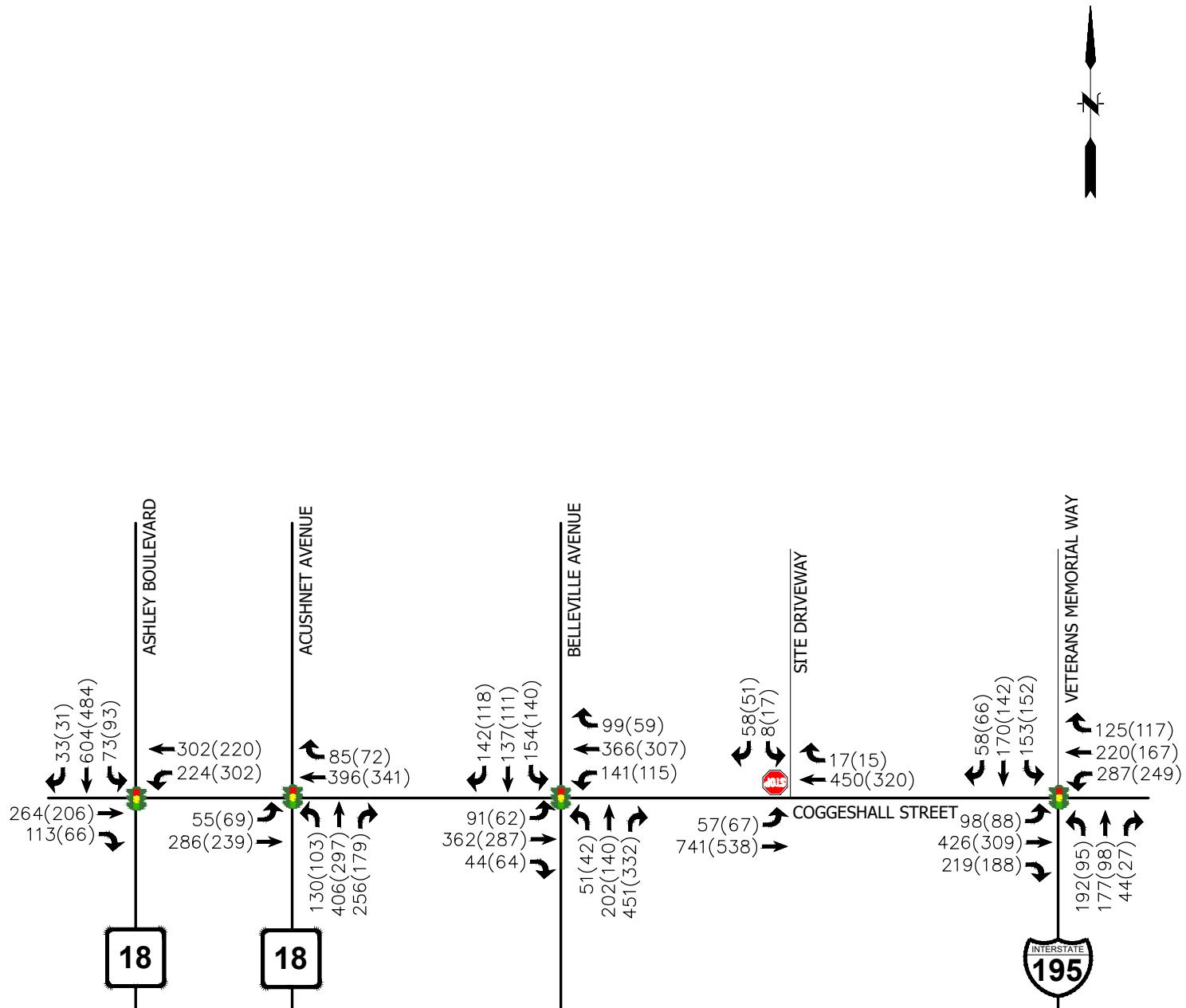
Peak Hour for Each Approach Begins at:

Accurate Counts
978-664-2565

N/S Street : Ashley Boulevard
E/W Street : Coggeshall Street
City/State : New Bedford, MA
Weather : Rain

File Name : 910610S5
Site Code : 91061005
Start Date : 12/5/2020
Page No : 12





XXX(XXX) = WEEKDAY PM PEAK (SATURDAY MIDDAY PEAK)



FUSS & O'NEILL

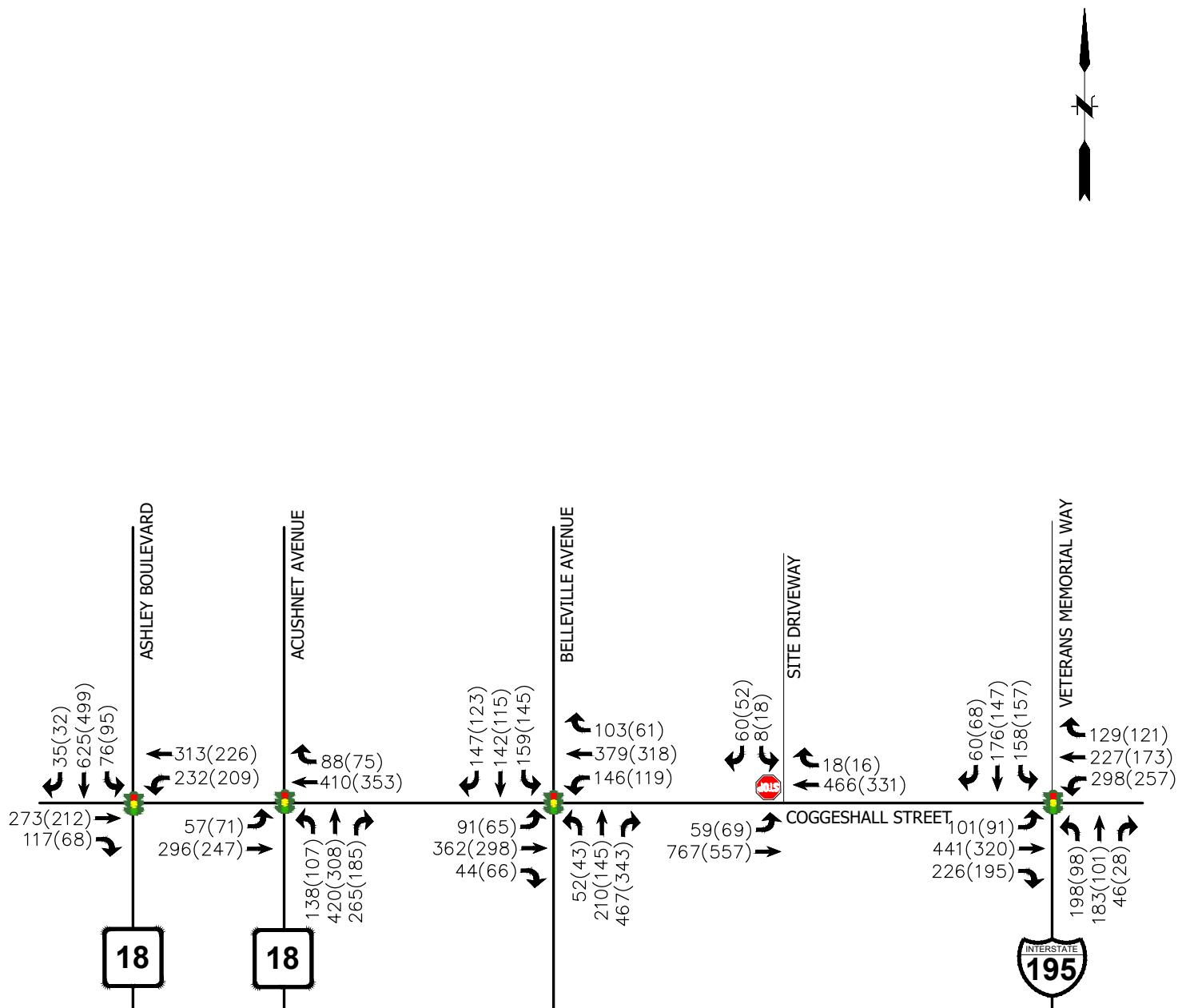
108 MYRTLE STREET, SUITE 502
QUINCY, MA 02171
617.282.4675
www.fando.com

FIGURE 1 - 2020 EXISTING TRAFFIC VOLUMES

PROJ. NO: 20191061.T10

ASCEND MASS, LLC

JANUARY 2021



XXX(XXX) = WEEKDAY PM PEAK (SATURDAY MIDDAY PEAK)



FUSS & O'NEILL

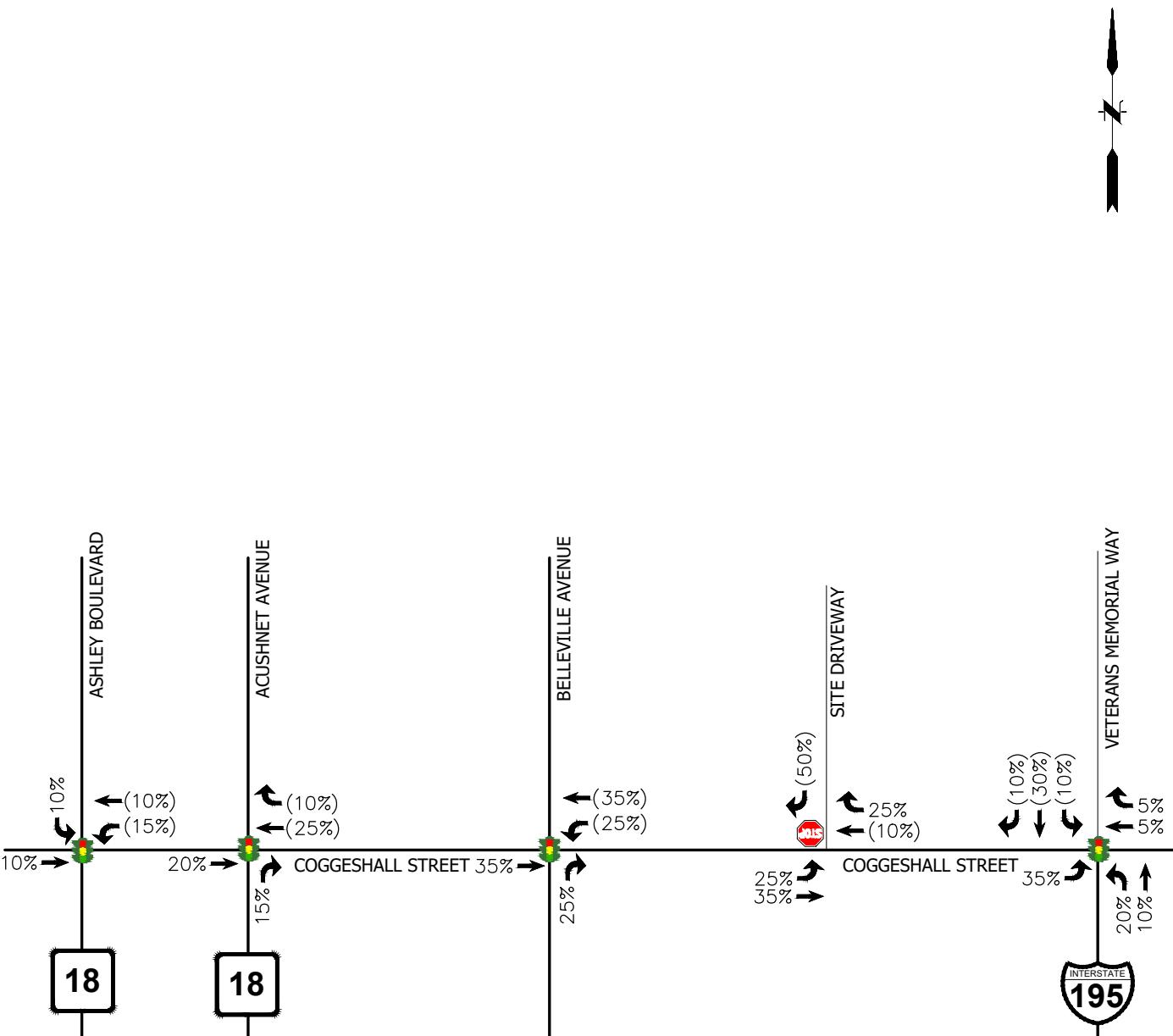
108 MYRTLE STREET, SUITE 502
QUINCY, MA 02171
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FIGURE 2 - 2027 NO-BUILD CONDITION

PROJ. NO: 20191061.T10

ASCEND MASS, LLC

JANUARY 2021



XXX(XXX) = ENTERING TRAFFIC (EXITING TRAFFIC)



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FIGURE 3 - TRIP DISTRIBUTION

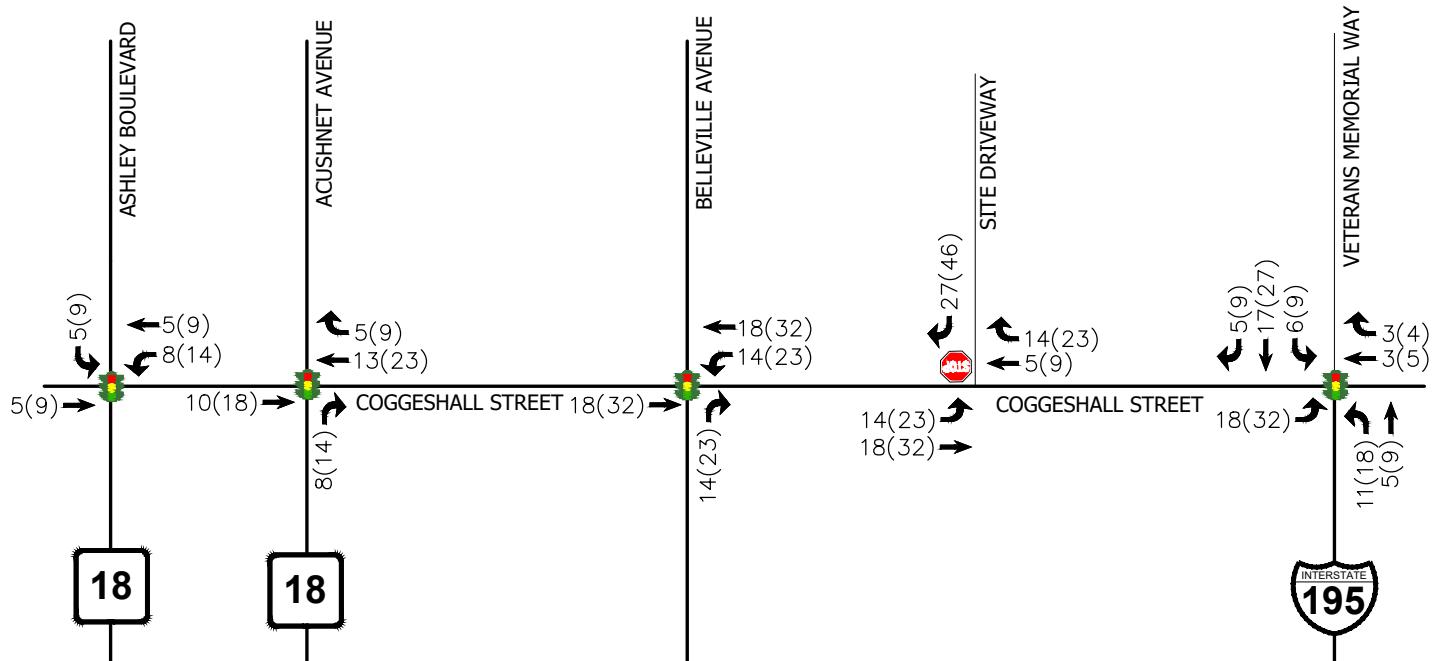
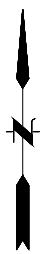
PROJ. NO: 20191061.T10

ASCEND MASS, LLC

JANUARY 2021

SITE GENERATED TRAFFIC VOLUMES

	ENTER	EXIT	TOTAL
AFTERNOON	54	55	109
SATURDAY	91	91	182



XXX(XXX) = WEEKDAY PM PEAK (SATURDAY MIDDAY PEAK)



