Transportation Impact Assessment

Proposed Mixed-Use Development
10 - 60 Main Street
Ashland, Massachusetts

Prepared for:

SLV Ashland, LLC
Needham, Massachusetts

August 2024

Prepared by:

Vanasse & Associates inc
Transportation Engineers & Planners

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Dear Reviewer:

This letter shall certify that this *Transportation Impact Assessment* has been prepared under my direct supervision and responsible charge. I am a Registered Professional Engineer (P.E.) in the Commonwealth of Massachusetts (Massachusetts P.E. No. 38871, Civil) and hold Certification as a Professional Traffic Operations Engineer (PTOE) from the Transportation Professional Certification Board, Inc. (TPCB), an independent affiliate of the Institute of Transportation Engineers (ITE) (PTOE Certificate No. 993). I am also a Fellow of the Institute of Transportation Engineers (FITE).

Sincerely,

VANASSE & ASSOCIATES, INC.

Jeffrey S. Dirk

Jeffrey S. Dirk, P.E., PTOE, FITE
Managing Partner

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EXECUTIVE SUMMARY

Vanasse & Associates, Inc. (VAI) has conducted a Transportation Impact Assessment (TIA) in order to determine the potential impacts on the transportation infrastructure associated with the proposed construction of a mixed-use development to be located at 10 - 60 Main Street in Ashland, Massachusetts (hereafter referred to as the "Project"). This assessment was prepared in consultation with the Massachusetts Department of Transportation (MassDOT) and the Town of Ashland, and was performed in accordance with MassDOT's *Transportation Impact Assessment (TIA) Guidelines* and the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports.

Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the Institute of Transportation Engineers (ITE)[1] and with adjustment to account for internal trips, pass-by trips and the use of alternative modes of transportation to single-occupancy vehicles (SOVs), the Project is expected to generate approximately 1,602 new vehicle trips on an average weekday (two-way, 24 hour volume), with 82 transit trips and 20 pedestrian/bicycle trips. During the weekday morning peak-hour, the Project is expected to generate 148 new vehicle trips, eight (8) transit trips and two (2) pedestrian/bicycle trips. During the weekday evening peak-hour, the Project is expected to generate 133 new vehicle trips, six (6) transit trips and one (1) pedestrian/bicycle trip;

2. In comparison to the existing uses that occupy the Project site and that will be removed to accommodate the Project, the Project is expected to generate approximately 124 additional vehicle trips during the weekday morning peak-hour and 89 additional vehicle trips during the weekday evening peak-hour;

3. The Project will not result in a significant impact (increase) on motorist delays or vehicle queuing over anticipated future conditions without the Project (No-Build condition), with majority of movements at the study area intersections expected to continue to operate at a level-of-service (LOS) of D or better with the addition of Project-related traffic, where an LOS of "D" or better is defined as "acceptable" traffic operations. Project-related impacts at off-site intersections are generally defined as an increase in overall average motorist delay of up to 9.2 seconds and in vehicle queuing of up to one (1) vehicle;

[1] *Trip Generation,* 11th Edition; Institute of Transportation Engineers; Washington, DC; 2021.

4. With the exception of motorists exiting the south Project site driveway to Main Street, the Project site driveways were identified to operate at LOS D or better during the peak hours with vehicle queues of up to four (4) vehicles, which can be within the Project site without inhibiting access or the movement of vehicles, pedestrians, and bicyclists along Main Street or Myrtle Street. All movements exiting the south Project site driveway (CrossFit Synergistics) were identified to operate at or over capacity (i.e., LOS "E" or "F") as a result of the volume of conflicting traffic on Main Street during the peak hours; however, the resulting vehicle queue was shown to be relatively minor (up to three (3) vehicles);

5. No apparent safety deficiencies were noted with respect to the motor vehicle crash history at the study area intersections; and

6. Lines of sight to and from the Project site driveways exceed or can be made to meet or exceed the recommended minimum distances to function in a safe manner based on the appropriate approach speed.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

RECOMMENDATIONS

A detailed transportation improvement program has been developed that is designed to provide safe and efficient access to the Project site and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits and approvals.

Project Access

Access to the Project will be provided by way of four (4) driveways configured as follows: the north driveway will intersect the east side of Myrtle Street at the location of the existing driveway that serves the Project site; the south driveway will intersect the east side of Main Street approximately 30 feet north of the existing driveway that serves CrossFit Synergistics and the southern portion of the Project site; and two (2) driveways that will intersect the east side of Main Street opposite the stop-line on the Main Street southbound approach to Pleasant Street and approximately 90 feet north of the stop-line, respectively, that will serve the short-term parking area for prospective tenants and delivery service providers . The existing open parking area along the east side of Main Street that extends between Pleasant Street and Water Street will be closed in conjunction with the Project thereby enhancing safety for all roadway users, particularly pedestrians and bicyclists. The following recommendations are offered with respect to the design and operation of the Project site access and internal circulation, many of which are reflected on the Site Plans:

- The north and south Project site driveways and internal circulating drives within the Project site will be 24 feet in width and designed to accommodate the turning and maneuvering requirements of the largest anticipated responding emergency vehicle.

- The driveways that will serve the short-term parking and delivery service provider area should be reduced in width to 20-feet and should convey one-way traffic in a counterclockwise direction, with traffic entering the south center driveway and exiting from the north center driveway given the proximity of the south center driveway to the traffic signal at the Main Street/Pleasant Street intersection. "One-Way" and "Do not Enter" signs should be provided to regulate the one-way traffic flow. In addition, consideration should be given to changing the parking in this area to angled-parking to reinforce the one-way traffic flow.

- Vehicles exiting the Project site should be placed under STOP-sign control with a marked STOP-line provided.

- All signs and pavement markings to be installed within the Project site should conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD).[2]

- Crosswalks have been provide for crossing the Project site driveways that include Americans with Disabilities Act (ADA)-compliant wheelchair ramps. In addition, sidewalks are provided within the Project site that link the proposed residential building to the existing and proposed sidewalk along the Project site frontage on Main Street and Myrtle Street.

- Signs and landscaping to be installed as a part of the Project within the intersection sight triangle areas of the Project site driveway should be designed and maintained so as not to restrict lines of sight.

- The proposed retaining wall and protective fence to be situated proximate to the proposed public plaza should be set-back within the Project site and outside of the sight triangle area for the Myrtle Street Project site driveway.

- Snow accumulations (windrows) within the sight triangle areas of the Project site driveway will be promptly removed where such accumulations would impede sight lines.

Off-Site

Main Street at Homer Avenue and Summer Street

Independent of the Project, the Summer Street approach to the Main Street/Homer Avenue/ Summer Street is currently operating over capacity (i.e., LOS "F") during the weekday morning peak-hour. In an effort to improve operating conditions at this intersection, the Project proponent will design and implement an optimal traffic signal timing and phasing plan at the intersection to include a review of the traffic signal timing, phasing and coordination plan for the traffic signals to the north that comprise the Main Street traffic signal system, including Main Street at Front Street and Main Street at Pleasant Street. These improvements will be completed prior to the issuance of a Certificate of Occupancy for the Project subject to receipt of all necessary rights, permits and approvals.

With the implementation of an optimal traffic signal timing, phasing and coordination plan, all movements at the traffic signals that comprise the Main Street coordinated traffic signal system are predicted to operate at LOS D or better, an improvement over No-Build conditions.

[2] *Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.

Transportation Demand Management

Regularly scheduled public transportation services are provided within the Town of Ashland by the MetroWest Regional Transit Authority (MWRTA) and the Massachusetts Bay Transportation Authority (MBTA) within the study area. To the southwest of the Project site, the MBTA provides Commuter Rail service to South Station in Boston on the Framingham/Worcester Line from Ashland Station to the west of the Project site and from Framingham Station to the east. To the south of the Project site, the MWRTA provides fixed-route bus service along Route 126 and Route 135 from the Blandin Hub in Framingham and the Price Chopper Supermarket in Hopkinton by way of the Route 5 bus route, which includes a stop at Ashland Station. The closest bus stop to the Project site for the Route 5 bus is located at the Main Street/Homer Avenue/Summer Street intersection, approximately 0.25 miles to the south or an approximate 6 minute walking distance. In addition, the Town of Ashland provides Senior Center Van Rides to eligible Ashland residents who require transportation to/from Senior Center programs or medical appointments. Mass Health Transportation (MART) is also available to recipients of Medicaid in the area.

In an effort to encourage the use of alternative modes of transportation to single-occupant vehicles (SOVs), the following Transportation Demand Management (TDM) measures should be implemented as a part of the Project:

- A transportation coordinator should be designated for the Project, who may have other duties and responsibilities, to coordinate the elements of the TDM program;
- The transportation coordinator should facilitate a rideshare matching program for residents and employees to encourage carpooling;
- A "welcome packet" should be provided to new residents and employees detailing available public transportation services, bicycle and walking alternatives, and other commuting options;
- Information regarding public transportation services, maps, schedules, and fare information should be posted in a central location and/or otherwise made available to residents and employees;
- A pick-up/drop-off area has been provided at the front of the building for use by carshare and delivery service providers, as well as Amazon, UPS and FedEx;
- Specific amenities should be provided to discourage off-site trips, including providing one or more of the following: a breakroom equipped with a microwave and refrigerator; offering direct deposit of paychecks; on-site dry cleaning pick-up; and other such measures to reduce overall traffic volumes and travel during peak traffic volume periods;
- Consideration should be given to providing electric vehicle (EV) charging stations for use by residents, employees and customers; and
- Secure bicycle parking should be provided at appropriate locations within the Project site.

With implementation of the aforementioned recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

INTRODUCTION

Vanasse & Associates, Inc. (VAI) has conducted a Transportation Impact Assessment (TIA) in order to determine the potential impacts on the transportation infrastructure associated with the proposed construction of a mixed-use development to be located at 10 - 60 Main Street in Ashland, Massachusetts (hereafter referred to as the "Project"). This study evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing traffic conditions and future traffic conditions, both with and without the Project, along Main Street and Myrtle Street, and at major intersections located along these roadways through which Project-related traffic will travel.

PROJECT DESCRIPTION

As proposed, the Project will entail the construction of a mixed-use development to be located at 10 - 60 Main Street in Ashland, Massachusetts, that will include 250 multifamily residential units and 15,565± square feet (sf) of commercial space. The Project encompasses approximately 7.8± acres of land that is bounded by Myrtle Street and the Sudbury River to the north; Main Street, residential properties and the Federated Church and Cemetery to the south; Concord Street and the Sudbury River to the east; and Main Street, Myrtle Street, residential properties and the Federated Church and Cemetery to the west. The Project site is currently improved with an existing mill building that contains approximately 177,000± sf of space (gross floor area) that includes several commercial and retail uses, warehousing, institutional and construction related uses with supporting parking areas and appurtenances, all of which will be removed to accommodate the Project. Figure 1 depicts the Project site in relation to the existing roadway network.

Access to the Project will be provided by way of four (4) driveways configured as follows: the north driveway will intersect the east side of Myrtle Street at the location of the existing driveway that serves the Project site; the south driveway will intersect the east side of Main Street approximately 30 feet north of the existing driveway that serves CrossFit Synergistics and the southern portion of the Project site; and two (2) driveways that will intersect the east side of Main Street opposite the stop-line on the Main Street southbound approach to Pleasant Street and approximately 90 feet north of the stop-line, respectively, that will serve the short-term parking area for prospective tenants and delivery service providers . The existing open parking area along the east side of Main Street that extends between Pleasant Street and Water Street will be closed in conjunction with the Project thereby enhancing safety for all roadway users, particularly pedestrians and bicyclists.

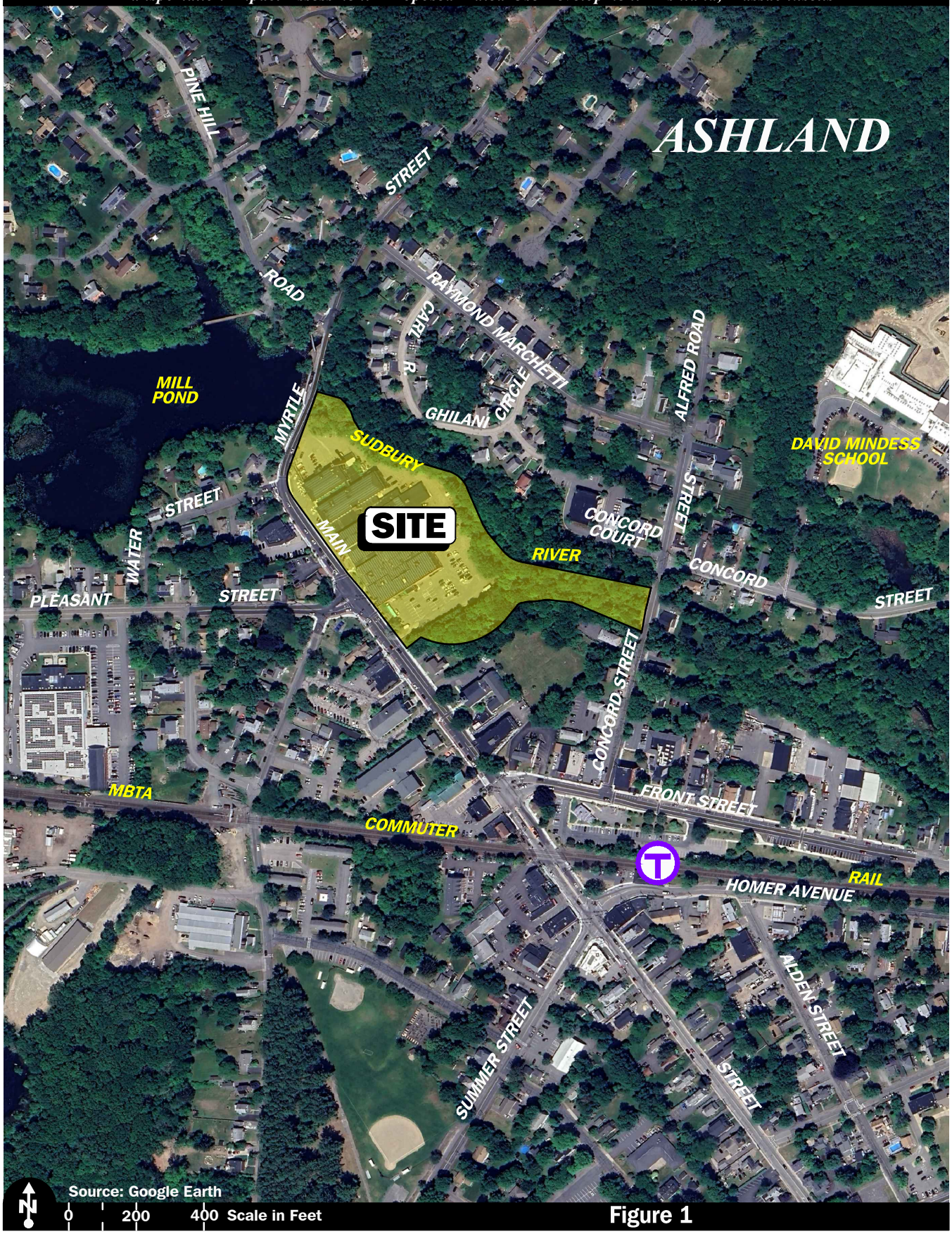


Figure 1

Site Location Map

Vanasse & Associates inc

Off-street parking will be provided within the Project site for 390 vehicles to serve both the residential and commercial components, including 211 parking spaces to be located in a garage beneath the residential units and 179 surface parking spaces. The proposed parking supply exceeds the parking requirements of the Town of Ashland Zoning By-Law for a project located within the Ashland Downtown District (ADD).[3]

STUDY METHODOLOGY

This study was prepared in consultation with the Town of Ashland and the Massachusetts Department of Transportation (MassDOT); was performed in accordance with MassDOT's *Transportation Impact Assessment (TIA) Guidelines* and the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports; and was conducted in three distinct stages.

The first stage involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics; pedestrian and bicycle facilities; public transportation services; observations of traffic flow; and collection of daily and peak-period traffic counts.

In the second stage of the study, future traffic conditions were projected and analyzed. Specific travel demand forecasts for the Project were assessed along with future traffic demands due to expected traffic growth independent of the Project. A seven-year time horizon was selected for analyses consistent with MassDOT's *Transportation Impact Assessment (TIA) Guidelines*. The traffic analysis conducted in stage two identifies existing or projected future roadway capacity, traffic safety, and site access issues.

The third stage of the study presents and evaluates measures to address traffic and safety issues, if any, identified in stage two of the study.

[3]Section 8.5.13, Parking and Loading, of Chapter 282 of the Town Code specifies that the parking requirements of Section 5.1 shall be reduced by 75% for uses located within the ADD and that where there is a mixture of land uses on one lot, the number of parking spaces required shall be only 56.25% of the parking requirements of Section 5.1. Applying these requirements to the Project would result in a parking requirement of 311 parking spaces.

EXISTING CONDITIONS

A comprehensive field inventory of existing conditions within the study area was conducted in February 2024. The field investigation consisted of an inventory of existing roadway geometrics; pedestrian and bicycle facilities; public transportation services; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The study area that was assessed for the Project consisted of Main Street and Myrtle Street, and the following specific intersections through which Project-related traffic will travel:

- Myrtle Street at Raymond Marchetti Street
- Myrtle Street at the 10-60 Main Street Driveway
- Myrtle Street and Main Street at Water Street and the 10-60 Main Street Driveway
- Main Street at the LFX Enterprise Driveway
- Main Street at Pleasant Street
- Main Street at the CrossFit Synergistics Driveway
- Main Street at Front Street
- Main Street at Homer Avenue and Summer Street

The following describes the study area roadways and intersections.

ROADWAYS

Main Street

- Two lane urban minor arterial roadway under Town jurisdiction;
- Traverses study area in a general northwest-southeast direction;
- Provides two 10- to 11-foot-wide travel lanes that are separated by a double-yellow centerline with 1-foot-wide marked shoulders or marked on-street parking and additional travel lanes provided at major intersections;
- The posted speed limit is 25 miles per hour (mph) in the vicinity of the Project site.
- A sidewalk is provided along both sides of the roadway;
- Illumination is provided by way of street lights mounted on wood or ornamental steel poles;
- Land use within the study area consists of the Project site; residential, commercial and institutional properties; and areas of open and wooded space.

Myrtle Street

- Two lane urban collector roadway under Town jurisdiction;
- Traverses study area in a general northeast-southwest direction;
- Provides two 12- to 15-foot-wide travel lanes that are separated by a double-yellow centerline with 1-foot-wide or no marked shoulders provided;
- The posted speed limit is 25 mph in the vicinity of the Project site.
- A sidewalk is provided along the west side of the roadway;
- Illumination is provided by way of street lights mounted on wood poles;
- Land use within the study area consists of the Project site; residential properties; the Ashland Historical Society; Mill Pond and Mill Pond Park; and areas of open and wooded space.

INTERSECTIONS

Table 1 and Figure 2 summarize existing lane use, traffic control, and pedestrian and bicycle accommodations at the study area intersections as observed in February 2024.

Table 1
STUDY AREA INTERSECTION DESCRIPTION

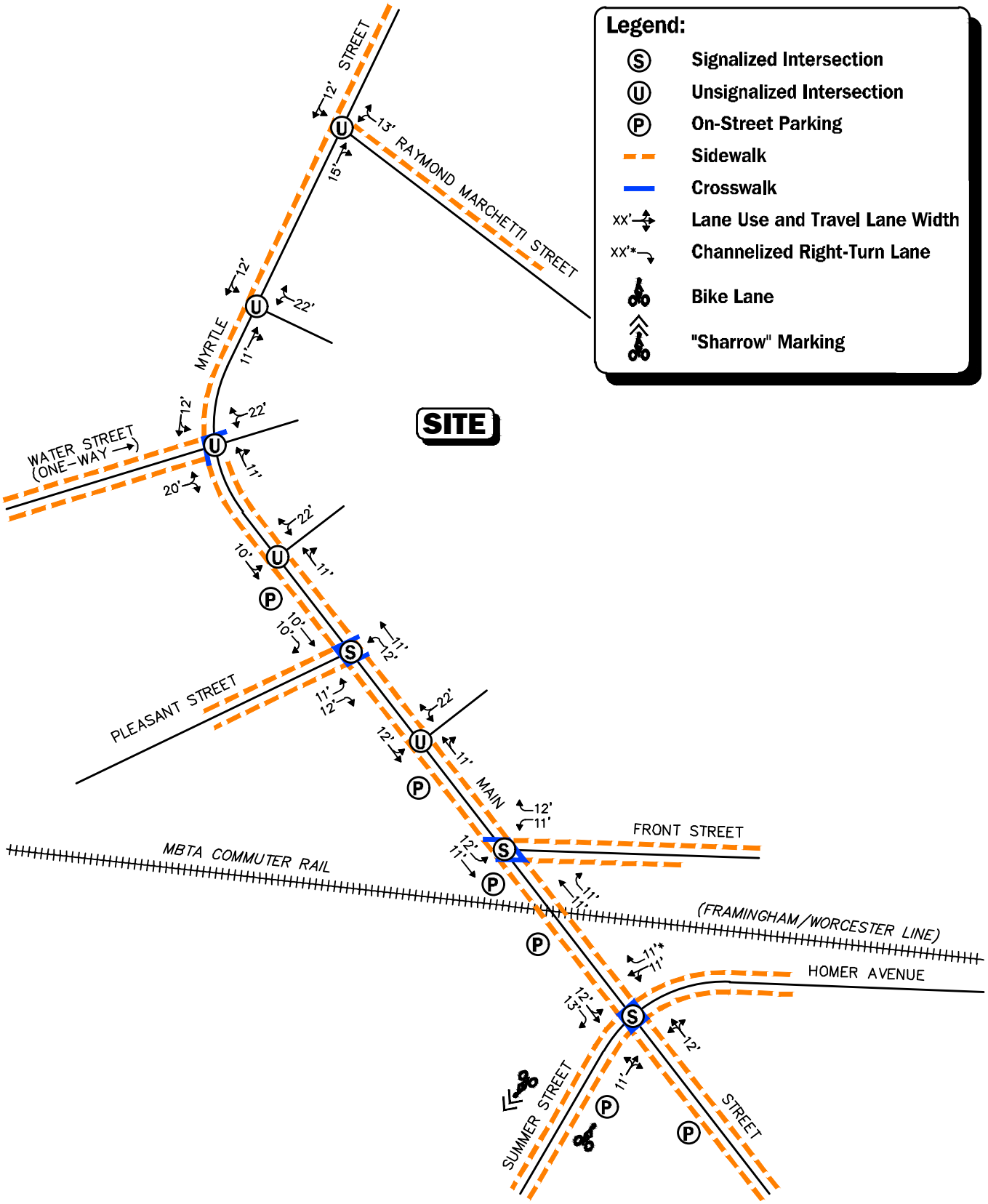
Intersection	Traffic Control Type[a]	No. of Travel Lanes Provided	Shoulder Provided? (Yes/No/Width)	Pedestrian Accommodations? (Yes/No/Description)	Bicycle Accommodations? (Yes/No/Description)
Myrtle St./ Raymond Marchetti St.	S	1 through/right-turn lane on Myrtle St. northbound approach; 1 left-turn/through lane on Myrtle St. southbound approach; 1 left/right-turn lane on Raymond Marchetti St. approach	No	Yes; sidewalks provided along the west side of Myrtle St and along the north side of Raymond Marchetti St.	No
Myrtle St./ 10-60 Main St. Dwy.	S	1 through/right-turn lane on Myrtle St. northbound approach; 1 left-turn/through lane on Myrtle St. southbound approach; 1 left/right-turn lane provided on the Dwy.	Yes; 1 foot on Myrtle St.	Yes; sidewalk provided along west side of Myrtle St.	No
Myrtle St./ Main St./ Water St./ 10-60 Main St. Dwy.	S	1 through/right-turn lane on Main St. northbound approach; 1 left-turn/through lane on Myrtle St. southbound approach; one left/right-turn lane on Water St. eastbound approach; 1 left-/right-turn lane provided on the Dwy.	Yes; 1 foot on east side of Main St.	Yes; sidewalks provided along both sides of Main St. and along the west side of Myrtle St.; crosswalk provided across north and west legs	No

See notes at end of table.

Table 1 (Continued)
STUDY AREA INTERSECTION DESCRIPTION

Intersection	Traffic Control Type[a]	No. of Travel Lanes Provided	Shoulder Provided? (Yes/No/Width)	Pedestrian Accommodations? (Yes/No/Description)	Bicycle Accommodations? (Yes/No/Description)
Main St./ LFX Enterprise Dwy.	S	1 through/right-turn lane on Main St. northbound approach; 1 left-turn/through lane on Main St. southbound approach; 1 left/right-turn lane provided on Dwy.	Yes; 1 foot along east side of Main St.; parking lane along the west side	Yes; sidewalks provided along both sides of Main St.	No
Main St./ Pleasant St.	TS	1 through travel lane and 1 right-turn lane on Main St. southbound approach; 1 left-turn lane and 1 through travel lane on Main St. northbound approach; 1 left-turn lane and 1 right-turn lane on Pleasant St. approach	Yes; 1 foot on all legs	Yes; sidewalks provided along both sides of Main St. and Pleasant St.; crosswalk provided across all legs; pedestrian traffic signal equipment and phasing (exclusive) provided	No; bicycle detection provided as a part of the traffic signal system
Main St./ CrossFit Dwy.	S	1 through/right-turn lane on Main St. northbound approach; 1 left-turn/through lane on Main St. southbound approach; 1 left/right-turn lane provided on Dwy.	Yes; 1 foot on Main St. parking lane along the west side	Yes; sidewalks provided along both sides of Main St.	No
Main St./ Front St.	TS	1 left-turn lane and 1 through travel lane on Main St. southbound approach; 1 through travel lane and 1 right-turn lane on Main St. northbound approach; 1 left-turn lane and 1 right-turn lane on Front St. approach; rail crossing across Main St. south of intersection	Yes; 1-2 feet on all legs	Yes; sidewalks provided along both sides of Main St. and Front St.; marked crosswalks provided across all legs; pedestrian traffic signal equipment and phasing (exclusive) provided	No; bicycle detection provided as a part of the traffic signal system
Main St./ Homer Ave./ Summer St.	TS	1 left-turn/through lane and 1 right-turn lane on Main St. southbound approach; 1 general purpose travel lane on Main St. northbound and Summer St. approaches; 1 left-turn/through lane and 1 right-turn lane on Homer Ave.; rail crossing across Main St. north of intersection	Yes; 1 foot on all legs	Yes; sidewalks provided along both sides of Main St., Homer Ave. and Summer St.; crosswalks provided across all legs; pedestrian traffic signal equipment and phasing (exclusive) provided	Yes; "sharrow" markings and bike lane along Summer St.

[a]TS = traffic signal control; S = STOP-sign control.



Not To Scale

Figure 2

Existing Intersection Lane Use, Travel Lane Width, and Pedestrian Facilities

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EXISTING TRAFFIC VOLUMES

In order to determine existing traffic-volume demands and flow patterns within the study area, automatic traffic recorder (ATR) counts, turning movement counts (TMCs), and vehicle classification counts were completed in February 2024. The ATR counts were conducted on February 27th and 28th, 2024 (Tuesday and Wednesday, respectively) on Main Street and Myrtle Street in the vicinity of the Project site in order to record weekday traffic conditions over an extended period, with peak-period TMCs performed at the study intersections during the weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak-periods on Tuesday, February 27th, 2024. These time periods were selected for analysis purposes as they are representative of the peak traffic-volume hours for both the Project and the adjacent roadway network.

Traffic-Volume Adjustments

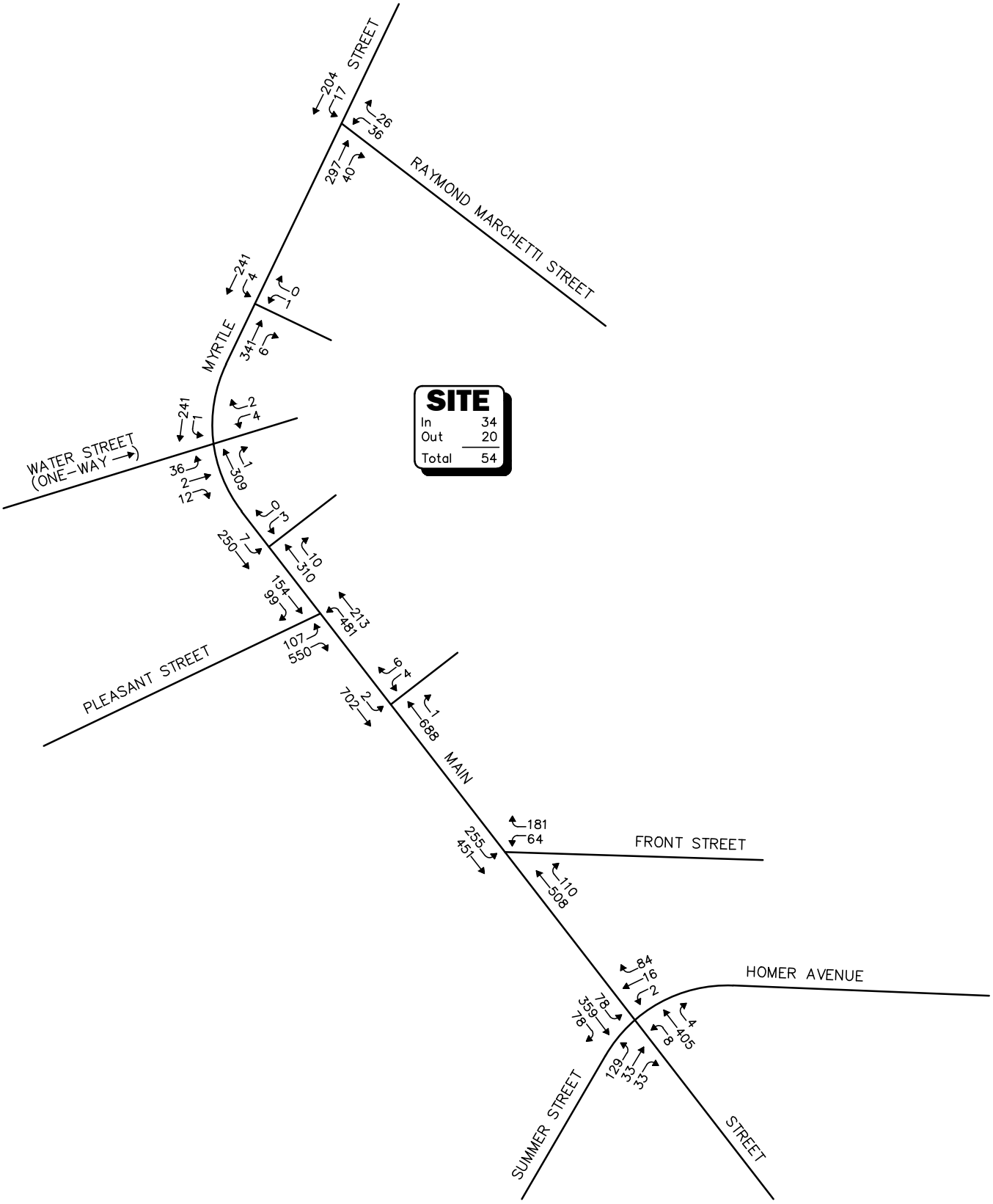
In order to evaluate the potential for seasonal fluctuation of traffic volumes within the study area, MassDOT weekday seasonal factors for Urban Groups 4-7 (urban minor arterial, major and minor collector roadways and local roads and streets, the functional classifications of the study area roadways) were reviewed.[4] Based on a review of this data, it was determined that traffic volumes for the month of February are representative of average-month conditions. As such, no adjustment was required to the February traffic volumes as they are representative of traffic volumes under average-month conditions.

Based on updated guidance from MassDOT,[5] adjustments to account for the impact on traffic volume and trip patterns resulting from the COVID-19 pandemic for traffic counts taken on or after March 1, 2022 are only recommended in areas where the predominant land use is office properties. As the predominant land use within the study area consists of residential and commercial uses, a pandemic-related adjustment was not required.

The 2024 Existing traffic volumes are summarized in Table 2, with the weekday morning and evening peak-hour traffic volumes graphically depicted on Figures 3 and 4, respectively. Note that the peak-hour traffic volumes that are presented in Table 2 were obtained from the aforementioned figures.

[4] MassDOT statewide Traffic Data Collection; 2019 Weekday Seasonal Factors, Groups U4-7.

[5] *25% Design Submission Guidelines*; MassDOT Highway Division, Traffic and Safety Engineering; Revised May 31, 2022.



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 3

2024 Existing
Weekday Morning
Peak-Hour Traffic Volumes

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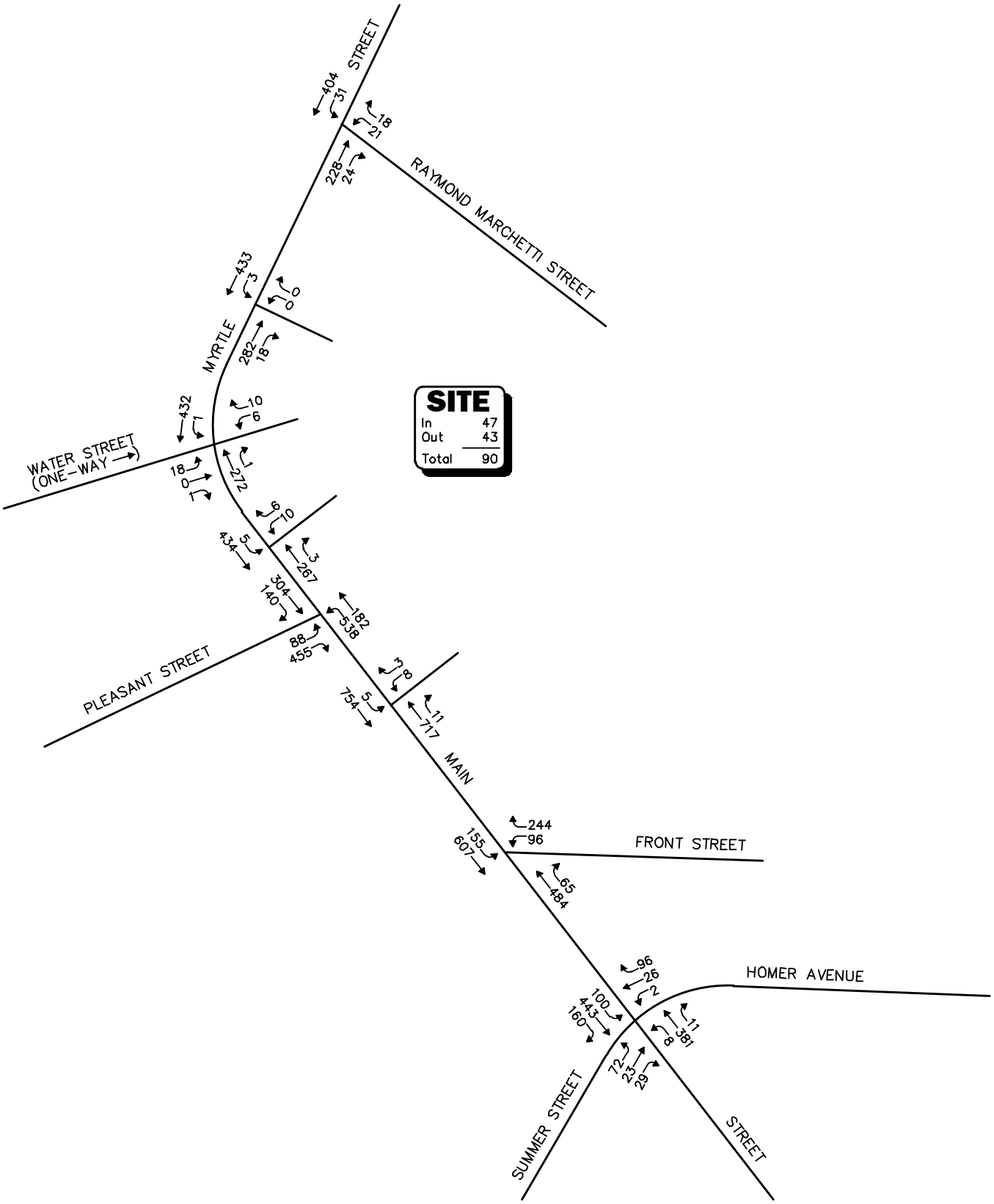


Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 4

2024 Existing
Weekday Evening
Peak-Hour Traffic Volumes

Vanasse & Associates inc

Table 2
2024 EXISTING TRAFFIC VOLUMES

Location/Peak Hour	AWT[a]	VPH[c]	K Factor[d]	Directional Distribution[e]
Myrtle Street in the vicinity of the Project:	6,995	--	--	--
Weekday Morning (7:45 – 8:45 AM)	--	589	8.4	58.6% NB
Weekday Evening (4:15 – 5: 15 PM)	--	733	10.5	59.1% SB
Main Street in the vicinity of the Project:	11,690	--	--	--
Weekday Morning (7:45 – 8:45 AM)	--	1,398	12.0	50.4% SB
Weekday Evening (4:15 – 5: 15 PM)	--	1,479	12.7	51.3% SB

[a]Average weekday traffic in vehicles per day.
[b]Average Saturday traffic in vehicles per day.
[c]Vehicles per hour.
[d]Percent of daily traffic occurring during the peak hour.
[e]Percent traveling in peak direction.
NB = northbound; SB = southbound.

As can be seen in Table 2, Myrtle Street in the vicinity of the Project site was found to accommodate approximately 6,995 vehicles on an average weekday (two-way, 24-hour volume), with approximately 589 vehicles per hour (vph) during the weekday morning and 733 vph during the weekday evening peak-hour. Main Street in the vicinity of the Project site was found to accommodate approximately 11,690 vehicles on an average, with approximately 1,398 vph during the weekday morning and 1,479 vph during the weekday evening peak-hour.

PEDESTRIAN AND BICYCLE FACILITIES

A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in February 2024. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadways and at the study area intersections, as well as the location of existing and planned future bicycle facilities. As shown on Figure 2, sidewalks are provided along one or both sides of the study area roadways, with marked crosswalks provided for crossing one or more legs of the Main Street/Myrtle Street/Water Street, Main Street/Pleasant Street, Main Street/Front Street and Main Street/Homer Avenue/ Summer Street intersections. Pedestrian signal equipment and phasing are provided as a part of the traffic signal systems at the signalized study area intersections.

Formal bicycle facilities are not provided within the study area and the study area roadways do not provide sufficient width (combined travel lane and shoulder) on a regular basis to support bicycle travel in a shared traveled-way configuration.[6] Bicycle detection is provided only as a part of the traffic signal systems at the signalized study area intersections.

[6]A minimum combined travel lane and paved shoulder width of 14 feet is required to support bicycle travel in a shared traveled-way condition.

PUBLIC TRANSPORTATION

Regularly scheduled public transportation services are provided within the Town of Ashland by the MetroWest Regional Transit Authority (MWRTA) and the Massachusetts Bay Transportation Authority (MBTA) within the study area. To the southwest of the Project site, the MBTA provides Commuter Rail service to South Station in Boston on the Framingham/Worcester Line from Ashland Station to the west of the Project site and from Framingham Station to the east. To the south of the Project site, the MWRTA provides fixed-route bus service along Route 126 and Route 135 from the Blandin Hub in Framingham and the Price Chopper Supermarket in Hopkinton by way of the Route 5 bus route, which includes a stop at Ashland Station. The closest bus stop to the Project site for the Route 5 bus is located at the Main Street/Homer Avenue/Summer Street intersection, approximately 0.25 miles to the south or an approximate 6 minute walking distance. In addition, the Town of Ashland provides Senior Center Van Rides to eligible Ashland residents who require transportation to/from Senior Center programs or medical appointments. Mass Health Transportation (MART) is also available to recipients of Medicaid in the area.

The public transportation schedules and fare information are attached in the Appendix.

SPOT SPEED MEASUREMENTS

Vehicle travel speed measurements were performed on Main Street and Myrtle Street in the vicinity of the Project site in conjunction with the ATR counts. Table 3 summarizes the vehicle travel speed measurements.

Table 3
VEHICLE TRAVEL SPEED MEASUREMENTS

	Main Street		Myrtle Street	
	Northbound	Southbound	Northbound	Southbound
Mean Travel Speed (mph)	16	17	27	26
85th Percentile Speed (mph)	19	21	29	28
Posted Speed Limit (mph)	25	25	25	25

mph = miles per hour.

As can be seen in Table 3, the mean vehicle travel speed along Main Street in the vicinity of the Project site was found to be 16 mph in the northbound direction and 17 mph southbound. The measured 85th percentile vehicle travel speed, or the speed at which 85 percent of the observed vehicles traveled at or below, was found to be 19 mph in the northbound direction and 21 mph southbound, which is 4 to 6 mph *below* the posted speed limit in the vicinity of the Project site (25 mph). The mean vehicle travel speed along Myrtle Street was found to be 27 mph in the northbound direction and 26 mph southbound, with the measured 85th percentile vehicle travel speed found to be 29 mph in the northbound direction and 28 mph southbound, which is 3 to 4 mph *above* the posted speed limit in the vicinity of the project. The 85th percentile speed is used as the basis of engineering design and in the evaluation of sight distances and is often used in establishing posted speed limits.