FUSS & O'NEILL

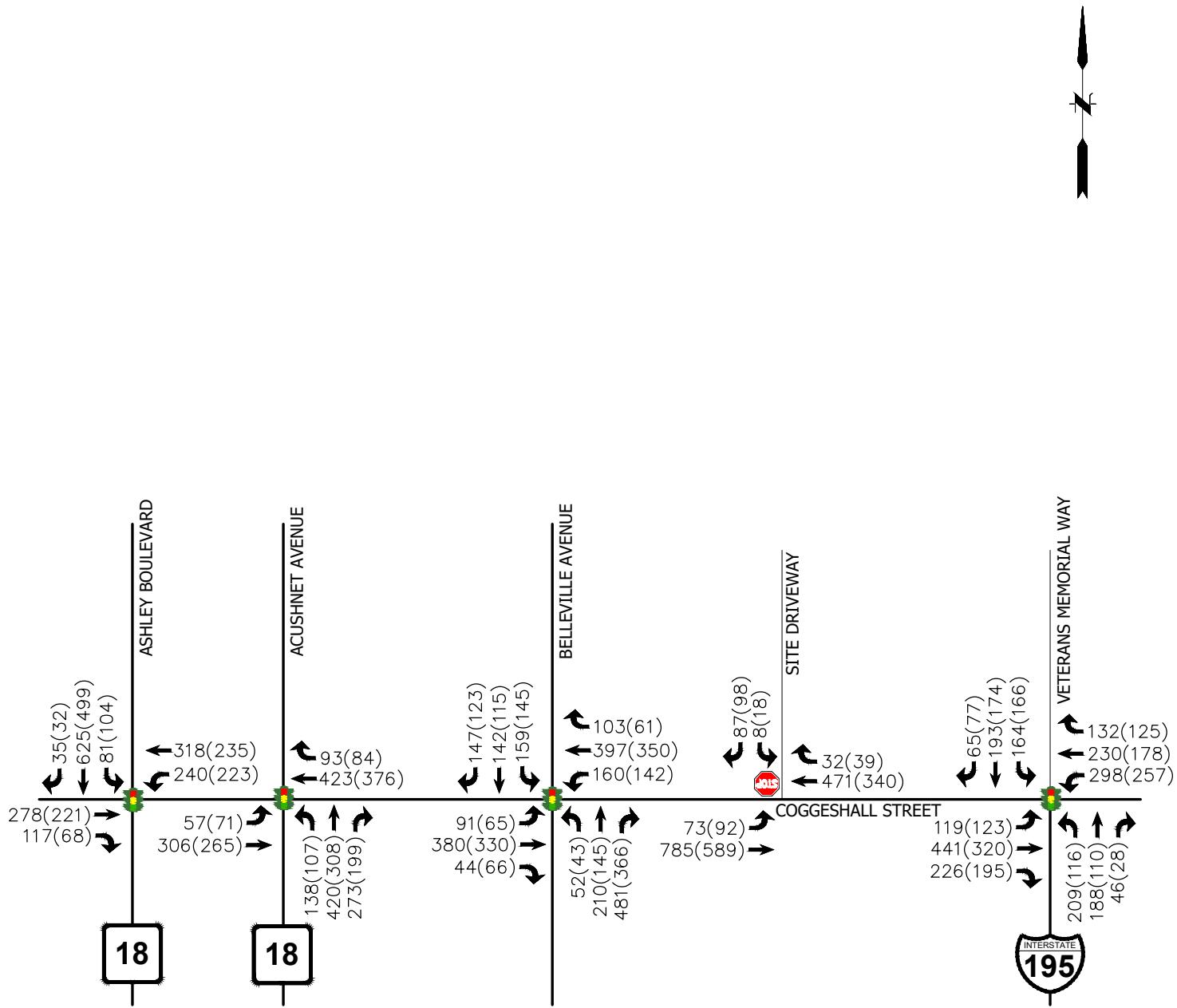
108 MYRTLE STREET, SUITE 502
QUINCY, MA 02171
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FIGURE 4 - TRIP GENERATION

PROJ. NO: 20191061.T10

ASCEND MASS, LLC

JANUARY 2021



XXX(XXX) = WEEKDAY PM PEAK (SATURDAY MIDDAY PEAK)



FUSS & O'NEILL

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FIGURE 5 - 2027 BUILD CONDITION

PROJ. NO: 20191061.T10

ASCEND MASS, LLC

JANUARY 2021

Lanes, Volumes, Timings

Coggeshall Street

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street

2027 PM No Build

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	101	441	226	298	227	129	198	183	46	158	176	60
Future Volume (vph)	101	441	226	298	227	129	198	183	46	158	176	60
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.946			0.970			0.850
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1787	1900	1583	1805	1786	0	1787	3474	0	1787	1881	1524
Flt Permitted	0.524				0.286			0.385			0.950	
Satd. Flow (perm)	986	1900	1583	543	1786	0	724	3474	0	1787	1881	1524
Satd. Flow (RTOR)					38			28				73
Adj. Flow (vph)	105	459	235	310	236	134	206	191	48	165	183	63
Lane Group Flow (vph)	105	459	235	310	370	0	206	239	0	165	183	63
Turn Type	pm+pt	NA	custom	pm+pt	NA		pm+pt	NA		Prot	NA	pt+ov
Protected Phases	5	2	2	1	6		3	8		7	4	45
Permitted Phases	2		1 3 4 5	6			8					
Detector Phase	5	2	2	1	6		3	8		7	4	45
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	1.5	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		9.5	9.5		9.5	6.0	
Total Split (s)	20.0	40.0	40.0	20.0	40.0		15.0	15.0		15.0	15.0	
Total Split (%)	22.2%	44.4%	44.4%	22.2%	44.4%		16.7%	16.7%		16.7%	16.7%	
Maximum Green (s)	15.5	35.5	35.5	15.5	35.5		10.5	10.5		10.5	10.5	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max	Max	None	Max		None	None		None	None	
Walk Time (s)		7.0	7.0		7.0						7.0	
Flash Dont Walk (s)		11.0	11.0		11.0						11.0	
Pedestrian Calls (#/hr)		0	0		0						0	
Act Effct Green (s)	43.2	35.6	86.5	52.4	42.5		20.5	10.3		10.2	10.4	22.5
Actuated g/C Ratio	0.50	0.41	1.00	0.61	0.49		0.24	0.12		0.12	0.12	0.26
v/c Ratio	0.19	0.59	0.15	0.61	0.41		0.70	0.55		0.78	0.81	0.14
Control Delay	8.7	24.2	0.2	13.6	15.2		39.8	37.2		64.0	66.2	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	8.7	24.2	0.2	13.6	15.2		39.8	37.2		64.0	66.2	6.2
LOS	A	C	A	B	B		D	D		E	E	A
Approach Delay		15.1			14.5			38.4			56.1	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	22	192	0	74	116		90	57		89	99	0
Queue Length 95th (ft)	42	306	0	117	194		#177	98		#197	#218	25
Internal Link Dist (ft)		310			380			147			219	
Turn Bay Length (ft)												
Base Capacity (vph)	720	781	1583	555	897		303	447		217	228	569
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

Lanes, Volumes, Timings

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street

Coggeshall Street

2027 PM No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.15	0.59	0.15	0.56	0.41		0.68	0.53		0.76	0.80	0.11

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 86.5

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 26.6

Intersection LOS: C

Intersection Capacity Utilization 75.0%

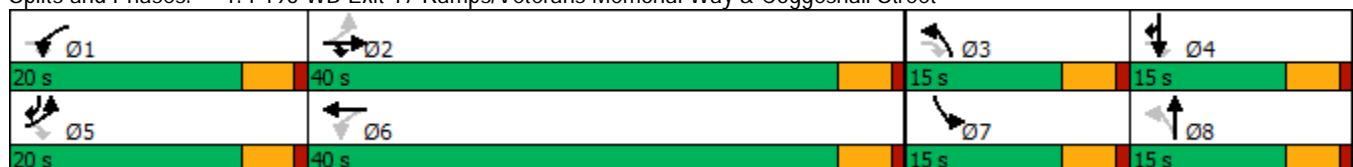
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street



HCM Signalized Intersection Capacity Analysis

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street

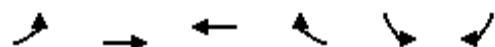
Coggeshall Street

2027 PM No Build

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	101	441	226	298	227	129	198	183	46	158	176	60
Future Volume (vph)	101	441	226	298	227	129	198	183	46	158	176	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	1900	1583	1805	1785		1787	3473		1787	1881	1524
Flt Permitted	0.52	1.00	1.00	0.29	1.00		0.38	1.00		0.95	1.00	1.00
Satd. Flow (perm)	986	1900	1583	544	1785		724	3473		1787	1881	1524
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	105	459	235	310	236	134	206	191	48	165	183	62
RTOR Reduction (vph)	0	0	0	0	20	0	0	25	0	0	0	48
Lane Group Flow (vph)	105	459	235	310	350	0	206	214	0	165	183	15
Heavy Vehicles (%)	1%	0%	2%	0%	1%	0%	1%	1%	0%	1%	1%	6%
Turn Type	pm+pt	NA	custom	pm+pt	NA		pm+pt	NA		Prot	NA	pt+ov
Protected Phases	5	2	2	1	6		3	8		7	4	45
Permitted Phases	2		1 3 4 5	6			8					
Actuated Green, G (s)	42.9	36.5	78.5	53.4	42.5		20.6	10.4		10.2	10.4	21.3
Effective Green, g (s)	42.9	36.5	78.5	53.4	42.5		20.6	10.4		10.2	10.4	21.3
Actuated g/C Ratio	0.49	0.42	0.90	0.61	0.49		0.24	0.12		0.12	0.12	0.24
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	542	792	1583	510	867		294	412		208	223	370
v/s Ratio Prot	0.01	0.24	0.06	c0.09	0.20		0.08	0.06		c0.09	c0.10	0.01
v/s Ratio Perm	0.08		0.09	c0.28			0.08					
v/c Ratio	0.19	0.58	0.15	0.61	0.40		0.70	0.52		0.79	0.82	0.04
Uniform Delay, d1	12.1	19.6	0.5	10.6	14.4		29.0	36.2		37.6	37.6	25.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	3.1	0.0	2.1	1.4		7.3	1.2		18.5	20.9	0.0
Delay (s)	12.3	22.7	0.6	12.7	15.8		36.4	37.4		56.1	58.5	25.3
Level of Service	B	C	A	B	B		D	D		E	E	C
Approach Delay (s)		14.8			14.4			36.9			52.5	
Approach LOS		B			B			D			D	
Intersection Summary												
HCM 2000 Control Delay		25.5					HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio		0.69										
Actuated Cycle Length (s)		87.5					Sum of lost time (s)			18.0		
Intersection Capacity Utilization		75.0%					ICU Level of Service			D		
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings
2: Coggeshall Street & Site Driveway

Coggeshall Street
2027 PM No Build



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑		↑	
Traffic Volume (vph)	59	767	466	18	8	60
Future Volume (vph)	59	767	466	18	8	60
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.995		0.881	
Flt Protected	0.950				0.994	
Satd. Flow (prot)	1805	1881	1855	0	1664	0
Flt Permitted	0.950				0.994	
Satd. Flow (perm)	1805	1881	1855	0	1664	0
Adj. Flow (vph)	63	825	485	20	9	65
Lane Group Flow (vph)	63	825	505	0	74	0
Sign Control		Free	Free		Stop	

Intersection Summary

Control Type: Unsignalized

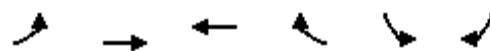
Intersection Capacity Utilization 51.2%

ICU Level of Service A

Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis
2: Coggeshall Street & Site Driveway

Coggeshall Street
2027 PM No Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	59	767	466	18	8	60
Future Volume (Veh/h)	59	767	466	18	8	60
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.93	0.93	0.96	0.92	0.93	0.93
Hourly flow rate (vph)	63	825	485	20	9	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh						
Upstream signal (ft)	705	390				
pX, platoon unblocked	0.83			0.89	0.83	
vC, conflicting volume	505			1446	495	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	297			1103	285	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	94			95	90	
cM capacity (veh/h)	1055			198	628	
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	63	825	505	74		
Volume Left	63	0	0	9		
Volume Right	0	0	20	65		
cSH	1055	1700	1700	497		
Volume to Capacity	0.06	0.49	0.30	0.15		
Queue Length 95th (ft)	5	0	0	13		
Control Delay (s)	8.6	0.0	0.0	13.5		
Lane LOS	A		B			
Approach Delay (s)	0.6		0.0	13.5		
Approach LOS			B			
Intersection Summary						
Average Delay		1.1				
Intersection Capacity Utilization		51.2%	ICU Level of Service		A	
Analysis Period (min)		15				

Lanes, Volumes, Timings

Coggeshall Street

3: Belleville Avenue & Coggeshall Street

2027 PM No Build

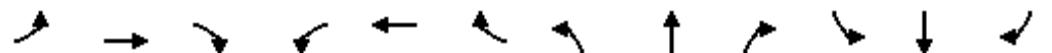
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↓		↑	↑	↑		↑	↑	↑	↓	
Traffic Volume (vph)	91	362	44	146	379	103	52	210	467	159	142	147
Future Volume (vph)	91	362	44	146	379	103	52	210	467	159	142	147
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt							0.850			0.850		0.924
Flt Protected	0.950				0.950			0.990		0.950		
Satd. Flow (prot)	1787	1837	0	1805	1863	1615	0	1881	1599	1787	1738	0
Flt Permitted	0.422				0.205			0.851		0.274		
Satd. Flow (perm)	794	1837	0	390	1863	1615	0	1617	1599	515	1738	0
Satd. Flow (RTOR)			8			150			155		82	
Adj. Flow (vph)	95	377	46	152	395	107	54	219	486	166	148	153
Lane Group Flow (vph)	95	423	0	152	395	107	0	273	486	166	301	0
Turn Type	pm+pt	NA		pm+pt	NA	pt+ov	Perm	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6	67		8	1	7	4	
Permitted Phases				6			8		8		4	
Detector Phase	5	2		1	6	67	8	8	1	7	4	
Switch Phase												
Minimum Initial (s)	1.0	4.5		1.0	4.0		1.0	1.0	1.0	1.0	1.0	
Minimum Split (s)	6.5	10.0		7.0	10.0		7.0	7.0	7.0	7.5	7.5	
Total Split (s)	22.0	22.0		17.0	17.0		20.0	20.0	17.0	10.0	30.0	
Total Split (%)	31.9%	31.9%		24.6%	24.6%		29.0%	29.0%	24.6%	14.5%	43.5%	
Maximum Green (s)	16.5	16.5		11.0	11.0		14.0	14.0	11.0	3.5	23.5	
Yellow Time (s)	3.0	3.0		3.5	3.0		3.5	3.5	3.5	3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	3.0		2.5	2.5	2.5	3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5		6.0	6.0		6.0	6.0	6.0	6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Walk Time (s)			7.0			7.0		7.0			7.0	
Flash Dont Walk (s)			11.0			11.0		11.0			11.0	
Pedestrian Calls (#/hr)			0			0		0			0	
Act Effct Green (s)	25.4	18.0		29.8	22.1	32.1		13.5	28.5	23.0	23.0	
Actuated g/C Ratio	0.37	0.26		0.44	0.32	0.47		0.20	0.42	0.34	0.34	
v/c Ratio	0.23	0.86		0.42	0.66	0.13		0.86	0.64	0.69	0.47	
Control Delay	11.7	44.2		14.2	28.5	1.5		53.8	14.7	36.5	15.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	11.7	44.2		14.2	28.5	1.5		53.8	14.7	36.5	15.8	
LOS	B	D		B	C	A		D	B	D	B	
Approach Delay			38.2			20.7			28.8		23.2	
Approach LOS			D			C			C		C	
Queue Length 50th (ft)	21	169		35	149	0		113	101	51	69	
Queue Length 95th (ft)	43	#335		65	#285	14		#240	196	#122	139	
Internal Link Dist (ft)			927			625			148		196	
Turn Bay Length (ft)	110			130		215						
Base Capacity (vph)	624	491		404	603	839		332	801	239	654	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	

Lanes, Volumes, Timings

Coggeshall Street

3: Belleville Avenue & Coggeshall Street

2027 PM No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.15	0.86		0.38	0.66	0.13		0.82	0.61	0.69	0.46	

Intersection Summary

Cycle Length: 69

Actuated Cycle Length: 68.1

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 27.5

Intersection LOS: C

Intersection Capacity Utilization 82.1%

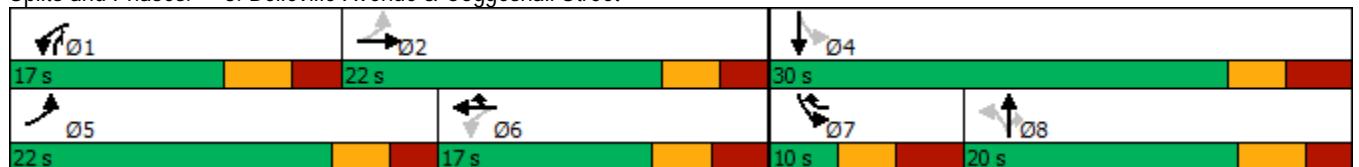
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Belleville Avenue & Coggeshall Street



HCM Signalized Intersection Capacity Analysis
3: Belleville Avenue & Coggeshall Street

Coggeshall Street
2027 PM No Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↓		↑	↑	↑		↑	↑	↑	↓	
Traffic Volume (vph)	91	362	44	146	379	103	52	210	467	159	142	147
Future Volume (vph)	91	362	44	146	379	103	52	210	467	159	142	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		6.0	6.0	6.0		6.0	6.0	6.5	6.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1787	1836		1805	1863	1615		1881	1599	1787	1737	
Flt Permitted	0.42	1.00		0.21	1.00	1.00		0.85	1.00	0.27	1.00	
Satd. Flow (perm)	794	1836		390	1863	1615		1617	1599	515	1737	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	95	377	46	152	395	107	54	219	486	166	148	153
RTOR Reduction (vph)	0	6	0	0	0	58	0	0	104	0	55	0
Lane Group Flow (vph)	95	417	0	152	395	49	0	273	382	166	246	0
Heavy Vehicles (%)	1%	2%	0%	0%	2%	0%	0%	0%	1%	1%	0%	2%
Turn Type	pm+pt	NA		pm+pt	NA	pt+ov	Perm	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6	7		8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	25.4	19.2		31.2	22.1	31.6		13.5	22.6	23.0	23.0	
Effective Green, g (s)	25.4	19.2		31.2	22.1	31.6		13.5	22.6	23.0	23.0	
Actuated g/C Ratio	0.37	0.28		0.45	0.32	0.46		0.19	0.33	0.33	0.33	
Clearance Time (s)	5.5	5.5		6.0	6.0			6.0	6.0	6.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	379	508		361	594	736		315	659	235	576	
v/s Ratio Prot	0.02	c0.23		0.06	c0.21	0.03			c0.08	c0.04	0.14	
v/s Ratio Perm	0.07			0.13				c0.17	0.16	0.20		
v/c Ratio	0.25	0.82		0.42	0.66	0.07		0.87	0.58	0.71	0.43	
Uniform Delay, d1	14.8	23.4		12.9	20.4	10.6		27.0	19.4	20.2	18.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	13.9		0.8	5.8	0.0		21.3	1.2	9.3	0.5	
Delay (s)	15.2	37.3		13.7	26.2	10.6		48.3	20.6	29.5	18.5	
Level of Service	B	D		B	C	B		D	C	C	B	
Approach Delay (s)		33.3			20.7			30.6			22.4	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay		26.9			HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio		0.84										
Actuated Cycle Length (s)		69.3			Sum of lost time (s)				24.0			
Intersection Capacity Utilization		82.1%			ICU Level of Service				E			
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street

2027 PM No Build

	→	→	→	←	←	↑	↑	↓	↓	←	→	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑			↑		↑	↑	↑			
Traffic Volume (vph)	57	296	0	0	410	88	138	420	265	0	0	0
Future Volume (vph)	57	296	0	0	410	88	138	420	265	0	0	0
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						0.976				0.850		
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1805	1881	0	0	1839	0	1787	1900	1615	0	0	0
Flt Permitted	0.264						0.950					
Satd. Flow (perm)	502	1881	0	0	1839	0	1787	1900	1615	0	0	0
Satd. Flow (RTOR)						12			273			
Adj. Flow (vph)	59	305	0	0	423	91	142	433	273	0	0	0
Lane Group Flow (vph)	59	305	0	0	514	0	142	433	273	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Prot			
Protected Phases	5	2			6			8	8			
Permitted Phases	2						8					
Detector Phase	5	2			6		8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	9.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.0	55.0			28.0		35.0	35.0	35.0			
Total Split (%)	30.0%	61.1%			31.1%		38.9%	38.9%	38.9%			
Maximum Green (s)	22.5	50.5			23.5		30.5	30.5	30.5			
Yellow Time (s)	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			
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Recall Mode	None	C-Max			C-Max		Max	Max	Max			
Walk Time (s)		7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)		11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)		0			0		0	0	0			
Act Effct Green (s)	50.5	50.5			41.2		30.5	30.5	30.5			
Actuated g/C Ratio	0.56	0.56			0.46		0.34	0.34	0.34			
v/c Ratio	0.16	0.29			0.61		0.23	0.67	0.38			
Control Delay	7.8	11.7			22.7		22.7	31.7	4.5			
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0			
Total Delay	7.8	11.7			22.7		22.7	31.7	4.5			
LOS	A	B			C		C	C	A			
Approach Delay		11.1			22.7			21.4				
Approach LOS		B			C			C				
Queue Length 50th (ft)	21	120			216		57	208	0			
Queue Length 95th (ft)	21	188			336		103	314	52			
Internal Link Dist (ft)		402			927			168			194	
Turn Bay Length (ft)		150										
Base Capacity (vph)	607	1055			847		605	643	727			
Starvation Cap Reductn	0	0			0		0	0	0			
Spillback Cap Reductn	0	0			0		0	0	0			

Lanes, Volumes, Timings

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street

Coggeshall Street

2027 PM No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.10	0.29			0.61		0.23	0.67	0.38			

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 19.6

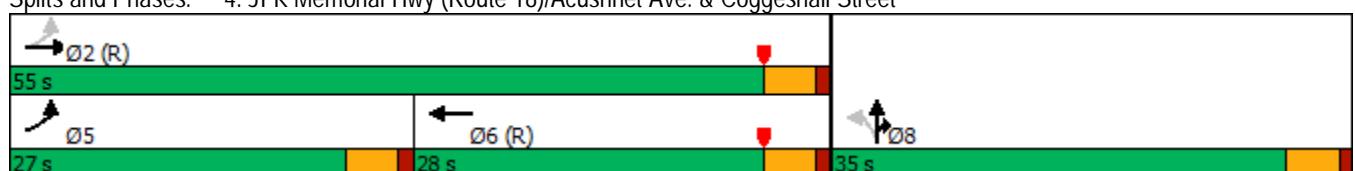
Intersection LOS: B

Intersection Capacity Utilization 64.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street



HCM Signalized Intersection Capacity Analysis

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street

Coggeshall Street

2027 PM No Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑			↔		↑	↑	↑	0	0	0
Traffic Volume (vph)	57	296	0	0	410	88	138	420	265	0	0	0
Future Volume (vph)	57	296	0	0	410	88	138	420	265	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00	1.00			
Frt	1.00	1.00			0.98		1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			
Satd. Flow (prot)	1805	1881			1839		1787	1900	1615			
Flt Permitted	0.26	1.00			1.00		0.95	1.00	1.00			
Satd. Flow (perm)	501	1881			1839		1787	1900	1615			
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	59	305	0	0	423	91	142	433	273	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	180	0	0	0
Lane Group Flow (vph)	59	305	0	0	507	0	142	433	93	0	0	0
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	1%	0%	0%	2%	2%	2%
Turn Type	pm+pt	NA			NA		Perm	NA	Prot			
Protected Phases	5	2			6			8	8			
Permitted Phases	2						8					
Actuated Green, G (s)	50.5	50.5			40.3		30.5	30.5	30.5			
Effective Green, g (s)	50.5	50.5			40.3		30.5	30.5	30.5			
Actuated g/C Ratio	0.56	0.56			0.45		0.34	0.34	0.34			
Clearance Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	363	1055			823		605	643	547			
v/s Ratio Prot	0.01	c0.16			c0.28			c0.23	0.06			
v/s Ratio Perm	0.08						0.08					
v/c Ratio	0.16	0.29			0.62		0.23	0.67	0.17			
Uniform Delay, d1	11.3	10.3			19.0		21.4	25.5	20.9			
Progression Factor	0.76	1.04			1.00		1.00	1.00	1.00			
Incremental Delay, d2	0.2	0.7			3.4		0.9	5.6	0.7			
Delay (s)	8.8	11.5			22.4		22.3	31.0	21.5			
Level of Service	A	B			C		C	C	C			
Approach Delay (s)		11.0			22.4			26.5		0.0		
Approach LOS		B			C			C		A		
Intersection Summary												
HCM 2000 Control Delay		22.0			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.62										
Actuated Cycle Length (s)		90.0			Sum of lost time (s)			13.5				
Intersection Capacity Utilization		64.4%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

5: Ashley Boulevard (Route 18) & Coggeshall Street

2027 PM No Build

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑↑	
Traffic Volume (vph)	0	273	117	232	313	0	0	0	0	76	625	35
Future Volume (vph)	0	273	117	232	313	0	0	0	0	76	625	35
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Fr _t						0.850						0.992
Flt Protected					0.950						0.950	
Satd. Flow (prot)	0	1881	1615	1805	1881	0	0	0	0	1787	3548	0
Flt Permitted					0.476						0.950	
Satd. Flow (perm)	0	1881	1615	904	1881	0	0	0	0	1787	3548	0
Satd. Flow (RTOR)				121							7	
Adj. Flow (vph)	0	281	121	239	323	0	0	0	0	78	644	36
Lane Group Flow (vph)	0	281	121	239	323	0	0	0	0	78	680	0
Turn Type	NA	Prot	pm+pt	NA						Split	NA	
Protected Phases	2	2	1	6						4	4	
Permitted Phases				6								
Detector Phase	2	2	1	6						4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0						5.0	5.0	
Minimum Split (s)	22.5	22.5	9.5	22.5						22.5	22.5	
Total Split (s)	30.0	30.0	21.0	51.0						39.0	39.0	
Total Split (%)	33.3%	33.3%	23.3%	56.7%						43.3%	43.3%	
Maximum Green (s)	25.5	25.5	16.5	46.5						34.5	34.5	
Yellow Time (s)	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	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0						0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5						4.5	4.5	
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	
Recall Mode	C-Max	C-Max	None	C-Max						None	None	
Walk Time (s)	7.0	7.0		7.0						7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0						11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0						0	0	
Act Effct Green (s)	42.0	42.0	57.4	57.4						23.6	23.6	
Actuated g/C Ratio	0.47	0.47	0.64	0.64						0.26	0.26	
v/c Ratio	0.32	0.15	0.35	0.27						0.17	0.73	
Control Delay	18.4	4.3	10.5	10.5						24.7	34.3	
Queue Delay	0.0	0.0	0.0	0.0						0.0	0.0	
Total Delay	18.4	4.3	10.5	10.5						24.7	34.3	
LOS	B	A	B	B						C	C	
Approach Delay	14.2			10.5							33.3	
Approach LOS	B			B							C	
Queue Length 50th (ft)	95	0	88	122						34	184	
Queue Length 95th (ft)	192	35	153	206						63	221	
Internal Link Dist (ft)	343			402				187			175	
Turn Bay Length (ft)			200									
Base Capacity (vph)	878	818	741	1198						685	1364	
Starvation Cap Reductn	0	0	0	0						0	0	
Spillback Cap Reductn	0	0	0	0						0	0	

Lanes, Volumes, Timings

5: Ashley Boulevard (Route 18) & Coggeshall Street

Coggeshall Street

2027 PM No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.15	0.32	0.27						0.11	0.50	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 49 (54%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 21.4

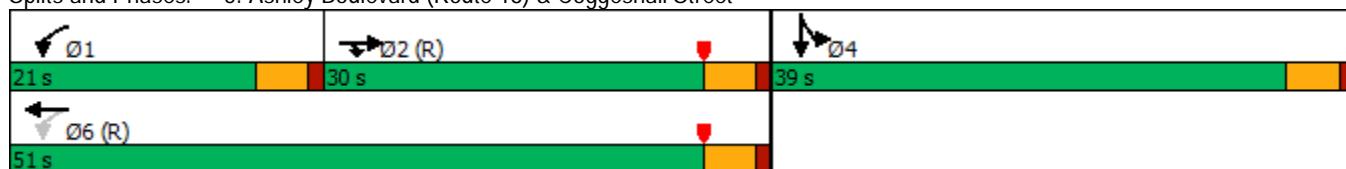
Intersection LOS: C

Intersection Capacity Utilization 64.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: Ashley Boulevard (Route 18) & Coggeshall Street



HCM Signalized Intersection Capacity Analysis
5: Ashley Boulevard (Route 18) & Coggeshall Street

Coggeshall Street
2027 PM No Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑↑	
Traffic Volume (vph)	0	273	117	232	313	0	0	0	0	76	625	35
Future Volume (vph)	0	273	117	232	313	0	0	0	0	76	625	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	
Lane Util. Factor	1.00	1.00	1.00	1.00						1.00	0.95	
Frt	1.00	0.85	1.00	1.00						1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00						0.95	1.00	
Satd. Flow (prot)		1881	1615	1805	1881					1787	3548	
Flt Permitted	1.00	1.00	0.48	1.00						0.95	1.00	
Satd. Flow (perm)		1881	1615	903	1881					1787	3548	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.92	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	0	281	121	239	323	0	0	0	0	78	644	36
RTOR Reduction (vph)	0	0	64	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	281	57	239	323	0	0	0	0	78	675	0
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	2%	2%	2%	1%	1%	0%
Turn Type	NA	Prot	pm+pt	NA						Split	NA	
Protected Phases	2	2	1	6						4	4	
Permitted Phases				6								
Actuated Green, G (s)	42.1	42.1	57.4	57.4						23.6	23.6	
Effective Green, g (s)	42.1	42.1	57.4	57.4						23.6	23.6	
Actuated g/C Ratio	0.47	0.47	0.64	0.64						0.26	0.26	
Clearance Time (s)	4.5	4.5	4.5	4.5						4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0						3.0	3.0	
Lane Grp Cap (vph)	879	755	684	1199						468	930	
v/s Ratio Prot	0.15	0.04	c0.04	0.17						0.04	c0.19	
v/s Ratio Perm			c0.18									
v/c Ratio	0.32	0.07	0.35	0.27						0.17	0.73	
Uniform Delay, d1	15.0	13.2	7.4	7.1						25.6	30.3	
Progression Factor	1.00	1.00	1.18	1.23						1.00	1.00	
Incremental Delay, d2	1.0	0.2	0.3	0.5						0.2	2.8	
Delay (s)	15.9	13.4	8.9	9.3						25.8	33.1	
Level of Service	B	B	A	A						C	C	
Approach Delay (s)	15.2			9.1			0.0				32.3	
Approach LOS	B			A			A				C	
Intersection Summary												
HCM 2000 Control Delay	20.8				HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio	0.48											
Actuated Cycle Length (s)	90.0				Sum of lost time (s)					13.5		
Intersection Capacity Utilization	64.4%				ICU Level of Service					C		
Analysis Period (min)	15											
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street

2027 PM Build

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	119	441	226	298	230	132	209	188	46	164	193	65
Future Volume (vph)	119	441	226	298	230	132	209	188	46	164	193	65
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Fr _t				0.850		0.945			0.970			0.850
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1787	1900	1583	1805	1784	0	1787	3474	0	1787	1881	1468
Flt Permitted	0.484				0.281			0.381			0.950	
Satd. Flow (perm)	910	1900	1583	534	1784	0	717	3474	0	1787	1881	1468
Satd. Flow (RTOR)					38			27				73
Adj. Flow (vph)	124	459	235	310	240	138	218	196	48	171	201	68
Lane Group Flow (vph)	124	459	235	310	378	0	218	244	0	171	201	68
Turn Type	pm+pt	NA	custom	pm+pt	NA		pm+pt	NA		Prot	NA	pt+ov
Protected Phases	5	2	2	1	6		3	8		7	4	45
Permitted Phases	2		1 3 4 5	6			8					
Detector Phase	5	2	2	1	6		3	8		7	4	45
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	1.5	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		9.5	9.5		9.5	6.0	
Total Split (s)	20.0	40.0	40.0	20.0	40.0		15.0	15.0		15.0	15.0	
Total Split (%)	22.2%	44.4%	44.4%	22.2%	44.4%		16.7%	16.7%		16.7%	16.7%	
Maximum Green (s)	15.5	35.5	35.5	15.5	35.5		10.5	10.5		10.5	10.5	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max	Max	None	Max		None	None		None	None	
Walk Time (s)		7.0	7.0		7.0						7.0	
Flash Dont Walk (s)		11.0	11.0		11.0						11.0	
Pedestrian Calls (#/hr)		0	0		0						0	
Act Effct Green (s)	43.6	35.5	86.7	51.9	39.9		20.7	10.4		10.3	10.5	23.0
Actuated g/C Ratio	0.50	0.41	1.00	0.60	0.46		0.24	0.12		0.12	0.12	0.27
v/c Ratio	0.23	0.59	0.15	0.62	0.45		0.73	0.55		0.81	0.88	0.15
Control Delay	9.0	24.3	0.2	14.0	16.5		42.3	37.6		66.6	76.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	9.0	24.3	0.2	14.0	16.5		42.3	37.6		66.6	76.1	6.8
LOS	A	C	A	B	B		D	D		E	E	A
Approach Delay		15.0			15.4			39.8			61.7	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	26	192	0	74	121		96	60		93	110	0
Queue Length 95th (ft)	49	306	0	117	203		#174	101		#205	#244	28
Internal Link Dist (ft)		310			380			147			219	
Turn Bay Length (ft)												
Base Capacity (vph)	687	778	1583	550	841		303	444		216	228	564
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