MOTOR VEHICLE CRASH DATA

Motor vehicle crash information for the study area intersections was provided by the MassDOT Highway Division Safety Management/Traffic Operations Unit for the most recent five-year period available (2017 through 2021, inclusive) in order to examine motor vehicle crash trends occurring within the study area. The data is summarized by intersection, type, severity, roadway and weather conditions, and day of occurrence, and is presented in Table 4.

As can be seen in Table 4, the study area intersections were found to have experienced an average of 2.40 or fewer reported motor vehicle crashes per year over the five-year review period and were found to have motor vehicle crash rates *below* the MassDOT statewide and District average crash rates for similar intersections for the MassDOT Highway Division District in which the intersections are located (District 3). The majority of the reported crashes occurred on a weekday; under clear weather conditions; during daylight; and involved angle or rear-end type collisions that resulted in property damage only.

A review of the MassDOT statewide High Crash Location List indicated that there are no Highway Safety Improvement Program (HSIP) eligible high crash locations within the study area. In addition, no fatal motor vehicle crashes were reported to have occurred at the study area intersections over the five-year review period.

The detailed MassDOT Crash Rate Worksheet, High Crash Location mapping and motor vehicle crash back-up are provided in the Appendix.

Table 4
MOTOR VEHICLE CRASH DATA SUMMARY[a]

	Myrtle St./ Raymond Marchetti St.	Myrtle St./ Main St./ Water St.	Main St./ LFX Dwy.	Main St./ Pleasant St.	Main St./ CrossFit Dwy.	Main St./ Front St.	Main St./ Homer Ave./ Summer St.
Traffic Control Type:[b]	U	S	U	TS	U	TS	TS
Year:							
2017	2	0	0	2	0	5	2
2018	0	2	1	0	1	2	5
2019	1	0	0	3	0	1	2
2020	0	0	0	1	0	1	1
2021	0	0	3	2	0	3	2
Total	3	2	4	8	1	12	12
Average	0.60	0.40	0.80	1.60	0.20	2.40	2.40
Rate[c]	0.20	0.13	0.27	0.23	0.03	0.36	0.44
MassDOT Crash Rate:[d]	0.57/0.61	0.57/0.61	0.57/0.61	0.78/0.89	0.57/0.61	0.78/0.89	0.78/0.89
Significant?[e]	No	No	No	No	No	No	No
Type:							
Angle	1	1	0	3	1	7	4
Rear-End	2	1	1	2	0	1	4
Head-On	0	0	0	0	0	0	0
Sideswipe	0	0	0	1	0	3	1
Fixed Object	0	0	3	2	0	1	2
Pedestrian/Bicycle	0	0	0	0	0	0	1
Unknown/Other	0	0	0	0	0	0	0
Total	3	2	4	8	1	12	12
Day of Week:							
Monday through Friday	3	2	4	7	0	11	11
Saturday	0	0	0	0	0	1	0
Sunday	0	0	0	1	1	0	1
Total	3	2	4	8	1	12	12
Conditions:							
Clear	3	0	4	7	1	11	9
Cloudy	0	1	0	1	0	1	2
Rain	0	0	0	0	0	0	1
Snow/Ice	0	1	0	0	0	0	0
Not Reported	0	0	0	0	0	0	0
Total	3	2	4	8	1	12	12
Lighting:							
Daylight	3	1	0	6	1	10	7
Dawn/Dusk	0	0	0	0	0	0	1
Dark (Road Lit)	0	1	4	2	0	2	4
Dark (Road Unlit)	0	0	0	0	0	0	0
Total	3	2	4	8	1	12	12
Severity:							
Property Damage Only	3	2	4	6	1	12	10
Personal Injury	0	0	0	1	0	0	2
Fatality	0	0	0	0	0	0	0
Not Reported	0	0	0	1	0	0	0
Total	3	2	4	8	1	12	12

[a]Source: MassDOT Safety Management/Traffic Operations Unit records, 2017 through 2021.
[b]Traffic Control Type: U = unsignalized; S = STOP-sign control; TS = traffic signal.
[c]Crash rate per million vehicles entering the intersection.
[d]Statewide/District crash rates
[e]The intersection crash rate is significant if it is found to exceed the MassDOT crash rate for the MassDOT Highway Division District in which the Project is located (District 3).

FUTURE CONDITIONS

Traffic volumes in the study area were projected to the year 2031, which reflects a seven-year planning horizon consistent with MassDOT's *Transportation Impact Assessment (TIA) Guidelines*. Independent of the Project, traffic volumes on the roadway network in the year 2031 under No-Build conditions include all existing traffic and new traffic resulting from background traffic growth. Anticipated Project-generated traffic volumes superimposed upon the 2031 No-Build traffic volumes reflect 2031 Build traffic-volume conditions with the Project.

FUTURE TRAFFIC GROWTH

Future traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic; however, potential population growth and development external to the study area would not be accounted for in the resulting traffic projections.

To provide a conservative analysis framework, both procedures were used, the salient components of which are described below.

Specific Development by Others

The Town of Ashland Planning Department was contacted in order to determine if there were any projects planned within the study area that would have an impact on future traffic volumes at the study intersections. Based on this consultation, the following developments were identified for review in conjunction with this assessment:

- ***Proposed Mixed-Use Multi-Family Housing Development, 9-49 Homer Avenue, Ashland, Massachusetts.*** This project entails the construction of 29 apartment units and 8,550± sf of commercial space to be located at 9-49 Homer Avenue to the south of the Project site. Traffic volumes associated with this project were obtained from the Memorandum prepared for the development[7] and were included in the future condition traffic volumes.

[7] *Memorandum*, Proposed Mixed-Use Development, Homer Avenue, Ashland, MA; MDM; December 2023.

No other developments were identified at this time that are expected to result in an increase in traffic within the study area beyond the general traffic growth rate.

General Background Traffic Growth

Traffic-volume data compiled by MassDOT from permanent count stations located in the Ashland area were reviewed in order to determine general traffic growth trends in the area. This data indicates that traffic volumes have fluctuated over the 10-year period between 2009 and 2019, with an average traffic growth rate of 0.14 percent. In order to provide conservative (high) traffic volumes from which to assess the impact of the Project; a slightly higher 1.0 percent per year compounded annual background traffic growth rate was used to account for future traffic growth and presently unforeseen development within the study area.

Roadway Improvement Projects

MassDOT and the Town of Ashland were contacted in order to determine if there were any planned future roadway improvement projects expected to be complete by 2031 within the study area. Based on these discussions, the following roadway improvement project was identified:

- ***Downtown Streetscape Improvements (MassDOT Project No. 2835801).*** The Downtown Streetscape Improvements Project was substantially complete in July 2024 and the associated improvements along Main Street between Myrtle Street/Pine Hill Road and Summer Street and the reflected in this assessment. This project involved reconstructing Main Street within the aforementioned limits, including sidewalk construction, traffic signal equipment and timing upgrades, and sign and pavement marking improvements.

No other roadway improvement projects aside from routine maintenance activities were identified to be planned within the study area at this time.

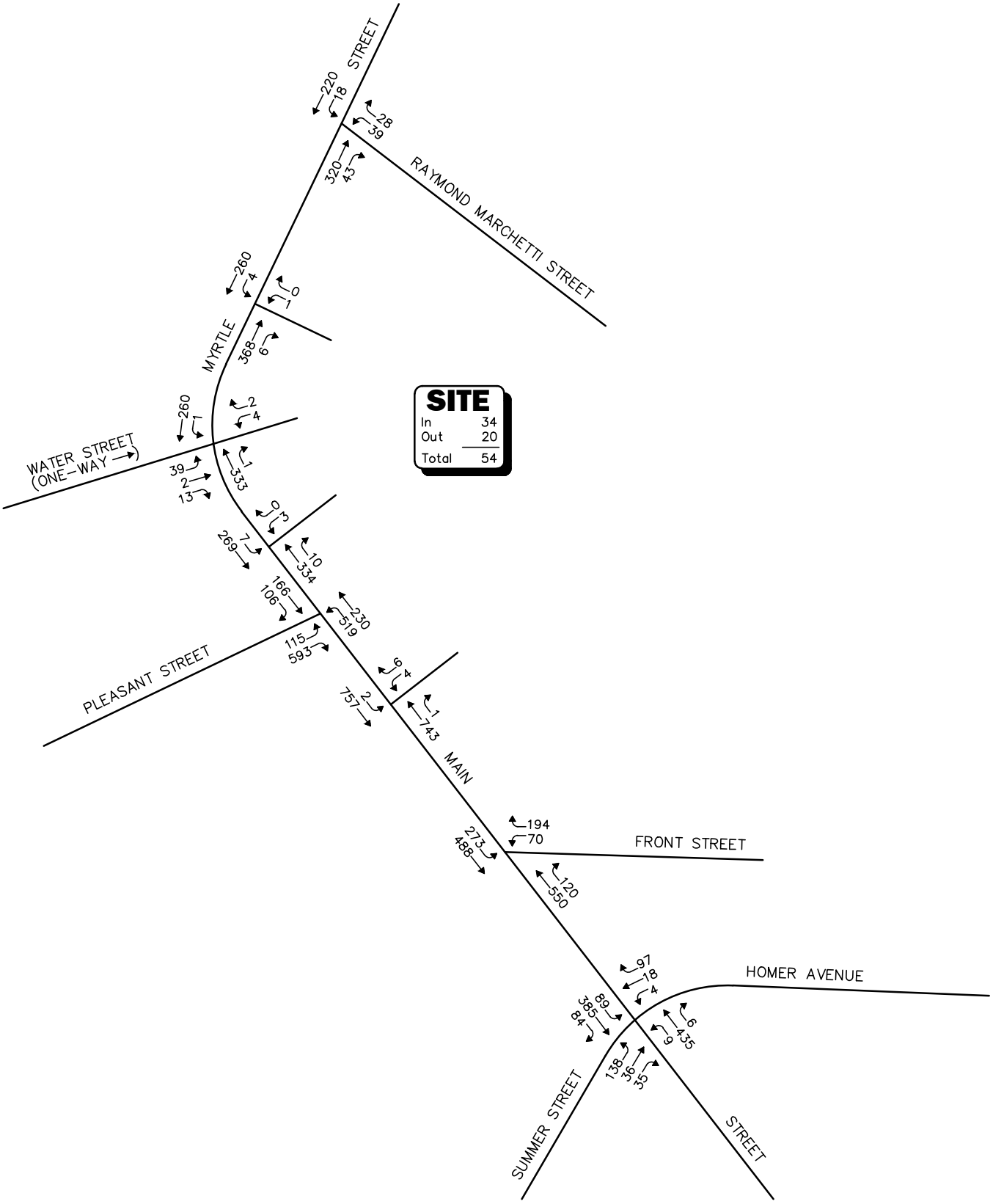
No-Build Traffic Volumes

The 2031 No-Build condition peak-hour traffic-volumes were developed by applying the 1.0 percent per year compounded annual background traffic growth rate to the 2024 Existing peak-hour traffic volumes and then adding the peak-hour traffic associated with the identified specific development project by others (9-49 Homer Avenue). The resulting 2031 No-Build weekday morning and evening peak-hour traffic volumes are shown in Figures 5 and 6, respectively.

PROJECT-GENERATED TRAFFIC

Design year (2031 Build) traffic volumes for the study area roadways were determined by estimating Project-generated traffic volumes and assigning those volumes on the study roadways. The following sections describe the methodology used to develop the anticipated traffic characteristics of the Project.

As proposed, the Project will entail the construction of a 250 unit multifamily residential development and 15,565± sf of commercial space. For the purpose of this assessment, it was assumed that the commercial space would consist of 7,782± sf of retail space and 7,783± sf of restaurant space. In order to develop the traffic characteristics of the Project, trip-generation



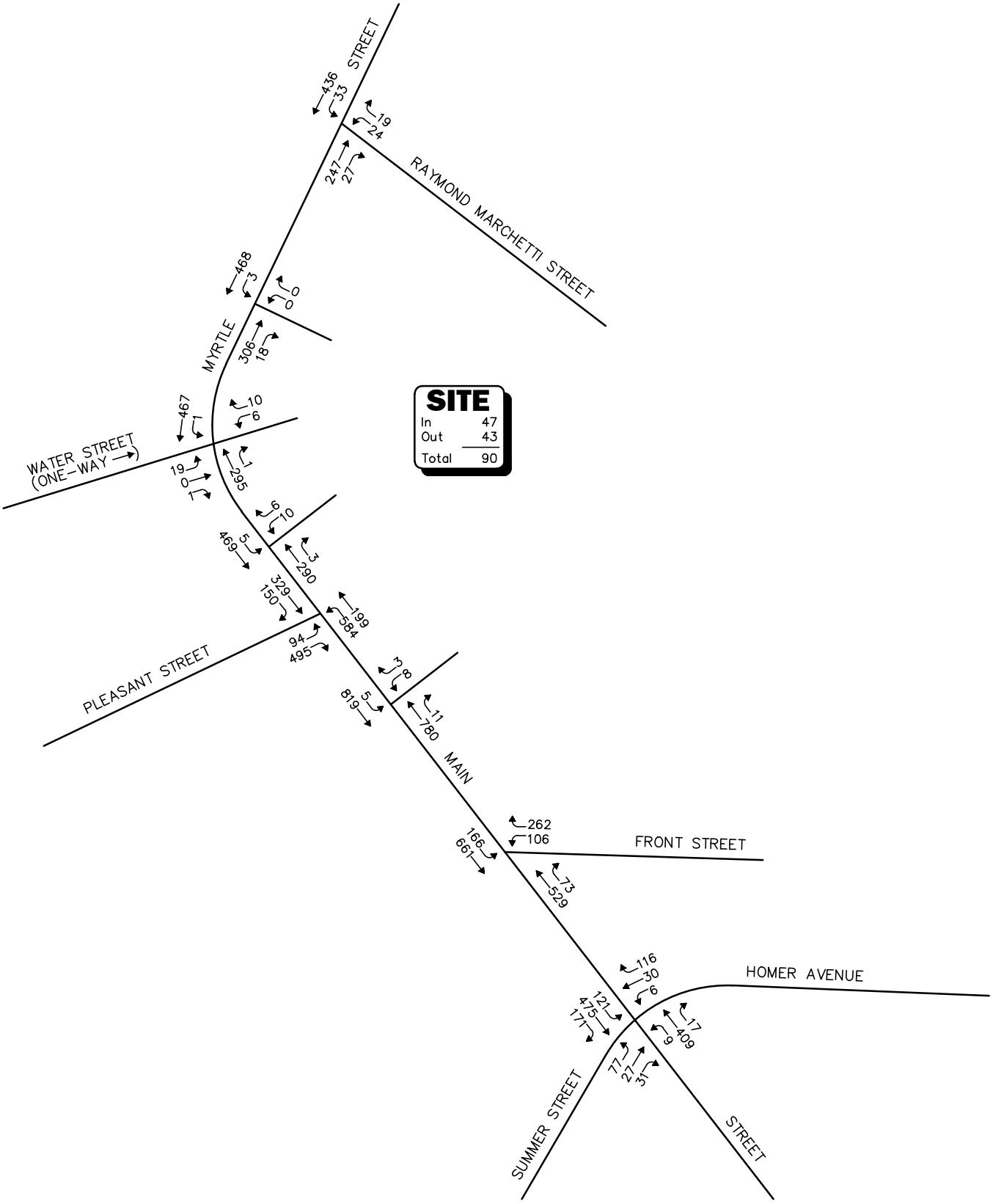
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 5

Vanasse & Associates inc

2031 No-Build
Weekday Morning
Peak-Hour Traffic Volumes



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 6

Vanasse & Associates inc

2031 No-Build
Weekday Evening
Peak-Hour Traffic Volumes

statistics published by the Institute of Transportation Engineers (ITE)[8] for similar land uses as those proposed was reviewed. ITE Land Use Codes (LUCs) 221, *Multifamily Housing (Mid-Rise)*, 822, *Strip Retail Plaza (<40k)*, and 932, *High-Turnover (Sit-Down) Restaurant*, were used to develop the base trip-generation characteristics of the Project.

Internal Trips

A portion of the trips expected to be generated by the Project may consist of internal trips. An internal trip consists of a resident, customer, and/or employee that patronizes more than one of the uses planned within a development and is common in mixed-use projects with appropriate accommodations to facilitate trips between uses. By way of example, a resident of the Project may also patronize the retail space or restaurant that may be located within the Project site. In order to account for this interaction, the multi-use trip-generation calculation methodology promulgated by the ITE[9] was applied to the base ITE trip-generation calculations.

Pass-By Trips

Not all of the trips expected to be generated by the commercial component of the Project will be new trips on the roadway network. A significant portion of these trips will consist of pass-by trips or vehicles already traveling along adjacent roadways for other purposes that will patronize the Project site in conjunction with their trip and then continue to their original destination. These trips are not new trips on the roadway network as a result of the Project. Statistics published by the ITE[10] indicate that, on average, up to 40 percent of the trips generated by a retail use and up to 43 percent of the trips associated with a high-turnover restaurant use may consist of pass-by trips. In accordance with MassDOT guidelines which limits pass-by trips to the lesser of: i) 15 percent of the adjacent roadway traffic volume; or ii) the ITE pass-by trip rate for the specific use; the methodology that resulted in the lower volume of pass-by trips was applied to the base trip-generation calculations for the retail component of the Project.

Transit Use

Given the ability of public transportation services in the vicinity of the Project site (MWRTA bus service with connections to the MBTA Commuter Rail) and the interconnected network of sidewalks, it is expected that a portion of the residents of the Project will use public transportation services, walk, or bicycle, thereby reducing the volume of single-occupant vehicle (SOV) trips that may be associated with the Project. In order to determine the proportion of residents of the Project that may use transit, walk, or bicycle as their primary mode of transportation, travel mode data obtained from the 2015 through 2019 American Community Service (ACS) for the Census Tract that contains that Project site (Census Tract 3851) was reviewed. Based on the ACS data, the following commuting modes were identified for workers aged 16 or older who reside within the Town.

- Single-Occupant Vehicle: 83.8%
- Car/Vanpool/Taxi: 2.7%
- Public Transportation: 8.2%
- Walk/Bike/Other: 1.3%
- Worked at Home: 4.0%

[8]Institute of Transportation Engineers, op. cit. 1.

[9]Institute of Transportation Engineers, op. cit. 1.

[10]Institute of Transportation Engineers, op. cit. 1.

According to the ACS, approximately 16 percent of workers that reside in the Census Tract reported they used an alternative mode of transportation to SOV to travel to/from work, with approximately 3.0 percent participating in car or vanpool, 8.0 percent using public transportation (transit), 1.0 percent walking/bicycling or using other modes of transportation and 4.0 percent reporting that they work from home.

In order to account for the use of alternative modes of transportation to SOVs by residents of the Project, the base ITE trip-generation calculations for the Project were first converted to person trips using a vehicle occupancy ratio (VOR) of 1.01 persons per vehicle, which was obtained from the ACS and is representative of the average VOR for Census Tract 3851, and were then disseminated to the modes of transportation that are accessible at the Project: public transportation (transit), pedestrian/bicycle and automobile.

In order to provide conservative (high) traffic volumes from which to assess the potential impact of the Project, it was assumed that 90 percent of the trips generated by the residential component of the Project would consist of automobile trips (vs. 84 percent from ACS), with 8.0 percent of trips assumed to be made using transit and 4.0 percent consisting of pedestrian/bicycle trips. It was assumed that all (100 percent) of the trips associated with the commercial component of the Project would consist of automobile trips.

Table 5 summarizes the anticipated traffic characteristics of the Project using the above methodology. Detailed tables are provided in the Appendix that summarize the internal trip calculations and the calculations associated with the travel mode adjustment for the residential component of the Project.

Table 5
TRIP-GENERATION SUMMARY

	Vehicle Trips										
	Residential Component[a]			Restaurant Component[b]			Retail Component[c]			**Project Total**	
Time Period/Direction	(A) Automobile Trips (90%)	(B) Transit Trips (8%)	(C) Pedestrian/ Bicycle Trips (2%)	(D) Net Trips	(E) Pass-By Trips[d]	(F = D – E) New Trips	(G) Net Trips	(H) Pass-By Trips[e]	(I = G – H) New Trips	**(J = E + H) Total Pass-By Trips**	**(K = A + F + I) Total New Trips**
Average Weekday Daily:											
Entering	455	41	10	375	161	214	191	59	132	220	801
Exiting	455	41	10	375	161	214	191	59	132	220	801
Total	910	82	20	750	322	428	382	118	264	440	1,602
Weekday Morning Peak-Hour:											
Entering	21	2	0	40	15	25	11	0	11	15	57
Exiting	66	6	2	33	15	18	7	0	7	15	91
Total	87	8	2	73	30	43	18	0	18	30	148
Weekday Evening Peak-Hour:											
Entering	40	4	1	39	12	27	29	11	18	23	85
Exiting	27	2	0	19	12	7	25	11	14	23	48
Total	67	6	1	58	24	34	54	22	32	46	133

[a]Based on ITE LUC 221, *Multifamily Housing (Mid-Rise)*, (250 Units).
[b]Based on ITE LUC 932, *High-Turnover (Sit-Down) Restaurant*, (7,783 sf)
[c]Based on ITE LUC 822, *Strip Retail Plaza (<40k)*, (7,782 sf).
[d]Pass-by trip rates were obtained from ITE LUC 932, *High-Turnover (Sit-Down) Restaurant*, and were applied as follows: average weekday daily, weekday morning peak-hour, and weekday evening peak-hour = 43 percent.
[e]Pass-by trip rates were obtained from ITE LUC 821, *Shopping Plaza (40-150k),* and were applied as follows: average weekday daily = 31 percent; weekday morning peak-hour = 0 percent; and weekday evening peak-hour = 40 percent.

Project-Generated Traffic-Volume Summary

As can be seen in Table 5, the Project is expected to generate approximately 1,602 new vehicle trips, 82 transit trips and 20 pedestrian/bicycle trips on an average weekday (two-way volumes over the operational day of the Project). During the weekday morning peak-hour, the Project is expected to generate 148 new vehicle trips (57 vehicles entering and 91 exiting), eight (8) transit trips and two (2) pedestrian/bicycle trips. During the weekday evening peak-hour, the Project is expected to generate 133 new vehicle trips (85 vehicles entering and 48 exiting), six (6) transit trips and one (1) pedestrian/bicycle trip.

As mentioned previously, the Project site is currently improved with an existing mill building that contains approximately 177,000± sf of space (gross floor area) that includes several commercial and retail uses, warehousing, institutional and construction related uses, all of which will be removed to accommodate the Project. Table 6 compares the weekday peak-hour traffic volumes associated with the Project inclusive of pass-by trips (i.e., total trips as measured at the Project site driveways) to those of the existing uses as counted in February 2024 as a part of this Assessment.

Table 6
TRAFFIC VOLUME COMPARISON

	Vehicle Trips		
Time Period/Direction	(A) Proposed Mixed-Use Development	(B) Existing Uses	(A-B) Difference
Weekday Morning Peak-Hour:	178	54	+124
Weekday Evening Peak-Hour:	179	90	+89

Traffic Volume Comparison

As can be seen in Table 6, in comparison to the existing uses that occupy the Project site and that will be removed to accommodate the Project, the Project is expected to generate approximately 124 additional vehicle trips during the weekday morning peak-hour and 89 additional vehicle trips during the weekday evening peak-hour.

TRIP DISTRIBUTION AND ASSIGNMENT

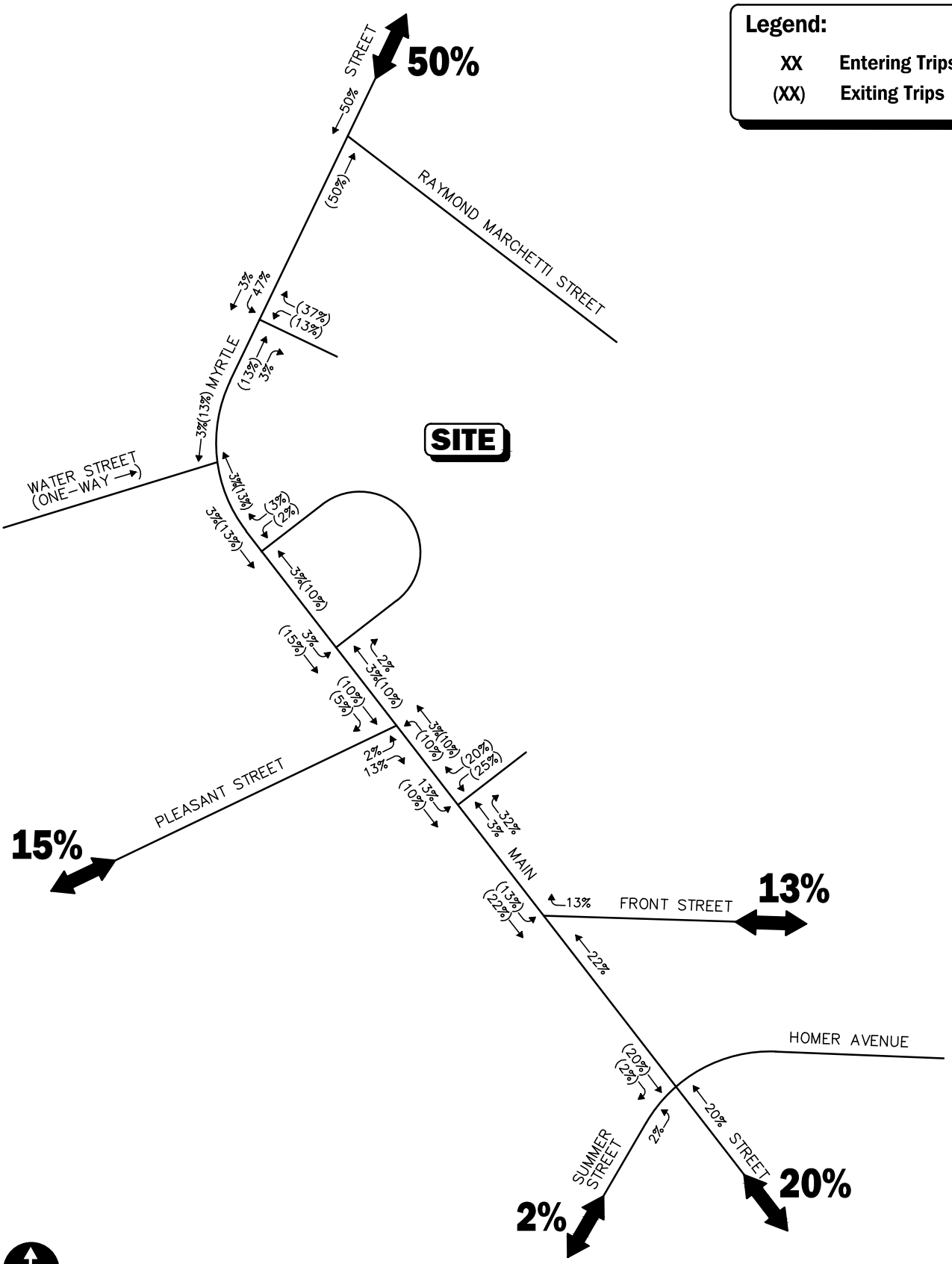
Separate trip-distribution patterns were developed for the residential and commercial components of the Project given the differing nature and purpose of the trips associated with these uses. For the residential component of the Project, the directional distribution of generated trips to and from the Project site was determined based on a review of Journey-to-Work data obtained from the U.S. Census for persons residing in the Town of Ashland and then refined based on existing traffic patterns within the study area during the peak periods. For the commercial component, the directional distribution was determined based on a review of existing traffic patterns within the study area. The general trip distribution pattern for the residential and commercial components of

the Project are graphically depicted on Figures 7 and 8, respectively. Traffic volumes expected to be generated by the residential component of the Project were assigned onto the study area roadway network as shown on Figures 9 and 10, for the weekday morning and evening peak hours, respectively, with those expected to be generated by the retail component assigned onto the study area roadway network as shown on Figures 11 and 12 for the respective peak-hours and those for the restaurant component assigned as shown on Figures 13 and 14.

FUTURE TRAFFIC VOLUMES – BUILD CONDITION

The 2031 Build condition traffic volumes were developed by: i) removing the traffic associated with the existing uses that occupy the Project site and that will be removed to accommodate the Project from the 2031 No-Build traffic volumes; and ii) adding the additional traffic expected to be generated by the Project. The resulting 2031 Build weekday morning and evening peak-hour traffic volumes are graphically depicted on Figures 15 and 16, respectively. Traffic volume networks illustrating the removal of the traffic volumes associated with the existing uses that occupy the Project site are included in the Appendix.

A summary of peak-hour projected traffic-volume changes outside of the study area that is the subject of this assessment is shown in Table 7. These changes are a result of the construction of the Project.