Lanes, Volumes, Timings

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street

Coggeshall Street

2027 PM Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.18	0.59	0.15	0.56	0.45		0.72	0.55		0.79	0.88	0.12

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 86.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 28.4

Intersection LOS: C

Intersection Capacity Utilization 76.5%

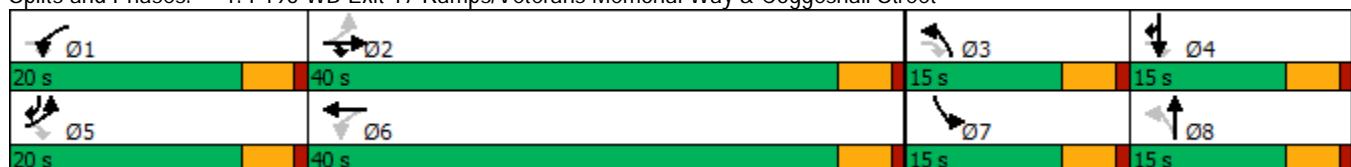
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street



HCM Signalized Intersection Capacity Analysis

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street

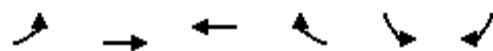
Coggeshall Street

2027 PM Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	119	441	226	298	230	132	209	188	46	164	193	65
Future Volume (vph)	119	441	226	298	230	132	209	188	46	164	193	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1787	1900	1583	1805	1785		1787	3476		1787	1881	1468
Flt Permitted	0.48	1.00	1.00	0.28	1.00		0.38	1.00		0.95	1.00	1.00
Satd. Flow (perm)	910	1900	1583	534	1785		717	3476		1787	1881	1468
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	124	459	235	310	240	138	218	196	48	171	201	68
RTOR Reduction (vph)	0	0	0	0	21	0	0	24	0	0	0	50
Lane Group Flow (vph)	124	459	235	310	357	0	218	220	0	171	201	18
Heavy Vehicles (%)	1%	0%	2%	0%	1%	0%	1%	1%	0%	1%	1%	10%
Turn Type	pm+pt	NA	custom	pm+pt	NA		pm+pt	NA		Prot	NA	pt+ov
Protected Phases	5	2	2	1	6		3	8		7	4	45
Permitted Phases	2		1 3 4 5	6			8					
Actuated Green, G (s)	43.5	35.5	77.7	52.3	39.9		20.8	10.5		10.3	10.5	23.0
Effective Green, g (s)	43.5	35.5	77.7	52.3	39.9		20.8	10.5		10.3	10.5	23.0
Actuated g/C Ratio	0.50	0.41	0.90	0.60	0.46		0.24	0.12		0.12	0.12	0.27
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	537	777	1583	503	821		299	420		212	227	389
v/s Ratio Prot	0.02	0.24	0.06	c0.09	0.20		0.09	0.06		c0.10	c0.11	0.01
v/s Ratio Perm	0.09		0.09	c0.28			0.09					
v/c Ratio	0.23	0.59	0.15	0.62	0.44		0.73	0.52		0.81	0.89	0.05
Uniform Delay, d1	11.6	19.9	0.5	10.8	15.8		28.7	35.8		37.2	37.5	23.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	3.3	0.0	2.2	1.7		8.6	1.2		19.6	30.9	0.0
Delay (s)	11.9	23.2	0.6	13.1	17.5		37.3	36.9		56.9	68.5	23.7
Level of Service	B	C	A	B	B		D	D		E	E	C
Approach Delay (s)		15.0			15.5			37.1			57.0	
Approach LOS		B			B			D			E	
Intersection Summary												
HCM 2000 Control Delay		27.1					HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio		0.71										
Actuated Cycle Length (s)		86.7					Sum of lost time (s)			18.0		
Intersection Capacity Utilization		76.5%					ICU Level of Service			D		
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings
2: Coggeshall Street & Site Driveway

Coggeshall Street
2027 PM Build



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑		↑	
Traffic Volume (vph)	73	785	471	32	8	87
Future Volume (vph)	73	785	471	32	8	87
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.991		0.877	
Flt Protected	0.950				0.996	
Satd. Flow (prot)	1805	1881	1848	0	1660	0
Flt Permitted	0.950				0.996	
Satd. Flow (perm)	1805	1881	1848	0	1660	0
Adj. Flow (vph)	78	844	506	34	9	94
Lane Group Flow (vph)	78	844	540	0	103	0
Sign Control	Free	Free		Stop		

Intersection Summary

Control Type: Unsignalized

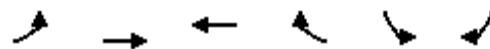
Intersection Capacity Utilization 53.8%

ICU Level of Service A

Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis
2: Coggeshall Street & Site Driveway

Coggeshall Street
2027 PM Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑		↑	
Traffic Volume (veh/h)	73	785	471	32	8	87
Future Volume (Veh/h)	73	785	471	32	8	87
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	78	844	506	34	9	94
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh						
Upstream signal (ft)	705	390				
pX, platoon unblocked	0.81			0.89	0.81	
vC, conflicting volume	540			1523	523	
VC1, stage 1 conf vol						
VC2, stage 2 conf vol						
vCu, unblocked vol	319			1154	298	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	92			95	85	
cM capacity (veh/h)	1018			180	607	
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	78	844	540	103		
Volume Left	78	0	0	9		
Volume Right	0	0	34	94		
cSH	1018	1700	1700	502		
Volume to Capacity	0.08	0.50	0.32	0.21		
Queue Length 95th (ft)	6	0	0	19		
Control Delay (s)	8.8	0.0	0.0	14.0		
Lane LOS	A		B			
Approach Delay (s)	0.7		0.0	14.0		
Approach LOS			B			
Intersection Summary						
Average Delay		1.4				
Intersection Capacity Utilization		53.8%		ICU Level of Service		A
Analysis Period (min)		15				

Lanes, Volumes, Timings
3: Belleville Avenue & Coggeshall Street

Coggeshall Street
2027 PM Build

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↓		↑	↑	↑		↑	↑	↑	↓	
Traffic Volume (vph)	91	380	44	160	397	103	52	210	481	159	142	147
Future Volume (vph)	91	380	44	160	397	103	52	210	481	159	142	147
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							0.850			0.850		0.924
Flt Protected	0.950				0.950			0.990		0.950		
Satd. Flow (prot)	1787	1837	0	1805	1863	1615	0	1881	1599	1787	1738	0
Flt Permitted	0.395				0.180			0.851		0.273		
Satd. Flow (perm)	743	1837	0	342	1863	1615	0	1617	1599	514	1738	0
Satd. Flow (RTOR)			8			150			150		82	
Adj. Flow (vph)	95	396	46	167	414	107	54	219	501	166	148	153
Lane Group Flow (vph)	95	442	0	167	414	107	0	273	501	166	301	0
Turn Type	pm+pt	NA		pm+pt	NA	pt+ov	Perm	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6	67		8	1	7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6	67	8	8	1	7	4	
Switch Phase												
Minimum Initial (s)	1.0	4.5		1.0	4.0		1.0	1.0	1.0	1.0	1.0	
Minimum Split (s)	6.5	10.0		7.0	10.0		7.0	7.0	7.0	7.5	7.5	
Total Split (s)	22.0	22.0		17.0	17.0		20.0	20.0	17.0	10.0	30.0	
Total Split (%)	31.9%	31.9%		24.6%	24.6%		29.0%	29.0%	24.6%	14.5%	43.5%	
Maximum Green (s)	16.5	16.5		11.0	11.0		14.0	14.0	11.0	3.5	23.5	
Yellow Time (s)	3.0	3.0		3.5	3.0		3.5	3.5	3.5	3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	3.0		2.5	2.5	2.5	3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5		6.0	6.0		6.0	6.0	6.0	6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Walk Time (s)			7.0			7.0		7.0			7.0	
Flash Dont Walk (s)			11.0			11.0		11.0			11.0	
Pedestrian Calls (#/hr)			0			0		0			0	
Act Effct Green (s)	25.5	18.0		30.1	22.2	32.2		13.5	28.7	23.0	23.0	
Actuated g/C Ratio	0.37	0.26		0.44	0.33	0.47		0.20	0.42	0.34	0.34	
v/c Ratio	0.24	0.90		0.48	0.68	0.13		0.86	0.66	0.70	0.47	
Control Delay	11.8	49.6		15.5	29.6	1.5		54.1	15.6	36.7	15.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	11.8	49.6		15.5	29.6	1.5		54.1	15.6	36.7	15.9	
LOS	B	D		B	C	A		D	B	D	B	
Approach Delay		42.9			21.8			29.1			23.3	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	21	181		38	159	0		113	110	51	70	
Queue Length 95th (ft)	43	#355		72	#305	14		#240	209	#122	139	
Internal Link Dist (ft)			927			625			148			196
Turn Bay Length (ft)	110			130		215						
Base Capacity (vph)	612	490		390	606	841		332	797	238	653	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	

Lanes, Volumes, Timings

3: Belleville Avenue & Coggeshall Street

Coggeshall Street

2027 PM Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.16	0.90		0.43	0.68	0.13		0.82	0.63	0.70	0.46	

Intersection Summary

Cycle Length: 69

Actuated Cycle Length: 68.3

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 29.0

Intersection LOS: C

Intersection Capacity Utilization 83.9%

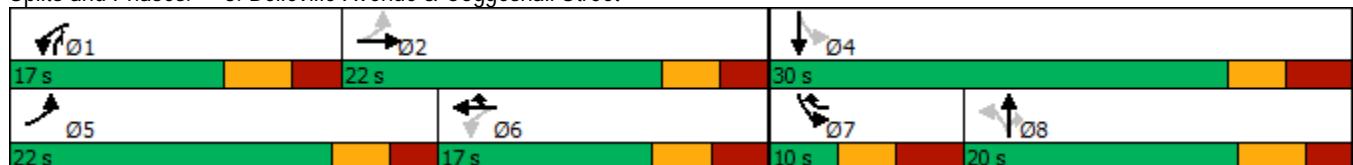
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Belleville Avenue & Coggeshall Street



HCM Signalized Intersection Capacity Analysis

3: Bellevue Avenue & Coggeshall Street

Coggeshall Street

2027 PM Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↑	↑	↑	↑	
Traffic Volume (vph)	91	380	44	160	397	103	52	210	481	159	142	147
Future Volume (vph)	91	380	44	160	397	103	52	210	481	159	142	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		6.0	6.0	6.0		6.0	6.0	6.5	6.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1787	1837		1805	1863	1615		1881	1599	1787	1737	
Flt Permitted	0.40	1.00		0.18	1.00	1.00		0.85	1.00	0.27	1.00	
Satd. Flow (perm)	744	1837		342	1863	1615		1617	1599	514	1737	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	95	396	46	167	414	107	54	219	501	166	148	153
RTOR Reduction (vph)	0	6	0	0	0	58	0	0	101	0	55	0
Lane Group Flow (vph)	95	436	0	167	414	49	0	273	400	166	246	0
Heavy Vehicles (%)	1%	2%	0%	0%	2%	0%	0%	0%	1%	1%	0%	2%
Turn Type	pm+pt	NA		pm+pt	NA	pt+ov	Perm	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6	7		8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	25.4	19.2		31.4	22.2	31.7		13.5	22.7	23.0	23.0	
Effective Green, g (s)	25.4	19.2		31.4	22.2	31.7		13.5	22.7	23.0	23.0	
Actuated g/C Ratio	0.37	0.28		0.45	0.32	0.46		0.19	0.33	0.33	0.33	
Clearance Time (s)	5.5	5.5		6.0	6.0			6.0	6.0	6.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	365	508		348	595	737		314	661	234	575	
v/s Ratio Prot	0.02	c0.24		0.06	c0.22	0.03			c0.08	c0.04	0.14	
v/s Ratio Perm	0.07			0.15				c0.17	0.17	0.20		
v/c Ratio	0.26	0.86		0.48	0.70	0.07		0.87	0.61	0.71	0.43	
Uniform Delay, d1	14.9	23.8		13.3	20.6	10.6		27.1	19.6	20.3	18.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	17.0		1.0	6.6	0.0		21.6	1.6	9.5	0.5	
Delay (s)	15.3	40.8		14.3	27.2	10.6		48.7	21.2	29.7	18.6	
Level of Service	B	D		B	C	B		D	C	C	B	
Approach Delay (s)		36.3			21.5			30.9			22.6	
Approach LOS		D			C			C			C	
Intersection Summary												
HCM 2000 Control Delay		27.9			HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio		0.86										
Actuated Cycle Length (s)		69.4			Sum of lost time (s)				24.0			
Intersection Capacity Utilization		83.9%			ICU Level of Service				E			
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street

2027 PM Build

	→	→	→	←	←	↑	↑	↓	↓	←	→	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑			↑		↑	↑	↑			
Traffic Volume (vph)	57	306	0	0	423	93	138	420	273	0	0	0
Future Volume (vph)	57	306	0	0	423	93	138	420	273	0	0	0
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						0.976				0.850		
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1805	1881	0	0	1839	0	1787	1900	1615	0	0	0
Flt Permitted	0.249						0.950					
Satd. Flow (perm)	473	1881	0	0	1839	0	1787	1900	1615	0	0	0
Satd. Flow (RTOR)						12				281		
Adj. Flow (vph)	59	315	0	0	436	96	142	433	281	0	0	0
Lane Group Flow (vph)	59	315	0	0	532	0	142	433	281	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Prot			
Protected Phases	5	2			6			8	8			
Permitted Phases	2						8					
Detector Phase	5	2			6		8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	9.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.0	55.0			28.0		35.0	35.0	35.0			
Total Split (%)	30.0%	61.1%			31.1%		38.9%	38.9%	38.9%			
Maximum Green (s)	22.5	50.5			23.5		30.5	30.5	30.5			
Yellow Time (s)	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			
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Recall Mode	None	C-Max			C-Max		Max	Max	Max			
Walk Time (s)		7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)		11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)		0			0		0	0	0			
Act Effct Green (s)	50.5	50.5			41.2		30.5	30.5	30.5			
Actuated g/C Ratio	0.56	0.56			0.46		0.34	0.34	0.34			
v/c Ratio	0.16	0.30			0.63		0.23	0.67	0.38			
Control Delay	7.5	11.5			23.3		22.7	31.7	4.5			
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0			
Total Delay	7.5	11.5			23.3		22.7	31.7	4.5			
LOS	A	B			C		C	C	A			
Approach Delay		10.9			23.3			21.3				
Approach LOS		B			C			C				
Queue Length 50th (ft)	20	123			227		57	208	0			
Queue Length 95th (ft)	19	192			353		103	314	52			
Internal Link Dist (ft)		402			927			168			194	
Turn Bay Length (ft)		150										
Base Capacity (vph)	598	1055			847		605	643	733			
Starvation Cap Reductn	0	0			0		0	0	0			
Spillback Cap Reductn	0	0			0		0	0	0			

Lanes, Volumes, Timings

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street

Coggeshall Street

2027 PM Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.10	0.30				0.63		0.23	0.67	0.38		

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 19.7

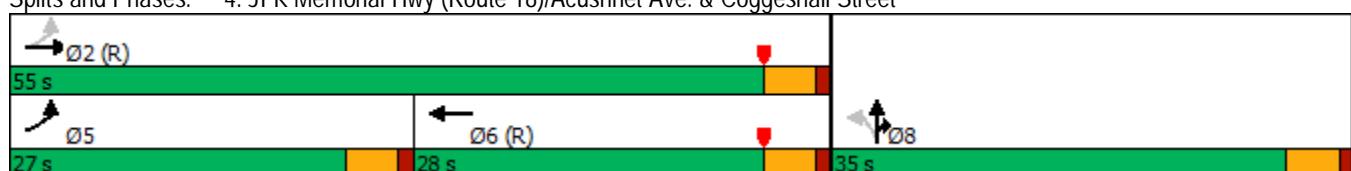
Intersection LOS: B

Intersection Capacity Utilization 65.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street



HCM Signalized Intersection Capacity Analysis

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street

Coggeshall Street

2027 PM Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑			↑		↑	↑	↑	0	0	0
Traffic Volume (vph)	57	306	0	0	423	93	138	420	273	0	0	0
Future Volume (vph)	57	306	0	0	423	93	138	420	273	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00	1.00			
Frt	1.00	1.00			0.98		1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			
Satd. Flow (prot)	1805	1881			1839		1787	1900	1615			
Flt Permitted	0.25	1.00			1.00		0.95	1.00	1.00			
Satd. Flow (perm)	473	1881			1839		1787	1900	1615			
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	59	315	0	0	436	96	142	433	281	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	186	0	0	0
Lane Group Flow (vph)	59	315	0	0	525	0	142	433	95	0	0	0
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	1%	0%	0%	2%	2%	2%
Turn Type	pm+pt	NA			NA		Perm	NA	Prot			
Protected Phases	5	2			6			8	8			
Permitted Phases	2						8					
Actuated Green, G (s)	50.5	50.5			40.3		30.5	30.5	30.5			
Effective Green, g (s)	50.5	50.5			40.3		30.5	30.5	30.5			
Actuated g/C Ratio	0.56	0.56			0.45		0.34	0.34	0.34			
Clearance Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	349	1055			823		605	643	547			
v/s Ratio Prot	0.01	c0.17			c0.29			c0.23	0.06			
v/s Ratio Perm	0.08						0.08					
v/c Ratio	0.17	0.30			0.64		0.23	0.67	0.17			
Uniform Delay, d1	11.5	10.4			19.2		21.4	25.5	20.9			
Progression Factor	0.73	1.02			1.00		1.00	1.00	1.00			
Incremental Delay, d2	0.2	0.7			3.8		0.9	5.6	0.7			
Delay (s)	8.6	11.3			23.0		22.3	31.0	21.6			
Level of Service	A	B			C		C	C	C			
Approach Delay (s)		10.9			23.0			26.5		0.0		
Approach LOS		B			C			C		A		
Intersection Summary												
HCM 2000 Control Delay		22.1			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.63										
Actuated Cycle Length (s)		90.0			Sum of lost time (s)			13.5				
Intersection Capacity Utilization		65.4%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

5: Ashley Boulevard (Route 18) & Coggeshall Street

2027 PM Build

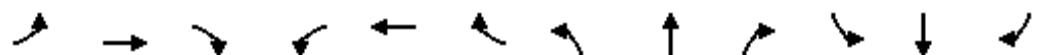
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	278	117	240	318	0	0	0	0	81	625	35
Future Volume (vph)	0	278	117	240	318	0	0	0	0	81	625	35
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Fr _t				0.850							0.992	
Flt Protected					0.950						0.950	
Satd. Flow (prot)	0	1881	1615	1805	1881	0	0	0	0	1787	3548	0
Flt Permitted					0.469						0.950	
Satd. Flow (perm)	0	1881	1615	891	1881	0	0	0	0	1787	3548	0
Satd. Flow (RTOR)				121							7	
Adj. Flow (vph)	0	287	121	247	328	0	0	0	0	84	644	36
Lane Group Flow (vph)	0	287	121	247	328	0	0	0	0	84	680	0
Turn Type	NA	Prot	pm+pt	NA						Split	NA	
Protected Phases	2	2	1	6						4	4	
Permitted Phases				6								
Detector Phase	2	2	1	6						4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0						5.0	5.0	
Minimum Split (s)	22.5	22.5	9.5	22.5						22.5	22.5	
Total Split (s)	30.0	30.0	21.0	51.0						39.0	39.0	
Total Split (%)	33.3%	33.3%	23.3%	56.7%						43.3%	43.3%	
Maximum Green (s)	25.5	25.5	16.5	46.5						34.5	34.5	
Yellow Time (s)	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	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0						0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5						4.5	4.5	
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	
Recall Mode	C-Max	C-Max	None	C-Max						None	None	
Walk Time (s)	7.0	7.0		7.0						7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0						11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0						0	0	
Act Effct Green (s)	41.8	41.8	57.4	57.4						23.6	23.6	
Actuated g/C Ratio	0.46	0.46	0.64	0.64						0.26	0.26	
v/c Ratio	0.33	0.15	0.36	0.27						0.18	0.73	
Control Delay	18.7	4.4	10.5	10.5						25.0	34.3	
Queue Delay	0.0	0.0	0.0	0.0						0.0	0.0	
Total Delay	18.7	4.4	10.5	10.5						25.0	34.3	
LOS	B	A	B	B						C	C	
Approach Delay	14.4			10.5						33.2		
Approach LOS	B			B						C		
Queue Length 50th (ft)	98	0	92	126						37	184	
Queue Length 95th (ft)	198	36	155	210						66	221	
Internal Link Dist (ft)	343			402				187			175	
Turn Bay Length (ft)			200									
Base Capacity (vph)	874	815	735	1198						685	1364	
Starvation Cap Reductn	0	0	0	0						0	0	
Spillback Cap Reductn	0	0	0	0						0	0	

Lanes, Volumes, Timings

5: Ashley Boulevard (Route 18) & Coggeshall Street

Coggeshall Street

2027 PM Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.15	0.34	0.27						0.12	0.50	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 49 (54%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 21.4

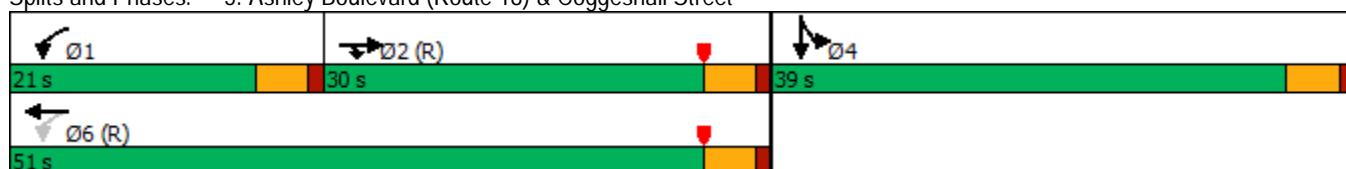
Intersection LOS: C

Intersection Capacity Utilization 65.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: Ashley Boulevard (Route 18) & Coggeshall Street



HCM Signalized Intersection Capacity Analysis
5: Ashley Boulevard (Route 18) & Coggeshall Street

Coggeshall Street
2027 PM Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑↑	
Traffic Volume (vph)	0	278	117	240	318	0	0	0	0	81	625	35
Future Volume (vph)	0	278	117	240	318	0	0	0	0	81	625	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	
Lane Util. Factor	1.00	1.00	1.00	1.00						1.00	0.95	
Frt	1.00	0.85	1.00	1.00						1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00						0.95	1.00	
Satd. Flow (prot)		1881	1615	1805	1881					1787	3548	
Flt Permitted	1.00	1.00	0.47	1.00						0.95	1.00	
Satd. Flow (perm)		1881	1615	891	1881					1787	3548	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	287	121	247	328	0	0	0	0	84	644	36
RTOR Reduction (vph)	0	0	65	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	287	56	247	328	0	0	0	0	84	675	0
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	1%	1%	0%
Turn Type	NA	Prot	pm+pt	NA						Split	NA	
Protected Phases	2	2	1	6						4	4	
Permitted Phases				6								
Actuated Green, G (s)	41.9	41.9	57.4	57.4						23.6	23.6	
Effective Green, g (s)	41.9	41.9	57.4	57.4						23.6	23.6	
Actuated g/C Ratio	0.47	0.47	0.64	0.64						0.26	0.26	
Clearance Time (s)	4.5	4.5	4.5	4.5						4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0						3.0	3.0	
Lane Grp Cap (vph)	875	751	679	1199						468	930	
v/s Ratio Prot	0.15	0.03	c0.04	0.17						0.05	c0.19	
v/s Ratio Perm			c0.19									
v/c Ratio	0.33	0.08	0.36	0.27						0.18	0.73	
Uniform Delay, d1	15.2	13.3	7.4	7.2						25.7	30.3	
Progression Factor	1.00	1.00	1.17	1.22						1.00	1.00	
Incremental Delay, d2	1.0	0.2	0.3	0.5						0.2	2.8	
Delay (s)	16.2	13.5	9.0	9.2						25.9	33.1	
Level of Service	B	B	A	A						C	C	
Approach Delay (s)	15.4			9.1			0.0				32.3	
Approach LOS	B			A			A				C	
Intersection Summary												
HCM 2000 Control Delay	20.7				HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio	0.49											
Actuated Cycle Length (s)	90.0				Sum of lost time (s)					13.5		
Intersection Capacity Utilization	65.4%				ICU Level of Service					C		
Analysis Period (min)	15											
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall St.

2027 Saturday Midday No Build

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	91	320	195	257	173	121	98	101	28	157	147	68
Future Volume (vph)	91	320	195	257	173	121	98	101	28	157	147	68
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.938			0.968			0.850
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1805	1900	1615	1805	1772	0	1805	3465	0	1787	1881	1524
Flt Permitted	0.572				0.384			0.659			0.950	
Satd. Flow (perm)	1087	1900	1615	730	1772	0	1252	3465	0	1787	1881	1524
Satd. Flow (RTOR)					42			29				73
Adj. Flow (vph)	96	337	205	271	182	127	103	106	29	165	155	72
Lane Group Flow (vph)	96	337	205	271	309	0	103	135	0	165	155	72
Turn Type	pm+pt	NA	custom	pm+pt	NA		pm+pt	NA		Prot	NA	pt+ov
Protected Phases	5	2	2	1	6		3	8		7	4	45
Permitted Phases	2		1 3 4 5	6			8					
Detector Phase	5	2	2	1	6		3	8		7	4	45
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	1.5	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		9.5	9.5		9.5	6.0	
Total Split (s)	25.0	35.0	35.0	25.0	35.0		15.0	15.0		15.0	15.0	
Total Split (%)	27.8%	38.9%	38.9%	27.8%	38.9%		16.7%	16.7%		16.7%	16.7%	
Maximum Green (s)	20.5	30.5	30.5	20.5	30.5		10.5	10.5		10.5	10.5	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max	Max	None	Max		None	None		None	None	
Walk Time (s)		7.0	7.0		7.0						7.0	
Flash Dont Walk (s)		11.0	11.0		11.0						11.0	
Pedestrian Calls (#/hr)		0	0		0						0	
Act Effct Green (s)	38.0	30.6	78.5	46.0	36.8		16.8	8.3		10.2	12.4	24.2
Actuated g/C Ratio	0.48	0.39	1.00	0.59	0.47		0.21	0.11		0.13	0.16	0.31
v/c Ratio	0.16	0.45	0.13	0.47	0.36		0.31	0.34		0.71	0.52	0.14
Control Delay	8.6	21.3	0.2	10.8	14.4		24.3	28.4		52.8	40.9	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	8.6	21.3	0.2	10.8	14.4		24.3	28.4		52.8	40.9	6.8
LOS	A	C	A	B	B		C	C		D	D	A
Approach Delay		12.6			12.7			26.6			39.6	
Approach LOS		B			B			C			D	
Queue Length 50th (ft)	19	121	0	59	85		37	25		79	73	0
Queue Length 95th (ft)	40	217	0	102	157		79	54		#183	#160	30
Internal Link Dist (ft)		310			380			147			219	
Turn Bay Length (ft)												
Base Capacity (vph)	831	741	1615	713	853		375	490		240	297	748
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

Lanes, Volumes, Timings

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall St.

Coggeshall Street

2027 Saturday Midday No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.12	0.45	0.13	0.38	0.36		0.27	0.28		0.69	0.52	0.10

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 78.5

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 20.2

Intersection LOS: C

Intersection Capacity Utilization 59.2%

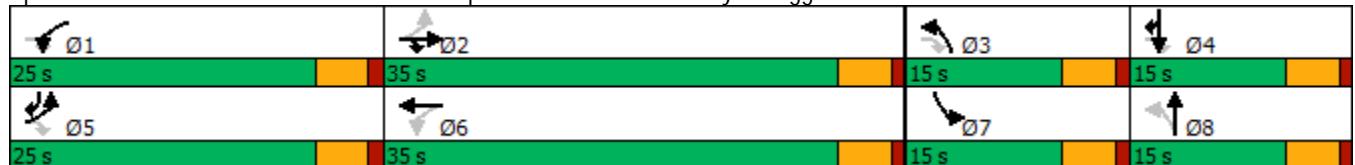
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall St.



HCM Signalized Intersection Capacity Analysis

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall St.

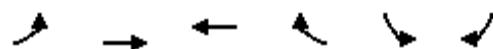
Coggeshall Street

2027 Saturday Midday No Build

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	91	320	195	257	173	121	98	101	28	157	147	68
Future Volume (vph)	91	320	195	257	173	121	98	101	28	157	147	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1805	1900	1615	1805	1772		1805	3464		1787	1881	1524
Flt Permitted	0.57	1.00	1.00	0.38	1.00		0.66	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1087	1900	1615	730	1772		1251	3464		1787	1881	1524
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	96	337	205	271	182	127	103	106	29	165	155	72
RTOR Reduction (vph)	0	0	0	0	23	0	0	26	0	0	0	51
Lane Group Flow (vph)	96	337	205	271	286	0	103	109	0	165	155	21
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	4%	1%	1%	6%
Turn Type	pm+pt	NA	custom	pm+pt	NA		pm+pt	NA		Prot	NA	pt+ov
Protected Phases	5	2	2	1	6		3	8		7	4	45
Permitted Phases	2		1 3 4 5	6			8					
Actuated Green, G (s)	37.7	31.6	71.4	47.4	36.8		16.4	9.3		10.2	12.4	23.0
Effective Green, g (s)	37.7	31.6	71.4	47.4	36.8		16.4	9.3		10.2	12.4	23.0
Actuated g/C Ratio	0.47	0.39	0.89	0.59	0.46		0.20	0.12		0.13	0.15	0.29
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	564	746	1615	581	811		304	400		226	290	435
v/s Ratio Prot	0.01	0.18	c0.05	c0.07	0.16		0.03	0.03		c0.09	c0.08	0.01
v/s Ratio Perm	0.07		0.08	c0.21			0.04					
v/c Ratio	0.17	0.45	0.13	0.47	0.35		0.34	0.27		0.73	0.53	0.05
Uniform Delay, d1	12.0	18.0	0.6	9.0	14.1		27.0	32.5		33.8	31.3	20.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	2.0	0.0	0.6	1.2		0.7	0.4		11.5	1.9	0.0
Delay (s)	12.1	20.0	0.6	9.6	15.3		27.7	32.8		45.2	33.2	20.8
Level of Service	B	B	A	A	B		C	C		D	C	C
Approach Delay (s)		12.6			12.6			30.6			36.0	
Approach LOS		B			B			C			D	
Intersection Summary												
HCM 2000 Control Delay		19.9					HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio		0.56										
Actuated Cycle Length (s)		80.4					Sum of lost time (s)			18.0		
Intersection Capacity Utilization		59.2%					ICU Level of Service			B		
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings
2: Coggeshall St. & Site Driveway

Coggeshall Street
2027 Saturday Midday No Build



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑		↑	
Traffic Volume (vph)	69	557	331	16	18	52
Future Volume (vph)	69	557	331	16	18	52
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.994		0.899
Flt Protected	0.950				0.987	
Satd. Flow (prot)	1805	1900	1853	0	1686	0
Flt Permitted	0.950				0.987	
Satd. Flow (perm)	1805	1900	1853	0	1686	0
Adj. Flow (vph)	70	568	338	16	18	53
Lane Group Flow (vph)	70	568	354	0	71	0
Sign Control	Free	Free			Stop	

Intersection Summary

Control Type: Unsignalized

Intersection Capacity Utilization 40.2% ICU Level of Service A

Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis
2: Coggeshall St. & Site Driveway

Coggeshall Street
2027 Saturday Midday No Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑		↑	
Traffic Volume (veh/h)	69	557	331	16	18	52
Future Volume (Veh/h)	69	557	331	16	18	52
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	70	568	338	16	18	53
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		705	390			
pX, platoon unblocked	0.96			0.96	0.96	
vC, conflicting volume	354			1054	346	
VC1, stage 1 conf vol						
VC2, stage 2 conf vol						
vCu, unblocked vol	312			1038	304	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	94			92	93	
cM capacity (veh/h)	1215			235	715	
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	70	568	354	71		
Volume Left	70	0	0	18		
Volume Right	0	0	16	53		
cSH	1215	1700	1700	471		
Volume to Capacity	0.06	0.33	0.21	0.15		
Queue Length 95th (ft)	5	0	0	13		
Control Delay (s)	8.1	0.0	0.0	14.0		
Lane LOS	A		B			
Approach Delay (s)	0.9		0.0	14.0		
Approach LOS			B			
Intersection Summary						
Average Delay		1.5				
Intersection Capacity Utilization		40.2%		ICU Level of Service		A
Analysis Period (min)		15				

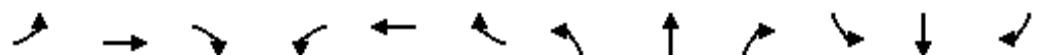
Lanes, Volumes, Timings
3: Belleville Avenue & Coggeshall St.