Not To Scale

Figure 7

Trip Distribution Map
Residential

Vanasse & Associates inc

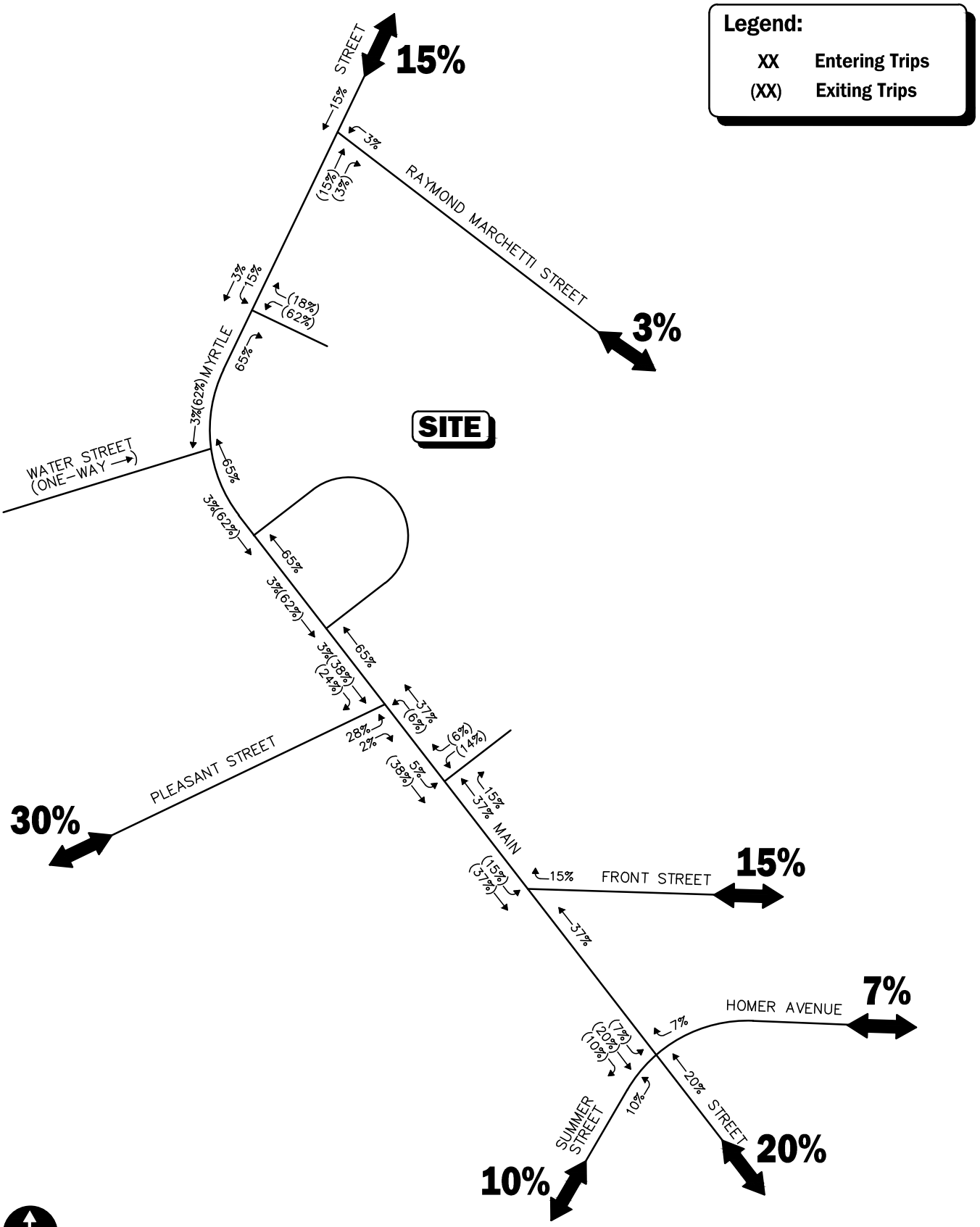


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Figure 8

Trip Distribution Map
Commercial

Vanasse & Associates inc

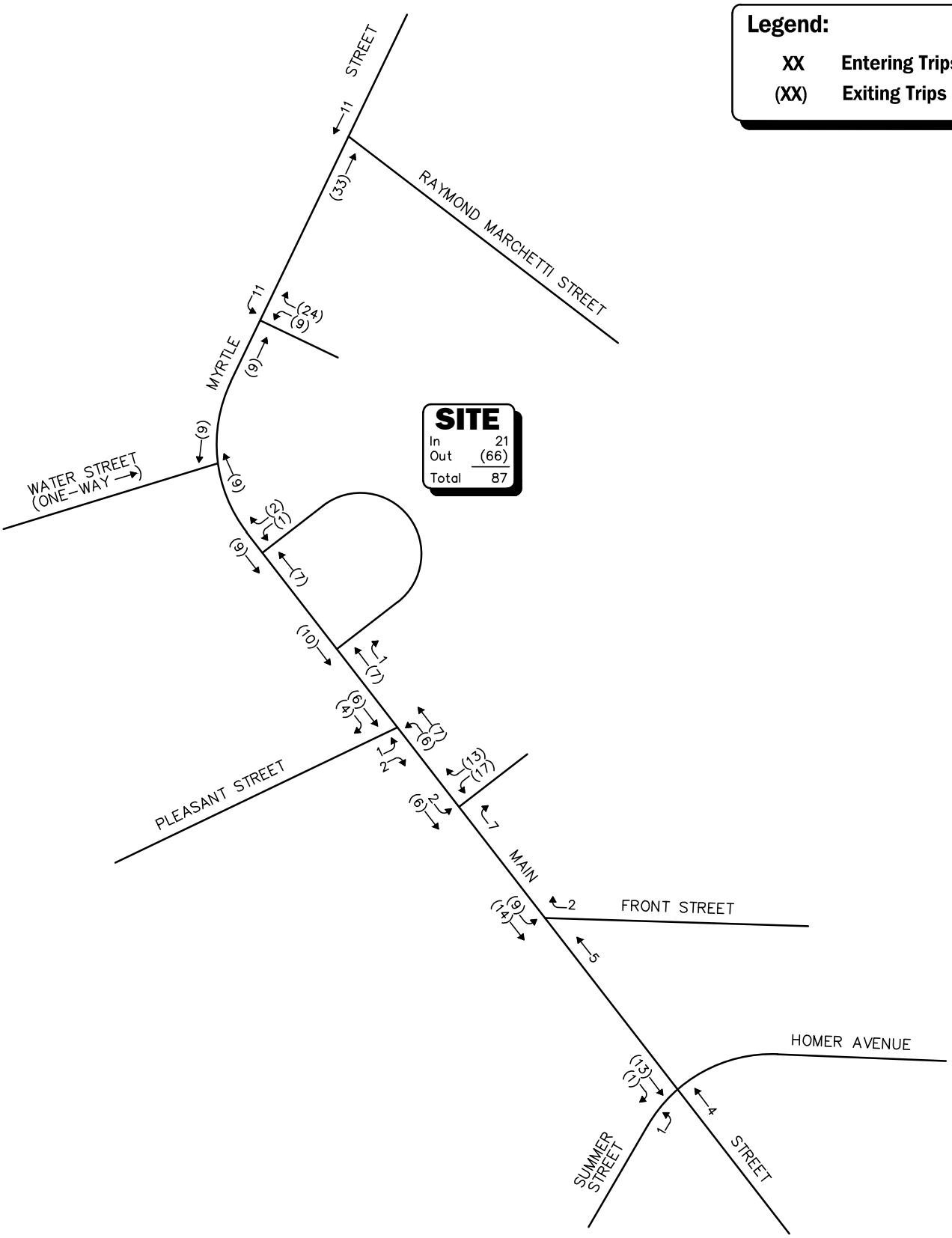

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Figure 9

Project-Generated Residential Weekday Morning Peak-Hour Traffic Volumes

Vanasse & Associates inc

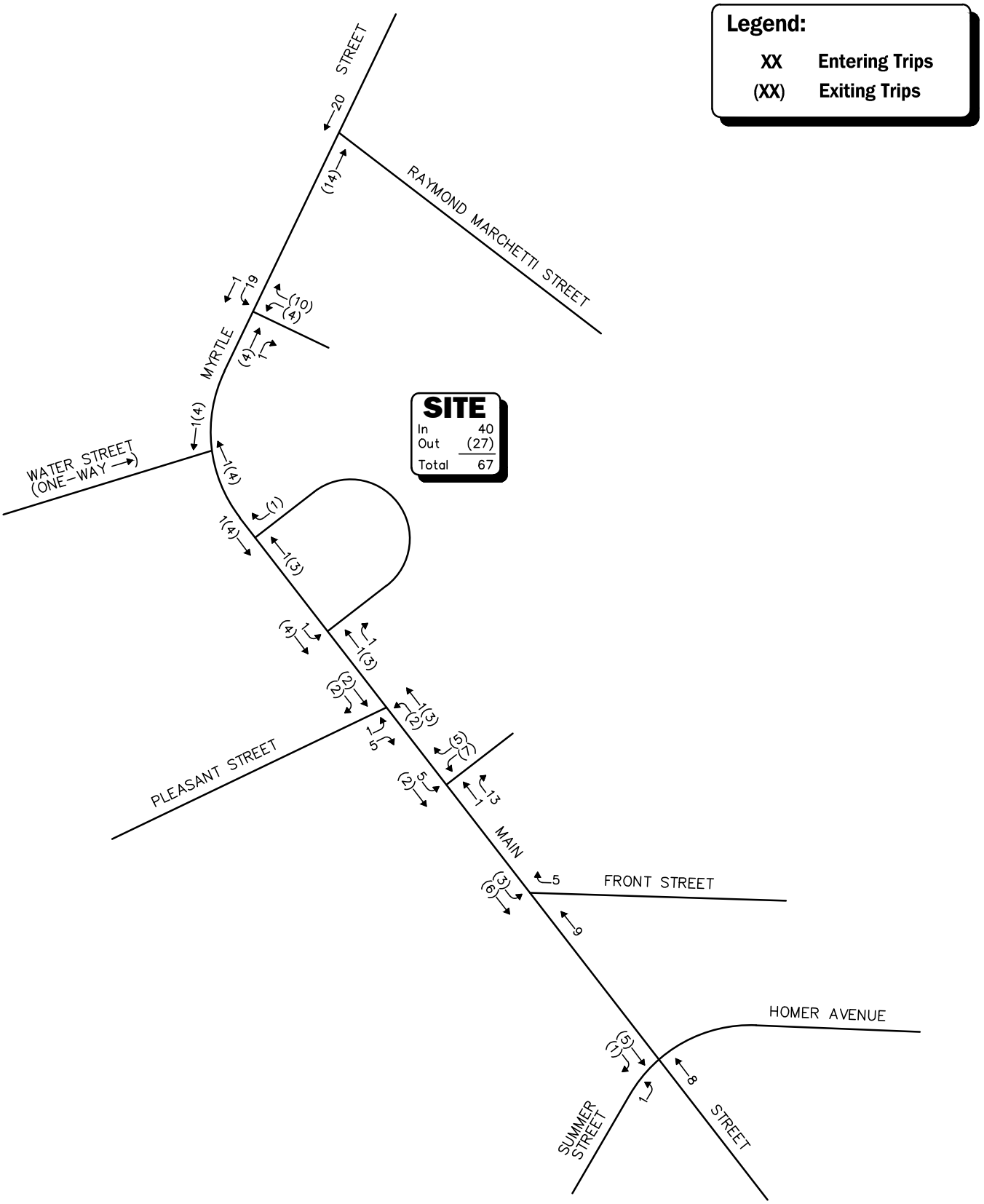

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Figure 10

Project-Generated Residential Weekday Evening Peak-Hour Traffic Volumes

Vanasse & Associates inc

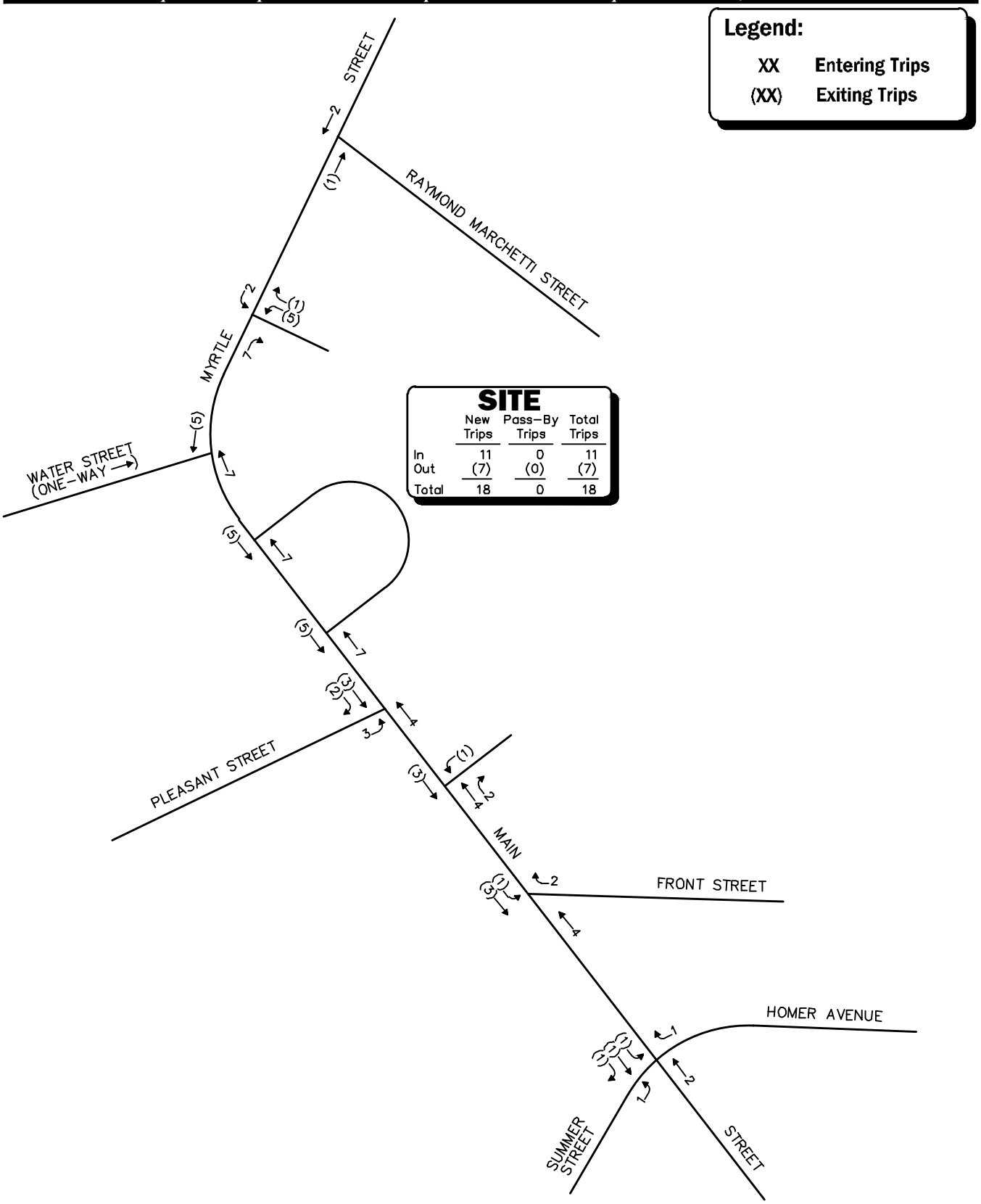

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Figure 11

Project-Generated Retail Weekday Morning Peak-Hour Traffic Volumes

Vanasse & Associates inc

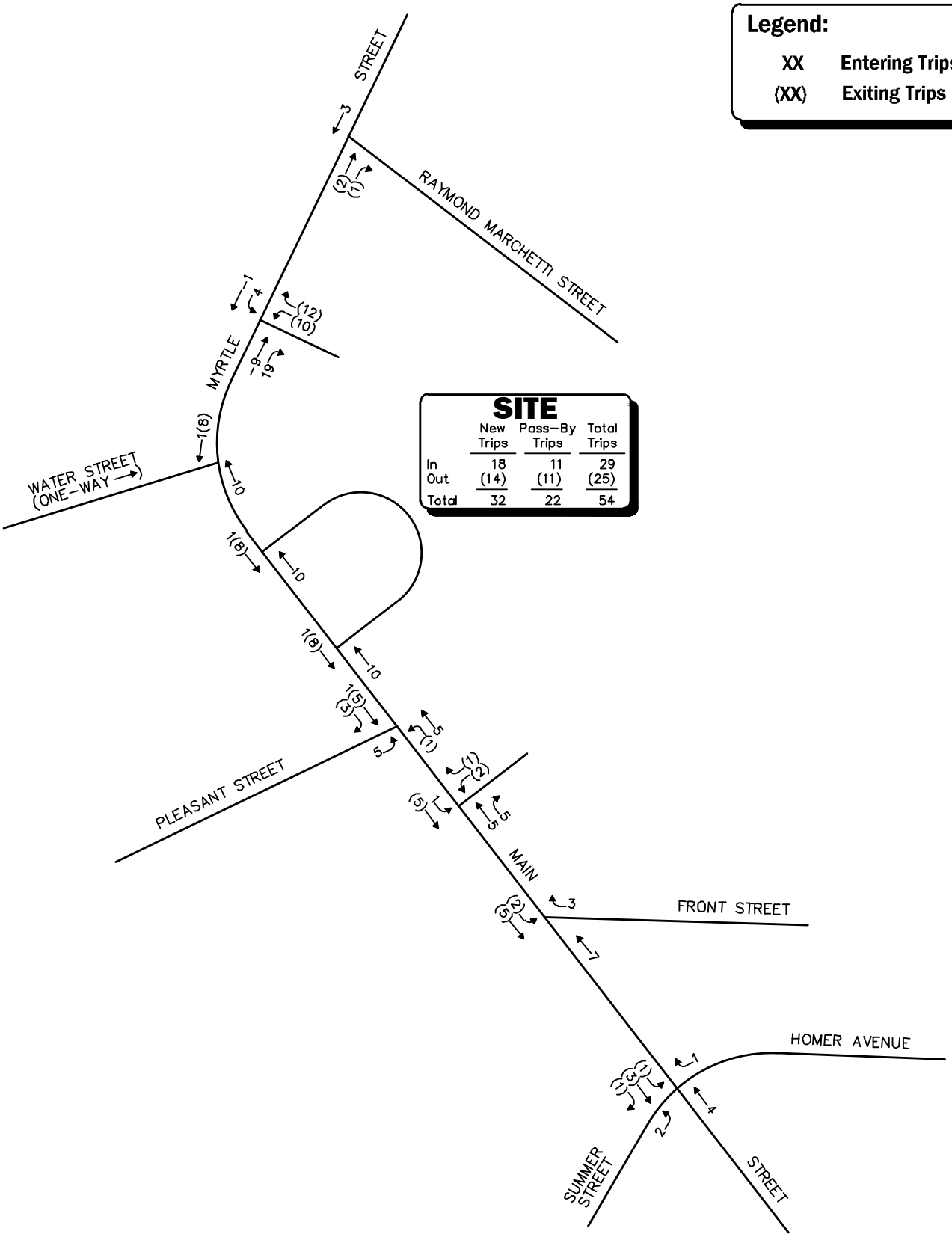

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Figure 12

Project-Generated Retail Weekday Evening Peak-Hour Traffic Volumes

Vanasse & Associates inc

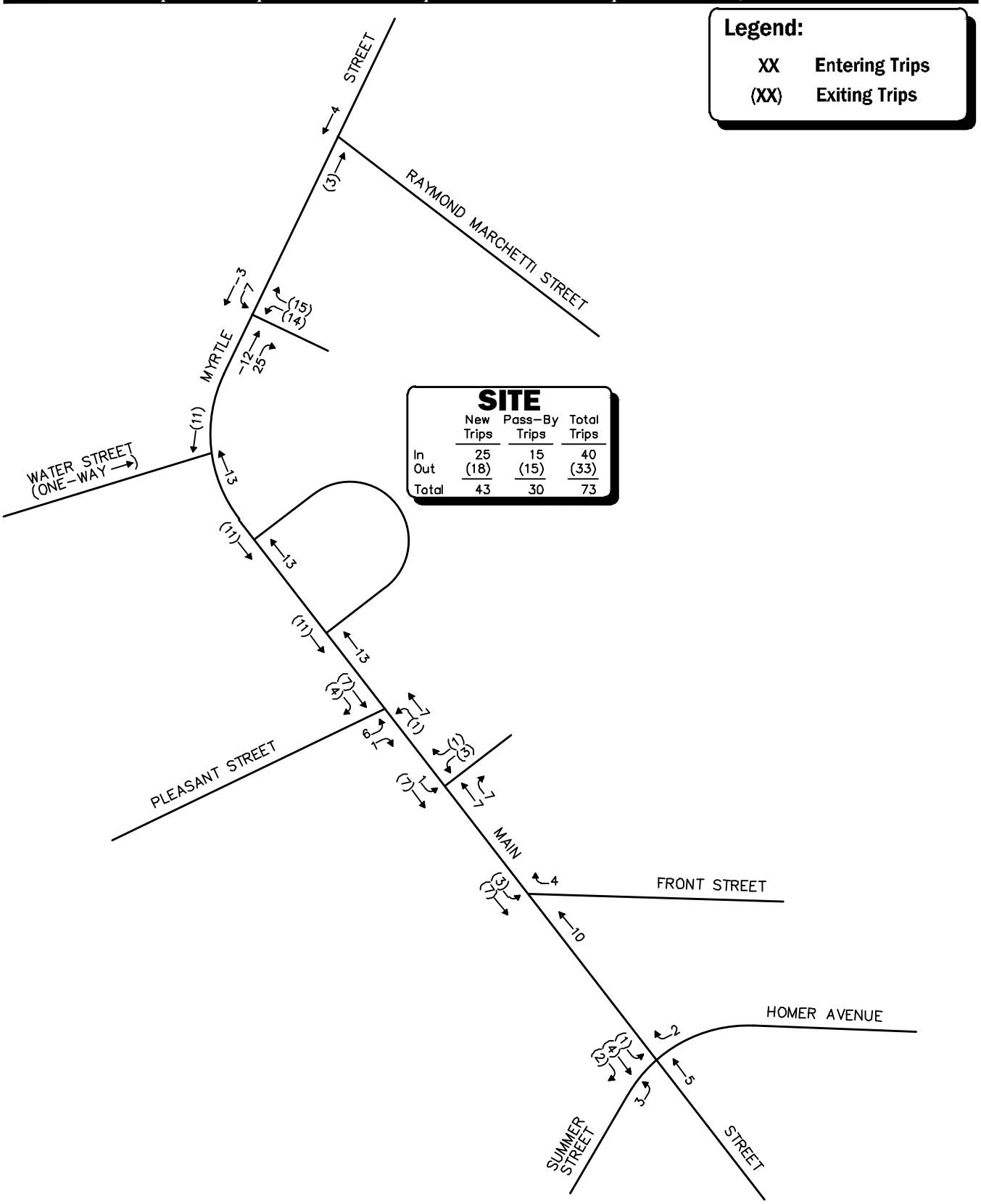

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Figure 13

Project-Generated Restaurant Weekday Morning Peak-Hour Traffic Volumes

Vanasse & Associates inc

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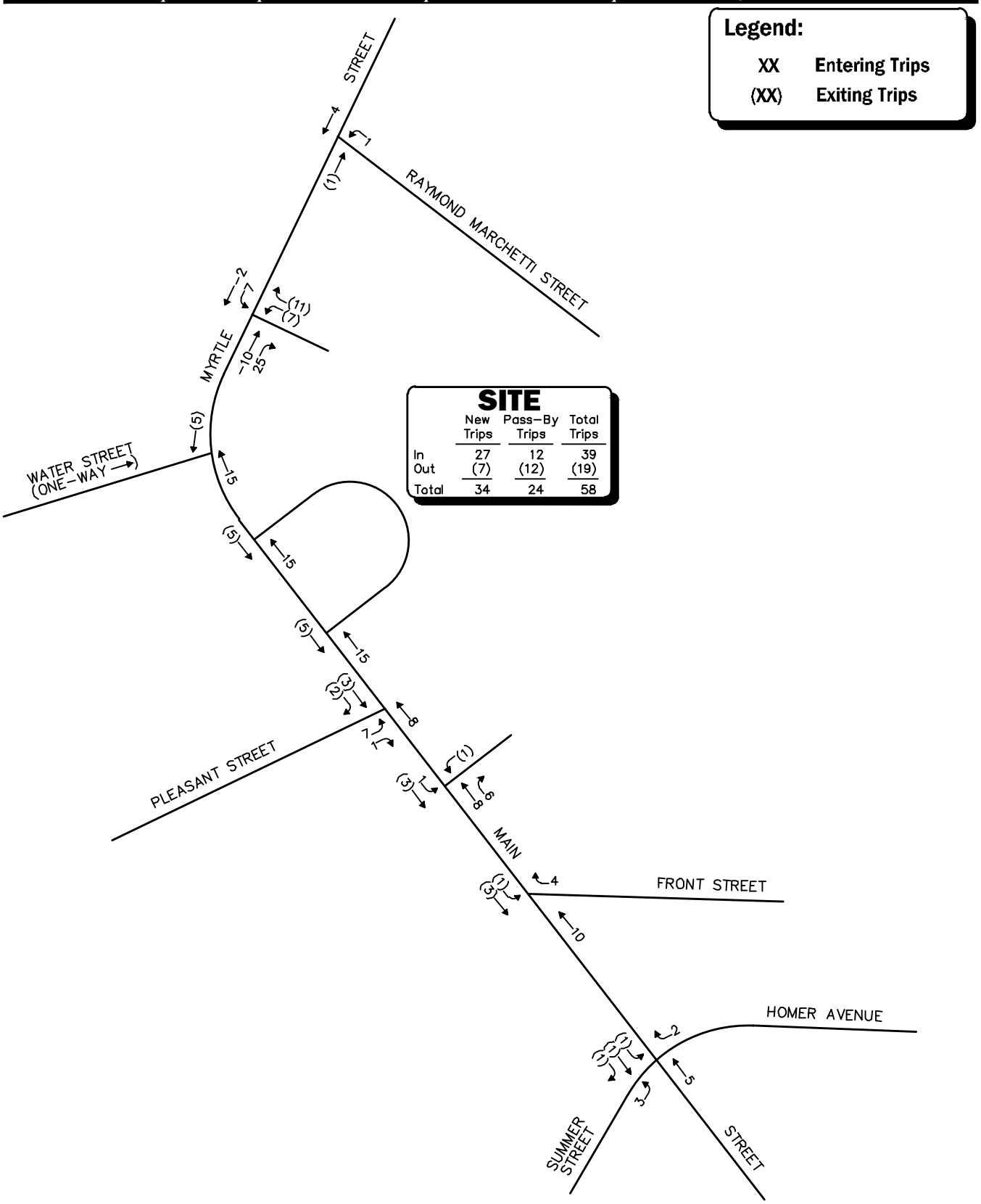

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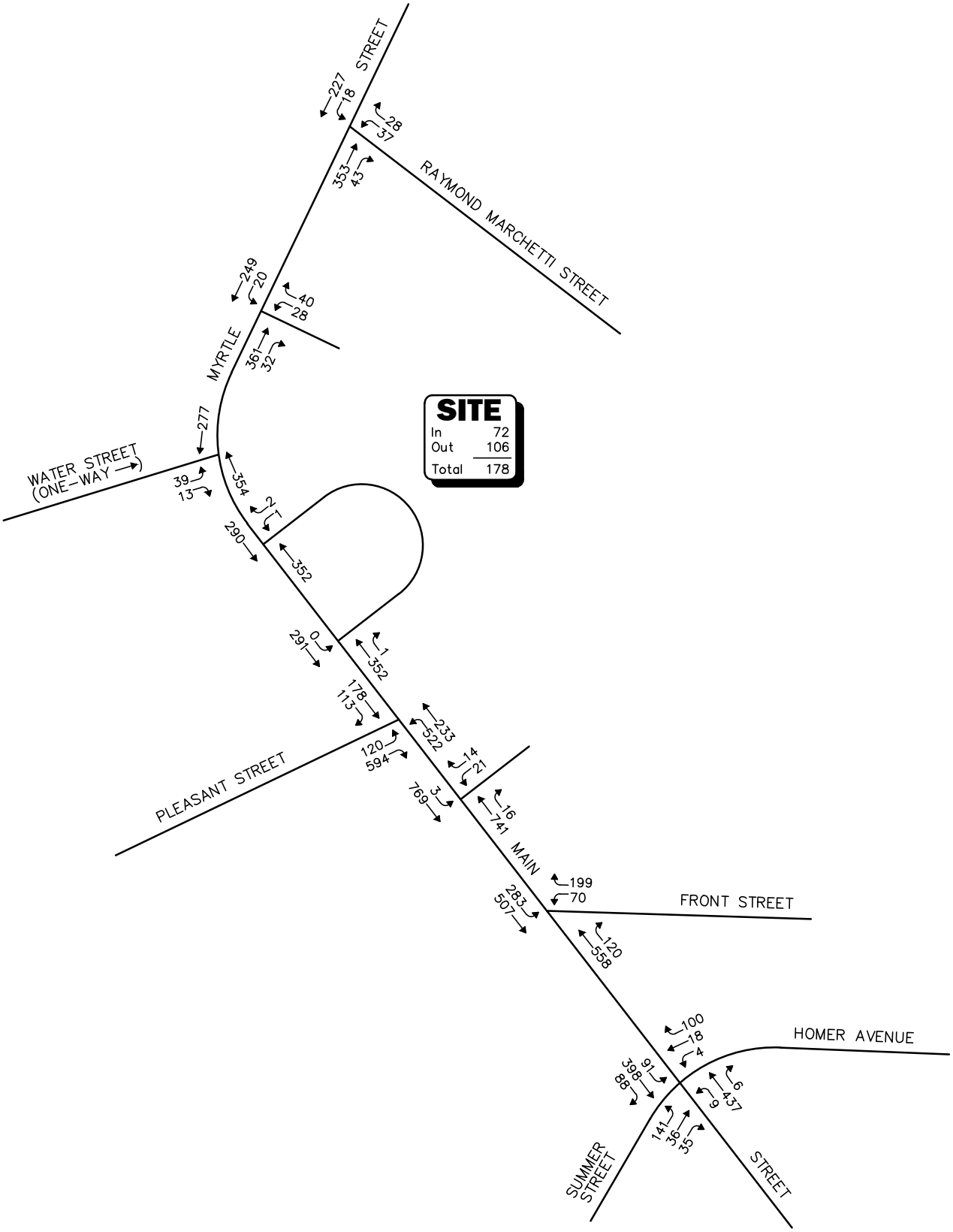
Figure 14

Project-Generated Restaurant Weekday Evening Peak-Hour Traffic Volumes

Vanasse & Associates inc



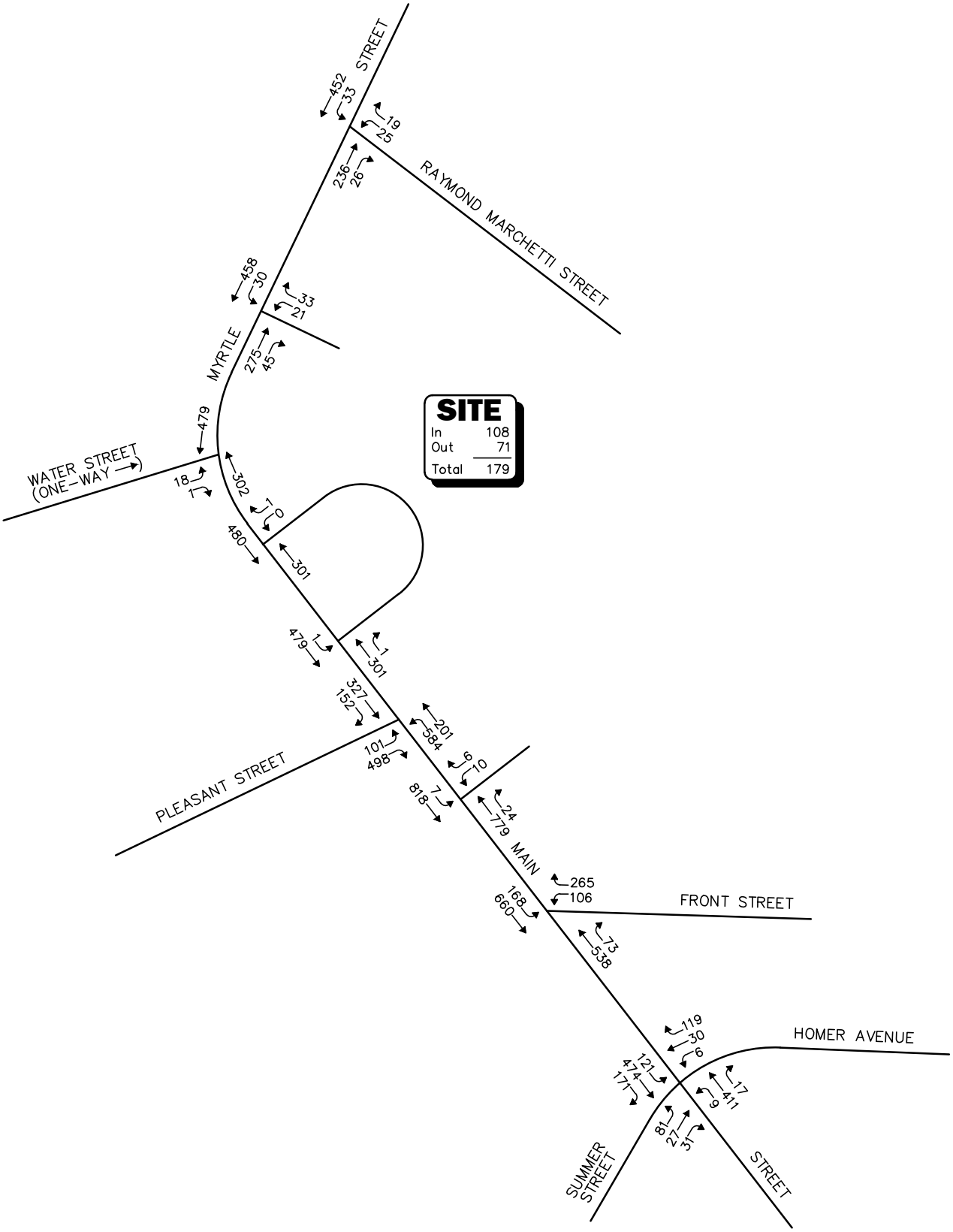
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 15

Vanasse & Associates inc

2031 Build
Weekday Morning
Peak-Hour Traffic Volumes



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

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Figure 16

Vanasse & Associates inc

2031 Build
Weekday Evening
Peak-Hour Traffic Volumes

Table 7
PEAK-HOUR TRAFFIC-VOLUME INCREASES

Location/Peak-Hour	2024 Existing	2031 No-Build	2031 Build	Traffic-Volume Increase Over No-Build	Percent Increase Over No-Build
Myrtle Street, north of Raymond Marchetti Street					
Weekday Morning	544	586	626	40	6.8
Weekday Evening	681	735	740	5	0.7
Raymond Marchetti Street, east of Myrtle Street					
Weekday Morning	119	128	126	-2	-1.6
Weekday Evening	94	103	103	0	0.0
Pleasant Street, west of Main Street					
Weekday Morning	1,237	1,333	1,349	16	1.2
Weekday Evening	1,221	1,323	1,335	12	0.9
Front Street, east of Main Street					
Weekday Morning	610	657	672	15	2.3
Weekday Evening	560	607	612	5	0.8
Homer Avenue, east of Main Street					
Weekday Morning	217	250	255	5	2.0
Weekday Evening	258	317	320	3	0.9
Main Street, south of Homer Avenue					
Weekday Morning	811	874	889	15	1.7
Weekday Evening	874	947	948	1	0.1
Summer Street, west of Main Street					
Weekday Morning	297	320	327	7	2.2
Weekday Evening	318	345	349	4	1.2

As shown in Table 7, Project-related traffic-volume changes outside of the study area relative to 2031 No-Build conditions are anticipated to range from increases of 6.8 percent to decreases of 1.6 percent, vehicle changes shown to range from an increase of 40 vehicles to a decrease of two (2) vehicles. The identified decreases are a result of the removal of trips that are associated with the existing uses and the addition of the residential use, which has more dispersed traffic and a different traffic pattern (distribution). ***When dispersed over the peak-hour, the predicted traffic volume increases would not be expected to result in a significant impact (increase) on motorist delays or vehicle queuing outside of the immediate study area that is the subject of this assessment.***

TRAFFIC OPERATIONS ANALYSIS

Measuring existing and future traffic volumes quantifies traffic flow within the study area. To assess quality of flow, roadway capacity and vehicle queue analyses were conducted under Existing, No-Build, and Build traffic-volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

METHODOLOGY

Levels of Service

A primary result of capacity analyses is the assignment of level of service to traffic facilities under various traffic-flow conditions.[11] The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with level-of-service (LOS) A representing the best operating conditions and LOS F representing congested or constrained operating conditions.

Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

[11]The capacity analysis methodology is based on the concepts and procedures presented in the *Highway Capacity Manual;* Transportation Research Board; Washington, DC; 2016.

Signalized Intersections

The six levels of service for signalized intersections may be described as follows:

- *LOS A* describes operations with very low control delay; most vehicles do not stop at all.
- *LOS B* describes operations with relatively low control delay. However, more vehicles stop than LOS A.
- *LOS C* describes operations with higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- *LOS D* describes operations with control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop and individual cycle failures are noticeable.
- *LOS E* describes operations with high control delay values. Individual cycle failures are frequent occurrences.
- *LOS F* describes operations with high control delay values that often occur with over-saturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Levels of service for signalized intersections are calculated using the operational analysis methodology of the 2000 *Highway Capacity Manual*[12] and implemented as a part of the Synchro® 12 software. This method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on delay. Level-of-service designations are based on the criterion of control or signal delay per vehicle. Control or signal delay is a measure of driver discomfort, frustration, and fuel consumption, and includes initial deceleration delay approaching the traffic signal, queue move-up time, stopped delay and final acceleration delay. Table 8 summarizes the relationship between level of service and control delay. The tabulated control delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to entire intersections.

Table 8
LEVEL-OF-SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS[a]

Level of Service	Control (Signal) Delay Per Vehicle (Seconds)
A	≤10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	>80.0

[a]Source: *Highway Capacity Manual*, Transportation Research Board; Washington, DC; 2000; page 16-2.

[12]*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2000.

Unsignalized Intersections

The six levels of service for unsignalized intersections may be described as follows:

- *LOS A* represents a condition with little or no control delay to minor street traffic.
- *LOS B* represents a condition with short control delays to minor street traffic.
- *LOS C* represents a condition with average control delays to minor street traffic.
- *LOS D* represents a condition with long control delays to minor street traffic.
- *LOS E* represents operating conditions at or near capacity level, with very long control delays to minor street traffic.
- *LOS F* represents a condition where minor street demand volume exceeds capacity of an approach lane, with extreme control delays resulting.

The levels of service of unsignalized intersections are determined by application of a procedure described in the *Highway Capacity Manual 7th Edition.*[13] Level of service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and STOP signs. Control delay includes the effects of initial deceleration delay approaching a STOP sign, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. Definitions for level of service at unsignalized intersections are also given in the *Highway Capacity Manual 7th Edition*. Table 9 summarizes the relationship between level of service and average control delay for two-way stop controlled and all-way stop controlled intersections.

Table 9
LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS[a]

Level-Of-Service by Volume-to-Capacity Ratio		Average Control Delay
v/c ≤ 1.0	v/c > 1.0	(Seconds Per Vehicle)
A	F	≤10.0
B	F	10.1 to 15.0
C	F	15.1 to 25.0
D	F	25.1 to 35.0
E	F	35.1 to 50.0
F	F	>50.0

[a]Source: *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2023.

[13]*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2023.

Vehicle Queue Analysis

Vehicle queue analyses are a direct measurement of an intersection's ability to process vehicles under various traffic control and volume scenarios and lane use arrangements. The vehicle queue analysis was performed using the Synchro® intersection capacity analysis software which is based upon the methodology and procedures presented in the 7th Edition *Highway Capacity Manual*. The Synchro® vehicle queue analysis methodology is a simulation-based model which reports the number of vehicles that experience a delay of six seconds or more at an intersection. For signalized intersections, Synchro® reports both the average (50th percentile) and the 95th percentile vehicle queue. For unsignalized intersections, Synchro® reports the 95th percentile vehicle queue. Vehicle queue lengths are a function of the capacity of the movement under study and the volume of traffic being processed by the intersection during the analysis period. The 95th percentile vehicle queue is the vehicle queue length that will be exceeded only 5 percent of the time, or approximately 3 minutes out of 60 minutes during the peak one hour of the day (during the remaining 57 minutes, the vehicle queue length will be less than the 95th percentile queue length).

ANALYSIS RESULTS

Level-of-service and vehicle queue analyses were conducted for 2024 Existing, 2031 No-Build and 2031 Build conditions for the intersections within the study area. The results of the intersection capacity and vehicle queue analyses are summarized in Tables 10 and 11, with the detailed analysis results presented in the Appendix.

The following is a summary of the level-of-service and vehicle queue analyses for the intersections within the study area. For context, we note that an LOS of "D" or better is generally defined as "acceptable" operating conditions.

Signalized Intersections (Table 10)

Main Street at Pleasant Street

No change in overall level of service or vehicle queuing was shown to occur for any movement over No-Build conditions as a result of the addition of Project-related traffic, with Project-related impacts generally defined as an increase in overall average motorist delay of up to 0.2 seconds that resulted in an increase in vehicle queuing of up to one (1) vehicle. All movements at the intersection are predicted to continue to operate at LOS D or better with the addition of Project-related traffic.

Focusing on individual movements, the addition of Project-related traffic was shown to result in an increase in average motorist delay over No-Build conditions of 0.2 seconds for left-turn movements from the Pleasant Street approach during the weekday evening peak-hour that resulted in a change in level of service from LOS C to LOS D with no material increase in vehicle queuing.

Main Street at Front Street

No changes in level of service were shown to occur for any movement over No-Build conditions as a result of the addition of Project-related traffic, with Project-related impacts generally defined as an increase in overall average motorist delay of up to 0.2 seconds that resulted in an increase in

vehicle queuing of up to one (1) vehicle. All movements at the intersection are predicted to continue to operate at LOS C or better with the addition of Project-related traffic.

Main Street at Summer Street and Homer Avenue

No changes in level of service were shown to occur for any movement over No-Build conditions as a result of the addition of Project-related traffic, with Project-related impacts generally defined as an increase in overall average motorist delay of up to 1.5 seconds that resulted in an increase in vehicle queuing of up to one (1) vehicle. Independent of the Project, the Summer Street approach was shown to be operating over capacity (i.e., LOS "F") under 2024 Existing conditions during the weekday morning peak-hour.

Unsignalized Intersections (Table 11)

Myrtle Street at Raymond Marchetti Street

The addition of Project-related traffic was shown to result in an increase in motorist delay of 0.6 seconds for the Raymond Marchetti Street approach during the weekday morning peak-hour that resulted in a change in level of service from LOS B to C with no material increase in vehicle queuing. All movements along Myrtle Street approaching Raymond Marchetti Street are predicted to operate at LOS A with negligible vehicle queuing.

Myrtle Street at the 10-60 Main Street (Project Site) North Driveway

The addition of Project-related traffic was shown to result in a predicted increase in motorist delay of up to 10.1 seconds for the Project site driveway approach that resulted in a change in level of service from LOS C to LOS D during the weekday morning peak-hour and from LOS A to LOS C during the weekday evening peak-hour, with vehicle queuing at the intersection shown to increase by up to four (4) vehicles as a result of the Project. All movements along Myrtle Street approaching the Project site driveway are predicted to operate at LOS A with negligible vehicle queuing.

Myrtle Street at Water Street and the 10-50 Main Street Driveway

This driveway will be closed in conjunction with the Project.

Main Street at the CrossFit Driveway

The addition of Project-related traffic was shown to result in a predicted increase in motorist delay of up to 26.4 seconds for the Project site driveway approach that resulted in a degradation in level-of-service from LOS D to LOS F during the weekday morning peak-hour, with vehicle queuing at the intersection shown to increase by up to two (2) vehicles. All movements along Main Street approaching the Project site driveway are predicted to operate at LOS A with negligible vehicle queuing. It should be noted that while the Project site driveway is operating over capacity (i.e., LOS "F"), vehicle queuing along the driveway can be accommodated within the site and is likely to occur due to the movements out of the site conflicting with the heavier traffic volumes of Main Street.

Main Street at the Project Site Center North Driveway (Exit Only)

All movements exiting the Project site driveway to Main Street were shown to operate at LOS B during both peak hours with negligible vehicle queuing. All movements along Main Street approaching the driveway were shown to operate at LOS A with negligible vehicle queuing predicted.

Main Street at the Project Site Center South Driveway (Entrance Only)

All movements along Main Street approaching the driveway were shown to operate at LOS A with negligible vehicle queuing predicted.

Table 10
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2031 No-Build				2031 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
Main Street at Pleasant Street												
Weekday Morning:												
Pleasant Street EB LT	0.51	25.8	C	2/4	0.53	26.4	C	2/4	0.55	26.6	C	2/4
Pleasant Street EB RT	0.39	14.3	B	0/1	0.43	13.9	B	0/1	0.45	13.8	B	0/1
Main Street NB LT	0.64	5.3	A	1/8	0.70	5.9	A	1/10	0.72	6.4	A	1/11
Main Street NB TH	0.20	2.5	A	0/2	0.21	2.5	A	0/2	0.22	2.5	A	0/2
Main Street SB TH	0.27	14.7	B	2/4	0.30	16.1	B	2/5	0.33	16.7	B	2/5
Main Street SB RT	0.07	8.6	A	0/1	0.08	9.3	A	0/1	0.08	9.4	A	0/1
Overall	--	**10.5**	**B**	--	--	**10.7**	**B**	--	--	**10.9**	**B**	--
Weekday Evening:												
Pleasant Street EB LT	0.47	34.8	C	2/4	0.49	35.0	C	2/4	0.52	35.2	D	2/4
Pleasant Street EB RT	0.35	19.0	B	1/2	0.42	17.6	B	1/2	0.43	17.5	B	1/2
Main Street NB LT	0.73	16.3	B	1/11	0.79	19.6	B	1/14	0.80	19.9	B	1/14
Main Street NB TH	0.15	1.8	A	1/1	0.16	1.7	A	0/1	0.16	1.8	A	1/1
Main Street SB TH	0.43	17.6	B	4/10	0.52	21.4	C	6/12	0.52	21.4	C	6/12
Main Street SB RT	0.11	9.2	A	0/2	0.12	10.9	B	0/2	0.12	10.9	B	0/2
Overall	--	**16.0**	**B**	--	--	**17.5**	**B**	--	--	**17.6**	**B**	--
Main Street at Front Street												
Weekday Morning:												
Front Street WB LT	0.37	25.0	C	1/2	0.41	25.3	C	1/3	0.41	25.3	C	1/3
Front Street WB RT	0.15	16.4	B	0/1	0.16	16.5	B	0/1	0.16	16.5	B	0/1
Main Street NB TH	0.56	11.1	B	5/10	0.60	11.8	B	5/11	0.61	11.9	B	5/11
Main Street NB RT	0.08	3.6	A	0/0	0.09	3.8	A	0/0	0.09	3.8	A	0/0
Main Street SB RT	0.51	5.2	A	1/2	0.59	7.5	A	1/2	0.62	8.9	A	1/2
Main Street SB TH	0.37	3.4	A	2/3	0.40	3.5	A	2/3	0.42	3.5	A	2/3
Overall	--	**8.9**	**A**	--	--	**9.5**	**A**	--	--	**9.7**	**A**	--
Weekday Evening:												
Front Street WB LT	0.49	34.4	C	2/4	0.53	35.0	C	2/4	0.53	35.0	C	2/4
Front Street WB RT	0.17	26.4	C	0/1	0.18	26.2	C	0/1	0.18	26.2	C	0/1
Main Street NB TH	0.56	13.0	B	4/20	0.62	14.9	B	5/22	0.63	15.2	B	5/23
Main Street NB RT	0.05	2.4	A	0/0	0.05	3.0	A	0/1	0.05	3.3	A	0/1
Main Street SB RT	0.32	8.8	A	1/5	0.37	9.7	A	2/5	0.38	9.9	A	2/5
Main Street SB TH	0.52	10.0	B	6/19	0.57	11.0	B	9/22	0.57	10.9	B	9/22
Overall	--	**14.4**	**B**	--	--	**15.4**	**B**	--	--	**15.5**	**B**	--

See notes at end of table.

Table 10 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2031 No-Build				2031 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
Main Street at Homer Avenue and Summer Street												
Weekday Morning:												
Summer Street EB LT/TH/RT	1.08	>80.0	F	4/8	1.16	>80.0	F	4/8	1.18	>80.0	F	5/9
Homer Avenue WB LT/TH	0.09	22.1	C	1/1	0.11	22.2	C	1/1	0.11	22.2	C	1/1
Homer Avenue WB RT	0.07	22.0	C	0/0	0.08	22.1	C	0/0	0.08	22.1	C	0/0
Main Street NB LT/TH/RT	0.40	8.1	A	2/9	0.43	8.5	A	2/10	0.44	8.5	A	2/10
Main Street SB LT/TH	0.49	6.0	A	1/12	0.54	6.5	A	1/14	0.56	6.7	A	1/14
Main Street SB RT	0.05	3.9	A	0/0	0.05	3.6	A	0/0	0.06	3.3	A	0/0
Overall	--	**26.4**	**C**	--	--	**31.0**	**C**	--	--	**32.5**	**C**	--
Weekday Evening:												
Summer Street EB LT/TH/RT	0.54	33.3	C	2/4	0.58	34.3	C	3/5	0.60	34.9	C	3/5
Homer Avenue WB LT/TH	0.11	28.9	C	1/2	0.15	28.8	C	1/2	0.14	28.7	C	1/2
Homer Avenue WB RT	0.07	28.7	C	0/1	0.09	28.4	C	0/1	0.09	28.4	C	0/2
Main Street NB LT/TH/RT	0.37	7.9	A	3/10	0.40	8.4	A	3/11	0.41	8.5	A	3/11
Main Street SB LT/TH	0.58	7.3	A	4/18	0.66	8.9	A	3/21	0.66	8.9	A	3/21
Main Street SB RT	0.13	6.0	A	0/1	0.14	6.1	A	0/2	0.14	6.1	A	0/2
Overall	--	**11.9**	**B**	--	--	**12.9**	**B**	--	--	**13.1**	**B**	--

[a]Volume-to-capacity ratio.
[b]Control (signal) delay per vehicle in seconds.
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

Table 11
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak-Hour/Movement	2024 Existing				2031 No-Build				2031 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue[d] 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
Myrtle Street at Raymond Marchetti Street												
Weekday Morning:												
Raymond Marchetti Street WB LT/RT	62	13.7	B	1	67	14.5	B	1	65	15.1	C	1
Myrtle Street NB TH/RT	337	0.0	A	0	363	0.0	A	0	396	0.0	A	0
Myrtle Street SB LT/TH	221	8.2	A	0	238	8.3	A	0	245	8.4	A	0
Weekday Evening:												
Raymond Marchetti Street WB LT/RT	39	13.0	B	1	43	13.8	B	1	44	14.2	B	1
Myrtle Street NB TH/RT	252	0.0	A	0	274	0.0	A	0	276	0.0	A	0
Myrtle Street SB LT/TH	435	7.8	A	0	469	7.9	A	0	485	7.9	A	0
Myrtle Street at 10-50 Main Street Driveway												
Weekday Morning:												
Project Site Driveway WB LT/RT	1	14.5	B	0	1	15.2	C	0	68	25.3	D	4
Myrtle Street NB TH/RT	347	0.0	A	0	374	0.0	A	0	393	0.0	A	0
Myrtle Street SB LT/TH	245	8.3	A	0	263	8.4	A	0	269	8.5	A	0
Weekday Evening:												
Project Site Driveway WB LT/RT	0	0.0	A	0	0	0.0	A	0	54	18.2	C	2
Myrtle Street NB TH/RT	300	0.0	A	0	324	0.0	A	0	320	0.0	A	0
Myrtle Street SB LT/TH	436	7.9	A	0	471	7.9	A	0	488	8.0	A	0
Main Street/Myrtle Street at Water Street/10-50 Main Street Driveway												
Weekday Morning:												
Water Street EB LT/TH/RT	50	15.1	C	1	54	16.2	C	1	52	15.1	C	1
Project Site Driveway WB LT/RT	6	13.9	B	0	6	14.6	B	0	--	--	--	--
Main Street NB TH/RT	310	0.0	A	0	334	0.0	A	0	354	0.0	A	0
Myrtle Street SB TH/LT	242	8.1	A	0	260	8.2	A	0	277	0.0	A	0
Weekday Evening:												
Water Street EB LT/TH/RT	19	16.6	C	1	20	17.9	C	1	19	15.9	C	1
Project Site Driveway WB LT/RT	16	12.3	B	0	16	12.9	B	0	--	--	--	--
Main Street NB TH/RT	273	0.0	A	0	296	0.0	A	0	302	0.0	A	0
Myrtle Street SB TH/LT	433	7.8	A	0	468	7.8	A	0	479	0.0	A	0
Main Street at LFX Enterprise Driveway												
Weekday Morning:												
Project Site Driveway WB LT/RT	3	14.5	B	0	3	15.3	C	0	**Driveway Closed**			
Main Street NB TH/RT	320	0.0	A	0	344	0.0	A	0				
Main Street SB TH/LT	257	8.2	A	0	276	8.3	A	0				
Weekday Evening:												
Project Site Driveway WB LT/RT	16	13.1	B	0	16	13.7	B	0				
Main Street NB TH/RT	270	0.0	A	0	293	0.0	A	0				
Main Street SB TH/LT	439	7.8	A	0	474	7.8	A	0				

See notes at end of table.