Coggeshall Street
2027 Saturday Midday No Build

	↑	→	↓	←	↑	←	↑	↓	↑	↓	←	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↑	↑	↑	↑	
Traffic Volume (vph)	65	298	66	119	318	61	43	145	343	145	115	123
Future Volume (vph)	65	298	66	119	318	61	43	145	343	145	115	123
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							0.850			0.850		0.923
Flt Protected	0.950				0.950			0.989		0.950		
Satd. Flow (prot)	1805	1827	0	1805	1863	1615	0	1865	1599	1805	1729	0
Flt Permitted	0.561				0.293			0.847		0.373		
Satd. Flow (perm)	1066	1827	0	557	1863	1615	0	1597	1599	709	1729	0
Satd. Flow (RTOR)			15			150			231		84	
Adj. Flow (vph)	68	310	69	124	331	64	45	151	357	151	120	128
Lane Group Flow (vph)	68	379	0	124	331	64	0	196	357	151	248	0
Turn Type	pm+pt	NA		pm+pt	NA	pt+ov	Perm	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6	67		8	1	7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6	67	8	8	1	7	4	
Switch Phase												
Minimum Initial (s)	1.0	4.5		1.0	4.0		1.0	1.0	1.0	1.0	1.0	
Minimum Split (s)	6.5	10.0		7.0	10.0		7.0	7.0	7.0	7.5	7.5	
Total Split (s)	22.0	22.0		17.0	17.0		20.0	20.0	17.0	10.0	30.0	
Total Split (%)	31.9%	31.9%		24.6%	24.6%		29.0%	29.0%	24.6%	14.5%	43.5%	
Maximum Green (s)	16.5	16.5		11.0	11.0		14.0	14.0	11.0	3.5	23.5	
Yellow Time (s)	3.0	3.0		3.5	3.0		3.5	3.5	3.5	3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	3.0		2.5	2.5	2.5	3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5		6.0	6.0		6.0	6.0	6.5	6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Walk Time (s)		7.0			7.0		7.0	7.0			7.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)		0			0		0	0			0	
Act Effct Green (s)	25.2	18.3		30.0	24.8	35.0		11.8	26.0	18.8	18.8	
Actuated g/C Ratio	0.40	0.29		0.47	0.39	0.55		0.19	0.41	0.30	0.30	
v/c Ratio	0.14	0.71		0.29	0.46	0.07		0.66	0.45	0.56	0.44	
Control Delay	10.6	30.7		12.0	21.1	0.1		37.2	7.1	26.0	14.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	10.6	30.7		12.0	21.1	0.1		37.2	7.1	26.0	14.0	
LOS	B	C		B	C	A		D	A	C	B	
Approach Delay		27.7			16.4			17.8			18.5	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)	14	136		27	116	0		74	32	44	48	
Queue Length 95th (ft)	33	#281		55	204	0		#148	86	89	108	
Internal Link Dist (ft)		927			625			148			196	
Turn Bay Length (ft)	110			130		215						
Base Capacity (vph)	739	537		490	725	955		358	856	270	703	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	

Lanes, Volumes, Timings
3: Belleville Avenue & Coggeshall St.

Coggeshall Street
2027 Saturday Midday No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.09	0.71		0.25	0.46	0.07		0.55	0.42	0.56	0.35	

Intersection Summary

Cycle Length: 69

Actuated Cycle Length: 63.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 19.9

Intersection LOS: B

Intersection Capacity Utilization 69.9%

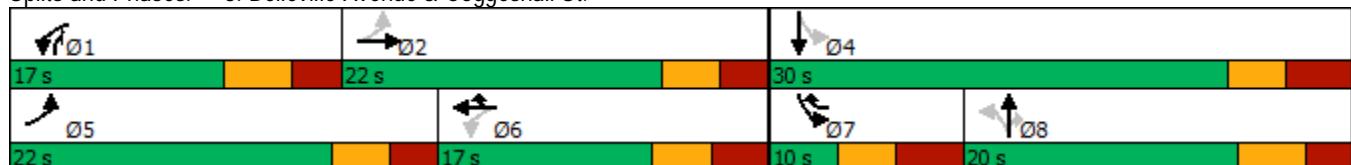
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Belleville Avenue & Coggeshall St.



HCM Signalized Intersection Capacity Analysis

3: Belleville Avenue & Coggeshall St.

Coggeshall Street

2027 Saturday Midday No Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↑	↑	↑	↑	
Traffic Volume (vph)	65	298	66	119	318	61	43	145	343	145	115	123
Future Volume (vph)	65	298	66	119	318	61	43	145	343	145	115	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		6.0	6.0	6.0		6.0	6.0	6.5	6.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00	0.85		1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1805	1827		1805	1863	1615		1864	1599	1805	1728	
Flt Permitted	0.56	1.00		0.29	1.00	1.00		0.85	1.00	0.37	1.00	
Satd. Flow (perm)	1066	1827		556	1863	1615		1598	1599	709	1728	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	68	310	69	124	331	64	45	151	357	151	120	128
RTOR Reduction (vph)	0	10	0	0	0	32	0	0	163	0	59	0
Lane Group Flow (vph)	68	369	0	124	331	32	0	196	194	151	189	0
Heavy Vehicles (%)	0%	1%	2%	0%	2%	0%	0%	1%	1%	0%	3%	0%
Turn Type	pm+pt	NA		pm+pt	NA	pt+ov	Perm	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6	7		8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	25.1	20.9		32.9	24.8	33.4		11.7	19.8	20.3	20.3	
Effective Green, g (s)	25.1	20.9		32.9	24.8	33.4		11.7	19.8	20.3	20.3	
Actuated g/C Ratio	0.37	0.31		0.49	0.37	0.50		0.17	0.29	0.30	0.30	
Clearance Time (s)	5.5	5.5		6.0	6.0			6.0	6.0	6.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	443	567		422	686	801		277	612	256	521	
v/s Ratio Prot	0.01	c0.20		0.04	c0.18	0.02			c0.04	c0.02	0.11	
v/s Ratio Perm	0.05			0.11				c0.12	0.08	0.16		
v/c Ratio	0.15	0.65		0.29	0.48	0.04		0.71	0.32	0.59	0.36	
Uniform Delay, d1	13.7	20.0		10.5	16.3	8.7		26.2	18.5	20.8	18.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	5.7		0.4	2.4	0.0		8.0	0.3	3.5	0.4	
Delay (s)	13.9	25.7		10.9	18.7	8.7		34.2	18.8	24.2	18.9	
Level of Service	B	C		B	B	A		C	B	C	B	
Approach Delay (s)		23.9			15.6			24.2			20.9	
Approach LOS		C			B			C			C	
Intersection Summary												
HCM 2000 Control Delay		21.1			HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio		0.65										
Actuated Cycle Length (s)		67.3			Sum of lost time (s)				24.0			
Intersection Capacity Utilization		69.9%			ICU Level of Service				C			
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall St.

2027 Saturday Midday No Build

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑			↑		↑	↑	↑			
Traffic Volume (vph)	71	247	0	0	353	75	107	308	185	0	0	0
Future Volume (vph)	71	247	0	0	353	75	107	308	185	0	0	0
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					0.976				0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1805	1900	0	0	1854	0	1787	1900	1615	0	0	0
Flt Permitted	0.300						0.950					
Satd. Flow (perm)	570	1900	0	0	1854	0	1787	1900	1615	0	0	0
Satd. Flow (RTOR)					12				193			
Adj. Flow (vph)	74	257	0	0	384	82	111	321	193	0	0	0
Lane Group Flow (vph)	74	257	0	0	466	0	111	321	193	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Prot			
Protected Phases	5	2			6			8	8			
Permitted Phases	2						8					
Detector Phase	5	2			6		8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	9.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.0	55.0			28.0		35.0	35.0	35.0			
Total Split (%)	30.0%	61.1%			31.1%		38.9%	38.9%	38.9%			
Maximum Green (s)	22.5	50.5			23.5		30.5	30.5	30.5			
Yellow Time (s)	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			
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Recall Mode	None	C-Max			C-Max		Max	Max	Max			
Walk Time (s)		7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)		11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)		0			0		0	0	0			
Act Effct Green (s)	50.5	50.5			40.8		30.5	30.5	30.5			
Actuated g/C Ratio	0.56	0.56			0.45		0.34	0.34	0.34			
v/c Ratio	0.18	0.24			0.55		0.18	0.50	0.29			
Control Delay	10.2	11.9			21.5		22.0	27.0	4.5			
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0			
Total Delay	10.2	11.9			21.5		22.0	27.0	4.5			
LOS	B	B			C		C	C	A			
Approach Delay		11.5			21.5			19.2				
Approach LOS		B			C			B				
Queue Length 50th (ft)	23	86			189		44	143	0			
Queue Length 95th (ft)	47	135			298		83	223	44			
Internal Link Dist (ft)		402			927			168			194	
Turn Bay Length (ft)		150										
Base Capacity (vph)	628	1066			847		605	643	674			
Starvation Cap Reductn	0	0			0		0	0	0			
Spillback Cap Reductn	0	0			0		0	0	0			

Lanes, Volumes, Timings

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall St.

Coggeshall Street

2027 Saturday Midday No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.12	0.24			0.55		0.18	0.50	0.29			

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 18.2

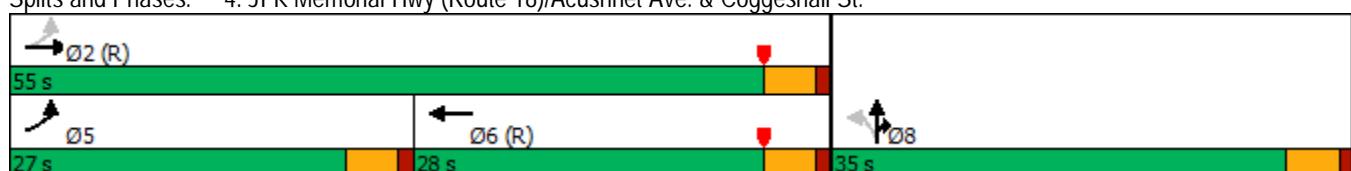
Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall St.



HCM Signalized Intersection Capacity Analysis

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall St.

Coggeshall Street

2027 Saturday Midday No Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑			↑		↑	↑	↑	0	0	0
Traffic Volume (vph)	71	247	0	0	353	75	107	308	185	0	0	0
Future Volume (vph)	71	247	0	0	353	75	107	308	185	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00	1.00			
Frt	1.00	1.00			0.98		1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			
Satd. Flow (prot)	1805	1900			1855		1787	1900	1615			
Flt Permitted	0.30	1.00			1.00		0.95	1.00	1.00			
Satd. Flow (perm)	570	1900			1855		1787	1900	1615			
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Adj. Flow (vph)	74	257	0	0	384	82	111	321	193	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	128	0	0	0
Lane Group Flow (vph)	74	257	0	0	459	0	111	321	65	0	0	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	2%	2%
Turn Type	pm+pt	NA			NA		Perm	NA	Prot			
Protected Phases	5	2			6			8	8			
Permitted Phases	2						8					
Actuated Green, G (s)	50.5	50.5			39.9		30.5	30.5	30.5			
Effective Green, g (s)	50.5	50.5			39.9		30.5	30.5	30.5			
Actuated g/C Ratio	0.56	0.56			0.44		0.34	0.34	0.34			
Clearance Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	403	1066			822		605	643	547			
v/s Ratio Prot	0.01	c0.14			c0.25			c0.17	0.04			
v/s Ratio Perm	0.09						0.06					
v/c Ratio	0.18	0.24			0.56		0.18	0.50	0.12			
Uniform Delay, d1	10.9	10.0			18.5		21.0	23.7	20.5			
Progression Factor	1.00	1.11			1.00		1.00	1.00	1.00			
Incremental Delay, d2	0.2	0.5			2.7		0.7	2.8	0.4			
Delay (s)	11.1	11.7			21.3		21.6	26.4	20.9			
Level of Service	B	B			C		C	C	C			
Approach Delay (s)		11.5			21.3			23.9		0.0		
Approach LOS		B			C			C		A		
Intersection Summary												
HCM 2000 Control Delay		20.2			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.52										
Actuated Cycle Length (s)		90.0			Sum of lost time (s)			13.5				
Intersection Capacity Utilization		54.8%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

5: Ashley Boulevard (Route 18) & Coggeshall St.

2027 Saturday Midday No Build

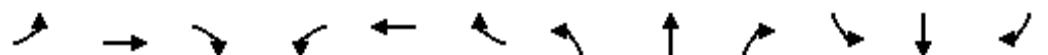
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑↑	
Traffic Volume (vph)	0	212	68	209	226	0	0	0	0	95	499	32
Future Volume (vph)	0	212	68	209	226	0	0	0	0	95	499	32
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Fr _t						0.850						0.991
Flt Protected						0.950						0.950
Satd. Flow (prot)	0	1900	1615	1805	1900	0	0	0	0	1787	3578	0
Flt Permitted						0.547						0.950
Satd. Flow (perm)	0	1900	1615	1039	1900	0	0	0	0	1787	3578	0
Satd. Flow (RTOR)				73								8
Adj. Flow (vph)	0	221	71	218	235	0	0	0	0	99	520	33
Lane Group Flow (vph)	0	221	71	218	235	0	0	0	0	99	553	0
Turn Type		NA	Prot	pm+pt		NA				Split	NA	
Protected Phases	2	2	1	6						4	4	
Permitted Phases				6								
Detector Phase	2	2	1	6						4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0						5.0	5.0	
Minimum Split (s)	22.5	22.5	9.5	22.5						22.5	22.5	
Total Split (s)	30.0	30.0	21.0	51.0						39.0	39.0	
Total Split (%)	33.3%	33.3%	23.3%	56.7%						43.3%	43.3%	
Maximum Green (s)	25.5	25.5	16.5	46.5						34.5	34.5	
Yellow Time (s)	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	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0						0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5						4.5	4.5	
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	
Recall Mode	C-Max	C-Max	None	C-Max						None	None	
Walk Time (s)	7.0	7.0		7.0						7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0						11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0						0	0	
Act Effct Green (s)	46.9	46.9	61.1	61.1						19.9	19.9	
Actuated g/C Ratio	0.52	0.52	0.68	0.68						0.22	0.22	
v/c Ratio	0.22	0.08	0.28	0.18						0.25	0.70	
Control Delay	14.1	4.0	7.9	7.5						29.2	36.2	
Queue Delay	0.0	0.0	0.0	0.0						0.0	0.0	
Total Delay	14.1	4.0	7.9	7.5						29.2	36.2	
LOS	B	A	A	A						C	D	
Approach Delay	11.7			7.7							35.2	
Approach LOS	B			A							D	
Queue Length 50th (ft)	64	0	76	83						47	150	
Queue Length 95th (ft)	133	24	124	132						83	189	
Internal Link Dist (ft)	343			402			187				175	
Turn Bay Length (ft)			200									
Base Capacity (vph)	990	877	846	1290						685	1376	
Starvation Cap Reductn	0	0	0	0						0	0	
Spillback Cap Reductn	0	0	0	0						0	0	

Lanes, Volumes, Timings

5: Ashley Boulevard (Route 18) & Coggeshall St.

Coggeshall Street

2027 Saturday Midday No Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.08	0.26	0.18						0.14	0.40	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 49 (54%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 21.3

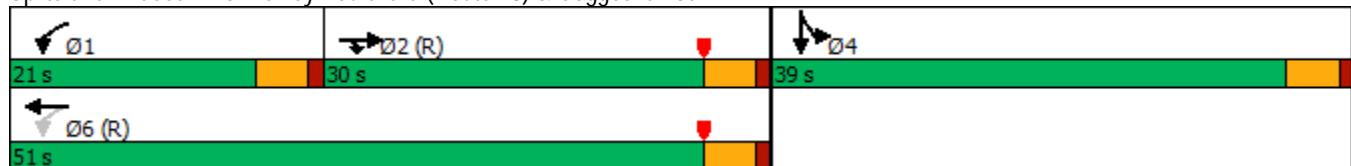
Intersection LOS: C

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Ashley Boulevard (Route 18) & Coggeshall St.



HCM Signalized Intersection Capacity Analysis
5: Ashley Boulevard (Route 18) & Coggeshall St.

Coggeshall Street
2027 Saturday Midday No Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑↑	
Traffic Volume (vph)	0	212	68	209	226	0	0	0	0	95	499	32
Future Volume (vph)	0	212	68	209	226	0	0	0	0	95	499	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	
Lane Util. Factor	1.00	1.00	1.00	1.00						1.00	0.95	
Frt	1.00	0.85	1.00	1.00						1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00						0.95	1.00	
Satd. Flow (prot)	1900	1615	1805	1900						1787	3578	
Flt Permitted	1.00	1.00	0.55	1.00						0.95	1.00	
Satd. Flow (perm)	1900	1615	1040	1900						1787	3578	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.92	0.92	0.92	0.96	0.96	0.96
Adj. Flow (vph)	0	221	71	218	235	0	0	0	0	99	520	33
RTOR Reduction (vph)	0	0	34	0	0	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	221	37	218	235	0	0	0	0	99	547	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	1%	0%	0%
Turn Type	NA	Prot	pm+pt	NA						Split	NA	
Protected Phases	2	2	1	6						4	4	
Permitted Phases				6								
Actuated Green, G (s)	46.9	46.9	61.1	61.1						19.9	19.9	
Effective Green, g (s)	46.9	46.9	61.1	61.1						19.9	19.9	
Actuated g/C Ratio	0.52	0.52	0.68	0.68						0.22	0.22	
Clearance Time (s)	4.5	4.5	4.5	4.5						4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0						3.0	3.0	
Lane Grp Cap (vph)	990	841	788	1289						395	791	
v/s Ratio Prot	0.12	0.02	c0.03	0.12						0.06	c0.15	
v/s Ratio Perm			c0.16									
v/c Ratio	0.22	0.04	0.28	0.18						0.25	0.69	
Uniform Delay, d1	11.7	10.6	5.5	5.3						28.9	32.2	
Progression Factor	1.00	1.00	1.17	1.18						1.00	1.00	
Incremental Delay, d2	0.5	0.1	0.2	0.3						0.3	2.6	
Delay (s)	12.2	10.7	6.7	6.5						29.2	34.8	
Level of Service	B	B	A	A						C	C	
Approach Delay (s)	11.8			6.6			0.0				34.0	
Approach LOS	B			A			A				C	
Intersection Summary												
HCM 2000 Control Delay	20.5				HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio	0.40											
Actuated Cycle Length (s)	90.0				Sum of lost time (s)					13.5		
Intersection Capacity Utilization	54.8%				ICU Level of Service					A		
Analysis Period (min)	15											
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street

2027 Saturday Midday Build

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	123	320	195	257	178	125	116	110	28	166	174	77
Future Volume (vph)	123	320	195	257	178	125	116	110	28	166	174	77
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.938			0.970			0.850
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1805	1900	1615	1805	1772	0	1805	3474	0	1787	1881	1524
Flt Permitted	0.527				0.390			0.619			0.950	
Satd. Flow (perm)	1001	1900	1615	741	1772	0	1176	3474	0	1787	1881	1524
Satd. Flow (RTOR)					43			28				81
Adj. Flow (vph)	129	337	205	271	187	132	122	116	29	175	183	81
Lane Group Flow (vph)	129	337	205	271	319	0	122	145	0	175	183	81
Turn Type	pm+pt	NA	custom	pm+pt	NA		pm+pt	NA		Prot	NA	pt+ov
Protected Phases	5	2	2	1	6		3	8		7	4	45
Permitted Phases	2		1 3 4 5	6			8					
Detector Phase	5	2	2	1	6		3	8		7	4	45
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	1.5	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5		9.5	9.5		9.5	6.0	
Total Split (s)	25.0	35.0	35.0	25.0	35.0		15.0	15.0		15.0	15.0	
Total Split (%)	27.8%	38.9%	38.9%	27.8%	38.9%		16.7%	16.7%		16.7%	16.7%	
Maximum Green (s)	20.5	30.5	30.5	20.5	30.5		10.5	10.5		10.5	10.5	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max	Max	None	Max		None	None		None	None	
Walk Time (s)		7.0	7.0		7.0						7.0	
Flash Dont Walk (s)		11.0	11.0		11.0						11.0	
Pedestrian Calls (#/hr)		0	0		0						0	
Act Effct Green (s)	38.7	30.6	79.1	45.2	33.9		17.6	8.7		10.3	12.6	25.1
Actuated g/C Ratio	0.49	0.39	1.00	0.57	0.43		0.22	0.11		0.13	0.16	0.32
v/c Ratio	0.23	0.46	0.13	0.47	0.41		0.37	0.36		0.75	0.61	0.15
Control Delay	9.1	21.7	0.2	11.1	15.8		25.1	29.2		56.1	44.6	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	9.1	21.7	0.2	11.1	15.8		25.1	29.2		56.1	44.6	6.4
LOS	A	C	A	B	B		C	C		E	D	A
Approach Delay		12.7			13.7			27.3			42.1	
Approach LOS		B			B			C			D	
Queue Length 50th (ft)	27	123	0	61	91		45	28		85	89	0
Queue Length 95th (ft)	51	217	0	102	167		91	58		#196	#201	31
Internal Link Dist (ft)		310			380			147			219	
Turn Bay Length (ft)												
Base Capacity (vph)	797	734	1615	712	784		370	487		238	298	767
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

Lanes, Volumes, Timings

Coggeshall Street

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street

2027 Saturday Midday Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.16	0.46	0.13	0.38	0.41		0.33	0.30		0.74	0.61	0.11

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 79.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 21.5

Intersection LOS: C

Intersection Capacity Utilization 61.7%

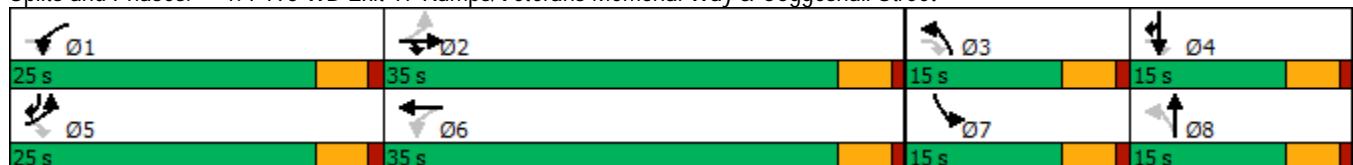
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street



HCM Signalized Intersection Capacity Analysis

1: I-195 WB Exit 17 Ramps/Veterans Memorial Way & Coggeshall Street

Coggeshall Street

2027 Saturday Midday Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	123	320	195	257	178	125	116	110	28	166	174	77
Future Volume (vph)	123	320	195	257	178	125	116	110	28	166	174	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1805	1900	1615	1805	1772		1805	3474		1787	1881	1524
Flt Permitted	0.53	1.00	1.00	0.39	1.00		0.62	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1002	1900	1615	742	1772		1176	3474		1787	1881	1524
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	129	337	205	271	187	132	122	116	29	175	183	81
RTOR Reduction (vph)	0	0	0	0	25	0	0	25	0	0	0	56
Lane Group Flow (vph)	129	337	205	271	294	0	122	120	0	175	183	25
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	4%	1%	1%	6%
Turn Type	pm+pt	NA	custom	pm+pt	NA		pm+pt	NA		Prot	NA	pt+ov
Protected Phases	5	2	2	1	6		3	8		7	4	45
Permitted Phases	2		1 3 4 5	6			8					
Actuated Green, G (s)	38.8	30.7	71.2	45.4	34.0		17.3	9.8		10.3	12.6	25.2
Effective Green, g (s)	38.8	30.7	71.2	45.4	34.0		17.3	9.8		10.3	12.6	25.2
Actuated g/C Ratio	0.48	0.38	0.89	0.57	0.42		0.22	0.12		0.13	0.16	0.31
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	565	727	1615	571	751		312	424		229	295	478
v/s Ratio Prot	0.02	0.18	c0.05	c0.07	0.17		0.04	0.03		c0.10	c0.10	0.02
v/s Ratio Perm	0.09		0.08	c0.20			0.05					
v/c Ratio	0.23	0.46	0.13	0.47	0.39		0.39	0.28		0.76	0.62	0.05
Uniform Delay, d1	11.5	18.6	0.6	9.8	16.0		26.5	32.0		33.8	31.6	19.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	2.1	0.0	0.6	1.5		0.8	0.4		14.0	4.0	0.0
Delay (s)	11.7	20.7	0.6	10.4	17.5		27.3	32.4		47.8	35.6	19.2
Level of Service	B	C	A	B	B		C	C		D	D	B
Approach Delay (s)		12.8			14.2			30.0			37.4	
Approach LOS		B			B			C			D	
Intersection Summary												
HCM 2000 Control Delay		21.1					HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		80.2					Sum of lost time (s)			18.0		
Intersection Capacity Utilization		61.7%					ICU Level of Service			B		
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings
2: Coggeshall Street & Site Driveway

Coggeshall Street
2027 Saturday Midday Build



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑		↑	
Traffic Volume (vph)	92	589	340	39	18	98
Future Volume (vph)	92	589	340	39	18	98
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.986		0.886	
Flt Protected	0.950				0.992	
Satd. Flow (prot)	1805	1900	1840	0	1670	0
Flt Permitted	0.950				0.992	
Satd. Flow (perm)	1805	1900	1840	0	1670	0
Adj. Flow (vph)	94	601	347	40	18	100
Lane Group Flow (vph)	94	601	387	0	118	0
Sign Control	Free	Free		Stop		

Intersection Summary

Control Type: Unsignalized

Intersection Capacity Utilization 44.7%

ICU Level of Service A

Analysis Period (min) 15

HCM Unsignalized Intersection Capacity Analysis
2: Coggeshall Street & Site Driveway

Coggeshall Street
2027 Saturday Midday Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑		↑	
Traffic Volume (veh/h)	92	589	340	39	18	98
Future Volume (Veh/h)	92	589	340	39	18	98
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	94	601	347	40	18	100
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		705	390			
pX, platoon unblocked	0.95			0.95	0.95	
vC, conflicting volume	387			1156	367	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	330			1138	309	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	92			91	86	
cM capacity (veh/h)	1180			197	700	
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	94	601	387	118		
Volume Left	94	0	0	18		
Volume Right	0	0	40	100		
cSH	1180	1700	1700	504		
Volume to Capacity	0.08	0.35	0.23	0.23		
Queue Length 95th (ft)	6	0	0	23		
Control Delay (s)	8.3	0.0	0.0	14.3		
Lane LOS	A			B		
Approach Delay (s)	1.1		0.0	14.3		
Approach LOS				B		
Intersection Summary						
Average Delay		2.1				
Intersection Capacity Utilization		44.7%		ICU Level of Service		A
Analysis Period (min)		15				

Lanes, Volumes, Timings
3: Belleville Avenue & Coggeshall Street

Coggeshall Street
2027 Saturday Midday Build

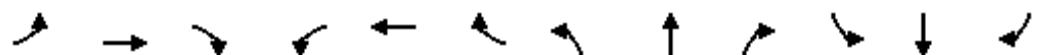
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↓		↑	↑	↓		↑	↑	↑	↓	
Traffic Volume (vph)	65	330	66	142	350	61	43	145	366	145	115	123
Future Volume (vph)	65	330	66	142	350	61	43	145	366	145	115	123
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975				0.850			0.850		0.923	
Flt Protected	0.950			0.950				0.989		0.950		
Satd. Flow (prot)	1805	1831	0	1805	1863	1615	0	1865	1599	1805	1729	0
Flt Permitted	0.544			0.245				0.847		0.372		
Satd. Flow (perm)	1034	1831	0	466	1863	1615	0	1597	1599	707	1729	0
Satd. Flow (RTOR)		14				150			204		84	
Adj. Flow (vph)	68	344	69	148	365	64	45	151	381	151	120	128
Lane Group Flow (vph)	68	413	0	148	365	64	0	196	381	151	248	0
Turn Type	pm+pt	NA		pm+pt	NA	pt+ov	Perm	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6	67		8	1	7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6	67	8	8	1	7	4	
Switch Phase												
Minimum Initial (s)	1.0	4.5		1.0	4.0		1.0	1.0	1.0	1.0	1.0	
Minimum Split (s)	6.5	10.0		7.0	10.0		7.0	7.0	7.0	7.5	7.5	
Total Split (s)	22.0	22.0		17.0	17.0		20.0	20.0	17.0	10.0	30.0	
Total Split (%)	31.9%	31.9%		24.6%	24.6%		29.0%	29.0%	24.6%	14.5%	43.5%	
Maximum Green (s)	16.5	16.5		11.0	11.0		14.0	14.0	11.0	3.5	23.5	
Yellow Time (s)	3.0	3.0		3.5	3.0		3.5	3.5	3.5	3.0	3.0	
All-Red Time (s)	2.5	2.5		2.5	3.0		2.5	2.5	2.5	3.5	3.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5		6.0	6.0		6.0	6.0	6.0	6.5	6.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Max		None	Max		None	None	None	None	None	
Walk Time (s)		7.0			7.0		7.0	7.0			7.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)		0			0		0	0			0	
Act Effct Green (s)	25.2	18.3		30.9	25.3	35.5		11.8	26.5	18.8	18.8	
Actuated g/C Ratio	0.39	0.29		0.48	0.39	0.55		0.18	0.41	0.29	0.29	
v/c Ratio	0.14	0.77		0.37	0.50	0.07		0.67	0.49	0.56	0.44	
Control Delay	10.6	35.1		12.7	21.7	0.1		37.8	8.8	26.5	14.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	10.6	35.1		12.7	21.7	0.1		37.8	8.8	26.5	14.3	
LOS	B	D		B	C	A		D	A	C	B	
Approach Delay		31.6			17.0			18.6			18.9	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)	14	155		33	131	0		75	46	44	49	
Queue Length 95th (ft)	33	#320		64	227	0		#148	109	89	108	
Internal Link Dist (ft)		927			625			148			196	
Turn Bay Length (ft)	110			130		215						
Base Capacity (vph)	733	533		462	735	961		355	837	268	698	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	

Lanes, Volumes, Timings

Coggeshall Street

3: Belleville Avenue & Coggeshall Street

2027 Saturday Midday Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.09	0.77		0.32	0.50	0.07		0.55	0.46	0.56	0.36	

Intersection Summary

Cycle Length: 69

Actuated Cycle Length: 64.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 21.3

Intersection LOS: C

Intersection Capacity Utilization 72.8%

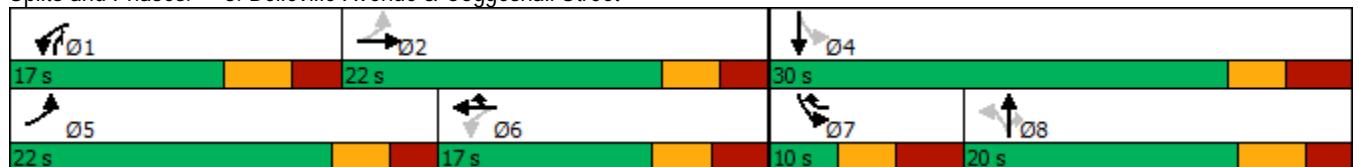
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Belleville Avenue & Coggeshall Street