Table 11 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak-Hour/Movement	2024 Existing				2031 No-Build				2031 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue[d] 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
Main Street at CrossFit Driveway												
Weekday Morning:												
Project Site Driveway WB LT/RT	10	23.7	C	1	10	27.0	D	1	35	>50.0	F	3
Main Street NB TH/RT	689	0.0	A	0	743	0.0	A	0	757	0.0	A	0
Main Street SB LT/TH	704	9.2	A	0	759	9.4	A	0	772	9.5	A	0
Weekday Evening:												
Project Site Driveway WB LT/RT	11	35.1	E	1	11	43.0	E	1	16	44.4	E	2
Main Street NB TH/RT	728	0.0	A	0	791	0.0	A	0	803	0.0	A	0
Main Street SB LT/TH	759	9.2	A	0	824	9.4	A	0	825	9.5	A	0
Main Street at Center North Driveway												
Weekday Morning:												
Project Site Driveway WB LT/RT	--	--	--	--	--	--	--	--	3	11.6	B	0
Main Street NB TH/RT	--	--	--	--	--	--	--	--	352	0.0	A	0
Main Street SB LT/TH	--	--	--	--	--	--	--	--	290	0.0	A	0
Weekday Evening:												
Project Site Driveway WB LT/RT	--	--	--	--	--	--	--	--	1	10.0	B	0
Main Street NB TH/RT	--	--	--	--	--	--	--	--	301	0.0	A	0
Main Street SB LT/TH	--	--	--	--	--	--	--	--	480	0.0	A	0

[a]Demand in vehicles per hour.
[b]Average control delay per vehicle (in seconds).
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

SIGHT DISTANCE EVALUATION

Sight distance measurements were performed at the Project site driveways along Myrtle Street and Main Street in accordance with MassDOT and American Association of State Highway and Transportation Officials (AASHTO)[14] requirements. Stopping sight distance (SSD) and intersection sight distance (ISD) measurements were performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD or corner sight distance (CSD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an on-coming vehicle and safely complete a turning or crossing maneuver with on-coming traffic. In accordance with AASHTO standards, if the measured ISD is at least equal to the required SSD value for the appropriate design speed, the intersection can operate in a safe manner. Table 12 presents the measured SSD and ISD at the subject intersection.

[14] *A Policy on Geometric Design of Highway and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2018.

Table 12
SIGHT DISTANCE MEASUREMENTS[a]

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD)[b]	Measured
Myrtle Street at the Project Site Driveway			
Stopping Sight Distance:			
Myrtle Street approaching from the north	200	--	500+
Myrtle Street approaching from the south	200	--	155/200+[c]
Intersection Sight Distance:			
Looking to the north from the Project Driveway	200	335	500+
Looking to the south from the Project Driveway	200	290	173/200+[c]
Main Street at the Project Site Driveway			
Stopping Sight Distance:			
Main Street approaching from the north	155	--	500+
Main Street approaching from the south	155	--	500+
Intersection Sight Distance:			
Looking to the north from the Project Driveway	155	280	392
Looking to the south from the Project Driveway	155	240	500+
Main Street at the Project Site Center North Driveway			
Stopping Sight Distance:			
Main Street approaching from the north	155	--	280
Main Street approaching from the south	155	--	500+
Intersection Sight Distance:			
Looking to the north from the Project Driveway	155	280	250
Looking to the south from the Project Driveway	155	240	500+
Main Street at the Project Site Center South Driveway			
Stopping Sight Distance:			
Main Street approaching from the north	155	--	351
Main Street approaching from the south	155	--	500+
Intersection Sight Distance:			
Looking to the north from the Project Driveway	155	280	327
Looking to the south from the Project Driveway	155	240	414

[a]Recommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018; and based on an approach speed of 30 mph along Myrtle Street and a 25 mph approach speed along Main Street.

[b]Values shown are the intersection sight distance for a vehicle turning right or left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed.

[c]With the removal of the existing stockade fence and reconstruction of the driveway, both of which will occur in conjunction with the Project.

As can be seen in Table 12, with the removal of the existing stockade fence that is located within the Project site and south of the Myrtle Street Project site driveway, the available lines of sight at the Project site driveway intersections were found to meet or exceed the recommended minimum sight distance to function in a safe (SSD) manner based on a 30 mph approach speed along Myrtle Street and a 25 mph approach speed along Main Street, which is both the measured 85th percentile vehicle travel speeds along both roadways and is consistent with the posted speed limit along Main Street (25 mph) and above the posted speed limit along Myrtle Street (also 25 mph).

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

VAI has completed a detailed assessment of the potential impacts on the transportation infrastructure associated with the proposed construction of a mixed-use development to be located at 10 - 60 Main Street in Ashland, Massachusetts. The following specific areas have been evaluated as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; under existing and future conditions, both with and without the Project. Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the ITE[15] and with adjustment to account for internal trips, pass-by trips and the use of alternative modes of transportation to SOVs, the Project is expected to generate approximately 1,602 new vehicle trips on an average weekday (two-way, 24 hour volume), with 82 transit trips and 20 pedestrian/bicycle trips. During the weekday morning peak-hour, the Project is expected to generate 148 new vehicle trips, eight (8) transit trips and two (2) pedestrian/bicycle trips. During the weekday evening peak-hour, the Project is expected to generate 133 new vehicle trips, six (6) transit trips and one (1) pedestrian/bicycle trip;

2. In comparison to the existing uses that occupy the Project site and that will be removed to accommodate the Project, the Project is expected to generate approximately 124 additional vehicle trips during the weekday morning peak-hour and 89 additional vehicle trips during the weekday evening peak-hour;

3. The Project will not result in a significant impact (increase) on motorist delays or vehicle queuing over anticipated future conditions without the Project (No-Build condition), with majority of movements at the study area intersections expected to continue to operate at a LOS of D or better with the addition of Project-related traffic, where an LOS of "D" or better is defined as "acceptable" traffic operations. Project-related impacts at off-site intersections are generally defined as an increase in overall average motorist delay of up to 9.2 seconds and in vehicle queuing of up to one (1) vehicle;

4. With the exception of motorists exiting the south Project site driveway to Main Street, the Project site driveways were identified to operate at LOS D or better during the peak hours

[15] Institute of Transportation Engineers, op. cit. 1.

with vehicle queues of up to four (4) vehicles, which can be within the Project site without inhibiting access or the movement of vehicles, pedestrians, and bicyclists along Main Street or Myrtle Street. All movements exiting the south Project site driveway (CrossFit Synergistics) were identified to operate at or over capacity (i.e., LOS "E" or "F") as a result of the volume of conflicting traffic on Main Street during the peak hours; however, the resulting vehicle queue was shown to be relatively minor (up to three (3) vehicles);

5. No apparent safety deficiencies were noted with respect to the motor vehicle crash history at the study area intersections; and

6. Lines of sight to and from the Project site driveways exceed or can be made to meet or exceed the recommended minimum distances to function in a safe manner based on the appropriate approach speed.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

RECOMMENDATIONS

A detailed transportation improvement program has been developed that is designed to provide safe and efficient access to the Project site and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits and approvals.

Project Access

Access to the Project will be provided by way of four (4) driveways configured as follows: the north driveway will intersect the east side of Myrtle Street at the location of the existing driveway that serves the Project site; the south driveway will intersect the east side of Main Street approximately 30 feet north of the existing driveway that serves CrossFit Synergistics and the southern portion of the Project site; and two (2) driveways that will intersect the east side of Main Street opposite the stop-line on the Main Street southbound approach to Pleasant Street and approximately 90 feet north of the stop-line, respectively, that will serve the short-term parking area for prospective tenants and delivery service providers . The existing open parking area along the east side of Main Street that extends between Pleasant Street and Water Street will be closed in conjunction with the Project thereby enhancing safety for all roadway users, particularly pedestrians and bicyclists. The following recommendations are offered with respect to the design and operation of the Project site access and internal circulation, many of which are reflected on the Site Plans:

- The north and south Project site driveways and internal circulating drives within the Project site will be 24 feet in width and designed to accommodate the turning and maneuvering requirements of the largest anticipated responding emergency vehicle.

- The driveways that will serve the short-term parking and delivery service provider area should be reduced in width to 20-feet and should convey one-way traffic in a counterclockwise direction, with traffic entering the south center driveway and exiting

from the north center driveway given the proximity of the south center driveway to the traffic signal at the Main Street/Pleasant Street intersection. "One-Way" and "Do not Enter" signs should be provided to regulate the one-way traffic flow. In addition, consideration should be given to changing the parking in this area to angled-parking to reinforce the one-way traffic flow.

- Vehicles exiting the Project site should be placed under STOP-sign control with a marked STOP-line provided.

- All signs and pavement markings to be installed within the Project site should conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD).[16]

- Crosswalks have been provide for crossing the Project site driveways that include Americans with Disabilities Act (ADA)-compliant wheelchair ramps. In addition, sidewalks are provided within the Project site that link the proposed residential building to the existing and proposed sidewalk along the Project site frontage on Main Street and Myrtle Street.

- Signs and landscaping to be installed as a part of the Project within the intersection sight triangle areas of the Project site driveway should be designed and maintained so as not to restrict lines of sight.

- The proposed retaining wall and protective fence to be situated proximate to the proposed public plaza should be set-back within the Project site and outside of the sight triangle area for the Myrtle Street Project site driveway.

- Snow accumulations (windrows) within the sight triangle areas of the Project site driveway will be promptly removed where such accumulations would impede sight lines.

Off-Site

Main Street at Homer Avenue and Summer Street

Independent of the Project, the Summer Street approach to the Main Street/Homer Avenue/ Summer Street is currently operating over capacity (i.e., LOS "F") during the weekday morning peak-hour. In an effort to improve operating conditions at this intersection, the Project proponent will design and implement an optimal traffic signal timing and phasing plan at the intersection to include a review of the traffic signal timing, phasing and coordination plan for the traffic signals to the north that comprise the Main Street traffic signal system, including Main Street at Front Street and Main Street at Pleasant Street. These improvements will be completed prior to the issuance of a Certificate of Occupancy for the Project subject to receipt of all necessary rights, permits and approvals.

As can be seen in Table 13, with the implementation of an optimal traffic signal timing, phasing and coordination plan, all movements at the traffic signals that comprise the Main Street coordinated traffic signal system are predicted to operate at LOS D or better, an improvement over No-Build conditions.

[16]Federal Highway Administration, op. cit. 3.

Table 13
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2031 No-Build V/C[a]	2031 No-Build Delay[b]	2031 No-Build LOS[c]	2031 No-Build Queue[d] 50th/95th	2031 Build V/C	2031 Build Delay	2031 Build LOS	2031 Build Queue 50th/95th	2031 Build (Mitigated) V/C	2031 Build (Mitigated) Delay	2031 Build (Mitigated) LOS	2031 Build (Mitigated) Queue 50th/95th
Main Street at Pleasant Street												
Weekday Morning:												
Pleasant Street EB LT	0.53	26.4	C	2/4	0.55	26.6	C	2/4	0.49	32.2	C	3/4
Pleasant Street EB RT	0.43	13.9	B	0/1	0.45	13.8	B	0/1	0.51	18.9	B	1/2
Main Street NB LT	0.70	5.9	A	1/10	0.72	6.4	A	1/11	0.68	6.0	A	1/10
Main Street NB TH	0.21	2.5	A	0/2	0.22	2.5	A	0/2	0.21	2.7	A	1/2
Main Street SB TH	0.30	16.1	B	2/5	0.33	16.7	B	2/5	0.27	17.3	B	2/6
Main Street SB RT	0.08	9.3	A	0/1	0.08	9.4	A	0/1	0.08	8.9	A	0/1
Overall	--	**10.7**	**B**	--	--	**10.9**	**B**	--	--	**13.0**	**B**	--
Weekday Evening:												
Pleasant Street EB LT	0.49	35.0	C	2/4	0.52	35.2	D	2/4	0.55	37.0	D	2/4
Pleasant Street EB RT	0.42	17.6	B	1/2	0.43	17.5	B	1/2	0.43	18.3	B	1/2
Main Street NB LT	0.79	19.6	B	1/14	0.80	19.9	B	1/14	0.79	10.5	B	3/8
Main Street NB TH	0.16	1.7	A	0/1	0.16	1.8	A	1/1	0.16	2.2	A	1/1
Main Street SB TH	0.52	21.4	C	6/12	0.52	21.4	C	6/12	0.50	20.2	C	5/11
Main Street SB RT	0.12	10.9	B	0/2	0.12	10.9	B	0/2	0.12	10.6	B	0/2
Overall	--	**17.5**	**B**	--	--	**17.6**	**B**	--	--	**14.8**	**B**	--
Main Street at Front Street												
Weekday Morning:												
Front Street WB LT	0.41	25.3	C	1/3	0.41	25.3	C	1/3	0.60	41.9	D	2/3
Front Street WB RT	0.16	16.5	B	0/1	0.16	16.5	B	0/1	0.16	25.1	C	0/2
Main Street NB TH	0.60	11.8	B	5/11	0.61	11.9	B	5/11	0.53	9.6	A	2/8
Main Street NB RT	0.09	3.8	A	0/0	0.09	3.8	A	0/0	0.09	0.8	A	0/0
Main Street SB LT	0.59	7.5	A	1/2	0.62	8.9	A	1/2	0.52	5.2	A	1/1
Main Street SB TH	0.40	3.5	A	2/3	0.42	3.5	A	2/3	0.38	2.7	A	2/2
Overall	--	**9.5**	**A**	--	--	**9.7**	**A**	--	--	**9.9**	**A**	--
Weekday Evening:												
Front Street WB LT	0.53	35.0	C	2/4	0.53	35.0	C	2/4	0.61	39.8	D	2/5
Front Street WB RT	0.18	26.2	C	0/1	0.18	26.2	C	0/1	0.18	29.5	C	0/1
Main Street NB TH	0.62	14.9	B	5/22	0.63	15.2	B	5/23	0.57	12.2	B	5/20
Main Street NB RT	0.05	3.0	A	0/1	0.05	3.3	A	0/1	0.05	2.7	A	0/1
Main Street SB LT	0.37	9.7	A	2/5	0.38	9.9	A	2/5	0.38	5.5	A	1/3
Main Street SB TH	0.57	11.0	B	9/22	0.57	10.9	B	9/22	0.55	6.9	A	2/21
Overall	--	**15.4**	**B**	--	--	**15.5**	**B**	--	--	**13.5**	**B**	--

See notes at end of table.

Table 13 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2031 No-Build				2031 Build				2031 Build (Mitigated)			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
Main Street at Summer Street and Homer Avenue												
Weekday Morning:												
Summer Street EB LT/TH/RT	1.16	>80.0	F	4/8	1.18	>80.0	F	5/9	0.83	47.8	D	5/8
Homer Avenue WB LT/TH	0.11	22.2	C	1/1	0.11	22.2	C	1/1	0.07	25.1	C	1/1
Homer Avenue WB RT	0.08	22.1	C	0/0	0.08	22.1	C	0/0	0.08	25.2	C	0/1
Main Street NB LT/TH/RT	0.43	8.5	A	2/10	0.44	8.5	A	2/10	0.44	10.7	B	4/11
Main Street SB LT/TH	0.54	6.5	A	1/14	0.56	6.7	A	1/14	0.56	8.7	A	3/15
Main Street SB RT	0.05	3.6	A	0/0	0.06	3.3	A	0/0	0.06	5.6	A	0/1
Overall	--	**31.0**	**C**	--	--	**32.5**	**C**	--	--	**17.6**	**B**	--
Weekday Evening:												
Summer Street EB LT/TH/RT	0.58	34.3	C	3/5	0.60	34.9	C	3/5	0.60	34.9	C	3/5
Homer Avenue WB LT/TH	0.15	28.8	C	1/2	0.14	28.7	C	1/2	0.14	28.7	C	1/2
Homer Avenue WB RT	0.09	28.4	C	0/1	0.09	28.4	C	0/2	0.09	28.4	C	0/2
Main Street NB LT/TH/RT	0.40	8.4	A	3/11	0.41	8.5	A	3/11	0.41	8.5	A	3/11
Main Street SB LT/TH	0.66	8.9	A	3/21	0.66	8.9	A	3/21	0.66	8.1	A	3/21
Main Street SB RT	0.14	6.1	A	0/2	0.14	6.1	A	0/2	0.14	5.0	A	0/1
Overall	--	**12.9**	**B**	--	--	**13.1**	**B**	--	--	**12.6**	**B**	--

[a]Volume-to-capacity ratio.
[b]Control (signal) delay per vehicle in seconds.
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

Transportation Demand Management

Regularly scheduled public transportation services are provided within the Town of Ashland by the MWRTA and the MBTA within the study area. To the southwest of the Project site, the MBTA provides Commuter Rail service to South Station in Boston on the Framingham/Worcester Line from Ashland Station to the west of the Project site and from Framingham Station to the east. To the south of the Project site, the MWRTA provides fixed-route bus service along Route 126 and Route 135 from the Blandin Hub in Framingham and the Price Chopper Supermarket in Hopkinton by way of the Route 5 bus route, which includes a stop at Ashland Station. The closest bus stop to the Project site for the Route 5 bus is located at the Main Street/Homer Avenue/Summer Street intersection, approximately 0.25 miles to the south or an approximate 6 minute walking distance. In addition, the Town of Ashland provides Senior Center Van Rides to eligible Ashland residents who require transportation to/from Senior Center programs or medical appointments. Mass Health Transportation (MART) is also available to recipients of Medicaid in the area.

In an effort to encourage the use of alternative modes of transportation to single-occupant vehicles (SOVs), the following Transportation Demand Management (TDM) measures should be implemented as a part of the Project:

- A transportation coordinator should be designated for the Project, who may have other duties and responsibilities, to coordinate the elements of the TDM program;
- The transportation coordinator should facilitate a rideshare matching program for residents and employees to encourage carpooling;
- A "welcome packet" should be provided to new residents and employees detailing available public transportation services, bicycle and walking alternatives, and other commuting options;
- Information regarding public transportation services, maps, schedules, and fare information should be posted in a central location and/or otherwise made available to residents and employees;
- A pick-up/drop-off area has been provided at the front of the building for use by carshare and delivery service providers, as well as Amazon, UPS and FedEx;
- Specific amenities should be provided to discourage off-site trips, including providing one or more of the following: a breakroom equipped with a microwave and refrigerator; offering direct deposit of paychecks; on-site dry cleaning pick-up; and other such measures to reduce overall traffic volumes and travel during peak traffic volume periods;
- Consideration should be given to providing electric vehicle (EV) charging stations for use by residents, employees and customers; and
- Secure bicycle parking should be provided at appropriate locations within the Project site.

With implementation of the aforementioned recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

APPENDIX

PROJECT SITE PLAN
AUTOMATIC TRAFFIC RECORDER COUNT DATA
TURNING MOVEMENT COUNT DATA
SEASONAL ADJUSTMENT DATA
PUBLIC TRANSPORTATION SCHEDULES
VEHICLE TRAVEL SPEED DATA
MASSDOT CRASH DATA
MASSDOT CRASH RATE WORKSHEETS AND HIGH CRASH LOCATION MAP
GENERAL BACKGROUND TRAFFIC GROWTH
CENSUS TRACT DATA
BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS
TRIP DISTRIBUTION DATA
TRIP-GENERATION CALCULATIONS
CAPACITY ANALYSIS WORKSHEETS

PROJECT SITE PLAN

UNIT BREAKDOWN

	TOTAL	S	1 BR	2 BR	3 BR	TOTAL
FLOOR						
GARAGE	78,600 GSF	0	0	0	0	--
FLOOR 1	53,685 GSF	8	31	5	5	49
FLOOR 2	53,685 GSF	6	37	12	5	60
FLOOR 3	50,725 GSF	5	37	9	5	56
FLOOR 4	44,145 GSF	4	33	6	5	48
FLOOR 5	33,940 GSF	3	24	5	5	37
	BEDROOMS	26	162	74	75	337
TOTAL	314,780 GSF	26	162	37	25	250
		10%	65%	15%	10%	

TOTAL PARKING COUNT = 390
COVERED = 211
UNCOVERED = 179

EMBARC

SITE PLAN | GROUND FLOOR PLAN

AUTOMATIC TRAFFIC RECORDER COUNT DATA

Accurate Counts

978-664-2565

Location : Main Street
Location : South of Pleasant Street
City/State: Ashland, MA

Site Code: 98370001

2/27/2024	NB,		Hour Totals		SB,		Hour Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	4	79			4	73				
12:15	6	96			0	61				
12:30	5	62			2	71				
12:45	1	112	16	349	5	90	11	295	27	644
1:00	1	92			0	77				
1:15	0	82			4	85				
1:30	3	98			4	71				
1:45	0	105	4	377	1	98	9	331	13	708
2:00	2	88			0	82				
2:15	0	92			1	84				
2:30	2	113			5	112				
2:45	5	143	9	436	1	79	7	357	16	793
3:00	2	133			1	119				
3:15	2	107			2	139				
3:30	3	122			3	106				
3:45	0	137	7	499	4	126	10	490	17	989
4:00	3	155			6	105				
4:15	0	120			11	131				
4:30	3	149			10	105				
4:45	9	151	15	575	21	119	48	460	63	1035
5:00	16	131			12	140				
5:15	28	133			15	110				
5:30	19	133			38	127				
5:45	43	113	106	510	40	116	105	493	211	1003
6:00	54	108			36	100				
6:15	54	94			60	131				
6:30	59	84			95	139				
6:45	99	81	266	367	109	96	300	466	566	833
7:00	106	65			112	80				
7:15	104	58			116	86				
7:30	145	63			127	60				
7:45	138	46	493	232	151	77	506	303	999	535
8:00	131	41			143	46				
8:15	171	33			131	65				
8:30	141	31			120	46				
8:45	92	30	535	135	102	42	496	199	1031	334
9:00	91	44			77	45				
9:15	84	19			66	51				
9:30	59	24			63	36				
9:45	74	17	308	104	84	31	290	163	598	267
10:00	65	33			65	32				
10:15	80	16			74	22				
10:30	83	10			84	14				
10:45	70	4	298	63	70	10	293	78	591	141
11:00	83	16			81	9				
11:15	73	11			67	8				
11:30	83	6			74	9				
11:45	84	4	323	37	94	5	316	31	639	68
Total	2380	3684			2391	3666			4771	7350
Percent	39.2%	60.8%			39.5%	60.5%			39.4%	60.6%

Accurate Counts
978-664-2565

Location : Main Street
Location : South of Pleasant Street
City/State: Ashland, MA

Site Code: 98370001

2/28/2024	NB,		Hour Totals		SB,		Hour Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	0	99			5	79				
12:15	3	59			3	67				
12:30	5	66			3	64				
12:45	0	44	8	268	1	89	12	299	20	567
1:00	1	56			4	77				
1:15	0	55			0	91				
1:30	0	65			1	71				
1:45	1	67	2	243	4	97	9	336	11	579
2:00	0	74			1	79				
2:15	1	64			0	108				
2:30	0	70			3	88				
2:45	3	142	4	350	0	86	4	361	8	711
3:00	0	116			1	108				
3:15	3	120			0	101				
3:30	0	110			3	101				
3:45	1	129	4	475	4	112	8	422	12	897
4:00	2	136			7	125				
4:15	2	128			5	122				
4:30	5	121			10	99				
4:45	5	97	14	482	14	136	36	482	50	964
5:00	8	126			13	102				
5:15	12	122			12	150				
5:30	27	96			44	113				
5:45	48	83	95	427	32	130	101	495	196	922
6:00	39	87			34	89				
6:15	58	100			55	108				
6:30	55	58			87	121				
6:45	74	74	226	319	127	89	303	407	529	726
7:00	78	48			96	87				
7:15	95	51			77	95				
7:30	130	56			105	79				
7:45	119	38	422	193	116	70	394	331	816	524
8:00	116	45			154	56				
8:15	161	40			134	66				
8:30	143	27			118	58				
8:45	123	59	543	171	83	52	489	232	1032	403
9:00	64	58			65	45				
9:15	142	33			87	56				
9:30	64	21			68	48				
9:45	78	12	348	124	68	32	288	181	636	305
10:00	88	24			52	32				
10:15	49	27			61	21				
10:30	75	16			60	17				
10:45	73	12	285	79	58	9	231	79	516	158
11:00	85	7			81	17				
11:15	73	14			65	11				
11:30	84	5			56	14				
11:45	75	4	317	30	73	12	275	54	592	84
Total	2268	3161			2150	3679			4418	6840
Percent	41.8%	58.2%			36.9%	63.1%			39.2%	60.8%
Grand Total	4648	6845			4541	7345			9189	14190
Percent	40.4%	59.6%			38.2%	61.8%			39.3%	60.7%
ADT		ADT: 11,690		AADT: 11,690						

Accurate Counts
978-664-2565

Location : Main Street
Location : South of Pleasant Street
City/State: Ashland, MA

Site Code: 98370001

	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		Week Average	
Time	NB,	SB,	NB,	SB,	NB,	SB,	NB,	SB,	NB,	SB,	NB,	SB,	NB,	SB,	NB,	SB,
0:00	*	*	16	11	8	12	*	*	*	*	*	*	*	*	12	12
1:00	*	*	4	9	2	9	*	*	*	*	*	*	*	*	3	9
2:00	*	*	9	7	4	4	*	*	*	*	*	*	*	*	6	6
3:00	*	*	7	10	4	8	*	*	*	*	*	*	*	*	6	9
4:00	*	*	15	48	14	36	*	*	*	*	*	*	*	*	14	42
5:00	*	*	106	105	95	101	*	*	*	*	*	*	*	*	100	103
6:00	*	*	266	300	226	303	*	*	*	*	*	*	*	*	246	302
7:00	*	*	493	506	422	394	*	*	*	*	*	*	*	*	458	450
8:00	*	*	535	496	543	489	*	*	*	*	*	*	*	*	539	492
9:00	*	*	308	290	348	288	*	*	*	*	*	*	*	*	328	289
10:00	*	*	298	293	285	231	*	*	*	*	*	*	*	*	292	262
11:00	*	*	323	316	317	275	*	*	*	*	*	*	*	*	320	296
12:00	*	*	349	295	268	299	*	*	*	*	*	*	*	*	308	297
13:00	*	*	377	331	243	336	*	*	*	*	*	*	*	*	310	334
14:00	*	*	436	357	350	361	*	*	*	*	*	*	*	*	393	359
15:00	*	*	499	490	475	422	*	*	*	*	*	*	*	*	487	456
16:00	*	*	575	460	482	482	*	*	*	*	*	*	*	*	528	471
17:00	*	*	510	493	427	495	*	*	*	*	*	*	*	*	468	494
18:00	*	*	367	466	319	407	*	*	*	*	*	*	*	*	343	436
19:00	*	*	232	303	193	331	*	*	*	*	*	*	*	*	212	317
20:00	*	*	135	199	171	232	*	*	*	*	*	*	*	*	153	216
21:00	*	*	104	163	124	181	*	*	*	*	*	*	*	*	114	172
22:00	*	*	63	78	79	79	*	*	*	*	*	*	*	*	71	78
23:00	*	*	37	31	30	54	*	*	*	*	*	*	*	*	34	42
Total	0	0	6064	6057	5429	5829	0	0	0	0	0	0	0	0	5745	5944
Day	0		12121		11258		0		0		0		0		11689	
AM Peak			8:00	7:00	8:00	8:00									8:00	8:00
Volume			535	506	543	489									539	492
PM Peak			16:00	17:00	16:00	17:00									16:00	17:00
Volume			575	493	482	495									528	494
Comb Total	0		12121		11258		0		0		0		0		11689	

Accurate Counts

978-664-2565

Location : Myrtle Street
Location : North of Water Street
City/State: Ashland, MA

Site Code: 98370002

2/27/2024	SB,		Hour Totals		NB,		Hour Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	4	47			2	39				
12:15	2	32			1	38				
12:30	3	34			1	44				
12:45	2	37	11	150	1	68	5	189	16	339
1:00	1	46			2	41				
1:15	4	47			1	51				
1:30	2	50			1	37				
1:45	2	62	9	205	1	46	5	175	14	380
2:00	0	61			0	45				
2:15	2	60			0	39				
2:30	2	79			2	64				
2:45	0	62	4	262	3	57	5	205	9	467
3:00	0	80			1	58				
3:15	1	87			4	58				
3:30	1	98			0	62				
3:45	0	78	2	343	1	65	6	243	8	586
4:00	1	93			4	82				
4:15	3	98			3	63				
4:30	2	107			2	69				
4:45	3	97	9	395	6	73	15	287	24	682
5:00	8	104			9	65				
5:15	3	111			21	60				
5:30	12	85			13	62				
5:45	13	91	36	391	21	63	64	250	100	641
6:00	19	92			31	56				
6:15	17	87			33	43				
6:30	38	79			53	44				
6:45	33	74	107	332	60	33	177	176	284	508
7:00	38	75			62	40				
7:15	43	47			45	25				
7:30	63	44			83	35				
7:45	68	35	212	201	61	16	251	116	463	317
8:00	59	41			62	24				
8:15	67	36			109	22				
8:30	45	29			74	17				
8:45	58	19	229	125	82	16	327	79	556	204
9:00	43	19			86	17				
9:15	39	22			60	25				
9:30	41	20			51	6				
9:45	37	18	160	79	64	11	261	59	421	138
10:00	28	20			50	11				
10:15	37	21			71	9				
10:30	26	15			59	3				
10:45	24	3	115	59	42	1	222	24	337	83
11:00	42	10			61	6				
11:15	32	6			59	4				
11:30	56	6			58	3				
11:45	51	1	181	23	51	4	229	17	410	40
Total	1075	2565			1567	1820			2642	4385
Percent	29.5%	70.5%			46.3%	53.7%			37.6%	62.4%

Accurate Counts
978-664-2565

Location : Myrtle Street
Location : North of Water Street
City/State: Ashland, MA

Site Code: 98370002

2/28/2024	SB,		Hour Totals		NB,		Hour Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	1	40			1	57				
12:15	1	37			1	47				
12:30	3	46			0	41				
12:45	2	48	7	171	2	41	4	186	11	357
1:00	3	54			0	33				
1:15	0	49			2	34				
1:30	0	53			0	45				
1:45	2	54	5	210	1	49	3	161	8	371
2:00	0	60			0	42				
2:15	1	64			1	41				
2:30	0	76			0	48				
2:45	1	74	2	274	0	66	1	197	3	471
3:00	0	66			1	77				
3:15	1	76			5	70				
3:30	0	87			0	57				
3:45	2	89	3	318	2	65	8	269	11	587
4:00	3	108			1	83				
4:15	1	91			4	72				
4:30	2	96			2	81				
4:45	3	119	9	414	9	49	16	285	25	699
5:00	6	99			6	72				
5:15	6	136			9	59				
5:30	12	85			12	69				
5:45	14	96	38	416	22	43	49	243	87	659
6:00	21	58			31	45				
6:15	17	88			30	46				
6:30	31	92			38	57				
6:45	36	75	105	313	65	38	164	186	269	499
7:00	26	67			61	35				
7:15	38	54			39	28				
7:30	64	44			62	42				
7:45	61	48	189	213	61	34	223	139	412	352
8:00	54	33			63	25				
8:15	55	38			97	15				
8:30	51	25			101	18				
8:45	52	25	212	121	70	27	331	85	543	206
9:00	41	24			47	14				
9:15	46	29			81	13				
9:30	43	20			53	17				
9:45	31	20	161	93	51	9	232	53	393	146
10:00	35	23			57	8				
10:15	34	16			42	14				
10:30	39	20			41	5				
10:45	32	9	140	68	45	3	185	30	325	98
11:00	28	21			51	6				
11:15	38	12			47	5				
11:30	32	9			60	4				
11:45	47	17	145	59	52	6	210	21	355	80
Total	1016	2670			1426	1855			2442	4525
Percent	27.6%	72.4%			43.5%	56.5%			35.1%	64.9%
Grand Total	2091	5235			2993	3675			5084	8910
Percent	28.5%	71.5%			44.9%	55.1%			36.3%	63.7%
ADT		ADT: 6,997		AADT: 6,997						

Accurate Counts
978-664-2565

Location : Myrtle Street
Location : North of Water Street
City/State: Ashland, MA

Site Code: 98370002

	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		Week Average	
Time	SB,	NB,	SB,	NB,	SB,	NB,	SB,	NB,	SB,	NB,	SB,	NB,	SB,	NB,	SB,	NB,
0:00	*	*	11	5	7	4	*	*	*	*	*	*	*	*	9	4
1:00	*	*	9	5	5	3	*	*	*	*	*	*	*	*	7	4
2:00	*	*	4	5	2	1	*	*	*	*	*	*	*	*	3	3
3:00	*	*	2	6	3	8	*	*	*	*	*	*	*	*	2	7
4:00	*	*	9	15	9	16	*	*	*	*	*	*	*	*	9	16
5:00	*	*	36	64	38	49	*	*	*	*	*	*	*	*	37	56
6:00	*	*	107	177	105	164	*	*	*	*	*	*	*	*	106	170
7:00	*	*	212	251	189	223	*	*	*	*	*	*	*	*	200	237
8:00	*	*	229	327	212	331	*	*	*	*	*	*	*	*	220	329
9:00	*	*	160	261	161	232	*	*	*	*	*	*	*	*	160	246
10:00	*	*	115	222	140	185	*	*	*	*	*	*	*	*	128	204
11:00	*	*	181	229	145	210	*	*	*	*	*	*	*	*	163	220
12:00	*	*	150	189	171	186	*	*	*	*	*	*	*	*	160	188
13:00	*	*	205	175	210	161	*	*	*	*	*	*	*	*	208	168
14:00	*	*	262	205	274	197	*	*	*	*	*	*	*	*	268	201
15:00	*	*	343	243	318	269	*	*	*	*	*	*	*	*	330	256
16:00	*	*	395	287	414	285	*	*	*	*	*	*	*	*	404	286
17:00	*	*	391	250	416	243	*	*	*	*	*	*	*	*	404	246
18:00	*	*	332	176	313	186	*	*	*	*	*	*	*	*	322	181
19:00	*	*	201	116	213	139	*	*	*	*	*	*	*	*	207	128
20:00	*	*	125	79	121	85	*	*	*	*	*	*	*	*	123	82
21:00	*	*	79	59	93	53	*	*	*	*	*	*	*	*	86	56
22:00	*	*	59	24	68	30	*	*	*	*	*	*	*	*	64	27
23:00	*	*	23	17	59	21	*	*	*	*	*	*	*	*	41	19
Total	0	0	3640	3387	3686	3281	0	0	0	0	0	0	0	0	3661	3334
Day	0		7027		6967		0		0		0		0		6995	
AM Peak			8:00	8:00	8:00	8:00									8:00	8:00
Volume			229	327	212	331									220	329
PM Peak			16:00	16:00	17:00	16:00									16:00	16:00
Volume			395	287	416	285									404	286
Comb Total	0		7027		6967		0		0		0		0		6995	

TURNING MOVEMENT COUNT DATA

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North		Main St From South		Pleasant St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	29	15	82	34	14	97	271
07:15 AM	30	15	94	28	12	109	288
07:30 AM	39	21	124	40	26	117	367
07:45 AM	43	24	115	47	17	160	406
Total	141	75	415	149	69	483	1332
08:00 AM	38	20	121	39	19	144	381
08:15 AM	34	34	121	66	35	129	419
08:30 AM	37	11	116	47	28	113	352
08:45 AM	39	21	76	45	27	93	301
Total	148	86	434	197	109	479	1453
Grand Total	289	161	849	346	178	962	2785
Apprch %	64.2	35.8	71	29	15.6	84.4	
Total %	10.4	5.8	30.5	12.4	6.4	34.5	
Cars	284	157	831	343	176	932	2723
% Cars	98.3	97.5	97.9	99.1	98.9	96.9	97.8
Trucks	5	4	18	3	2	30	62
% Trucks	1.7	2.5	2.1	0.9	1.1	3.1	2.2

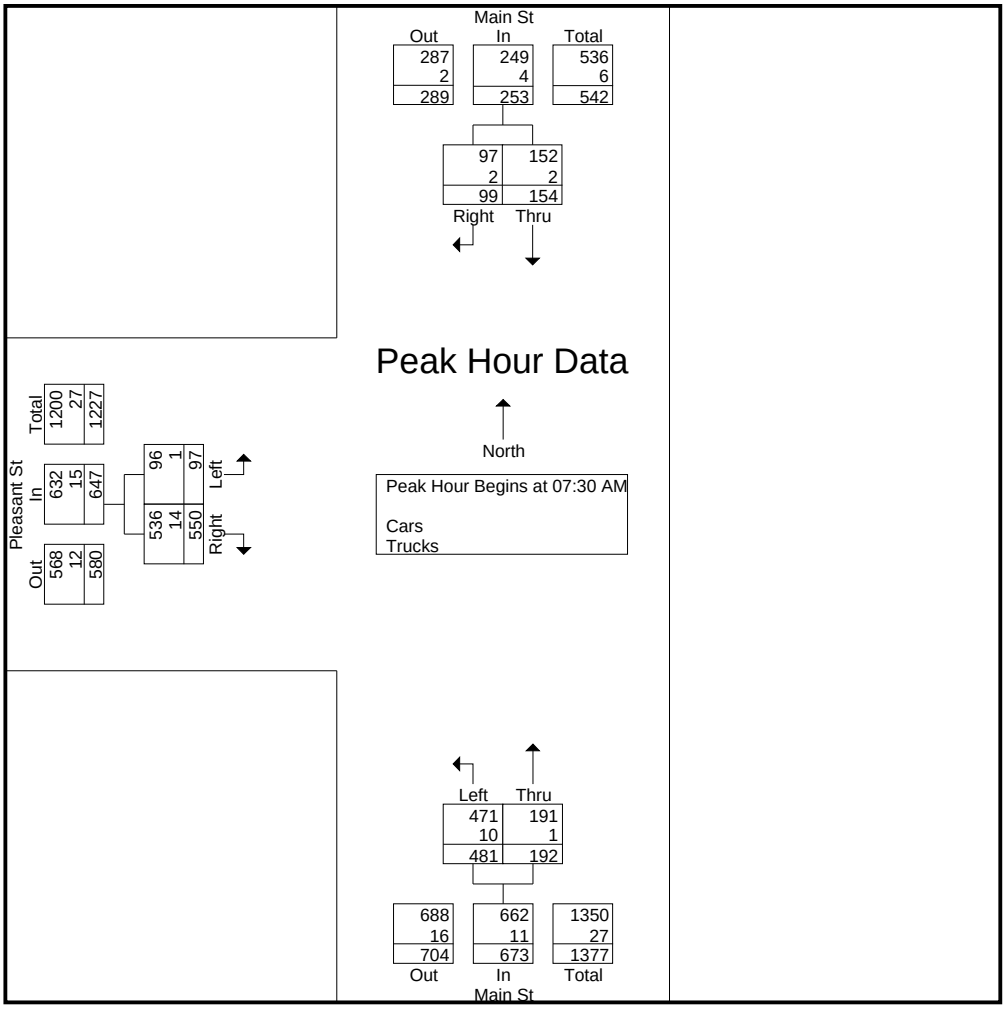
	Main St From North			Main St From South			Pleasant St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	39	21	60	**124**	40	164	26	117	143	367
07:45 AM	**43**	24	67	115	47	162	17	**160**	**177**	406
08:00 AM	38	20	58	121	39	160	19	144	163	381
08:15 AM	34	**34**	**68**	121	**66**	**187**	**35**	129	164	**419**
Total Volume	154	99	253	481	192	673	97	550	647	1573
% App. Total	60.9	39.1		71.5	28.5		15	85		
PHF	.895	.728	.930	.970	.727	.900	.693	.859	.914	.939
Cars	152	97	249	471	191	662	96	536	632	1543
% Cars	98.7	98.0	98.4	97.9	99.5	98.4	99.0	97.5	97.7	98.1
Trucks	2	2	4	10	1	11	1	14	15	30
% Trucks	1.3	2.0	1.6	2.1	0.5	1.6	1.0	2.5	2.3	1.9

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 2



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

Peak Hour for Each Approach Begins at:

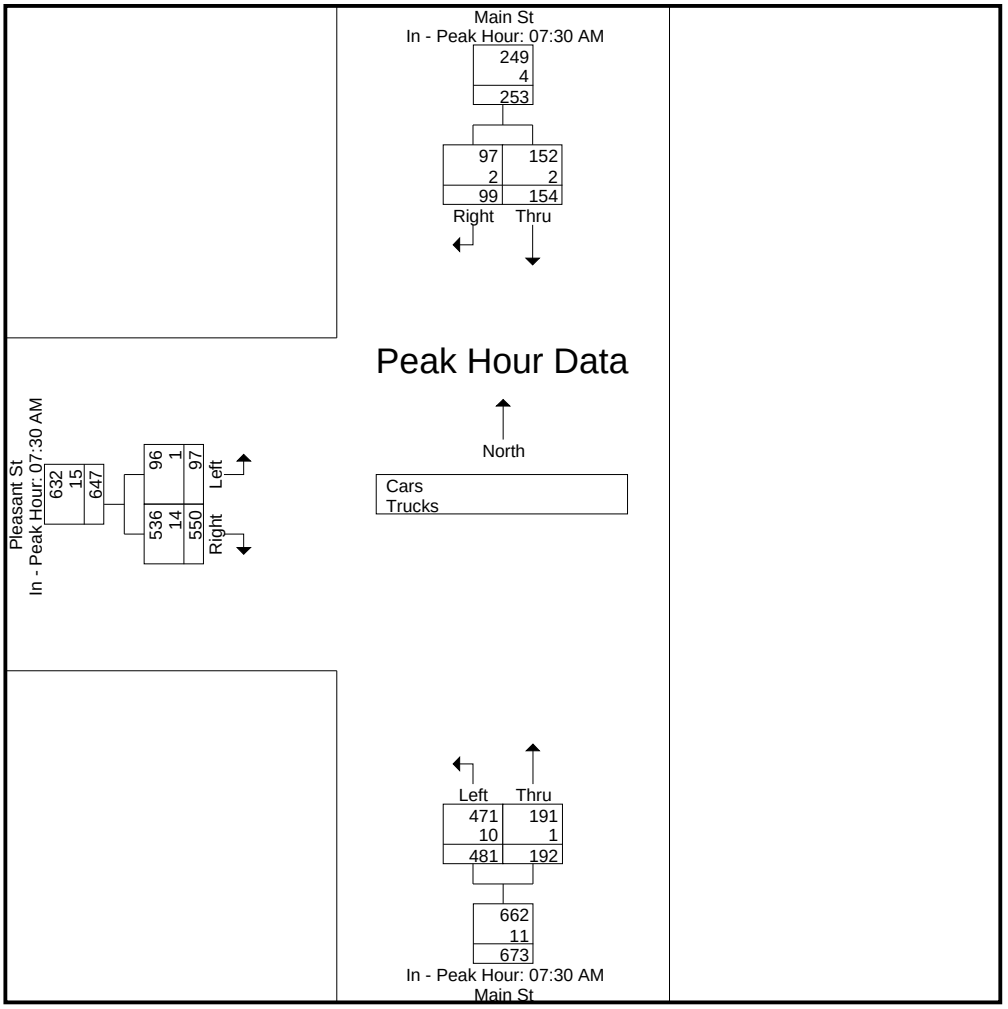
	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	39	21	60	**124**	40	164	26	117	143
+15 mins.	**43**	24	67	115	47	162	17	**160**	**177**
+30 mins.	38	20	58	121	39	160	19	144	163
+45 mins.	34	**34**	**68**	121	**66**	**187**	**35**	129	164
Total Volume	154	99	253	481	192	673	97	550	647
% App. Total	60.9	39.1		71.5	28.5		15	85	
PHF	.895	.728	.930	.970	.727	.900	.693	.859	.914
Cars	152	97	249	471	191	662	96	536	632
% Cars	98.7	98	98.4	97.9	99.5	98.4	99	97.5	97.7
Trucks	2	2	4	10	1	11	1	14	15
% Trucks	1.3	2	1.6	2.1	0.5	1.6	1	2.5	2.3

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024

Groups Printed- Cars

	Main St From North		Main St From South		Pleasant St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	29	14	77	33	14	96	263
07:15 AM	30	15	92	27	11	103	278
07:30 AM	38	20	121	40	26	113	358
07:45 AM	43	24	115	47	16	159	404
Total	140	73	405	147	67	471	1303
08:00 AM	37	19	118	39	19	139	371
08:15 AM	34	34	117	65	35	125	410
08:30 AM	35	10	115	47	28	108	343
08:45 AM	38	21	76	45	27	89	296
Total	144	84	426	196	109	461	1420
Grand Total	284	157	831	343	176	932	2723
Apprch %	64.4	35.6	70.8	29.2	15.9	84.1	
Total %	10.4	5.8	30.5	12.6	6.5	34.2	

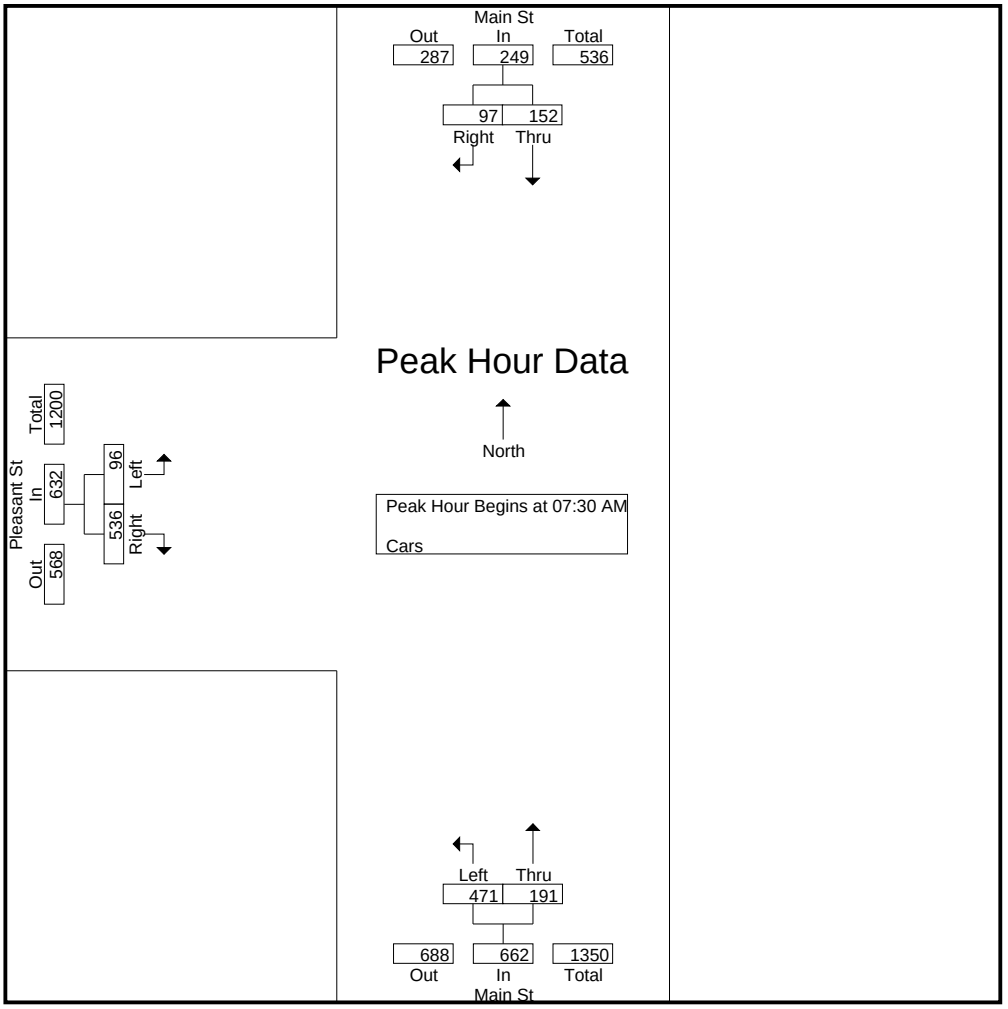
	Main St From North			Main St From South			Pleasant St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	38	20	58	**121**	40	161	26	113	139	358
07:45 AM	**43**	24	67	115	47	162	16	**159**	**175**	404
08:00 AM	37	19	56	118	39	157	19	139	158	371
08:15 AM	34	**34**	**68**	117	**65**	**182**	**35**	125	160	**410**
Total Volume	152	97	249	471	191	662	96	536	632	1543
% App. Total	61	39		71.1	28.9		15.2	84.8		
PHF	.884	.713	.915	.973	.735	.909	.686	.843	.903	.941

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 5



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

Peak Hour for Each Approach Begins at:

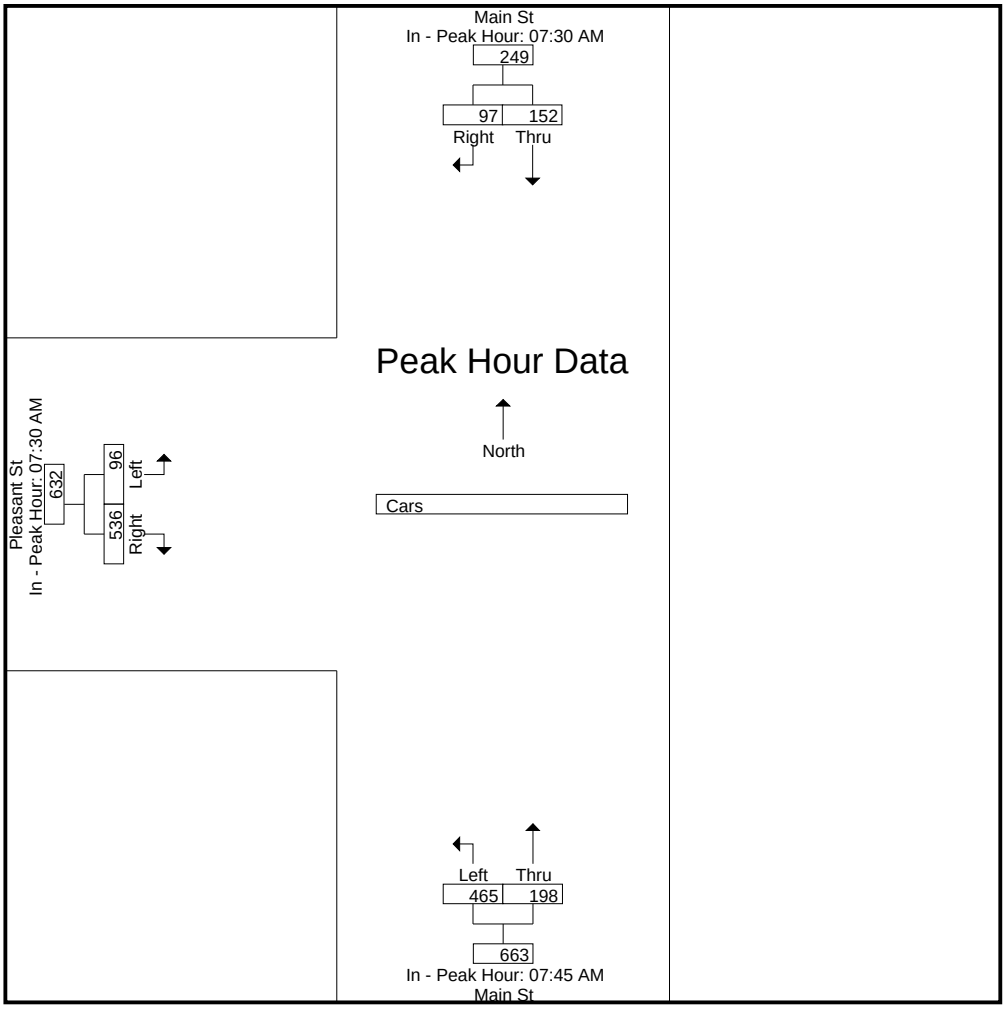
	07:30 AM			07:45 AM			07:30 AM		
+0 mins.	38	20	58	115	47	162	26	113	139
+15 mins.	**43**	24	67	**118**	39	157	16	**159**	**175**
+30 mins.	37	19	56	117	**65**	**182**	19	139	158
+45 mins.	34	**34**	**68**	115	47	162	**35**	125	160
Total Volume	152	97	249	465	198	663	96	536	632
% App. Total	61	39		70.1	29.9		15.2	84.8	
PHF	.884	.713	.915	.985	.762	.911	.686	.843	.903

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024

Groups Printed- Trucks

	Main St From North		Main St From South		Pleasant St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	0	1	5	1	0	1	8
07:15 AM	0	0	2	1	1	6	10
07:30 AM	1	1	3	0	0	4	9
07:45 AM	0	0	0	0	1	1	2
Total	1	2	10	2	2	12	29
08:00 AM	1	1	3	0	0	5	10
08:15 AM	0	0	4	1	0	4	9
08:30 AM	2	1	1	0	0	5	9
08:45 AM	1	0	0	0	0	4	5
Total	4	2	8	1	0	18	33
Grand Total	5	4	18	3	2	30	62
Apprch %	55.6	44.4	85.7	14.3	6.2	93.8	
Total %	8.1	6.5	29	4.8	3.2	48.4	

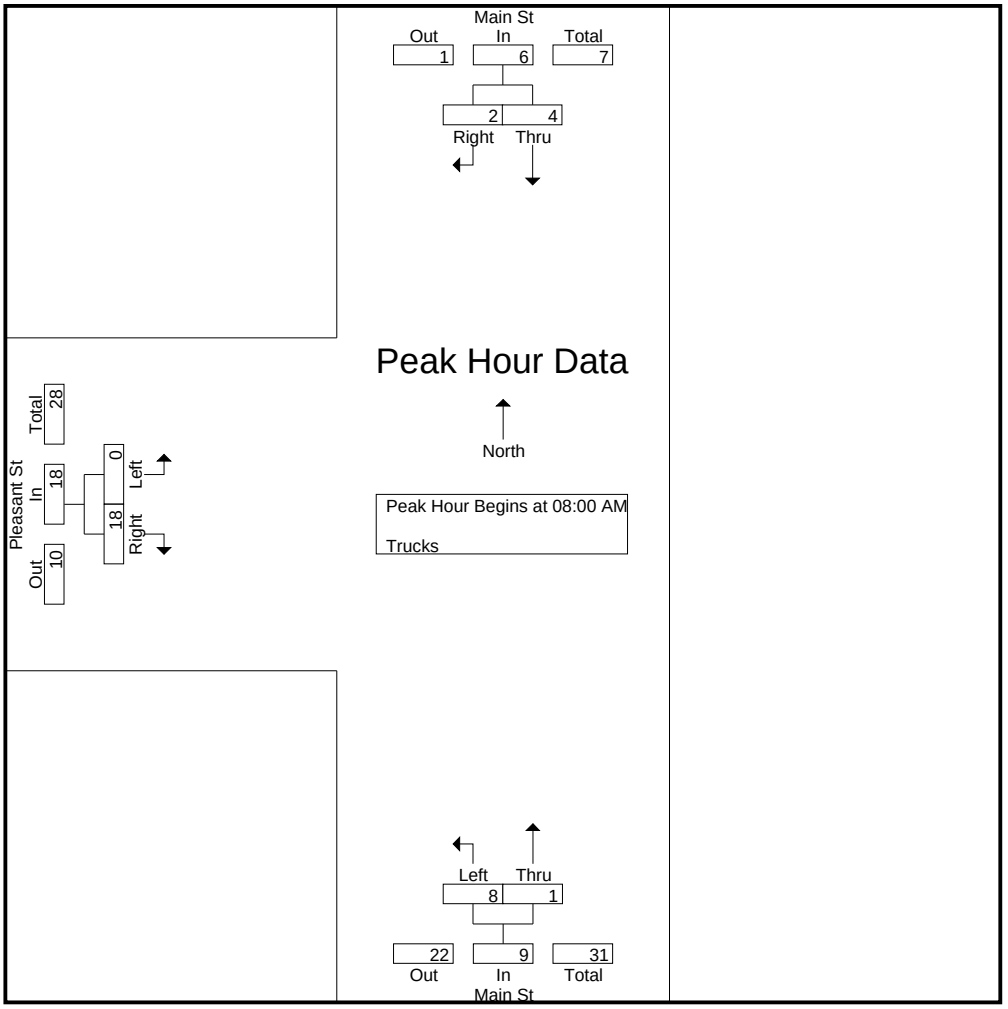
	Main St From North			Main St From South			Pleasant St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	1	**1**	2	3	0	3	0	**5**	**5**	**10**
08:15 AM	0	0	0	**4**	**1**	**5**	0	4	4	9
08:30 AM	**2**	1	**3**	1	0	1	0	5	5	9
08:45 AM	1	0	1	0	0	0	0	4	4	5
Total Volume	4	2	6	8	1	9	0	18	18	33
% App. Total	66.7	33.3		88.9	11.1		0	100		
PHF	.500	.500	.500	.500	.250	.450	.000	.900	.900	.825

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 8



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

Peak Hour for Each Approach Begins at:

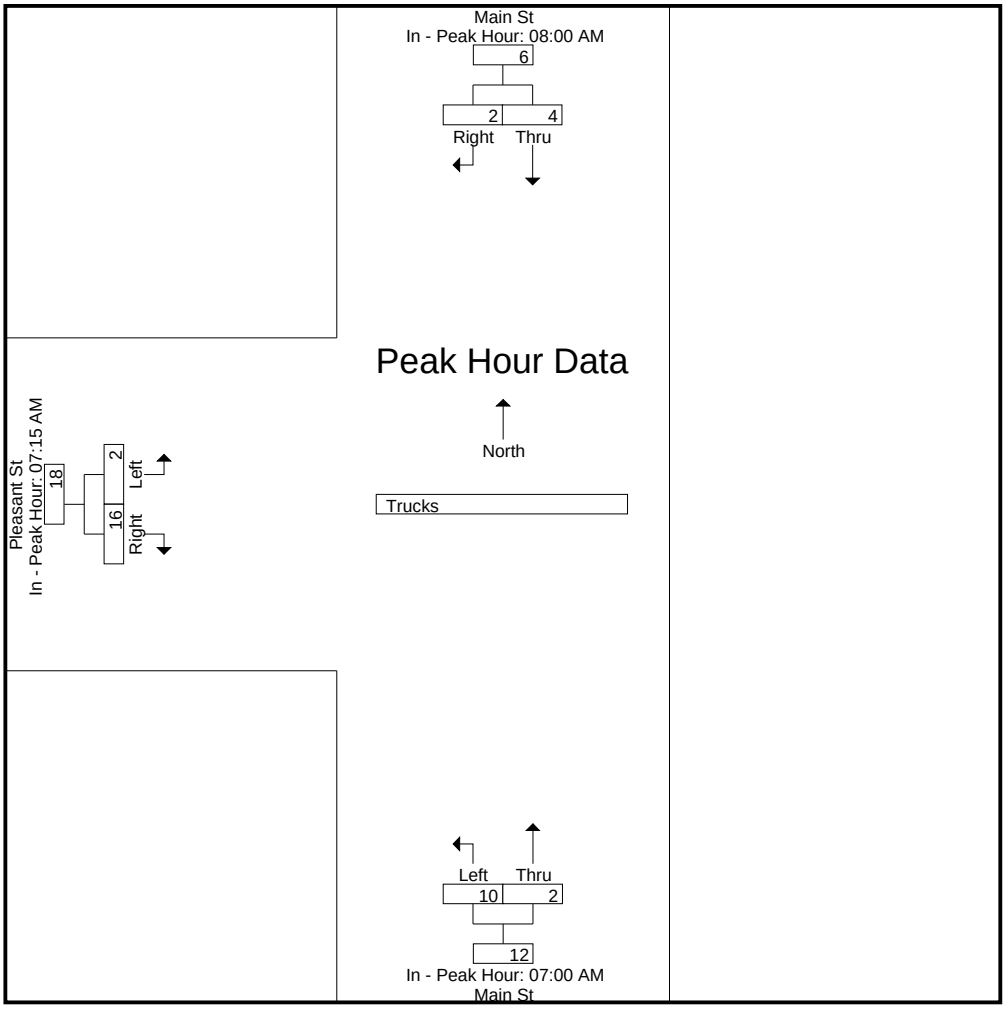
	08:00 AM			07:00 AM			07:15 AM		
+0 mins.	1	**1**	2	**5**	**1**	**6**	**1**	**6**	**7**
+15 mins.	0	0	0	2	1	3	0	4	4
+30 mins.	**2**	1	**3**	3	0	3	1	1	2
+45 mins.	1	0	1	0	0	0	0	5	5
Total Volume	4	2	6	10	2	12	2	16	18
% App. Total	66.7	33.3		83.3	16.7		11.1	88.9	
PHF	.500	.500	.500	.500	.500	.500	.500	.667	.643

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Main St From North			Main St From South			Pleasant St From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	1	1	0	1
07:30 AM	0	0	0	0	0	0	0	0	2	2	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	3	3	0	3
08:00 AM	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	1	0	0	1	1
08:30 AM	0	0	1	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	0	2	0	1	2	3
Grand Total	0	0	1	0	0	0	0	2	3	4	2	6
Apprch %	0	0		0	0		0	100				
Total %	0	0		0	0		0	100		66.7	33.3	

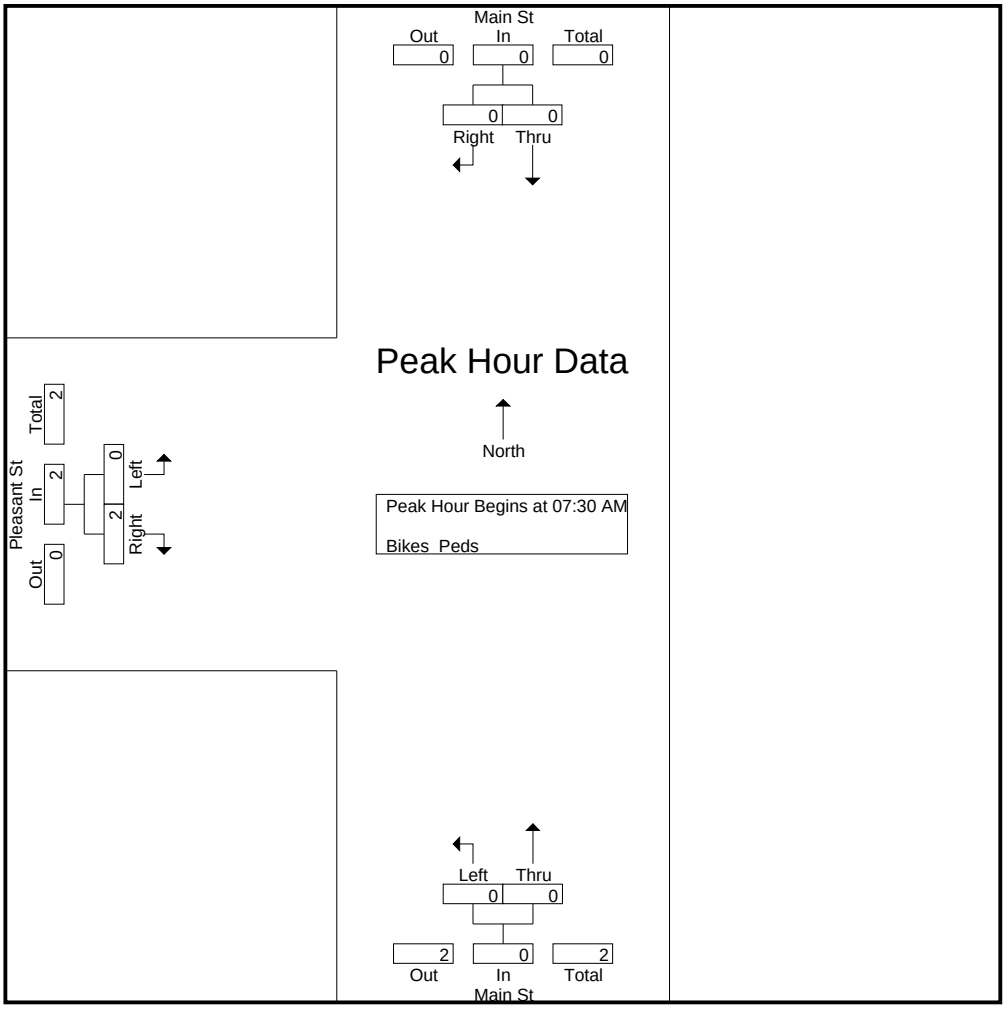
	Main St From North			Main St From South			Pleasant St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	**1**	**1**	**1**
08:15 AM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	2	2	2
% App. Total	0	0		0	0		0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.500	.500	.500

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 11



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

Peak Hour for Each Approach Begins at:

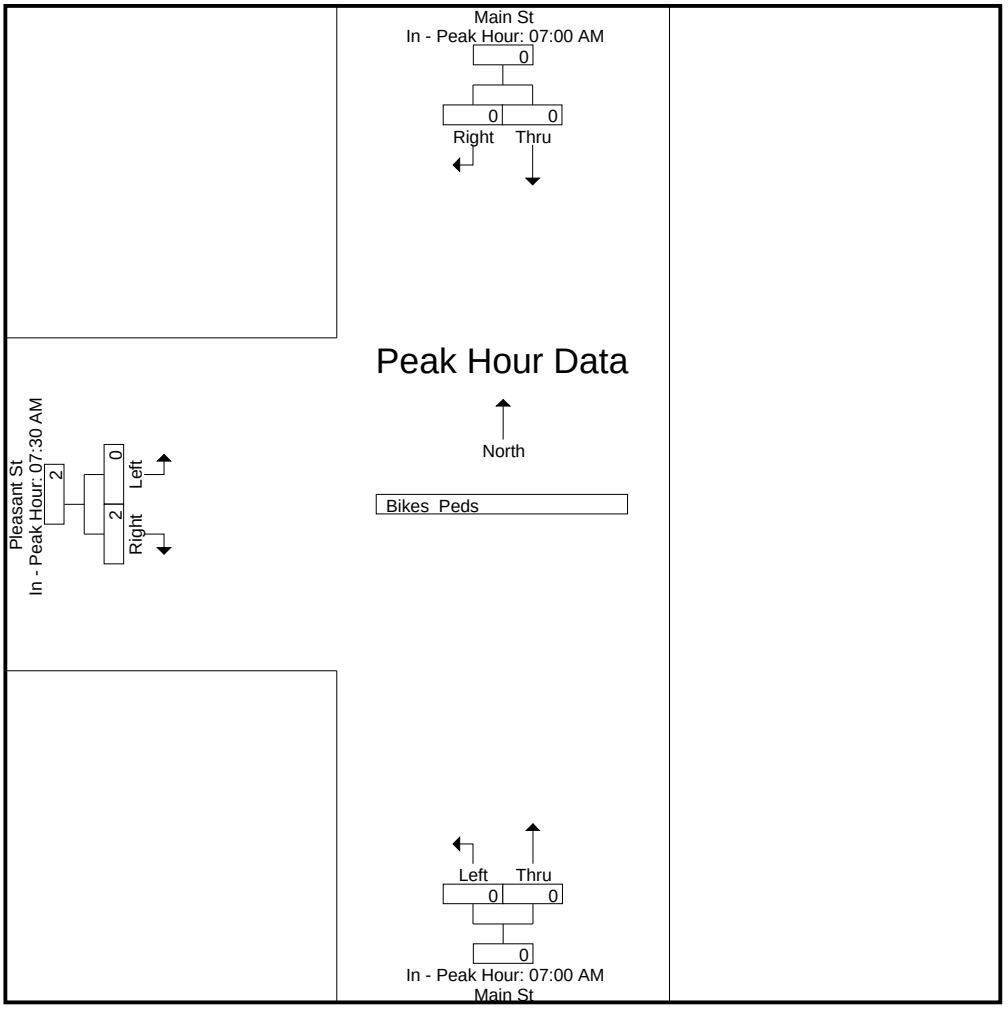
	07:00 AM			07:00 AM			07:30 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	**1**	**1**
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	2	2
% App. Total	0	0		0	0		0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.500	.500

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North		Main St From South		Pleasant St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
02:00 PM	45	20	88	33	14	57	257
02:15 PM	38	23	78	25	11	69	244
02:30 PM	46	39	90	33	17	80	305
02:45 PM	39	29	137	32	14	95	346
Total	168	111	393	123	56	301	1152
03:00 PM	50	23	121	38	15	93	340
03:15 PM	72	31	98	40	10	96	347
03:30 PM	70	38	124	43	13	96	384
03:45 PM	66	20	106	47	26	95	360
Total	258	112	449	168	64	380	1431
04:00 PM	61	33	132	48	18	94	386
04:15 PM	74	32	115	47	18	111	397
04:30 PM	59	45	138	38	23	99	402
04:45 PM	79	31	148	42	26	115	441
Total	273	141	533	175	85	419	1626
05:00 PM	72	28	132	47	21	119	419
05:15 PM	84	32	137	37	20	95	405
05:30 PM	57	44	121	46	16	122	406
05:45 PM	57	36	102	46	21	87	349
Total	270	140	492	176	78	423	1579
Grand Total	969	504	1867	642	283	1523	5788
Apprch %	65.8	34.2	74.4	25.6	15.7	84.3	
Total %	16.7	8.7	32.3	11.1	4.9	26.3	
Cars	962	495	1815	638	277	1472	5659
% Cars	99.3	98.2	97.2	99.4	97.9	96.7	97.8
Trucks	7	9	52	4	6	51	129
% Trucks	0.7	1.8	2.8	0.6	2.1	3.3	2.2

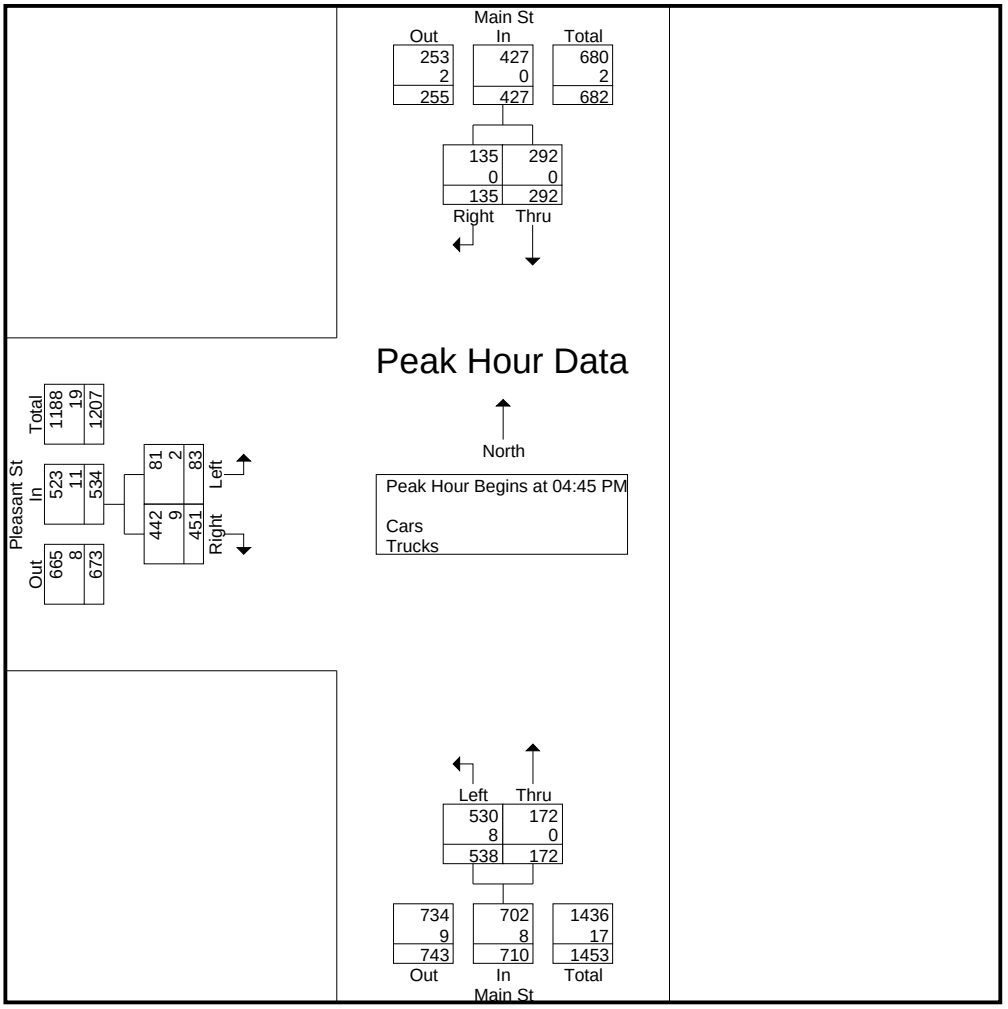
	Main St From North			Main St From South			Pleasant St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	79	31	110	**148**	42	**190**	**26**	115	**141**	**441**
05:00 PM	72	28	100	132	**47**	179	21	119	140	419
05:15 PM	**84**	32	**116**	137	37	174	20	95	115	405
05:30 PM	57	**44**	101	121	46	167	16	**122**	138	406
Total Volume	292	135	427	538	172	710	83	451	534	1671
% App. Total	68.4	31.6		75.8	24.2		15.5	84.5		
PHF	.869	.767	.920	.909	.915	.934	.798	.924	.947	.947
Cars	292	135	427	530	172	702	81	442	523	1652
% Cars	100	100	100	98.5	100	98.9	97.6	98.0	97.9	98.9
Trucks	0	0	0	8	0	8	2	9	11	19
% Trucks	0	0	0	1.5	0	1.1	2.4	2.0	2.1	1.1

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 2



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

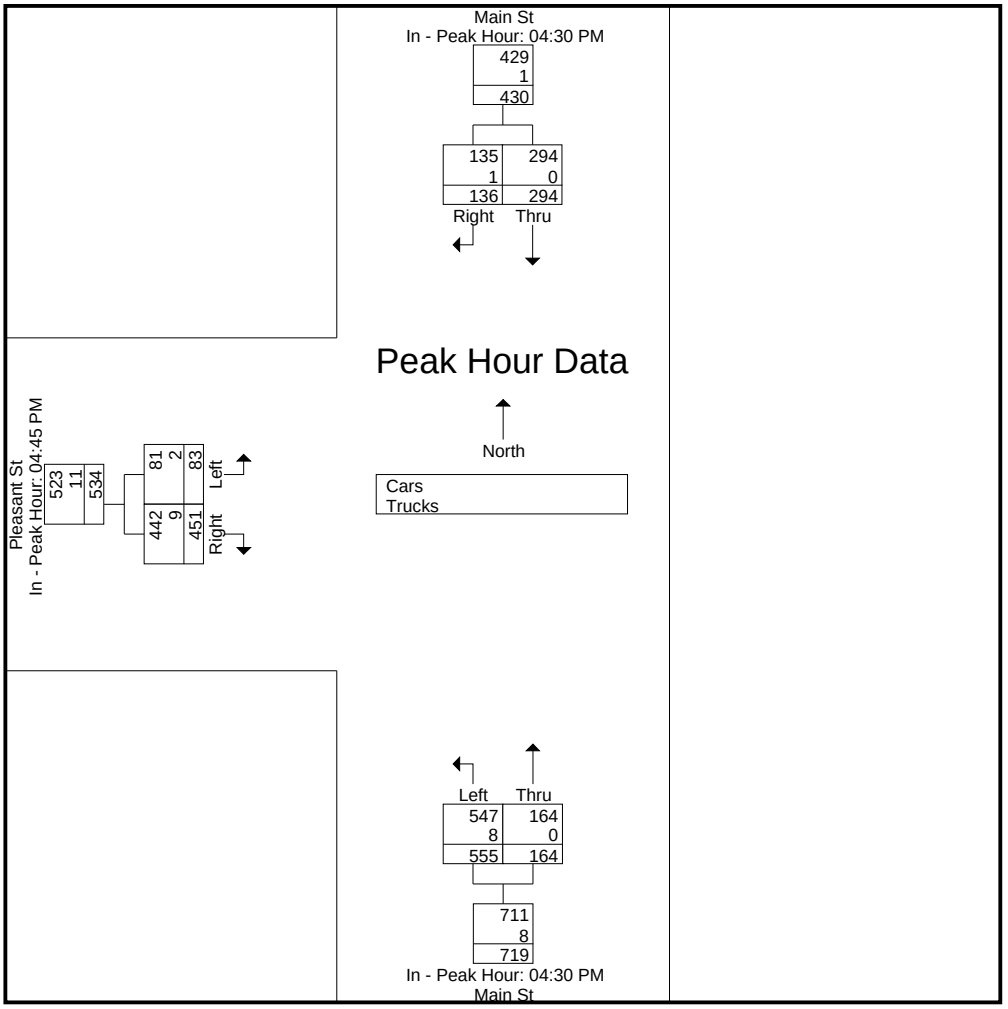
	04:30 PM			04:30 PM			04:45 PM		
+0 mins.	59	**45**	104	138	38	176	**26**	115	**141**
+15 mins.	79	31	110	**148**	42	**190**	21	119	140
+30 mins.	72	28	100	132	**47**	179	20	95	115
+45 mins.	**84**	32	**116**	137	37	174	16	**122**	138
Total Volume	294	136	430	555	164	719	83	451	534
% App. Total	68.4	31.6		77.2	22.8		15.5	84.5	
PHF	.875	.756	.927	.938	.872	.946	.798	.924	.947
Cars	294	135	429	547	164	711	81	442	523
% Cars	100	99.3	99.8	98.6	100	98.9	97.6	98	97.9
Trucks	0	1	1	8	0	8	2	9	11
% Trucks	0	0.7	0.2	1.4	0	1.1	2.4	2	2.1

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024

Groups Printed- Cars

	Main St From North		Main St From South		Pleasant St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
02:00 PM	44	18	79	32	14	53	240
02:15 PM	38	23	75	25	10	68	239
02:30 PM	45	38	88	32	17	76	296
02:45 PM	39	28	133	32	14	94	340
Total	166	107	375	121	55	291	1115
03:00 PM	50	20	117	38	12	90	327
03:15 PM	71	31	96	40	10	90	338
03:30 PM	69	38	118	42	13	90	370
03:45 PM	64	20	106	47	26	89	352
Total	254	109	437	167	61	359	1387
04:00 PM	61	33	127	47	18	89	375
04:15 PM	73	31	109	47	18	108	386
04:30 PM	59	44	137	38	23	97	398
04:45 PM	79	31	146	42	25	114	437
Total	272	139	519	174	84	408	1596
05:00 PM	72	28	130	47	21	118	416
05:15 PM	84	32	134	37	19	91	397
05:30 PM	57	44	120	46	16	119	402
05:45 PM	57	36	100	46	21	86	346
Total	270	140	484	176	77	414	1561
Grand Total	962	495	1815	638	277	1472	5659
Apprch %	66	34	74	26	15.8	84.2	
Total %	17	8.7	32.1	11.3	4.9	26	

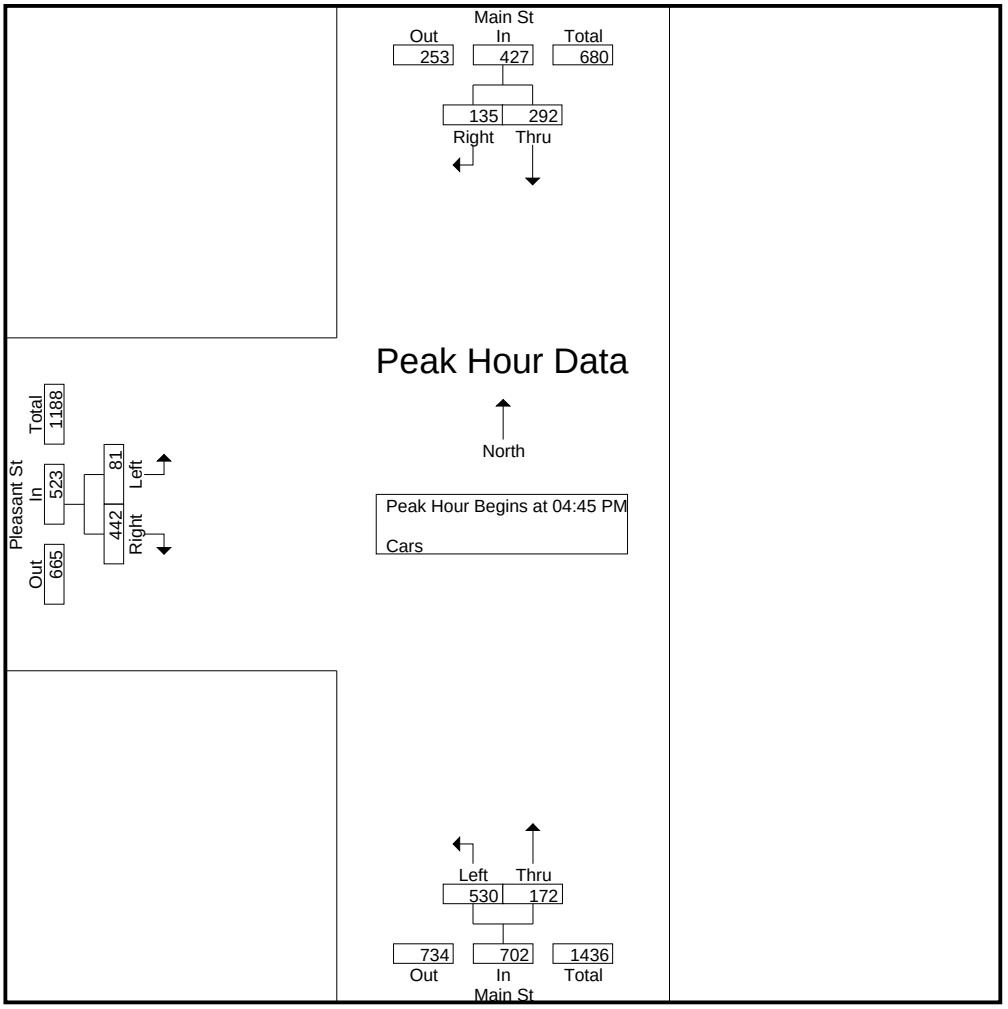
	Main St From North			Main St From South			Pleasant St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	79	31	110	**146**	42	**188**	**25**	114	**139**	**437**
05:00 PM	72	28	100	130	**47**	177	21	118	139	416
05:15 PM	**84**	32	**116**	134	37	171	19	91	110	397
05:30 PM	57	**44**	101	120	46	166	16	**119**	135	402
Total Volume	292	135	427	530	172	702	81	442	523	1652
% App. Total	68.4	31.6		75.5	24.5		15.5	84.5		
PHF	.869	.767	.920	.908	.915	.934	.810	.929	.941	.945