HCM Signalized Intersection Capacity Analysis

3: Bellevue Avenue & Coggeshall Street

Coggeshall Street

2027 Saturday Midday Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↑	↑	↑	↑	
Traffic Volume (vph)	65	330	66	142	350	61	43	145	366	145	115	123
Future Volume (vph)	65	330	66	142	350	61	43	145	366	145	115	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		6.0	6.0	6.0		6.0	6.0	6.5	6.5	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00	0.85		1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1805	1831		1805	1863	1615		1864	1599	1805	1728	
Flt Permitted	0.54	1.00		0.24	1.00	1.00		0.85	1.00	0.37	1.00	
Satd. Flow (perm)	1033	1831		465	1863	1615		1598	1599	707	1728	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	68	344	69	148	365	64	45	151	381	151	120	128
RTOR Reduction (vph)	0	10	0	0	0	32	0	0	143	0	59	0
Lane Group Flow (vph)	68	403	0	148	365	32	0	196	238	151	189	0
Heavy Vehicles (%)	0%	1%	2%	0%	2%	0%	0%	1%	1%	0%	3%	0%
Turn Type	pm+pt	NA		pm+pt	NA	pt+ov	Perm	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6	7		8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	25.1	20.9		33.9	25.3	33.9		11.8	20.4	20.4	20.4	
Effective Green, g (s)	25.1	20.9		33.9	25.3	33.9		11.8	20.4	20.4	20.4	
Actuated g/C Ratio	0.37	0.31		0.50	0.37	0.50		0.17	0.30	0.30	0.30	
Clearance Time (s)	5.5	5.5		6.0	6.0			6.0	6.0	6.5	6.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	429	563		401	694	806		277	621	254	519	
v/s Ratio Prot	0.01	c0.22		0.05	c0.20	0.02			c0.05	c0.02	0.11	
v/s Ratio Perm	0.05			0.14				c0.12	0.10	0.16		
v/c Ratio	0.16	0.72		0.37	0.53	0.04		0.71	0.38	0.59	0.36	
Uniform Delay, d1	14.0	20.9		10.8	16.6	8.7		26.4	18.8	21.1	18.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	7.6		0.6	2.8	0.0		8.0	0.4	3.7	0.4	
Delay (s)	14.2	28.5		11.4	19.5	8.7		34.4	19.2	24.8	19.1	
Level of Service	B	C		B	B	A		C	B	C	B	
Approach Delay (s)		26.5			16.2			24.4			21.2	
Approach LOS		C			B			C			C	
Intersection Summary												
HCM 2000 Control Delay		21.9			HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio		0.70										
Actuated Cycle Length (s)		67.9			Sum of lost time (s)				24.0			
Intersection Capacity Utilization		72.8%			ICU Level of Service				C			
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street

2027 Saturday Midday Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑			↑		↑	↑	↑			
Traffic Volume (vph)	71	265	0	0	376	84	107	308	199	0	0	0
Future Volume (vph)	71	265	0	0	376	84	107	308	199	0	0	0
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						0.975				0.850		
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1805	1900	0	0	1852	0	1787	1900	1615	0	0	0
Flt Permitted	0.288						0.950					
Satd. Flow (perm)	547	1900	0	0	1852	0	1787	1900	1615	0	0	0
Satd. Flow (RTOR)						12			207			
Adj. Flow (vph)	74	276	0	0	392	88	111	321	207	0	0	0
Lane Group Flow (vph)	74	276	0	0	480	0	111	321	207	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Prot			
Protected Phases	5	2			6				8	8		
Permitted Phases	2						8					
Detector Phase	5	2			6		8	8	8			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	9.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	27.0	55.0			28.0		35.0	35.0	35.0			
Total Split (%)	30.0%	61.1%			31.1%		38.9%	38.9%	38.9%			
Maximum Green (s)	22.5	50.5			23.5		30.5	30.5	30.5			
Yellow Time (s)	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			
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Recall Mode	None	C-Max			C-Max		Max	Max	Max			
Walk Time (s)		7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)		11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)		0			0		0	0	0			
Act Effct Green (s)	50.5	50.5			40.8		30.5	30.5	30.5			
Actuated g/C Ratio	0.56	0.56			0.45		0.34	0.34	0.34			
v/c Ratio	0.18	0.26			0.57		0.18	0.50	0.30			
Control Delay	9.8	11.7			22.0		22.0	27.0	4.5			
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0			
Total Delay	9.8	11.7			22.0		22.0	27.0	4.5			
LOS	A	B			C		C	C	A			
Approach Delay		11.3			22.0			18.8				
Approach LOS		B			C			B				
Queue Length 50th (ft)	23	91			197		44	143	0			
Queue Length 95th (ft)	46	141			310		83	223	46			
Internal Link Dist (ft)		402			927			168			194	
Turn Bay Length (ft)		150										
Base Capacity (vph)	621	1066			846		605	643	684			
Starvation Cap Reductn	0	0			0		0	0	0			
Spillback Cap Reductn	0	0			0		0	0	0			

Lanes, Volumes, Timings

4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street

Coggeshall Street

2027 Saturday Midday Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.12	0.26			0.57		0.18	0.50	0.30			

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 18.1

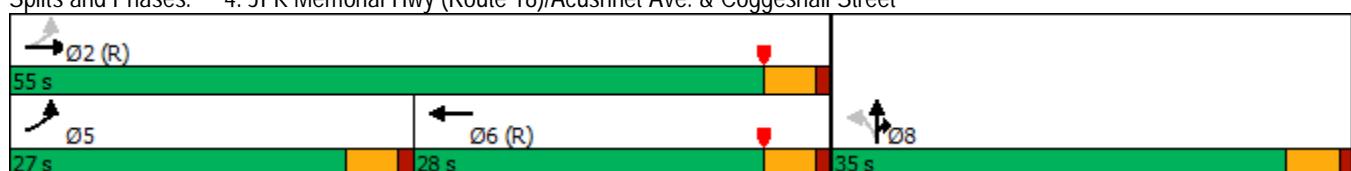
Intersection LOS: B

Intersection Capacity Utilization 56.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street



HCM Signalized Intersection Capacity Analysis
4: JFK Memorial Hwy (Route 18)/Acushnet Ave. & Coggeshall Street

Coggeshall Street
2027 Saturday Midday Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑			↑		↑	↑	↑			
Traffic Volume (vph)	71	265	0	0	376	84	107	308	199	0	0	0
Future Volume (vph)	71	265	0	0	376	84	107	308	199	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00	1.00			
Frt	1.00	1.00			0.98		1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			
Satd. Flow (prot)	1805	1900			1853		1787	1900	1615			
Flt Permitted	0.29	1.00			1.00		0.95	1.00	1.00			
Satd. Flow (perm)	548	1900			1853		1787	1900	1615			
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	74	276	0	0	392	88	111	321	207	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	137	0	0	0
Lane Group Flow (vph)	74	276	0	0	473	0	111	321	70	0	0	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	2%	2%
Turn Type	pm+pt	NA			NA		Perm	NA	Prot			
Protected Phases	5	2			6			8	8			
Permitted Phases	2						8					
Actuated Green, G (s)	50.5	50.5			39.9		30.5	30.5	30.5			
Effective Green, g (s)	50.5	50.5			39.9		30.5	30.5	30.5			
Actuated g/C Ratio	0.56	0.56			0.44		0.34	0.34	0.34			
Clearance Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	392	1066			821		605	643	547			
v/s Ratio Prot	0.01	c0.15			c0.26			c0.17	0.04			
v/s Ratio Perm	0.09						0.06					
v/c Ratio	0.19	0.26			0.58		0.18	0.50	0.13			
Uniform Delay, d1	11.0	10.1			18.7		21.0	23.7	20.6			
Progression Factor	0.96	1.08			1.00		1.00	1.00	1.00			
Incremental Delay, d2	0.2	0.6			2.9		0.7	2.8	0.5			
Delay (s)	10.9	11.5			21.7		21.6	26.4	21.0			
Level of Service	B	B			C		C	C	C			
Approach Delay (s)		11.4			21.7			23.9		0.0		
Approach LOS		B			C			C		A		
Intersection Summary												
HCM 2000 Control Delay		20.2			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.53										
Actuated Cycle Length (s)		90.0			Sum of lost time (s)			13.5				
Intersection Capacity Utilization		56.5%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings

Coggeshall Street

5: Ashley Boulevard (Route 18) & Coggeshall Street

2027 Saturday Midday Build

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑↑	
Traffic Volume (vph)	0	221	68	223	235	0	0	0	0	104	499	32
Future Volume (vph)	0	221	68	223	235	0	0	0	0	104	499	32
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Fr _t						0.850						0.991
Flt Protected						0.950						0.950
Satd. Flow (prot)	0	1900	1615	1805	1900	0	0	0	0	1787	3578	0
Flt Permitted						0.539						0.950
Satd. Flow (perm)	0	1900	1615	1024	1900	0	0	0	0	1787	3578	0
Satd. Flow (RTOR)				73								8
Adj. Flow (vph)	0	230	71	232	245	0	0	0	0	108	520	33
Lane Group Flow (vph)	0	230	71	232	245	0	0	0	0	108	553	0
Turn Type		NA	Prot	pm+pt		NA				Split	NA	
Protected Phases	2	2	1	6						4	4	
Permitted Phases				6								
Detector Phase	2	2	1	6						4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0						5.0	5.0	
Minimum Split (s)	22.5	22.5	9.5	22.5						22.5	22.5	
Total Split (s)	30.0	30.0	21.0	51.0						39.0	39.0	
Total Split (%)	33.3%	33.3%	23.3%	56.7%						43.3%	43.3%	
Maximum Green (s)	25.5	25.5	16.5	46.5						34.5	34.5	
Yellow Time (s)	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	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0						0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5						4.5	4.5	
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	
Recall Mode	C-Max	C-Max	None	C-Max						None	None	
Walk Time (s)	7.0	7.0		7.0						7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0						11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0						0	0	
Act Effct Green (s)	46.6	46.6	61.1	61.1						19.9	19.9	
Actuated g/C Ratio	0.52	0.52	0.68	0.68						0.22	0.22	
v/c Ratio	0.23	0.08	0.30	0.19						0.27	0.70	
Control Delay	14.4	4.1	8.0	7.4						29.6	36.2	
Queue Delay	0.0	0.0	0.0	0.0						0.0	0.0	
Total Delay	14.4	4.1	8.0	7.4						29.6	36.2	
LOS	B	A	A	A						C	D	
Approach Delay	12.0			7.7							35.2	
Approach LOS	B			A							D	
Queue Length 50th (ft)	68	0	80	84						51	150	
Queue Length 95th (ft)	140	24	129	135						88	189	
Internal Link Dist (ft)	343			402			187				175	
Turn Bay Length (ft)			200									
Base Capacity (vph)	984	871	839	1290						685	1376	
Starvation Cap Reductn	0	0	0	0						0	0	
Spillback Cap Reductn	0	0	0	0						0	0	

Lanes, Volumes, Timings

5: Ashley Boulevard (Route 18) & Coggeshall Street

Coggeshall Street

2027 Saturday Midday Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0	0	0	0					0	0	
Reduced v/c Ratio		0.23	0.08	0.28	0.19					0.16	0.40	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 49 (54%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 21.2

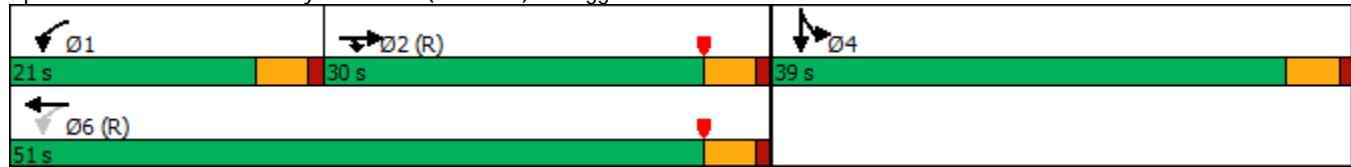
Intersection LOS: C

Intersection Capacity Utilization 56.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Ashley Boulevard (Route 18) & Coggeshall Street



HCM Signalized Intersection Capacity Analysis
5: Ashley Boulevard (Route 18) & Coggeshall Street

Coggeshall Street
2027 Saturday Midday Build

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑↑	
Traffic Volume (vph)	0	221	68	223	235	0	0	0	0	104	499	32
Future Volume (vph)	0	221	68	223	235	0	0	0	0	104	499	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	
Lane Util. Factor	1.00	1.00	1.00	1.00						1.00	0.95	
Frt	1.00	0.85	1.00	1.00						1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00						0.95	1.00	
Satd. Flow (prot)	1900	1615	1805	1900						1787	3578	
Flt Permitted	1.00	1.00	0.54	1.00						0.95	1.00	
Satd. Flow (perm)	1900	1615	1023	1900						1787	3578	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	230	71	232	245	0	0	0	0	108	520	33
RTOR Reduction (vph)	0	0	34	0	0	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	230	37	232	245	0	0	0	0	108	547	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Turn Type	NA	Prot	pm+pt	NA						Split	NA	
Protected Phases	2	2	1	6						4	4	
Permitted Phases				6								
Actuated Green, G (s)	46.6	46.6	61.1	61.1						19.9	19.9	
Effective Green, g (s)	46.6	46.6	61.1	61.1						19.9	19.9	
Actuated g/C Ratio	0.52	0.52	0.68	0.68						0.22	0.22	
Clearance Time (s)	4.5	4.5	4.5	4.5						4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0						3.0	3.0	
Lane Grp Cap (vph)	983	836	781	1289						395	791	
v/s Ratio Prot	0.12	0.02	c0.03	0.13						0.06	c0.15	
v/s Ratio Perm			c0.17									
v/c Ratio	0.23	0.04	0.30	0.19						0.27	0.69	
Uniform Delay, d1	11.9	10.7	5.6	5.3						29.1	32.2	
Progression Factor	1.00	1.00	1.17	1.17						1.00	1.00	
Incremental Delay, d2	0.6	0.1	0.2	0.3						0.4	2.6	
Delay (s)	12.5	10.8	6.8	6.5						29.4	34.8	
Level of Service	B	B	A	A						C	C	
Approach Delay (s)	12.1			6.6			0.0				34.0	
Approach LOS	B			A			A				C	
Intersection Summary												
HCM 2000 Control Delay	20.3				HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio	0.41											
Actuated Cycle Length (s)	90.0				Sum of lost time (s)					13.5		
Intersection Capacity Utilization	56.5%				ICU Level of Service					B		
Analysis Period (min)	15											
c Critical Lane Group												

TABLE A-1
ACCIDENT DATA SUMMARY - 2015 to 2017
STUDY AREA INTERSECTIONS

Criteria	Coggeshall Street at Veterans Memorial Way	Coggeshall Street at Belleville Avenue	Coggeshall Street at Acushnet Avenue	Coggeshall Street at Ashley Boulevard	Site Driveway
YEAR					
2015	9	11	13	10	7
2016	10	15	12	8	3
<u>2017</u>	<u>9</u>	<u>5</u>	<u>9</u>	<u>24</u>	<u>11</u>
Total	28	31	34	42	21
Average No. of Crashes	9.33	10.33	11.33	14.00	7.00
Crash Rate	1.07	1.14	1.75	2.16	1.30
TYPE					
Angle	12	8	7	24	6
Rear-End	7	12	16	6	6
Head-On	1	2	3	1	3
Sideswipe	4	4	3	7	3
Pedestrian/Bicycle	2	0	1	0	0
Collision w/ Fixed Object	2	5	3	3	3
<u>Unknown/Other</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>
Total	28	31	34	42	21
SEVERITY					
Property Damage Only	18	20	21	32	15
Non-fatal Injury	9	10	13	9	4
Fatality	0	0	0	0	0
<u>Unknown/Other</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>2</u>
Total	28	31	34	42	21
WEATHER					
Clear	21	26	24	34	16
Wet	2	2	5	3	2
Snow/Ice	1	0	0	2	0
Clouds	4	1	3	2	3
Fog	0	0	0	1	0
<u>Unknown/Other</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>0</u>	<u>0</u>
Total	28	31	34	42	21
TIME					
Weekday 7:30 AM - 9:30 AM	1	2	2	1	2
Weekday 3:30 PM - 5:30 PM	2	3	7	2	4
<u>Other</u>	<u>25</u>	<u>26</u>	<u>25</u>	<u>32</u>	<u>8</u>
Total	28	31	34	35	14

District #5 Average Crash Rates: 0.75 Signalized Intersections
0.57 Unsignalized Intersections