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 5



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

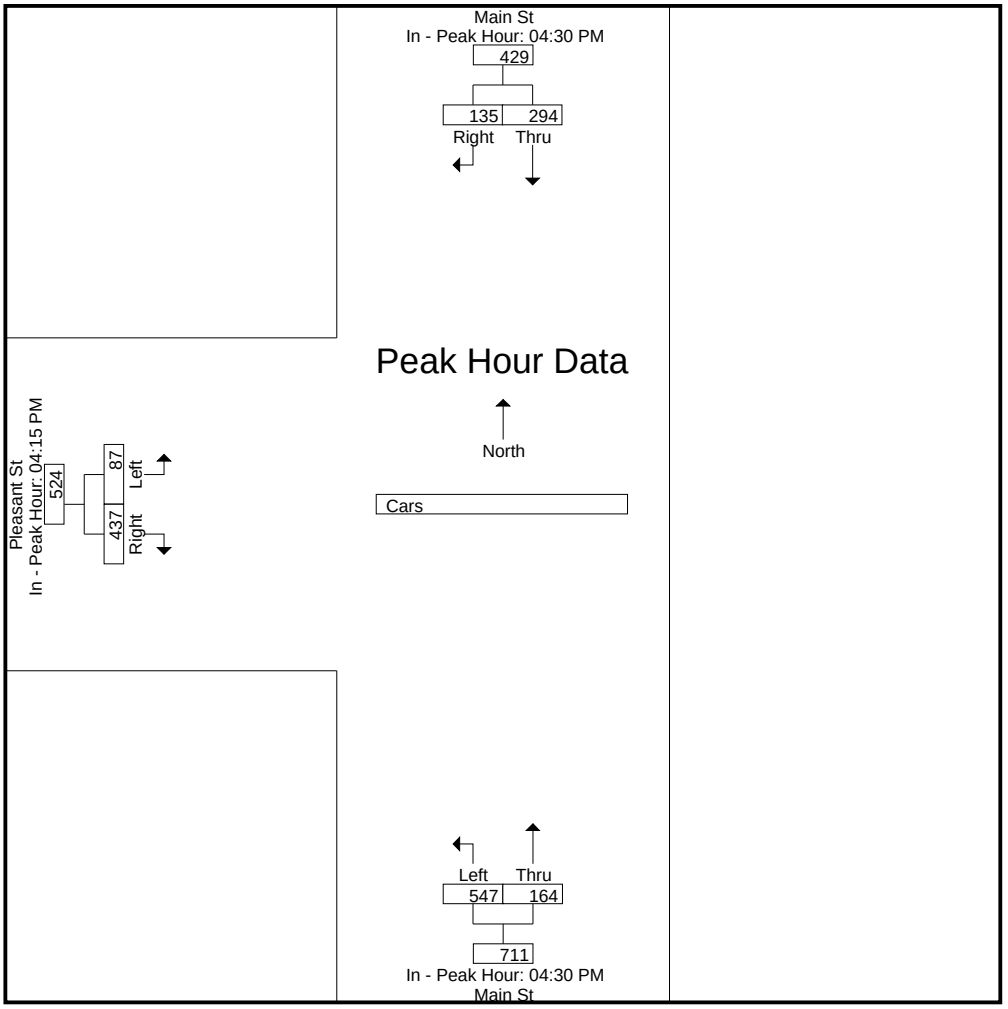
	04:30 PM			04:30 PM			04:15 PM		
+0 mins.	59	**44**	103	137	38	175	18	108	126
+15 mins.	79	31	110	**146**	42	**188**	23	97	120
+30 mins.	72	28	100	130	**47**	177	**25**	114	**139**
+45 mins.	**84**	32	**116**	134	37	171	21	**118**	139
Total Volume	294	135	429	547	164	711	87	437	524
% App. Total	68.5	31.5		76.9	23.1		16.6	83.4	
PHF	.875	.767	.925	.937	.872	.945	.870	.926	.942

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024

Groups Printed- Trucks

	Main St From North		Main St From South		Pleasant St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
02:00 PM	1	2	9	1	0	4	17
02:15 PM	0	0	3	0	1	1	5
02:30 PM	1	1	2	1	0	4	9
02:45 PM	0	1	4	0	0	1	6
Total	2	4	18	2	1	10	37
03:00 PM	0	3	4	0	3	3	13
03:15 PM	1	0	2	0	0	6	9
03:30 PM	1	0	6	1	0	6	14
03:45 PM	2	0	0	0	0	6	8
Total	4	3	12	1	3	21	44
04:00 PM	0	0	5	1	0	5	11
04:15 PM	1	1	6	0	0	3	11
04:30 PM	0	1	1	0	0	2	4
04:45 PM	0	0	2	0	1	1	4
Total	1	2	14	1	1	11	30
05:00 PM	0	0	2	0	0	1	3
05:15 PM	0	0	3	0	1	4	8
05:30 PM	0	0	1	0	0	3	4
05:45 PM	0	0	2	0	0	1	3
Total	0	0	8	0	1	9	18
Grand Total	7	9	52	4	6	51	129
Apprch %	43.8	56.2	92.9	7.1	10.5	89.5	
Total %	5.4	7	40.3	3.1	4.7	39.5	

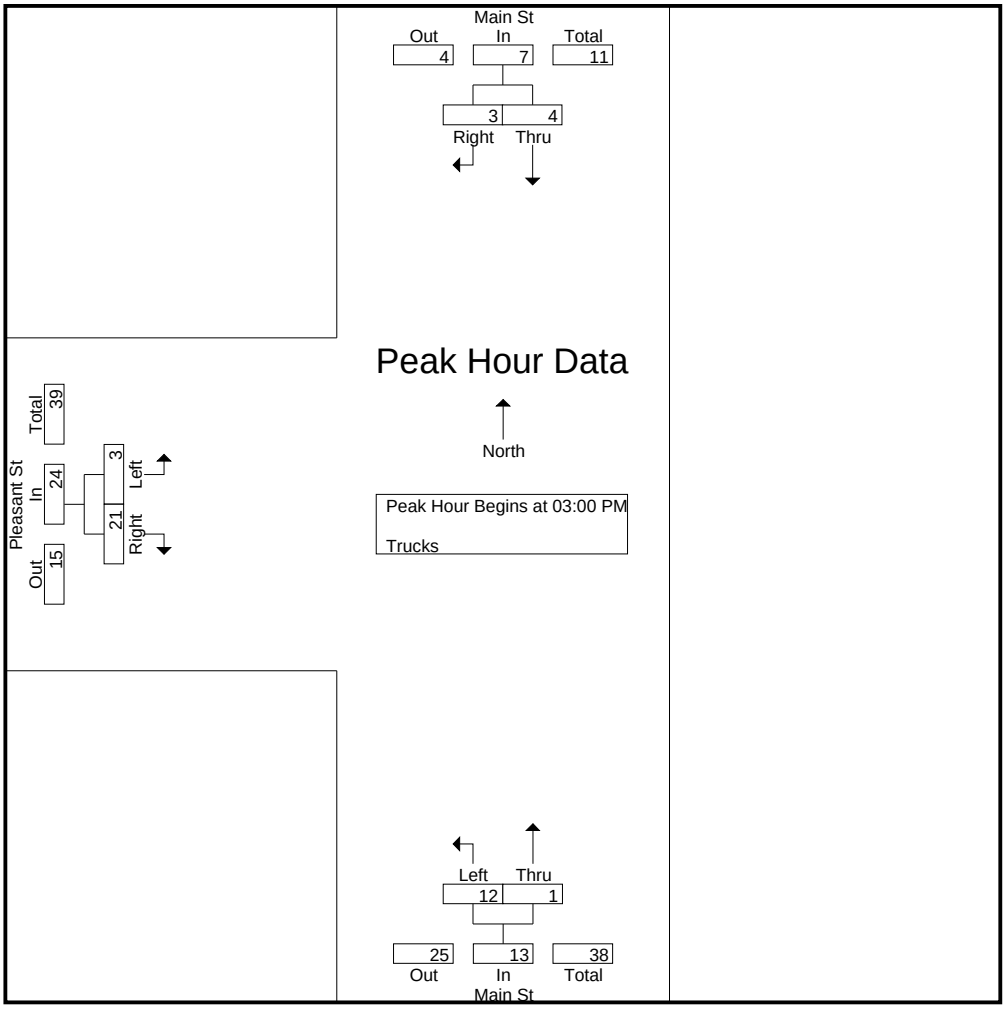
	Main St From North			Main St From South			Pleasant St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	0	**3**	**3**	4	0	4	**3**	3	**6**	13
03:15 PM	1	0	1	2	0	2	0	**6**	6	9
03:30 PM	1	0	1	**6**	**1**	**7**	0	6	6	**14**
03:45 PM	**2**	0	2	0	0	0	0	6	6	8
Total Volume	4	3	7	12	1	13	3	21	24	44
% App. Total	57.1	42.9		92.3	7.7		12.5	87.5		
PHF	.500	.250	.583	.500	.250	.464	.250	.875	1.00	.786

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 8



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

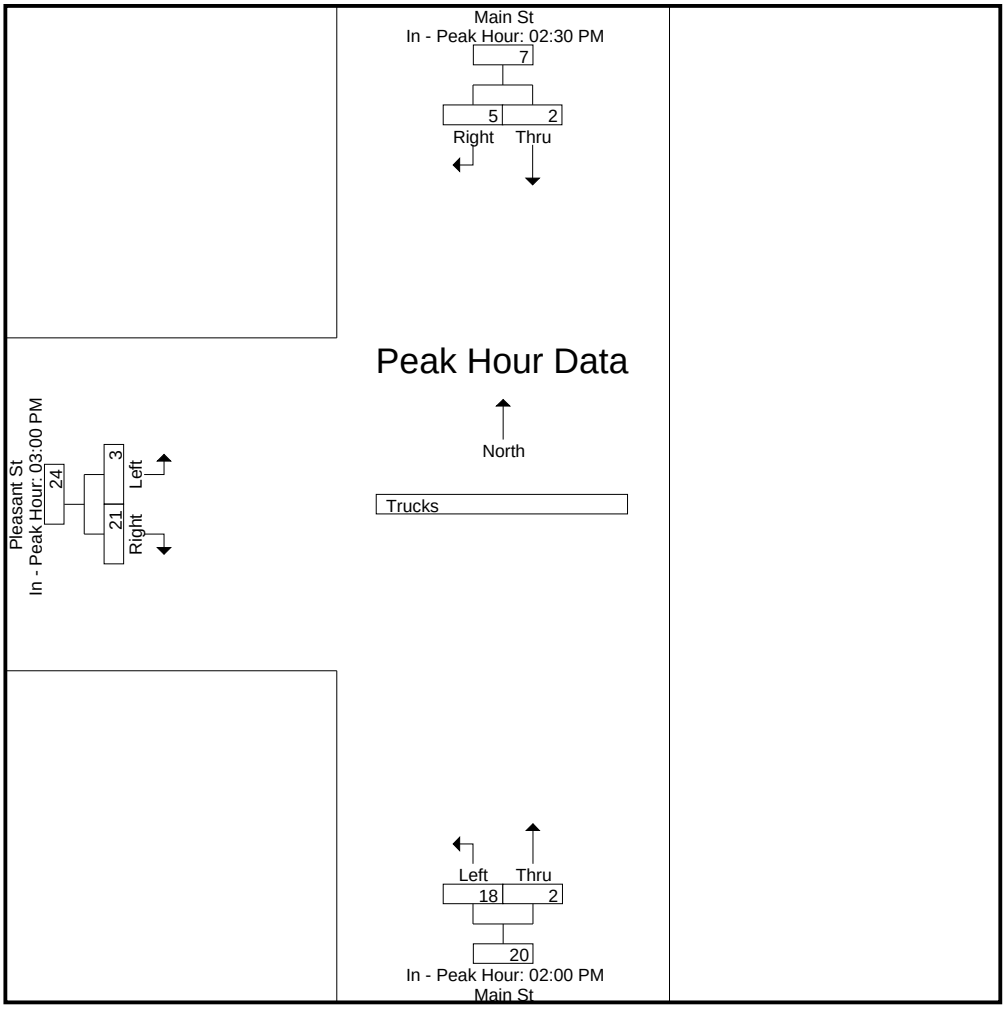
	02:30 PM			02:00 PM			03:00 PM		
+0 mins.	**1**	1	2	**9**	**1**	**10**	**3**	3	**6**
+15 mins.	0	1	1	3	0	3	0	**6**	6
+30 mins.	0	**3**	**3**	2	1	3	0	6	6
+45 mins.	1	0	1	4	0	4	0	6	6
Total Volume	2	5	7	18	2	20	3	21	24
% App. Total	28.6	71.4		90	10		12.5	87.5	
PHF	.500	.417	.583	.500	.500	.500	.250	.875	1.000

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Main St From North			Main St From South			Pleasant St From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
02:00 PM	0	0	0	0	0	0	0	0	1	1	0	1
02:15 PM	0	0	0	0	0	0	0	0	2	2	0	2
02:30 PM	0	0	0	0	0	1	0	0	0	1	0	1
02:45 PM	0	0	1	0	0	1	0	0	2	4	0	4
Total	0	0	1	0	0	2	0	0	5	8	0	8
03:00 PM	0	0	0	0	0	1	0	0	0	1	0	1
03:15 PM	0	0	0	0	0	3	0	0	8	11	0	11
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	2	3	3	2	5
Total	0	0	0	0	0	4	0	2	11	15	2	17
04:00 PM	0	0	0	0	0	0	0	0	4	4	0	4
04:15 PM	0	0	0	0	0	0	0	0	4	4	0	4
04:30 PM	0	0	0	0	0	0	0	0	3	3	0	3
04:45 PM	0	0	0	0	0	0	0	2	1	1	2	3
Total	0	0	0	0	0	0	0	2	12	12	2	14
05:00 PM	0	0	0	0	0	0	0	0	2	2	0	2
05:15 PM	0	0	0	0	2	0	0	0	0	0	2	2
05:30 PM	0	0	0	0	0	0	0	0	5	5	0	5
05:45 PM	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	0	0	0	2	0	0	0	9	9	2	11
Grand Total	0	0	1	0	2	6	0	4	37	44	6	50
Apprch %	0	0		0	100		0	100				
Total %	0	0		0	33.3		0	66.7		88	12	

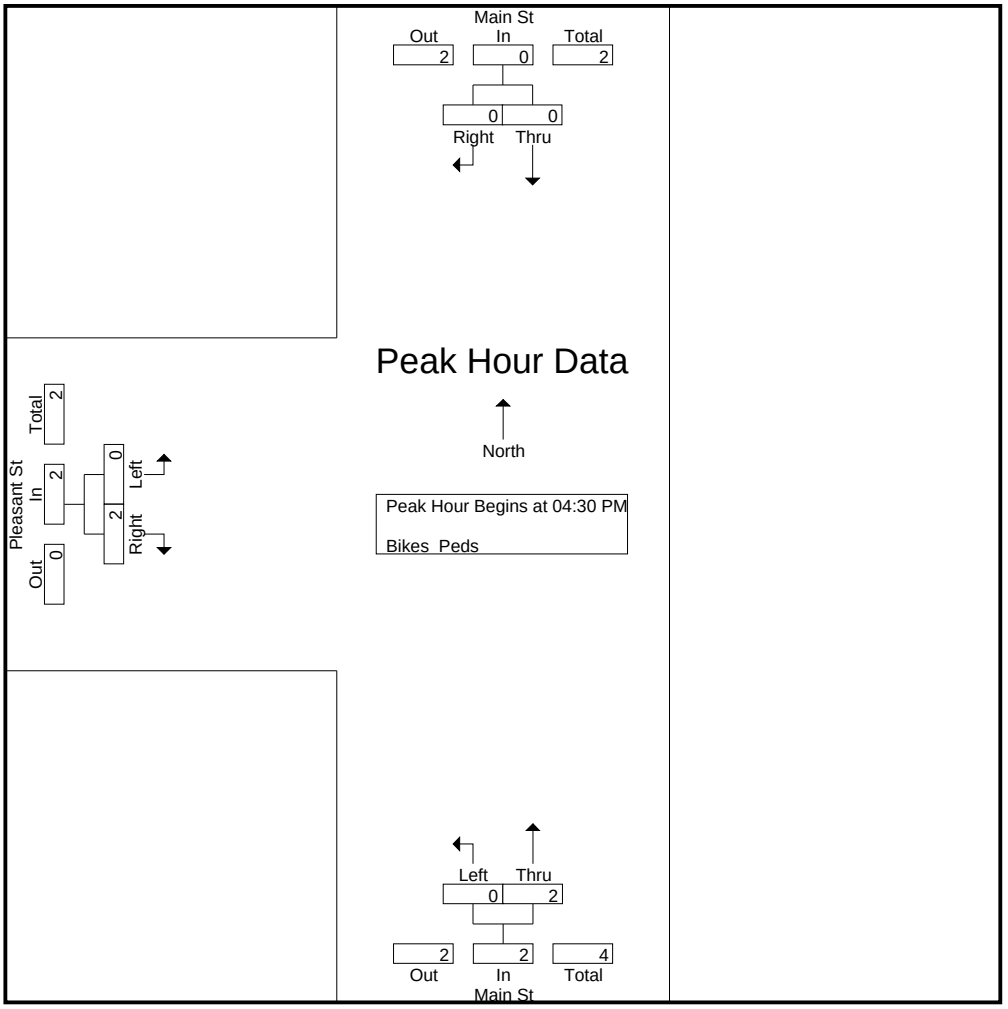
	Main St From North			Main St From South			Pleasant St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	**2**	**2**	**2**
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	**2**	**2**	0	0	0	2
Total Volume	0	0	0	0	2	2	0	2	2	4
% App. Total	0	0		0	100		0	100		
PHF	.000	.000	.000	.000	.250	.250	.000	.250	.250	.500

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 11



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

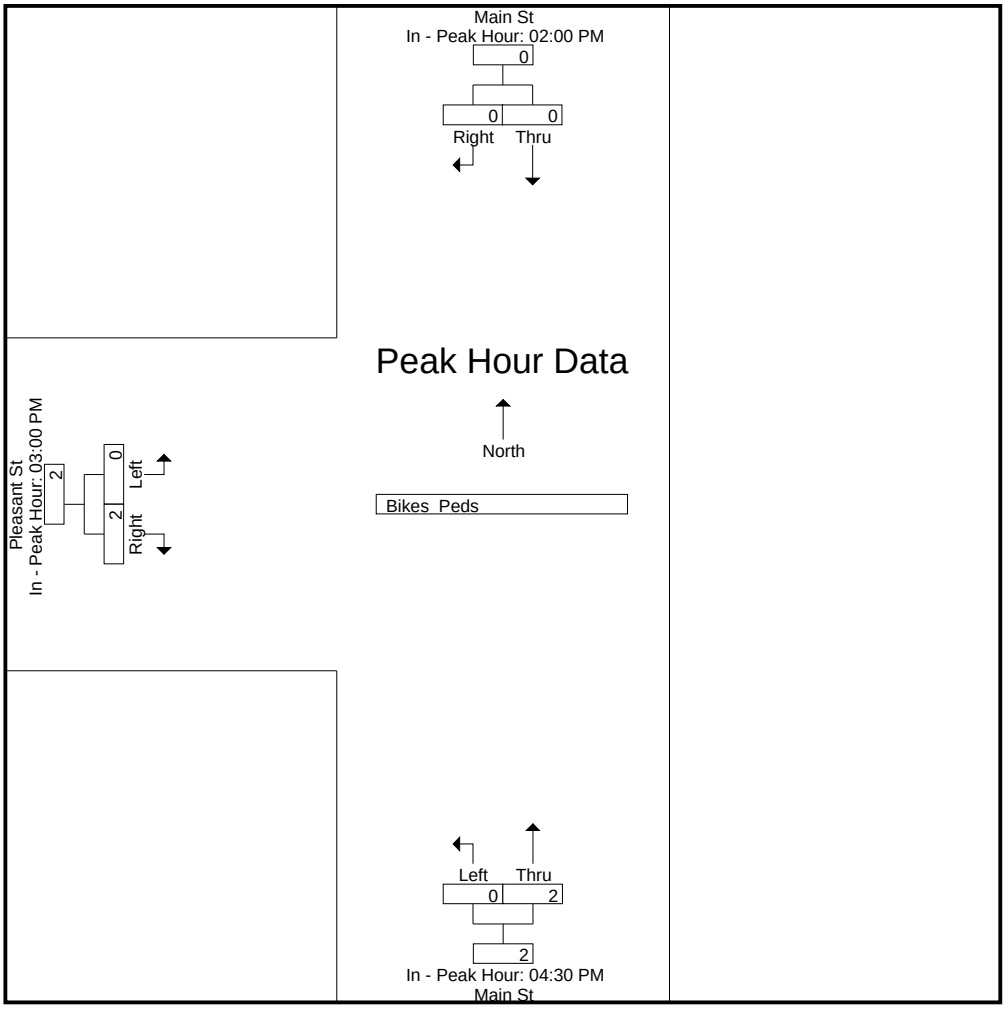
	02:00 PM			04:30 PM			03:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	**2**	**2**	0	**2**	**2**
Total Volume	0	0	0	0	2	2	0	2	2
% App. Total	0	0		0	100		0	100	
PHF	.000	.000	.000	.000	.250	.250	.000	.250	.250

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Pleasant Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370001
Site Code : 98370001
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North		Front St From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	45	80	2	27	90	19	263
07:15 AM	50	91	6	21	99	23	290
07:30 AM	49	108	28	49	113	38	385
07:45 AM	77	117	13	47	127	18	399
Total	221	396	49	144	429	98	1337
08:00 AM	71	116	12	39	121	24	383
08:15 AM	57	108	11	42	145	29	392
08:30 AM	43	108	15	31	134	17	348
08:45 AM	39	95	15	18	108	17	292
Total	210	427	53	130	508	87	1415
Grand Total	431	823	102	274	937	185	2752
Apprch %	34.4	65.6	27.1	72.9	83.5	16.5	
Total %	15.7	29.9	3.7	10	34	6.7	
Cars	420	809	101	268	926	180	2704
% Cars	97.4	98.3	99	97.8	98.8	97.3	98.3
Trucks	11	14	1	6	11	5	48
% Trucks	2.6	1.7	1	2.2	1.2	2.7	1.7

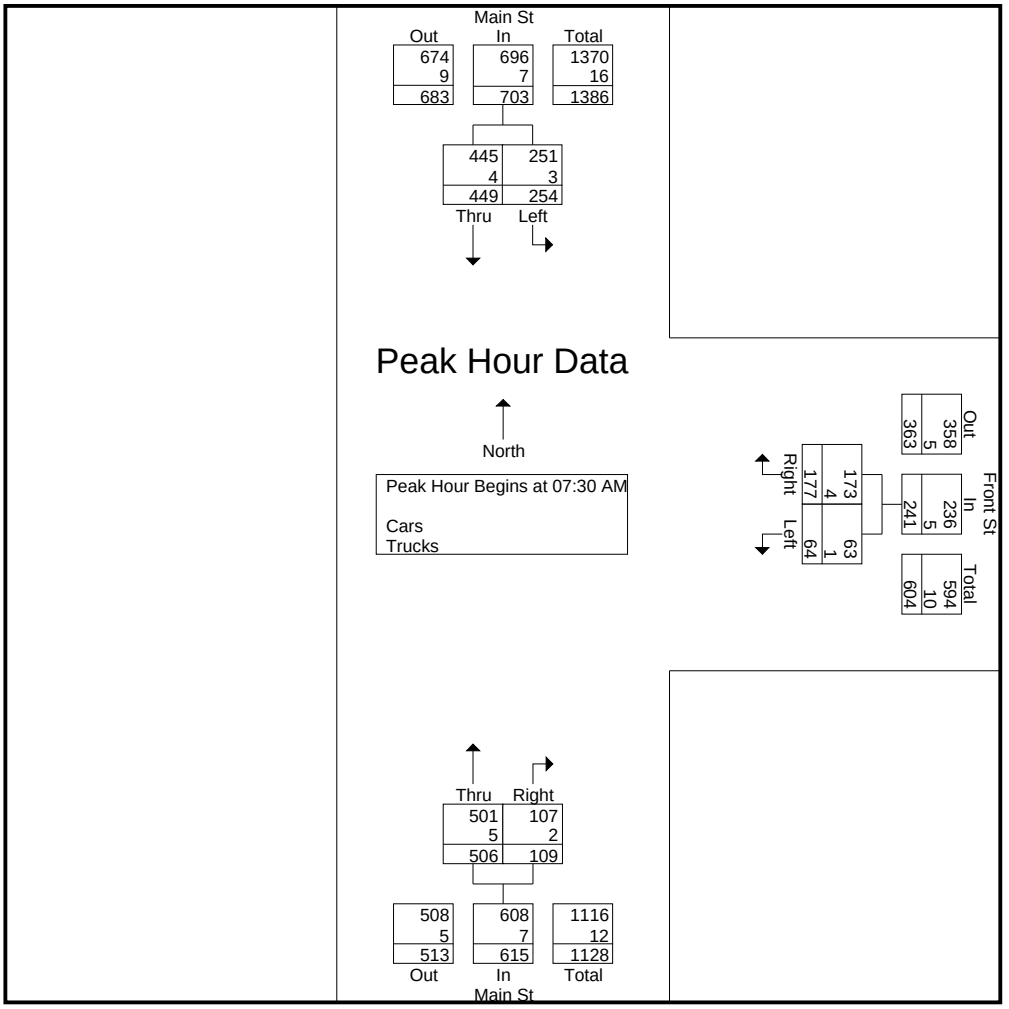
	Main St From North			Front St From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	49	108	157	**28**	**49**	**77**	113	**38**	151	385
07:45 AM	**77**	**117**	**194**	13	47	60	127	18	145	**399**
08:00 AM	71	116	187	12	39	51	121	24	145	383
08:15 AM	57	108	165	11	42	53	**145**	29	**174**	392
Total Volume	254	449	703	64	177	241	506	109	615	1559
% App. Total	36.1	63.9		26.6	73.4		82.3	17.7		
PHF	.825	.959	.906	.571	.903	.782	.872	.717	.884	.977
Cars	251	445	696	63	173	236	501	107	608	1540
% Cars	98.8	99.1	99.0	98.4	97.7	97.9	99.0	98.2	98.9	98.8
Trucks	3	4	7	1	4	5	5	2	7	19
% Trucks	1.2	0.9	1.0	1.6	2.3	2.1	1.0	1.8	1.1	1.2

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 2



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

Peak Hour for Each Approach Begins at:

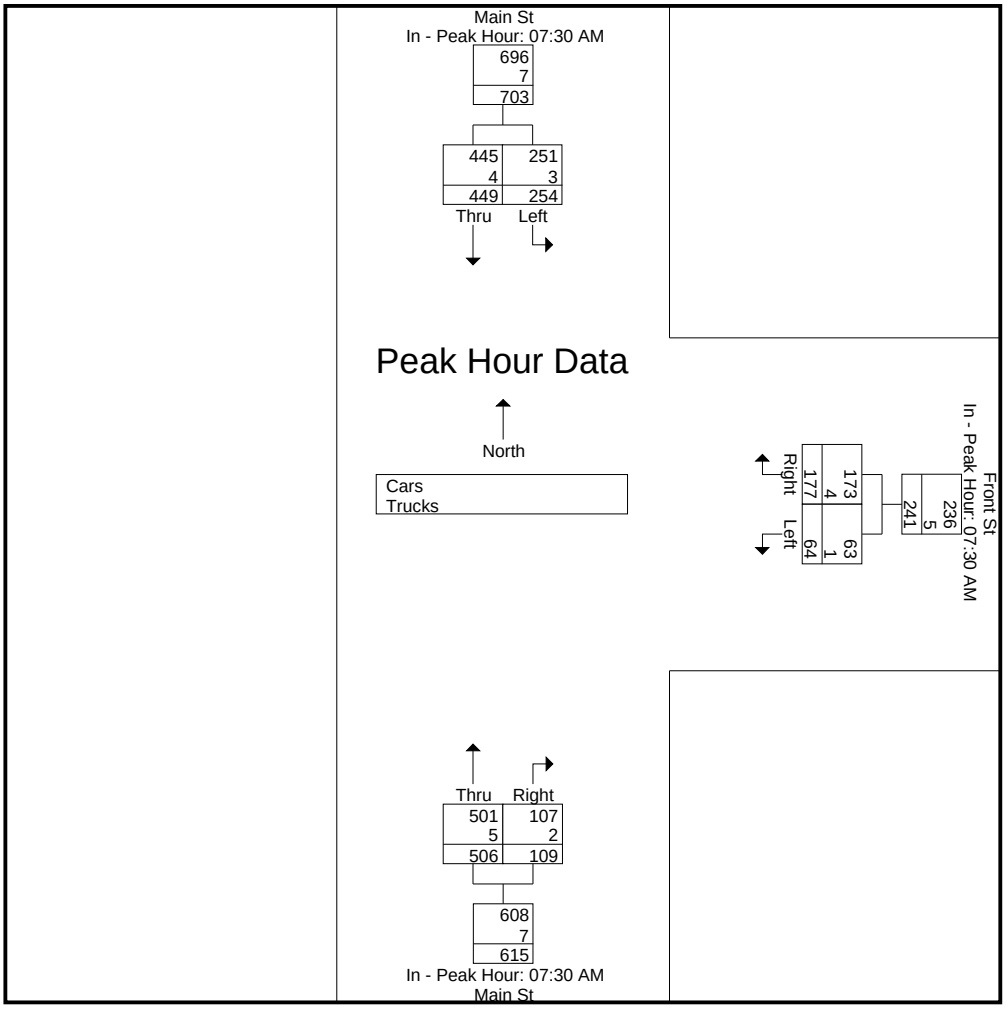
	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	49	108	157	**28**	**49**	**77**	113	**38**	151
+15 mins.	**77**	**117**	**194**	13	47	60	127	18	145
+30 mins.	71	116	187	12	39	51	121	24	145
+45 mins.	57	108	165	11	42	53	**145**	29	**174**
Total Volume	254	449	703	64	177	241	506	109	615
% App. Total	36.1	63.9		26.6	73.4		82.3	17.7	
PHF	.825	.959	.906	.571	.903	.782	.872	.717	.884
Cars	251	445	696	63	173	236	501	107	608
% Cars	98.8	99.1	99	98.4	97.7	97.9	99	98.2	98.9
Trucks	3	4	7	1	4	5	5	2	7
% Trucks	1.2	0.9	1	1.6	2.3	2.1	1	1.8	1.1

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024

Groups Printed- Cars

	Main St From North		Front St From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	44	80	2	27	86	17	256
07:15 AM	44	91	6	19	98	22	280
07:30 AM	48	107	27	46	113	37	378
07:45 AM	77	116	13	47	127	18	398
Total	213	394	48	139	424	94	1312
08:00 AM	70	116	12	39	119	24	380
08:15 AM	56	106	11	41	142	28	384
08:30 AM	43	102	15	31	133	17	341
08:45 AM	38	91	15	18	108	17	287
Total	207	415	53	129	502	86	1392
Grand Total	420	809	101	268	926	180	2704
Apprch %	34.2	65.8	27.4	72.6	83.7	16.3	
Total %	15.5	29.9	3.7	9.9	34.2	6.7	

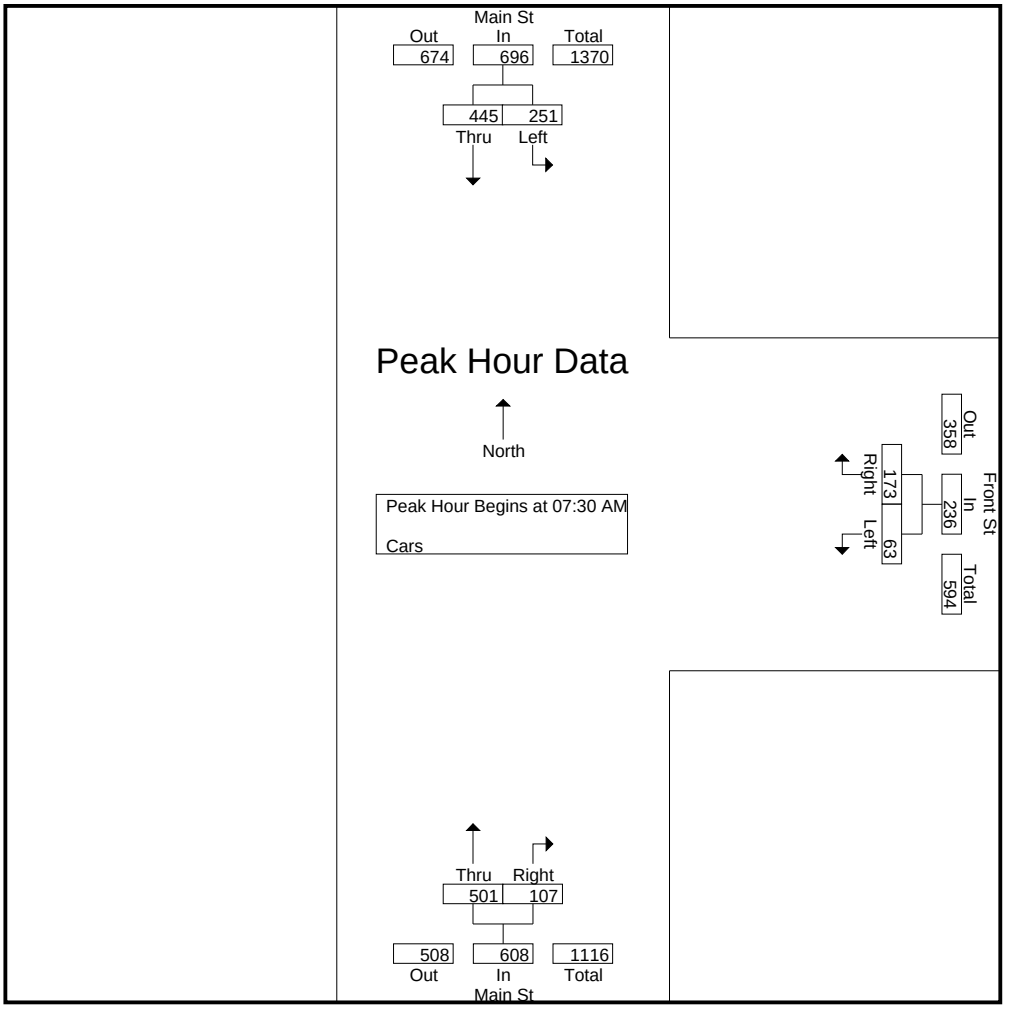
	Main St From North			Front St From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	48	107	155	**27**	46	**73**	113	**37**	150	378
07:45 AM	**77**	**116**	**193**	13	**47**	60	127	18	145	**398**
08:00 AM	70	116	186	12	39	51	119	24	143	380
08:15 AM	56	106	162	11	41	52	**142**	28	**170**	384
Total Volume	251	445	696	63	173	236	501	107	608	1540
% App. Total	36.1	63.9		26.7	73.3		82.4	17.6		
PHF	.815	.959	.902	.583	.920	.808	.882	.723	.894	.967

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 5



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

Peak Hour for Each Approach Begins at:

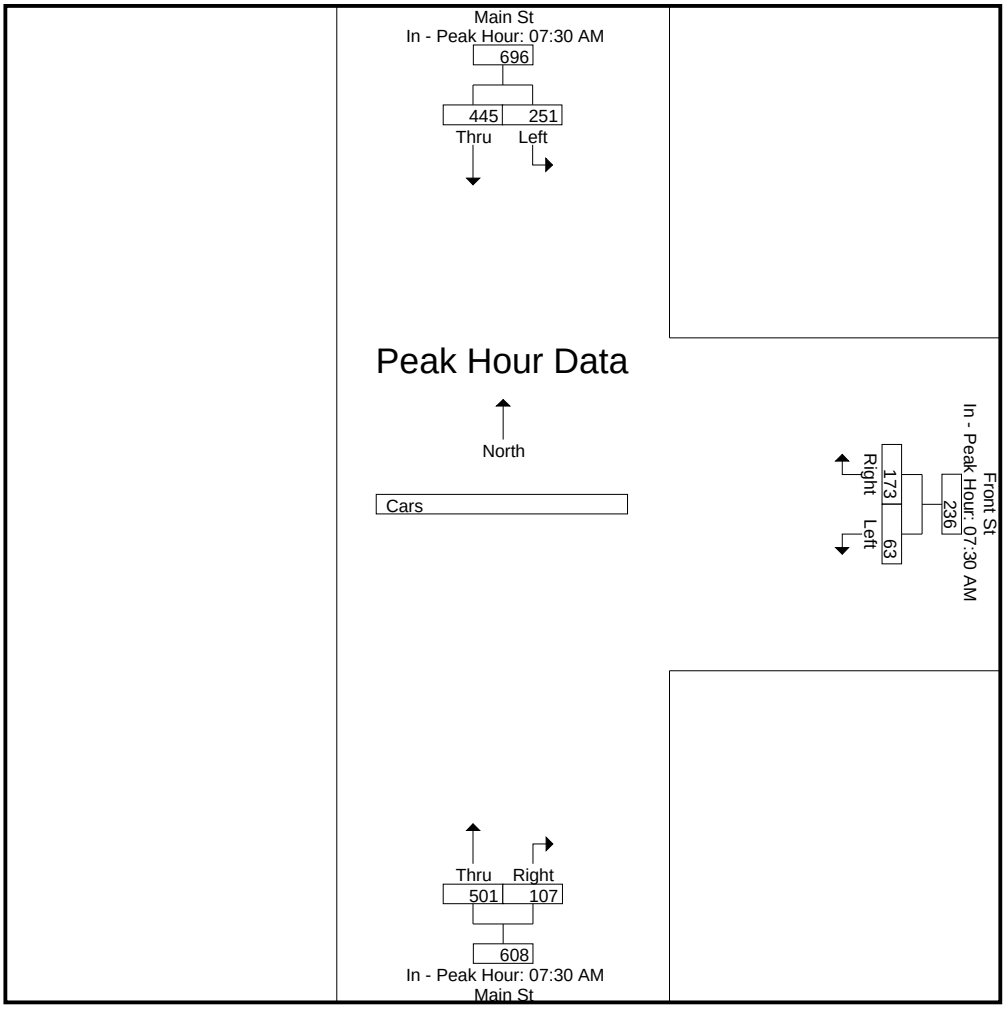
	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	48	107	155	**27**	46	**73**	113	**37**	150
+15 mins.	**77**	**116**	**193**	13	**47**	60	127	18	145
+30 mins.	70	116	186	12	39	51	119	24	143
+45 mins.	56	106	162	11	41	52	**142**	28	**170**
Total Volume	251	445	696	63	173	236	501	107	608
% App. Total	36.1	63.9		26.7	73.3		82.4	17.6	
PHF	.815	.959	.902	.583	.920	.808	.882	.723	.894

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024

Groups Printed- Trucks

	Main St From North		Front St From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	1	0	0	0	4	2	7
07:15 AM	6	0	0	2	1	1	10
07:30 AM	1	1	1	3	0	1	7
07:45 AM	0	1	0	0	0	0	1
Total	8	2	1	5	5	4	25
08:00 AM	1	0	0	0	2	0	3
08:15 AM	1	2	0	1	3	1	8
08:30 AM	0	6	0	0	1	0	7
08:45 AM	1	4	0	0	0	0	5
Total	3	12	0	1	6	1	23
Grand Total	11	14	1	6	11	5	48
Apprch %	44	56	14.3	85.7	68.8	31.2	
Total %	22.9	29.2	2.1	12.5	22.9	10.4	

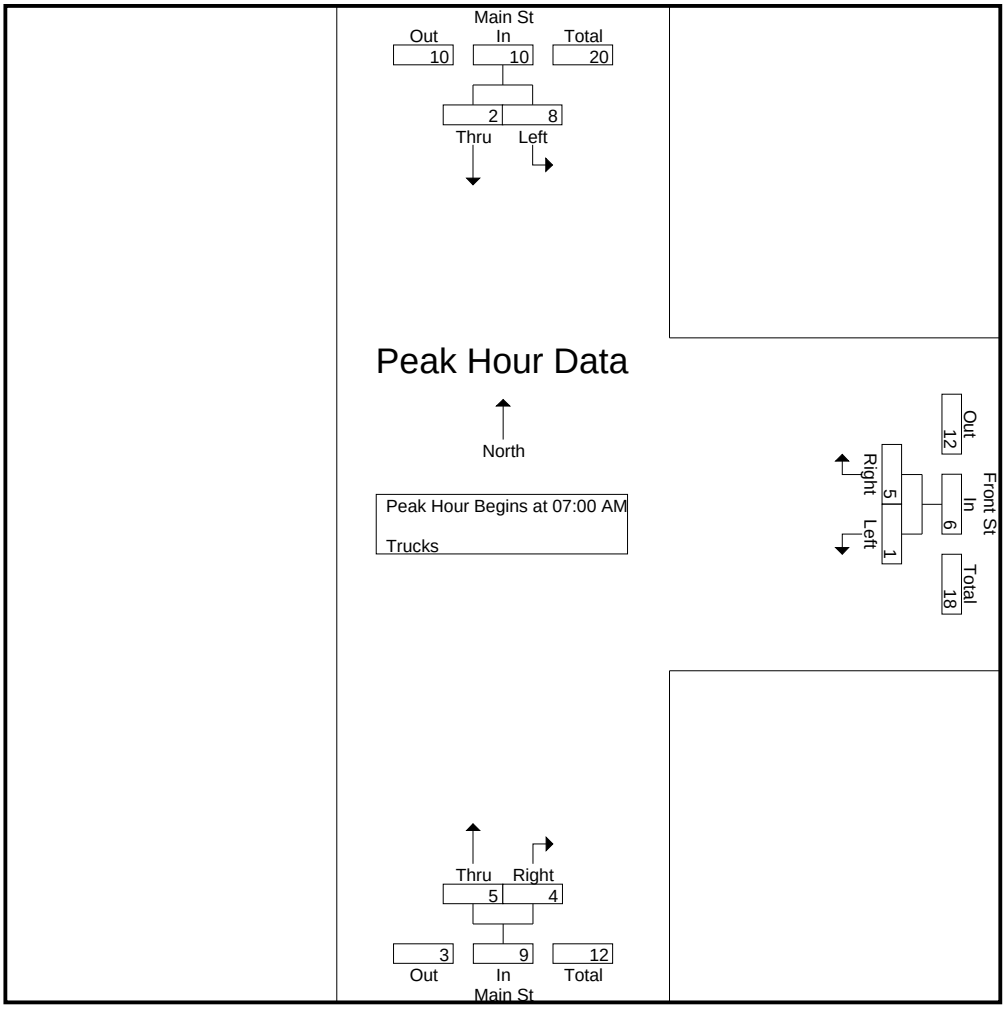
	Main St From North			Front St From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	0	1	0	0	0	**4**	**2**	**6**	7
07:15 AM	**6**	0	**6**	0	2	2	1	1	2	**10**
07:30 AM	1	**1**	2	**1**	**3**	**4**	0	1	1	7
07:45 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	8	2	10	1	5	6	5	4	9	25
% App. Total	80	20		16.7	83.3		55.6	44.4		
PHF	.333	.500	.417	.250	.417	.375	.313	.500	.375	.625

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 8



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

Peak Hour for Each Approach Begins at:

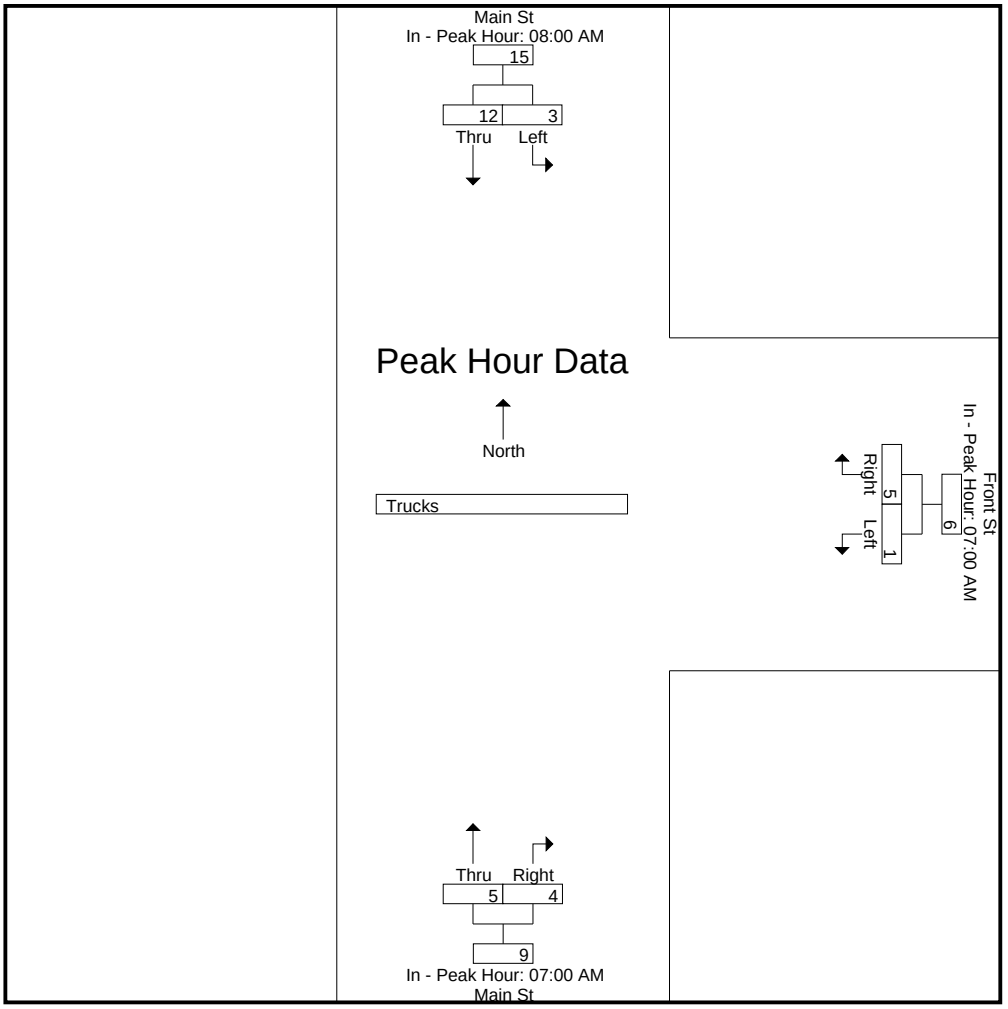
	08:00 AM			07:00 AM			07:00 AM		
+0 mins.	**1**	0	1	0	0	0	**4**	**2**	**6**
+15 mins.	1	2	3	0	2	2	1	1	2
+30 mins.	0	**6**	**6**	**1**	**3**	**4**	0	1	1
+45 mins.	1	4	5	0	0	0	0	0	0
Total Volume	3	12	15	1	5	6	5	4	9
% App. Total	20	80		16.7	83.3		55.6	44.4	
PHF	.750	.500	.625	.250	.417	.375	.313	.500	.375

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Main St From North			Front St From East			Main St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	2	2	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	2	2	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	1
Grand Total	0	0	0	0	0	1	0	0	2	3	0	3
Apprch %	0	0		0	0		0	0				
Total %										100	0	

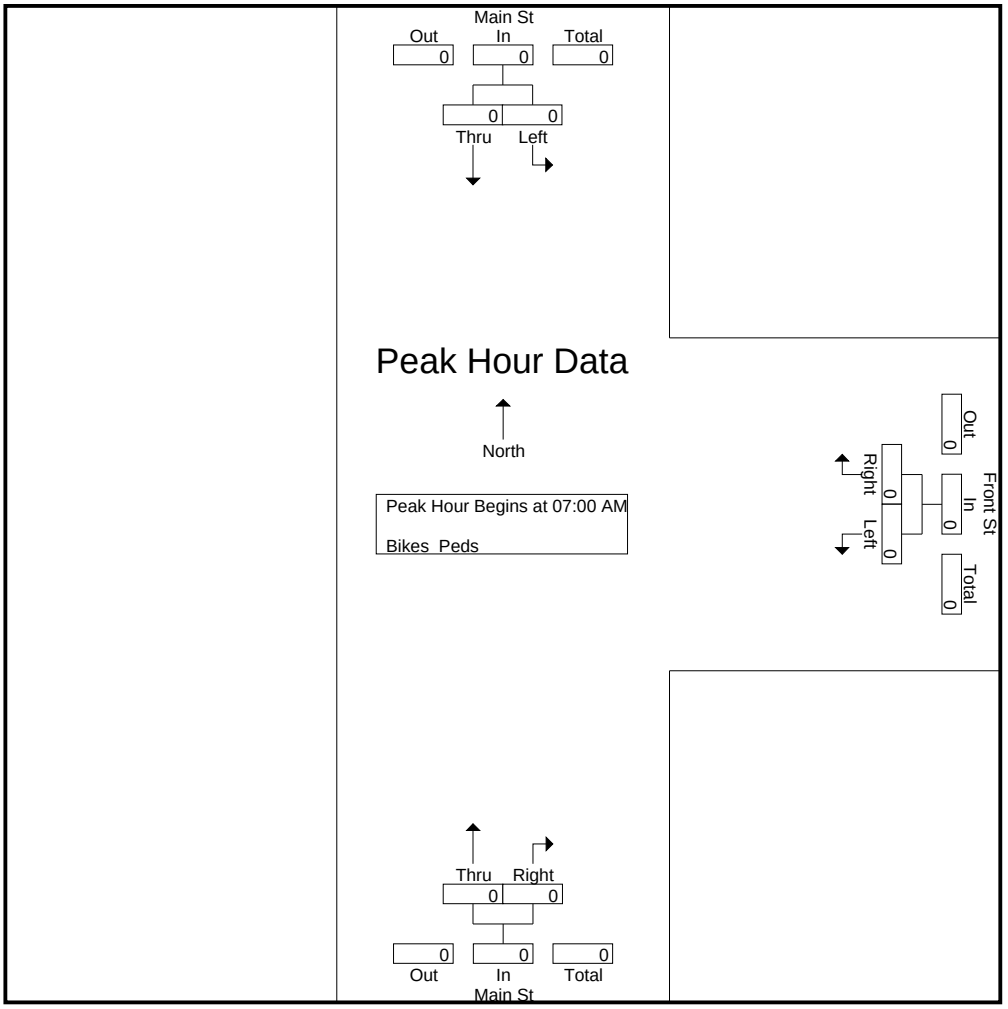
	Main St From North			Front St From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 11



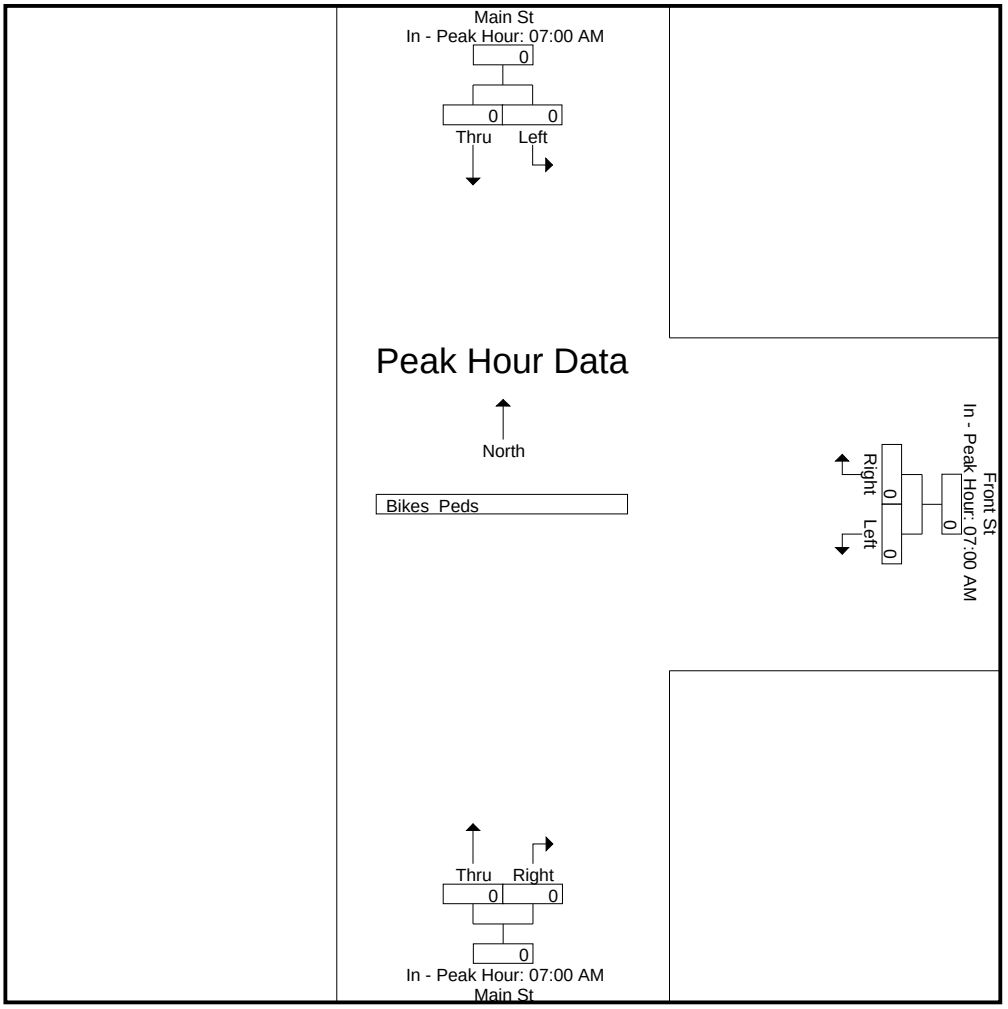
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+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	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North		Front St From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	21	83	30	43	71	13	261
02:15 PM	24	71	15	43	64	10	227
02:30 PM	31	116	18	33	91	16	305
02:45 PM	32	97	16	72	108	19	344
Total	108	367	79	191	334	58	1137
03:00 PM	43	95	25	43	106	9	321
03:15 PM	44	127	14	36	107	13	341
03:30 PM	35	131	19	65	102	10	362
03:45 PM	37	123	23	44	122	16	365
Total	159	476	81	188	437	48	1389
04:00 PM	35	126	21	52	120	24	378
04:15 PM	36	148	19	42	128	16	389
04:30 PM	31	129	21	62	131	18	392
04:45 PM	41	146	26	54	133	16	416
Total	143	549	87	210	512	74	1575
05:00 PM	38	161	23	67	116	13	418
05:15 PM	29	152	26	67	111	18	403
05:30 PM	46	140	20	54	120	18	398
05:45 PM	30	116	9	38	97	9	299
Total	143	569	78	226	444	58	1518
Grand Total	553	1961	325	815	1727	238	5619
Apprch %	22	78	28.5	71.5	87.9	12.1	
Total %	9.8	34.9	5.8	14.5	30.7	4.2	
Cars	549	1916	323	800	1696	236	5520
% Cars	99.3	97.7	99.4	98.2	98.2	99.2	98.2
Trucks	4	45	2	15	31	2	99
% Trucks	0.7	2.3	0.6	1.8	1.8	0.8	1.8

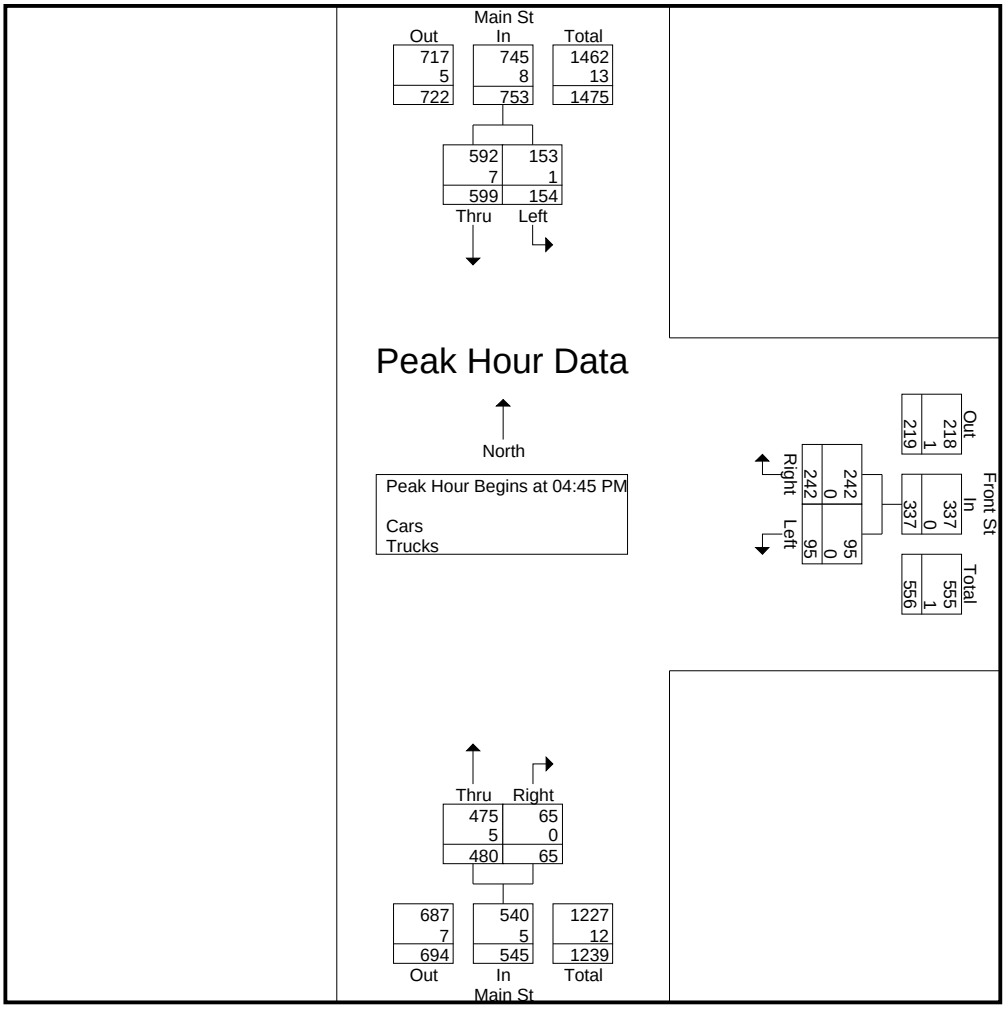
	Main St From North			Front St From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	41	146	187	**26**	54	80	**133**	16	**149**	416
05:00 PM	38	**161**	**199**	23	**67**	90	116	13	129	**418**
05:15 PM	29	152	181	26	67	**93**	111	**18**	129	403
05:30 PM	**46**	140	186	20	54	74	120	18	138	398
Total Volume	154	599	753	95	242	337	480	65	545	1635
% App. Total	20.5	79.5		28.2	71.8		88.1	11.9		
PHF	.837	.930	.946	.913	.903	.906	.902	.903	.914	.978
Cars	153	592	745	95	242	337	475	65	540	1622
% Cars	99.4	98.8	98.9	100	100	100	99.0	100	99.1	99.2
Trucks	1	7	8	0	0	0	5	0	5	13
% Trucks	0.6	1.2	1.1	0	0	0	1.0	0	0.9	0.8

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 2



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

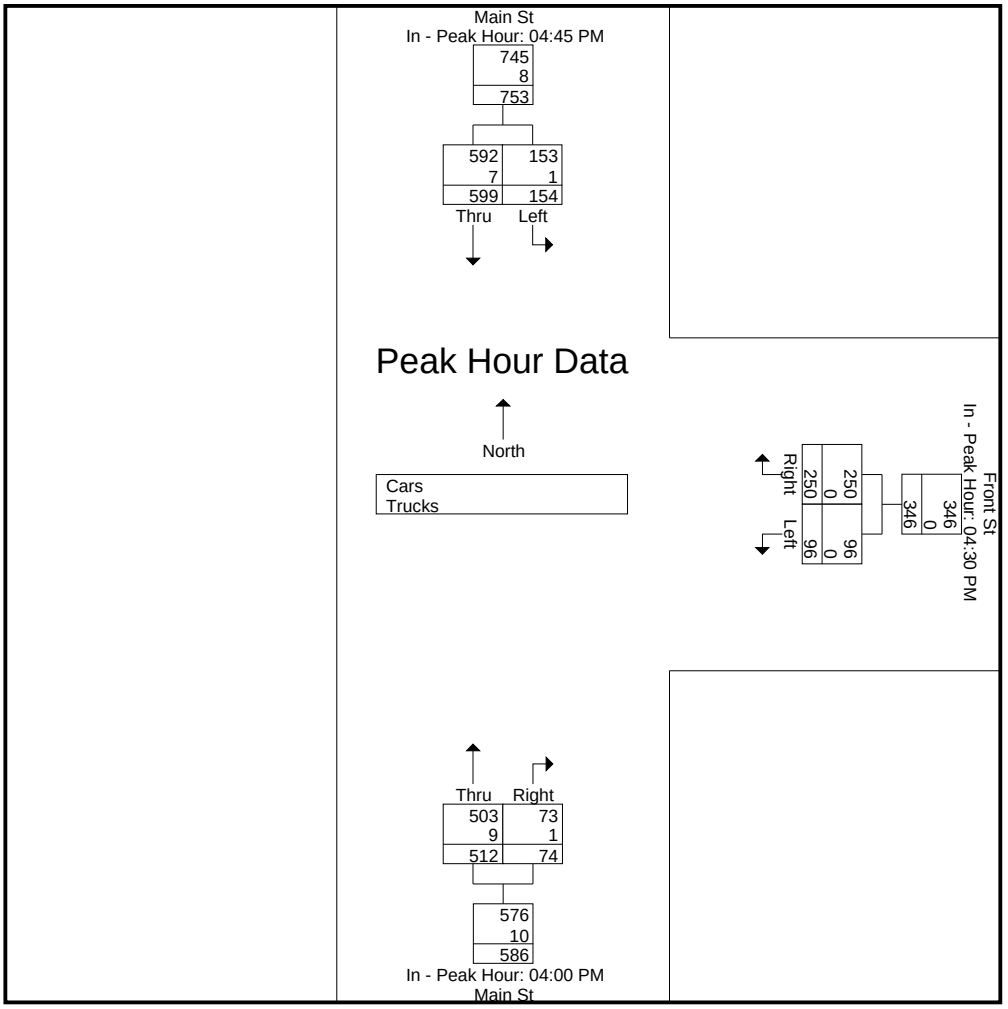
	04:45 PM			04:30 PM			04:00 PM		
+0 mins.	41	146	187	21	62	83	120	**24**	144
+15 mins.	38	**161**	**199**	**26**	54	80	128	16	144
+30 mins.	29	152	181	23	**67**	90	131	18	**149**
+45 mins.	**46**	140	186	26	67	**93**	**133**	16	149
Total Volume	154	599	753	96	250	346	512	74	586
% App. Total	20.5	79.5		27.7	72.3		87.4	12.6	
PHF	.837	.930	.946	.923	.933	.930	.962	.771	.983
Cars	153	592	745	96	250	346	503	73	576
% Cars	99.4	98.8	98.9	100	100	100	98.2	98.6	98.3
Trucks	1	7	8	0	0	0	9	1	10
% Trucks	0.6	1.2	1.1	0	0	0	1.8	1.4	1.7

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 4

Groups Printed- Cars

	Main St From North		Front St From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	21	82	28	35	69	13	248
02:15 PM	24	70	15	42	64	9	224
02:30 PM	30	112	18	30	91	16	297
02:45 PM	31	97	16	71	104	19	338
Total	106	361	77	178	328	57	1107
03:00 PM	42	93	25	43	103	9	315
03:15 PM	44	121	14	36	105	13	333
03:30 PM	35	126	19	64	96	10	350
03:45 PM	37	116	23	44	122	16	358
Total	158	456	81	187	426	48	1356
04:00 PM	35	121	21	52	118	23	370
04:15 PM	36	144	19	41	124	16	380
04:30 PM	31	128	21	62	130	18	390
04:45 PM	41	145	26	54	131	16	413
Total	143	538	87	209	503	73	1553
05:00 PM	37	161	23	67	116	13	417
05:15 PM	29	147	26	67	109	18	396
05:30 PM	46	139	20	54	119	18	396
05:45 PM	30	114	9	38	95	9	295
Total	142	561	78	226	439	58	1504
Grand Total	549	1916	323	800	1696	236	5520
Apprch %	22.3	77.7	28.8	71.2	87.8	12.2	
Total %	9.9	34.7	5.9	14.5	30.7	4.3	

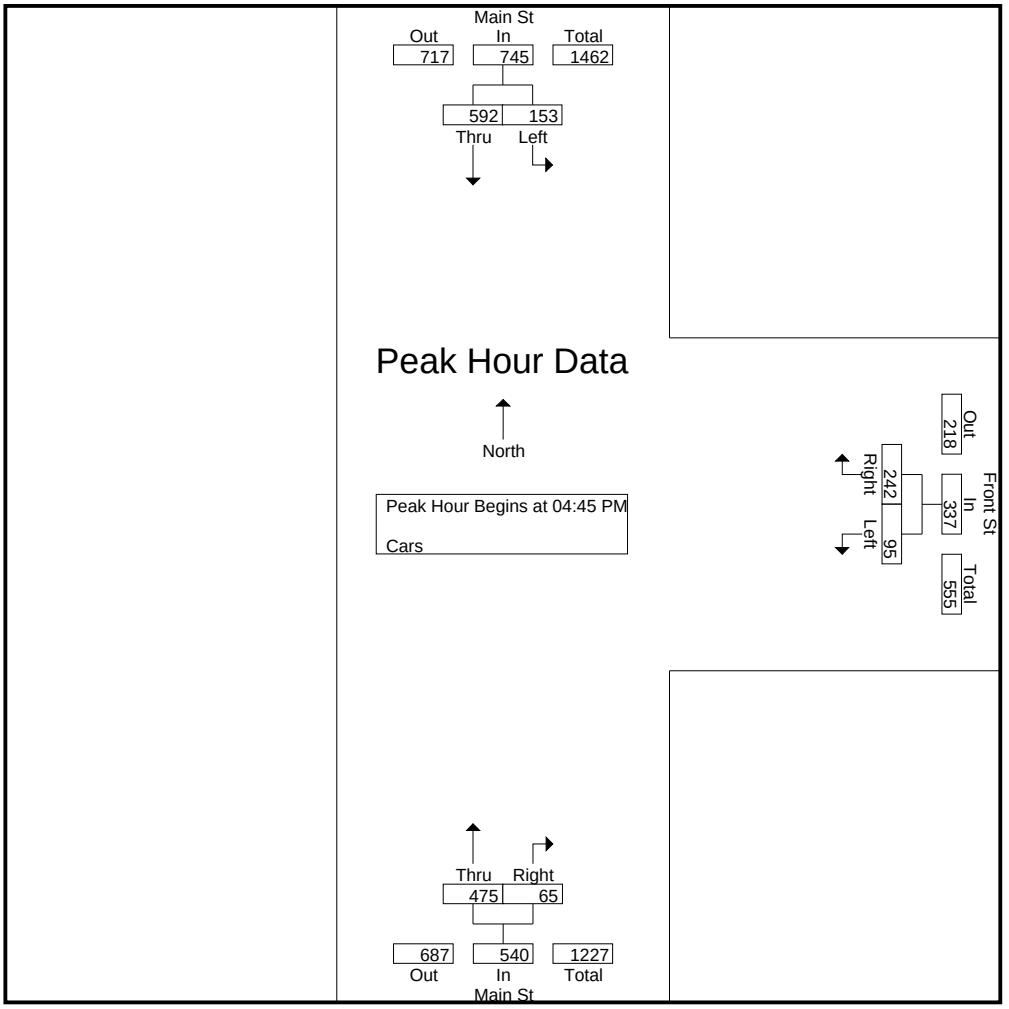
	Main St From North			Front St From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	41	145	186	**26**	54	80	**131**	16	**147**	413
05:00 PM	37	**161**	**198**	23	**67**	90	116	13	129	**417**
05:15 PM	29	147	176	26	67	**93**	109	**18**	127	396
05:30 PM	**46**	139	185	20	54	74	119	18	137	396
Total Volume	153	592	745	95	242	337	475	65	540	1622
% App. Total	20.5	79.5		28.2	71.8		88	12		
PHF	.832	.919	.941	.913	.903	.906	.906	.903	.918	.972

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 5



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

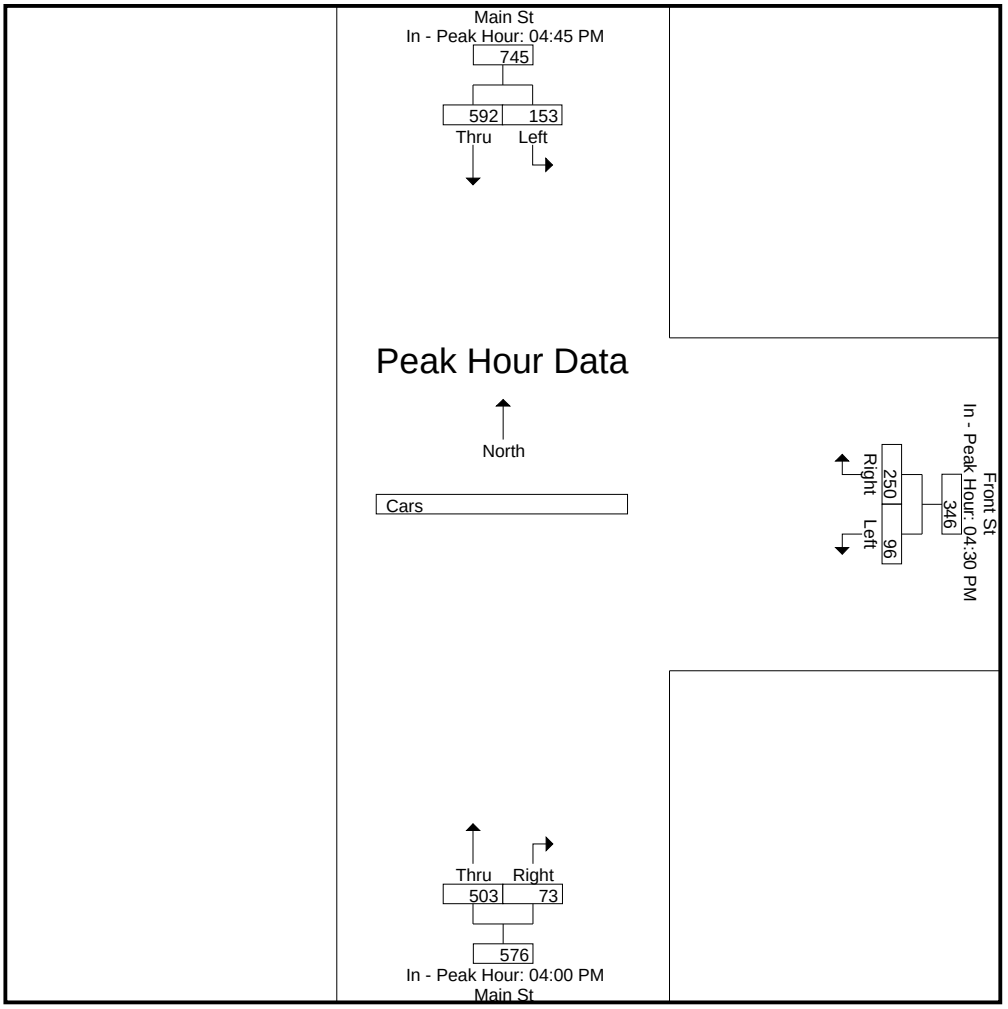
	04:45 PM			04:30 PM			04:00 PM		
+0 mins.	41	145	186	21	62	83	118	**23**	141
+15 mins.	37	**161**	**198**	**26**	54	80	124	16	140
+30 mins.	29	147	176	23	**67**	90	130	18	**148**
+45 mins.	**46**	139	185	26	67	**93**	**131**	16	147
Total Volume	153	592	745	96	250	346	503	73	576
% App. Total	20.5	79.5		27.7	72.3		87.3	12.7	
PHF	.832	.919	.941	.923	.933	.930	.960	.793	.973

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024

Groups Printed- Trucks

	Main St From North		Front St From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	0	1	2	8	2	0	13
02:15 PM	0	1	0	1	0	1	3
02:30 PM	1	4	0	3	0	0	8
02:45 PM	1	0	0	1	4	0	6
Total	2	6	2	13	6	1	30
03:00 PM	1	2	0	0	3	0	6
03:15 PM	0	6	0	0	2	0	8
03:30 PM	0	5	0	1	6	0	12
03:45 PM	0	7	0	0	0	0	7
Total	1	20	0	1	11	0	33
04:00 PM	0	5	0	0	2	1	8
04:15 PM	0	4	0	1	4	0	9
04:30 PM	0	1	0	0	1	0	2
04:45 PM	0	1	0	0	2	0	3
Total	0	11	0	1	9	1	22
05:00 PM	1	0	0	0	0	0	1
05:15 PM	0	5	0	0	2	0	7
05:30 PM	0	1	0	0	1	0	2
05:45 PM	0	2	0	0	2	0	4
Total	1	8	0	0	5	0	14
Grand Total	4	45	2	15	31	2	99
Apprch %	8.2	91.8	11.8	88.2	93.9	6.1	
Total %	4	45.5	2	15.2	31.3	2	

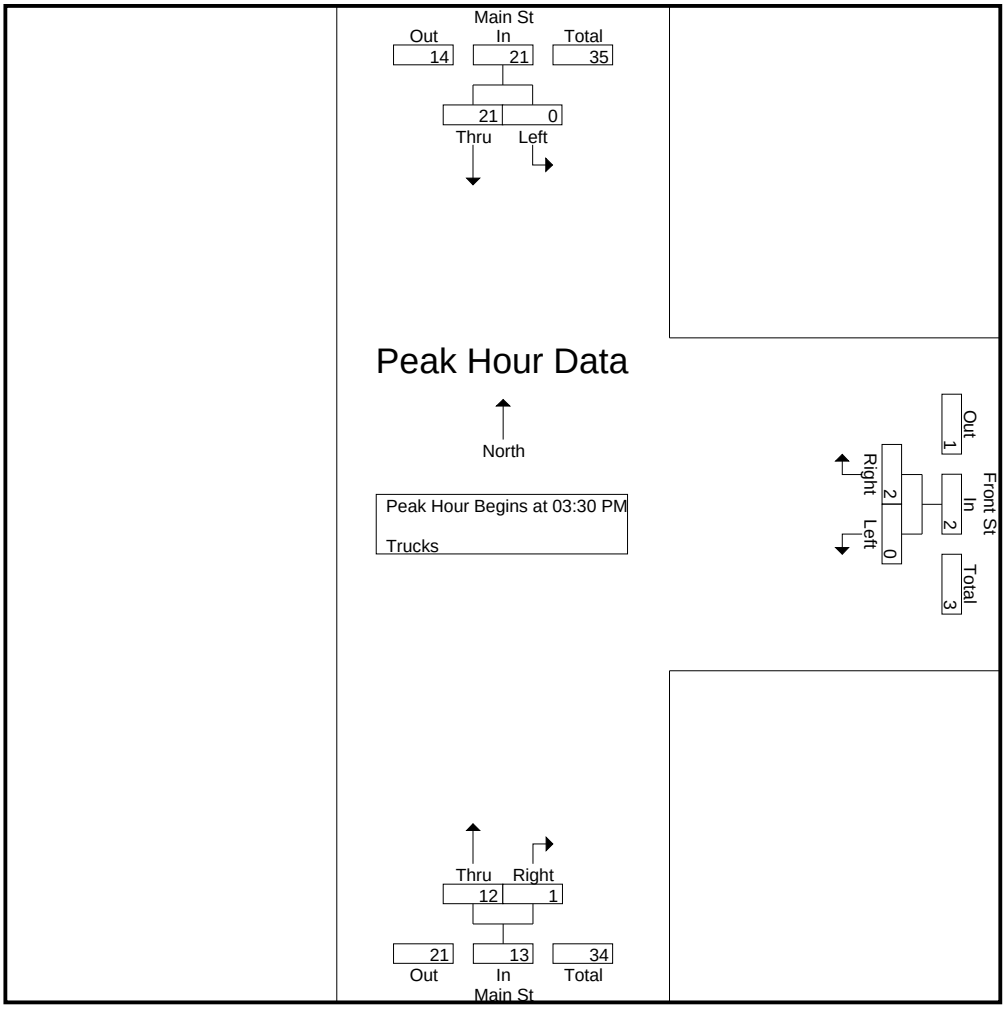
	Main St From North			Front St From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	0	5	5	0	**1**	**1**	**6**	0	**6**	**12**
03:45 PM	0	**7**	**7**	0	0	0	0	0	0	7
04:00 PM	0	5	5	0	0	0	2	**1**	3	8
04:15 PM	0	4	4	0	1	1	4	0	4	9
Total Volume	0	21	21	0	2	2	12	1	13	36
% App. Total	0	100		0	100		92.3	7.7		
PHF	.000	.750	.750	.000	.500	.500	.500	.250	.542	.750

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 8



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

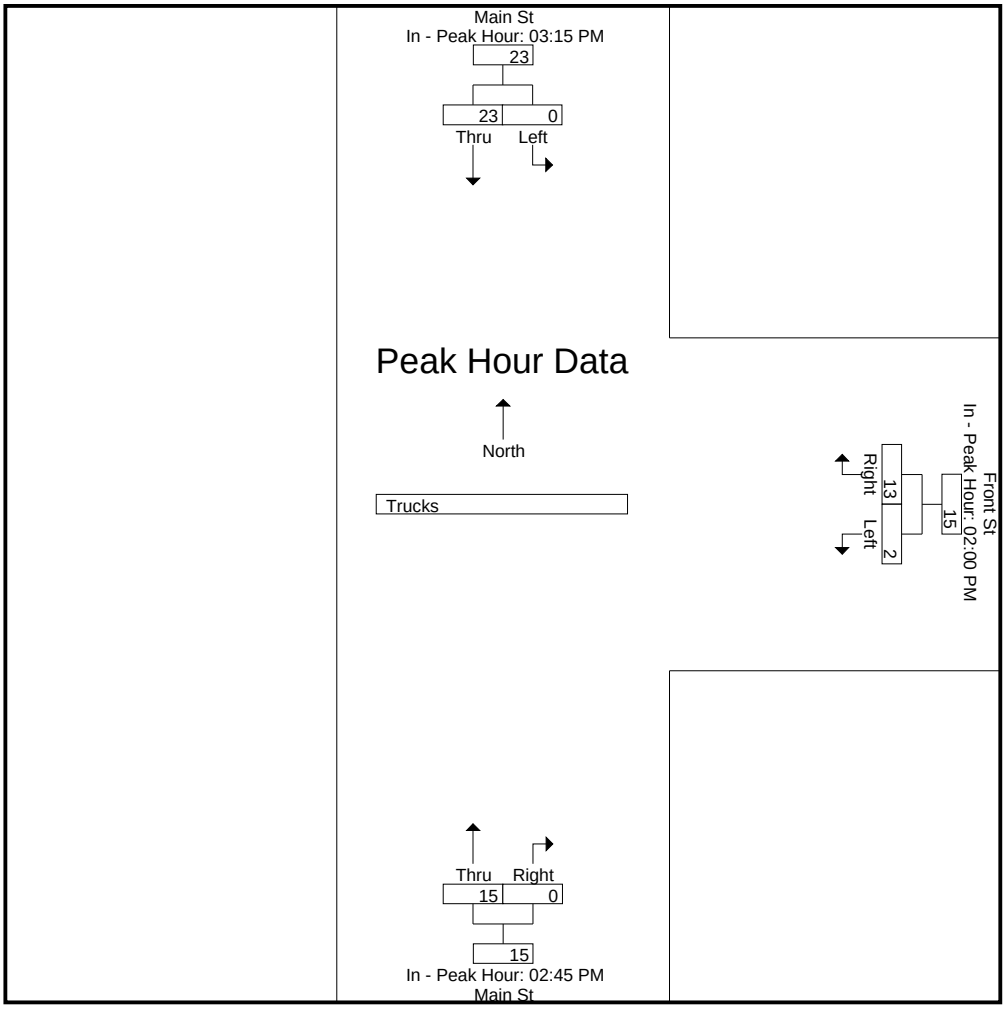
	03:15 PM			02:00 PM			02:45 PM		
+0 mins.	0	6	6	**2**	**8**	**10**	4	0	4
+15 mins.	0	5	5	0	1	1	3	0	3
+30 mins.	0	**7**	**7**	0	3	3	2	0	2
+45 mins.	0	5	5	0	1	1	**6**	0	**6**
Total Volume	0	23	23	2	13	15	15	0	15
% App. Total	0	100		13.3	86.7		100	0	
PHF	.000	.821	.821	.250	.406	.375	.625	.000	.625

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Main St From North			Front St From East			Main St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
02:00 PM	0	0	3	0	0	0	0	0	0	3	0	3
02:15 PM	0	0	1	0	0	1	0	0	3	5	0	5
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	1	0	0	0	0	0	0	1	0	1
Total	0	0	5	0	0	1	0	0	3	9	0	9
03:00 PM	0	0	1	0	0	2	0	0	0	3	0	3
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	5	0	0	2	0	0	0	7	0	7
03:45 PM	0	0	2	0	0	0	0	0	0	2	0	2
Total	0	0	8	0	0	4	0	0	0	12	0	12
04:00 PM	0	0	0	0	0	4	0	0	0	4	0	4
04:15 PM	1	0	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	1	0	0	2	0	0	1	4	0	4
04:45 PM	0	0	2	0	0	0	0	0	0	2	0	2
Total	1	0	3	0	0	6	0	0	1	10	1	11
05:00 PM	0	0	1	0	0	0	0	0	0	1	0	1
05:15 PM	0	0	1	0	0	0	2	0	0	1	2	3
05:30 PM	0	0	0	0	0	0	0	0	2	2	0	2
05:45 PM	0	0	0	0	0	1	0	0	0	1	0	1
Total	0	0	2	0	0	1	2	0	2	5	2	7
Grand Total	1	0	18	0	0	12	2	0	6	36	3	39
Apprch %	100	0		0	0		100	0				
Total %	33.3	0		0	0		66.7	0		92.3	7.7	

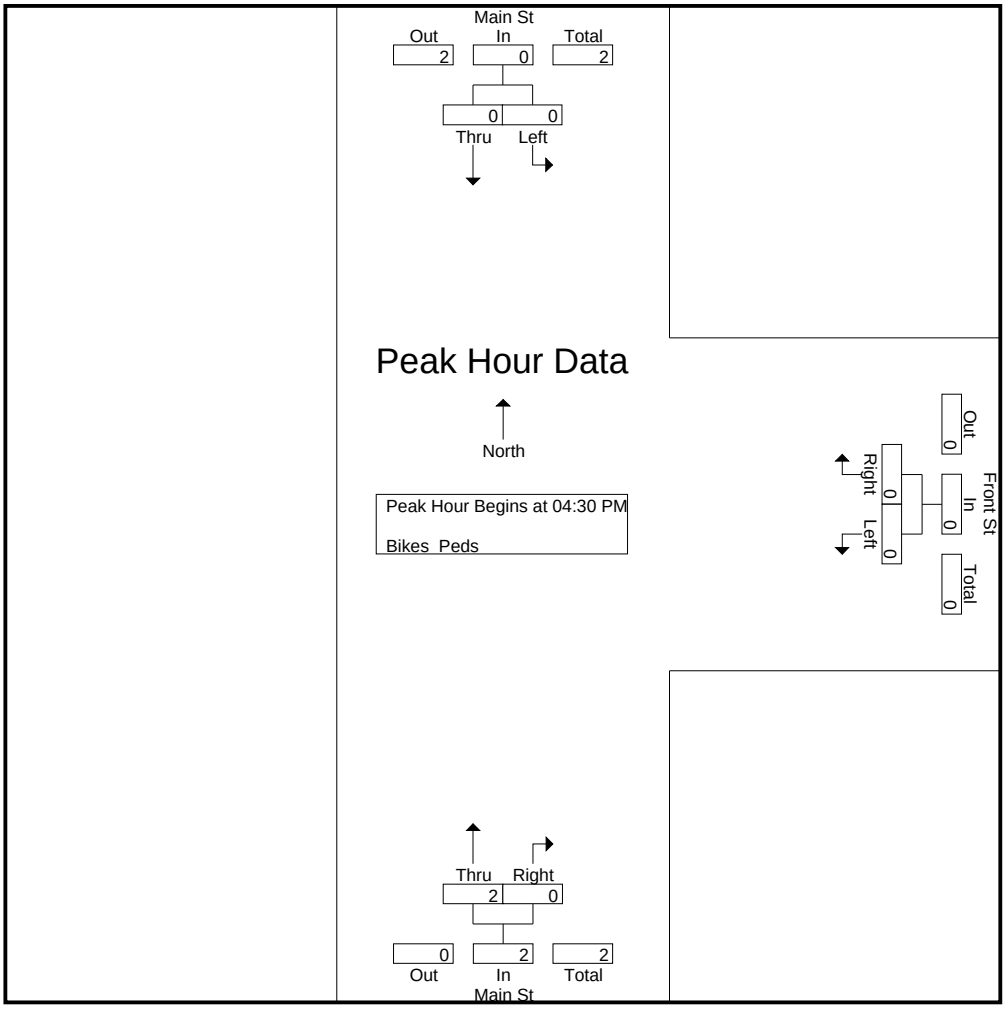
	Main St From North			Front St From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	**2**	0	**2**	**2**
Total Volume	0	0	0	0	0	0	2	0	2	2
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 11



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

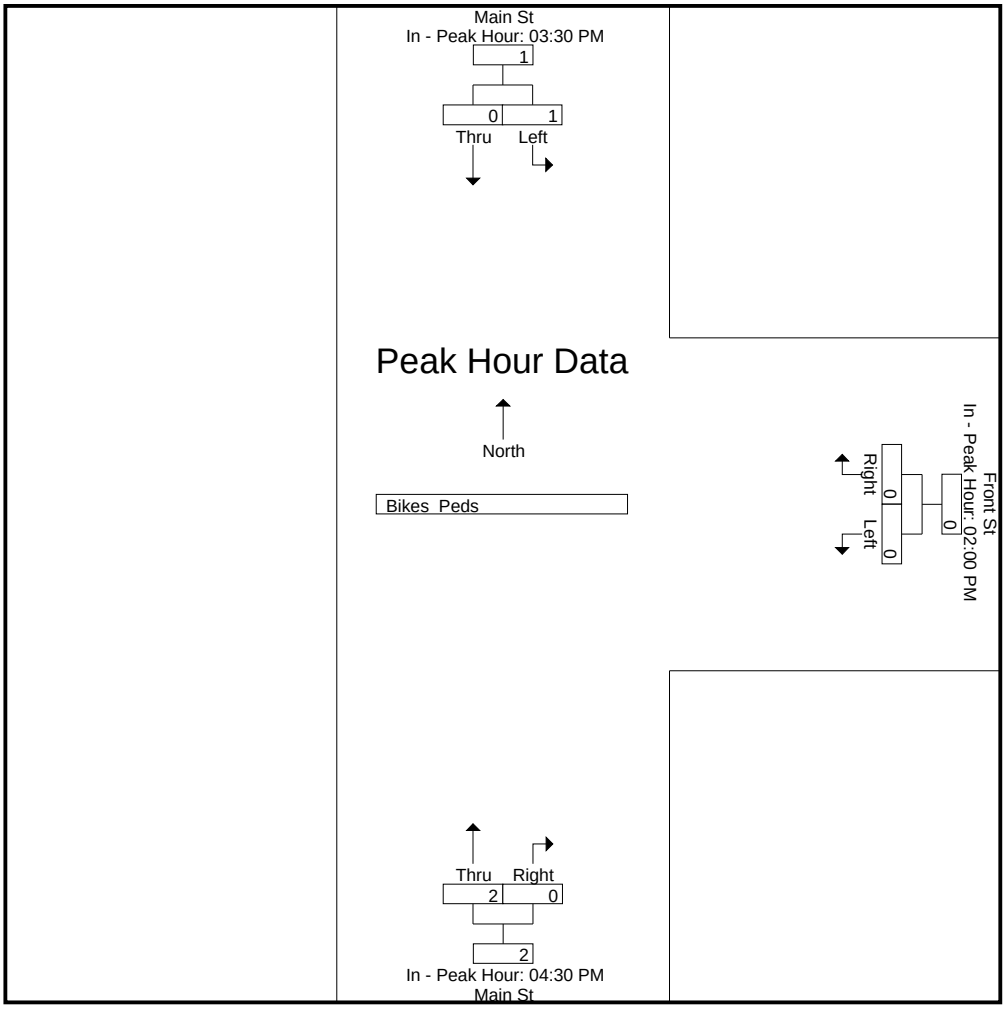
	03:30 PM			02:00 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	**1**	0	**1**	0	0	0	**2**	0	**2**
Total Volume	1	0	1	0	0	0	2	0	2
% App. Total	100	0		0	0		100	0	
PHF	.250	.000	.250	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Front Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370002
Site Code : 98370002
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North			Homer Ave From East			Main St From South			Summer St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	12	58	7	1	2	16	1	79	2	13	6	5	202
07:15 AM	24	60	9	0	2	18	0	84	0	20	0	2	219
07:30 AM	14	88	32	1	3	18	0	102	0	33	5	11	307
07:45 AM	23	87	15	0	1	22	2	100	2	22	8	9	291
Total	73	293	63	2	8	74	3	365	4	88	19	27	1019
08:00 AM	20	92	19	1	8	15	3	98	2	31	10	7	306
08:15 AM	20	87	11	0	4	29	3	105	0	43	10	6	318
08:30 AM	19	78	20	1	4	32	1	103	2	17	5	6	288
08:45 AM	22	69	19	0	1	11	2	88	0	24	3	3	242
Total	81	326	69	2	17	87	9	394	4	115	28	22	1154
Grand Total	154	619	132	4	25	161	12	759	8	203	47	49	2173
Apprch %	17	68.4	14.6	2.1	13.2	84.7	1.5	97.4	1	67.9	15.7	16.4	
Total %	7.1	28.5	6.1	0.2	1.2	7.4	0.6	34.9	0.4	9.3	2.2	2.3	
Cars	154	601	129	2	25	157	12	746	8	199	45	47	2125
% Cars	100	97.1	97.7	50	100	97.5	100	98.3	100	98	95.7	95.9	97.8
Trucks	0	18	3	2	0	4	0	13	0	4	2	2	48
% Trucks	0	2.9	2.3	50	0	2.5	0	1.7	0	2	4.3	4.1	2.2

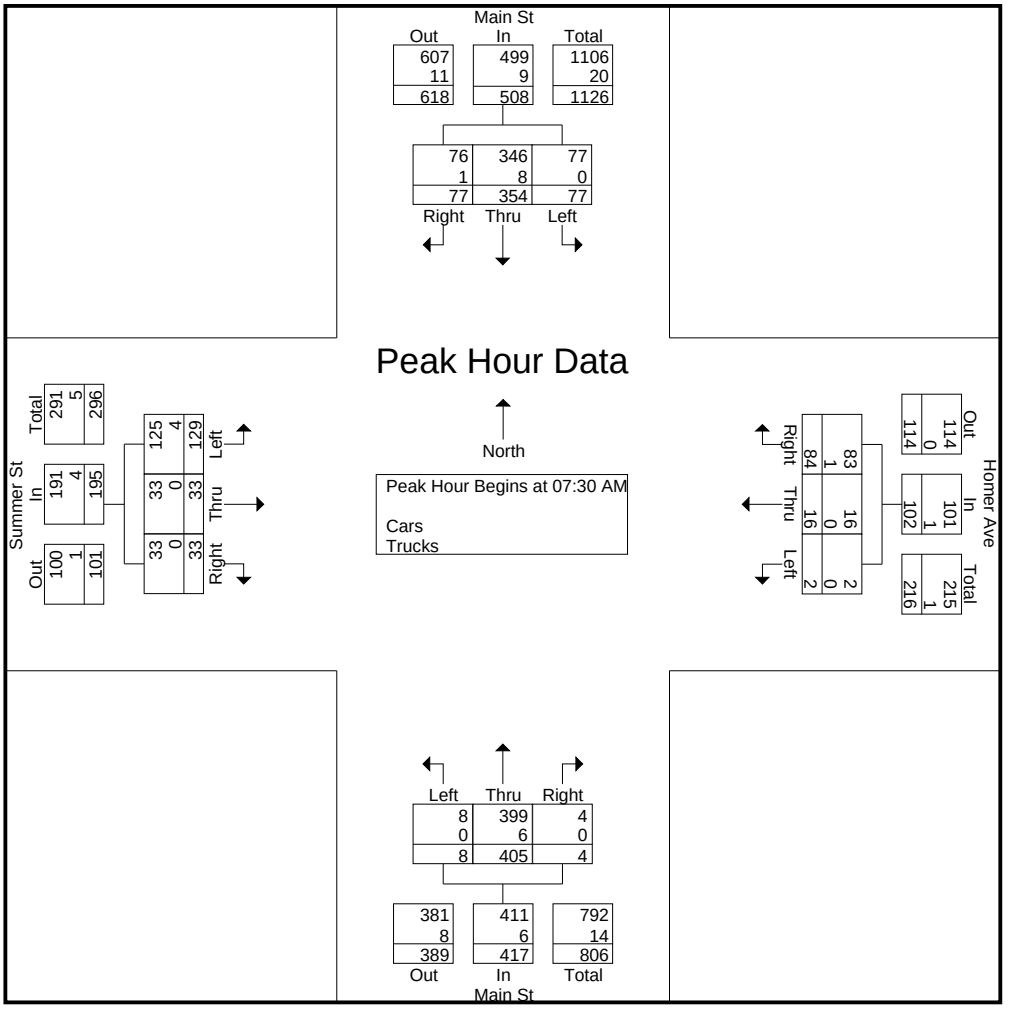
	Main St From North				Homer Ave From East				Main St From South				Summer St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	14	88	**32**	**134**	**1**	3	18	22	0	102	0	102	33	5	**11**	49	307
07:45 AM	**23**	87	15	125	0	1	22	23	2	100	**2**	104	22	8	9	39	291
08:00 AM	20	**92**	19	131	1	**8**	15	24	**3**	98	2	103	31	**10**	7	48	306
08:15 AM	20	87	11	118	0	4	**29**	**33**	3	**105**	0	**108**	**43**	10	6	**59**	**318**
Total Volume	77	354	77	508	2	16	84	102	8	405	4	417	129	33	33	195	1222
% App. Total	15.2	69.7	15.2		2	15.7	82.4		1.9	97.1	1		66.2	16.9	16.9		
PHF	.837	.962	.602	.948	.500	.500	.724	.773	.667	.964	.500	.965	.750	.825	.750	.826	.961
Cars	77	346	76	499	2	16	83	101	8	399	4	411	125	33	33	191	1202
% Cars	100	97.7	98.7	98.2	100	100	98.8	99.0	100	98.5	100	98.6	96.9	100	100	97.9	98.4
Trucks	0	8	1	9	0	0	1	1	0	6	0	6	4	0	0	4	20
% Trucks	0	2.3	1.3	1.8	0	0	1.2	1.0	0	1.5	0	1.4	3.1	0	0	2.1	1.6

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 2



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

Peak Hour for Each Approach Begins at:

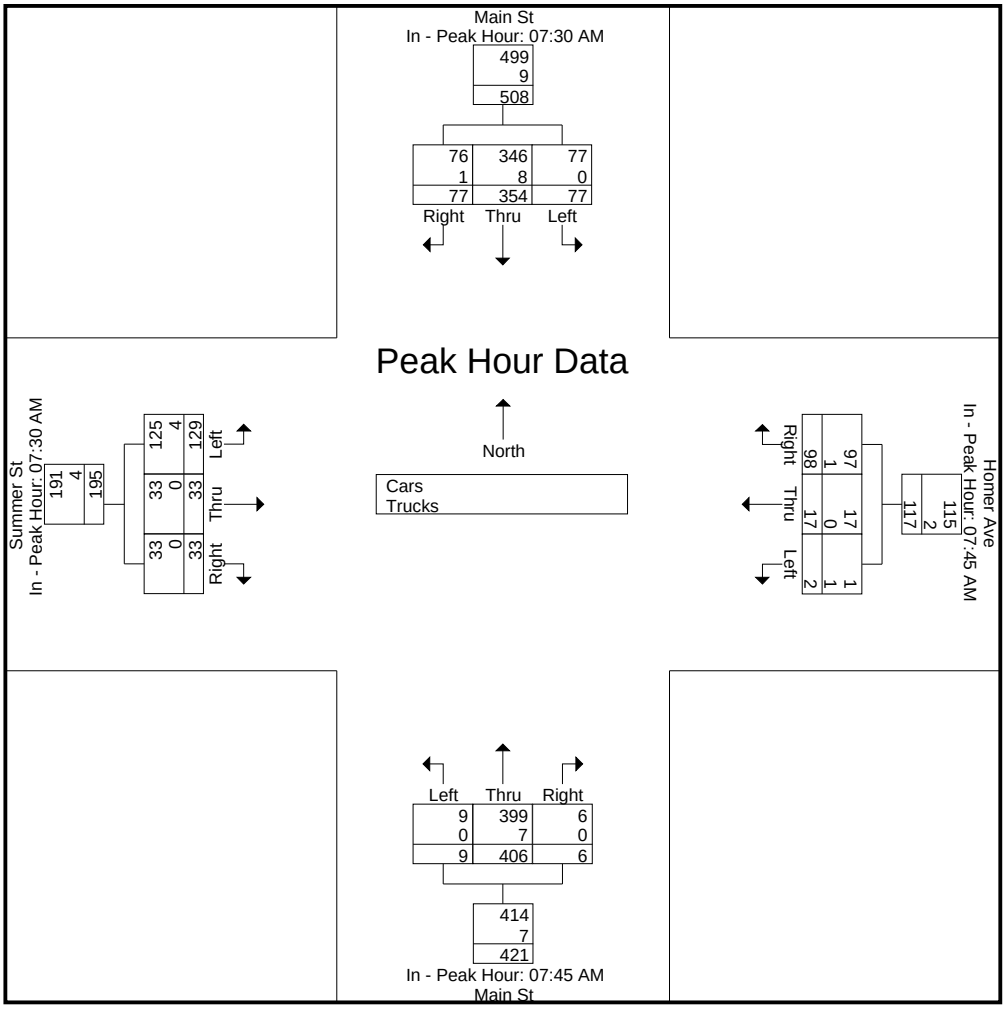
	07:30 AM				07:45 AM				07:45 AM				07:30 AM			
+0 mins.	14	88	**32**	**134**	0	1	22	23	2	100	**2**	104	33	5	**11**	49
+15 mins.	**23**	87	15	125	**1**	**8**	15	24	**3**	98	2	103	22	8	9	39
+30 mins.	20	**92**	19	131	0	4	29	33	3	**105**	0	**108**	31	**10**	7	48
+45 mins.	20	87	11	118	1	4	**32**	**37**	1	103	2	106	**43**	10	6	**59**
Total Volume	77	354	77	508	2	17	98	117	9	406	6	421	129	33	33	195
% App. Total	15.2	69.7	15.2		1.7	14.5	83.8		2.1	96.4	1.4		66.2	16.9	16.9	
PHF	.837	.962	.602	.948	.500	.531	.766	.791	.750	.967	.750	.975	.750	.825	.750	.826
Cars	77	346	76	499	1	17	97	115	9	399	6	414	125	33	33	191
% Cars	100	97.7	98.7	98.2	50	100	99	98.3	100	98.3	100	98.3	96.9	100	100	97.9
Trucks	0	8	1	9	1	0	1	2	0	7	0	7	4	0	0	4
% Trucks	0	2.3	1.3	1.8	50	0	1	1.7	0	1.7	0	1.7	3.1	0	0	2.1

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024

Groups Printed- Cars

	Main St From North			Homer Ave From East			Main St From South			Summer St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	12	58	7	0	2	14	1	74	2	13	5	3	191
07:15 AM	24	60	9	0	2	17	0	83	0	20	0	2	217
07:30 AM	14	87	32	1	3	18	0	102	0	32	5	11	305
07:45 AM	23	87	14	0	1	22	2	98	2	22	8	9	288
Total	73	292	62	1	8	71	3	357	4	87	18	25	1001
08:00 AM	20	88	19	1	8	14	3	96	2	31	10	7	299
08:15 AM	20	84	11	0	4	29	3	103	0	40	10	6	310
08:30 AM	19	73	19	0	4	32	1	102	2	17	4	6	279
08:45 AM	22	64	18	0	1	11	2	88	0	24	3	3	236
Total	81	309	67	1	17	86	9	389	4	112	27	22	1124
Grand Total	154	601	129	2	25	157	12	746	8	199	45	47	2125
Apprch %	17.4	68	14.6	1.1	13.6	85.3	1.6	97.4	1	68.4	15.5	16.2	
Total %	7.2	28.3	6.1	0.1	1.2	7.4	0.6	35.1	0.4	9.4	2.1	2.2	

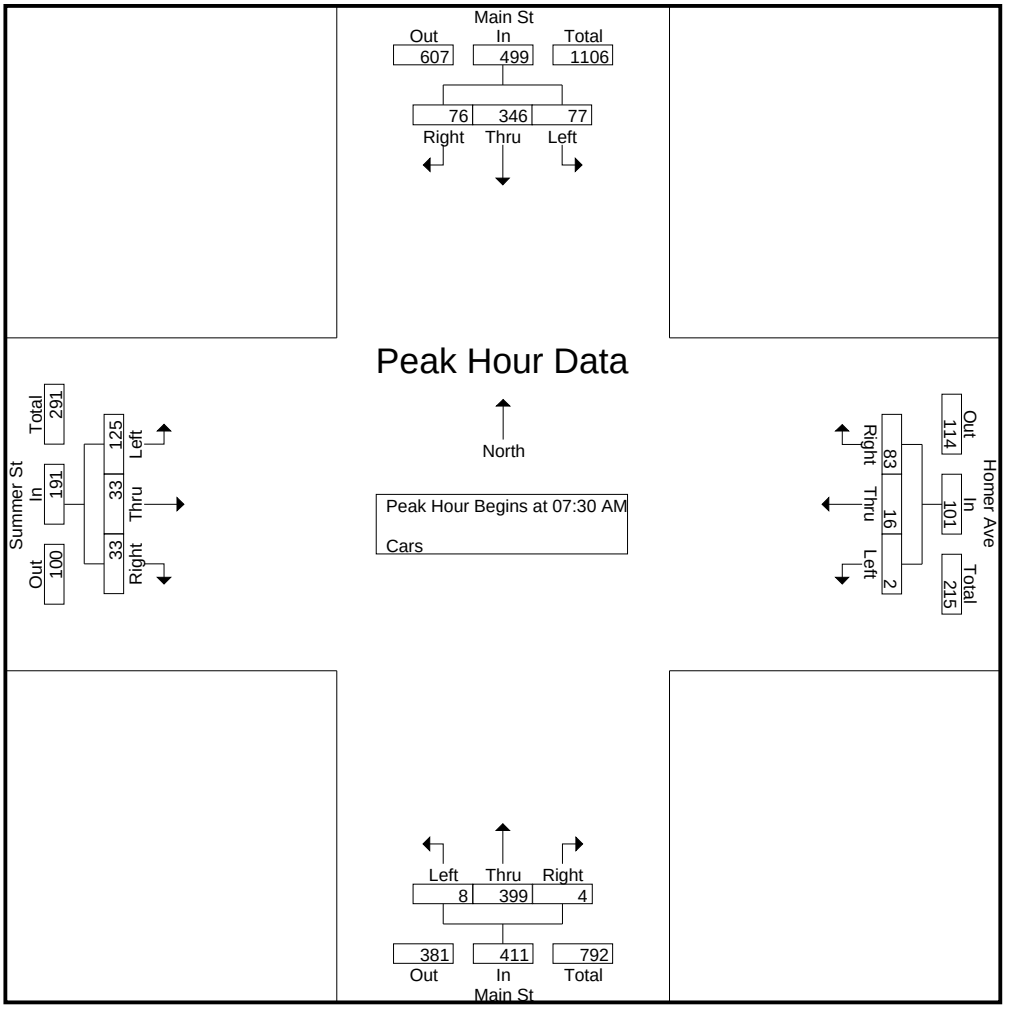
	Main St From North				Homer Ave From East				Main St From South				Summer St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	14	87	**32**	**133**	**1**	3	18	22	0	102	0	102	32	5	**11**	48	305
07:45 AM	**23**	87	14	124	0	1	22	23	2	98	**2**	102	22	8	9	39	288
08:00 AM	20	**88**	19	127	1	**8**	14	23	**3**	96	2	101	31	**10**	7	48	299
08:15 AM	20	84	11	115	0	4	**29**	**33**	3	**103**	0	**106**	**40**	10	6	**56**	**310**
Total Volume	77	346	76	499	2	16	83	101	8	399	4	411	125	33	33	191	1202
% App. Total	15.4	69.3	15.2		2	15.8	82.2		1.9	97.1	1		65.4	17.3	17.3		
PHF	.837	.983	.594	.938	.500	.500	.716	.765	.667	.968	.500	.969	.781	.825	.750	.853	.969

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 5



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

Peak Hour for Each Approach Begins at:

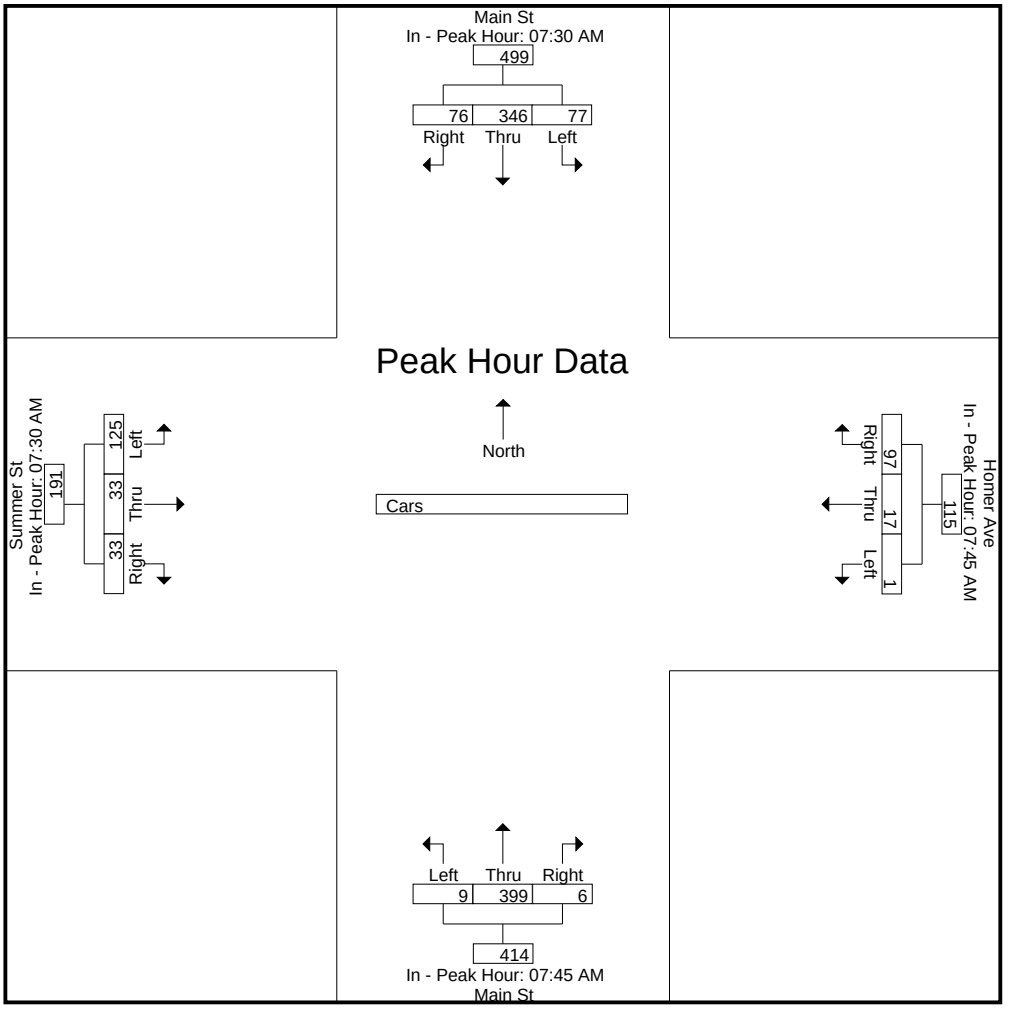
	07:30 AM				07:45 AM				07:45 AM				07:30 AM			
+0 mins.	14	87	**32**	**133**	0	1	22	23	2	98	**2**	102	32	5	**11**	48
+15 mins.	**23**	87	14	124	**1**	**8**	14	23	**3**	96	2	101	22	8	9	39
+30 mins.	20	**88**	19	127	0	4	29	33	3	**103**	0	**106**	31	**10**	7	48
+45 mins.	20	84	11	115	0	4	**32**	**36**	1	102	2	105	**40**	10	6	**56**
Total Volume	77	346	76	499	1	17	97	115	9	399	6	414	125	33	33	191
% App. Total	15.4	69.3	15.2		0.9	14.8	84.3		2.2	96.4	1.4		65.4	17.3	17.3	
PHF	.837	.983	.594	.938	.250	.531	.758	.799	.750	.968	.750	.976	.781	.825	.750	.853

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 7

Groups Printed- Trucks

	Main St From North			Homer Ave From East			Main St From South			Summer St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	1	0	2	0	5	0	0	1	2	11
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
07:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	2
07:45 AM	0	0	1	0	0	0	0	2	0	0	0	0	3
Total	0	1	1	1	0	3	0	8	0	1	1	2	18
08:00 AM	0	4	0	0	0	1	0	2	0	0	0	0	7
08:15 AM	0	3	0	0	0	0	0	2	0	3	0	0	8
08:30 AM	0	5	1	1	0	0	0	1	0	0	1	0	9
08:45 AM	0	5	1	0	0	0	0	0	0	0	0	0	6
Total	0	17	2	1	0	1	0	5	0	3	1	0	30
Grand Total	0	18	3	2	0	4	0	13	0	4	2	2	48
Apprch %	0	85.7	14.3	33.3	0	66.7	0	100	0	50	25	25	
Total %	0	37.5	6.2	4.2	0	8.3	0	27.1	0	8.3	4.2	4.2	

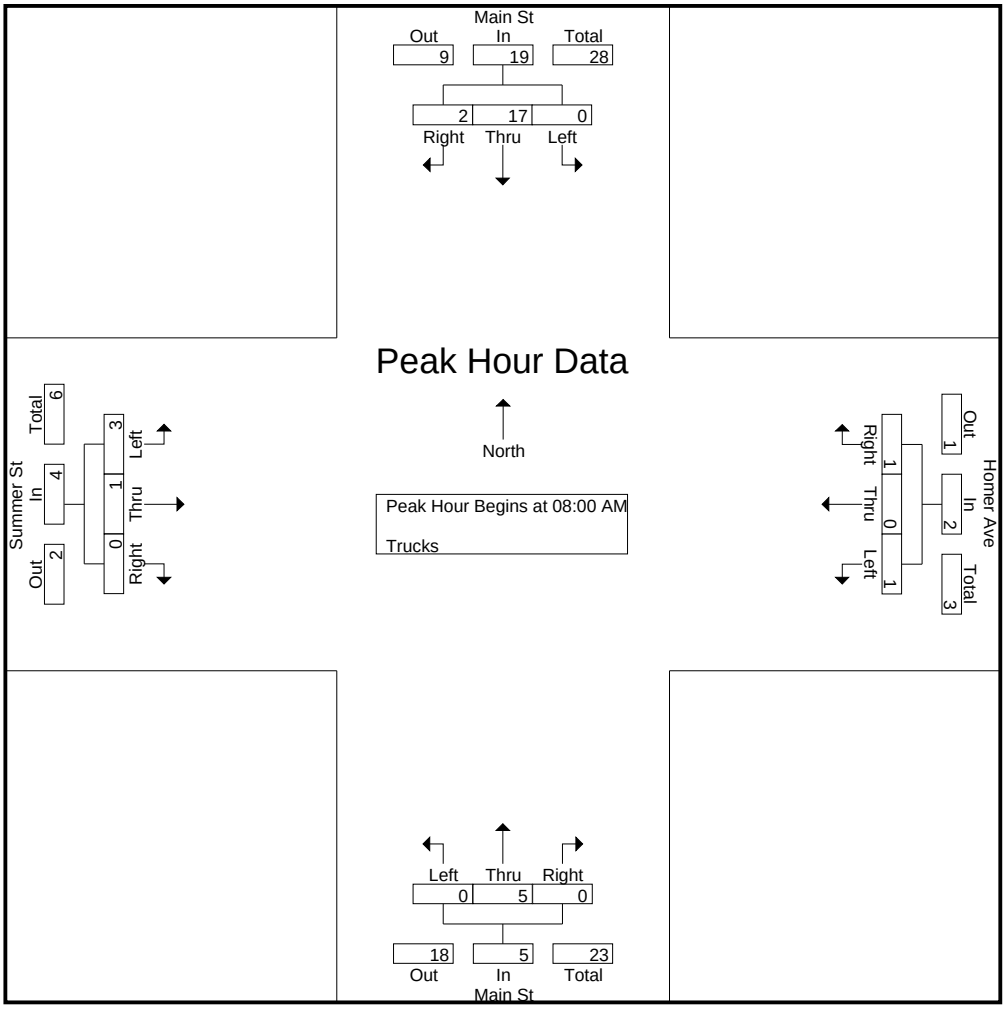
	Main St From North				Homer Ave From East				Main St From South				Summer St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	4	0	4	0	0	**1**	**1**	0	**2**	0	**2**	0	0	0	0	7
08:15 AM	0	3	0	3	0	0	0	0	0	2	0	2	**3**	0	0	**3**	8
08:30 AM	0	**5**	**1**	**6**	**1**	0	0	1	0	1	0	1	0	**1**	0	1	**9**
08:45 AM	0	5	1	6	0	0	0	0	0	0	0	0	0	0	0	0	6
Total Volume	0	17	2	19	1	0	1	2	0	5	0	5	3	1	0	4	30
% App. Total	0	89.5	10.5		50	0	50		0	100	0		75	25	0		
PHF	.000	.850	.500	.792	.250	.000	.250	.500	.000	.625	.000	.625	.250	.250	.000	.333	.833

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 8



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

Peak Hour for Each Approach Begins at:

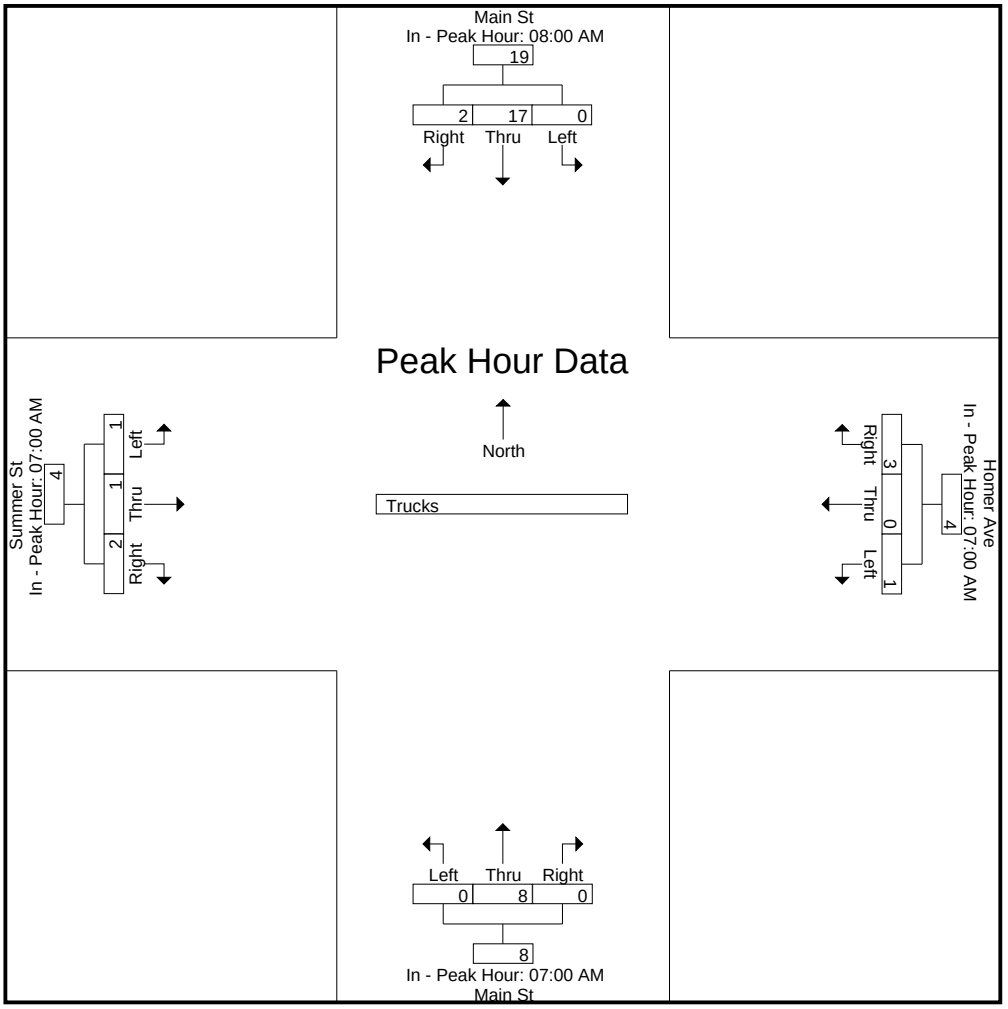
	08:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	4	0	4	**1**	0	**2**	**3**	0	**5**	0	**5**	0	**1**	**2**	**3**
+15 mins.	0	3	0	3	0	0	1	1	0	1	0	1	0	0	0	0
+30 mins.	0	**5**	**1**	**6**	0	0	0	0	0	0	0	0	**1**	0	0	1
+45 mins.	0	5	1	6	0	0	0	0	0	2	0	2	0	0	0	0
Total Volume	0	17	2	19	1	0	3	4	0	8	0	8	1	1	2	4
% App. Total	0	89.5	10.5		25	0	75		0	100	0		25	25	50	
PHF	.000	.850	.500	.792	.250	.000	.375	.333	.000	.400	.000	.400	.250	.250	.250	.333

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Main St From North				Homer Ave From East				Main St From South				Summer 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
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	3
07:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	4	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0	3	8	0	8
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
08:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	2	1	3
Grand Total	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	4	10	1	11
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0				
Total %	0	0	0		0	0	0		0	0	0		0	100	0		90.9	9.1	

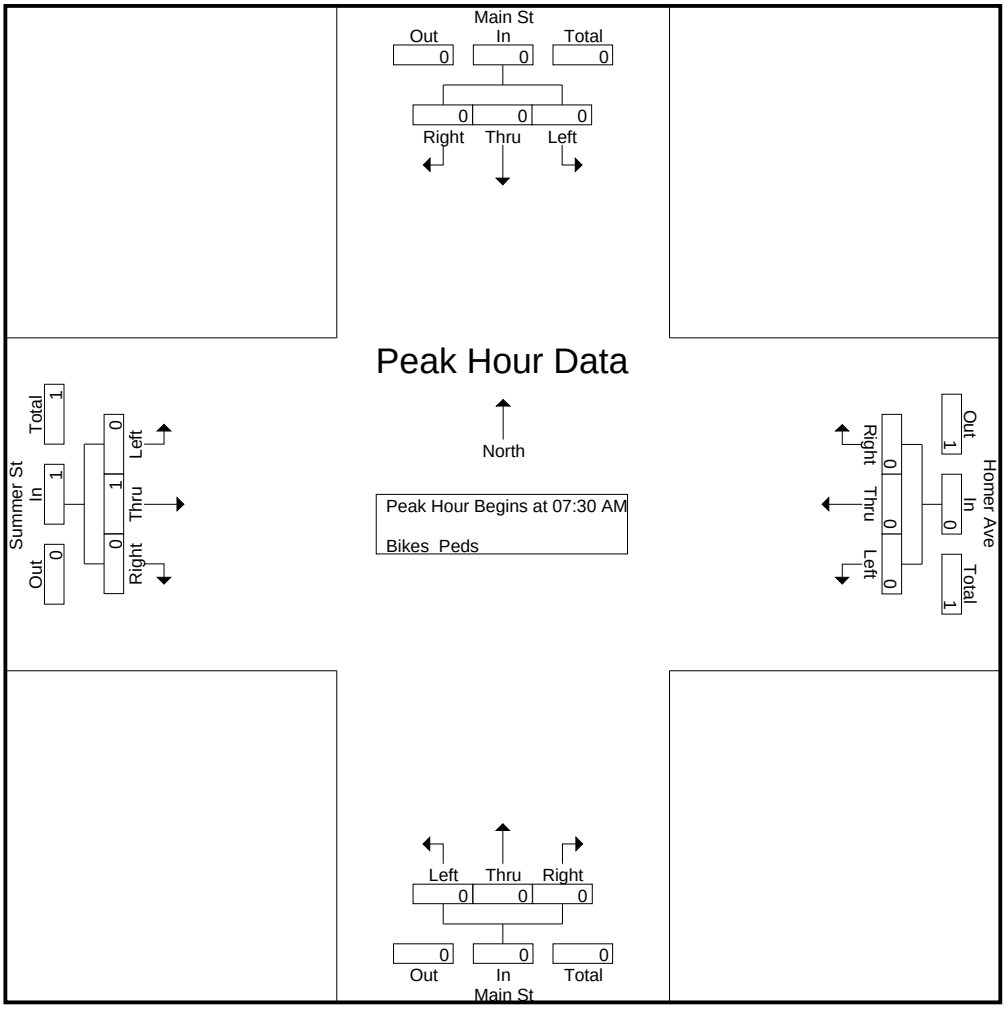
	Main St From North				Homer Ave From East				Main St From South				Summer St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	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	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 11



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

Peak Hour for Each Approach Begins at:

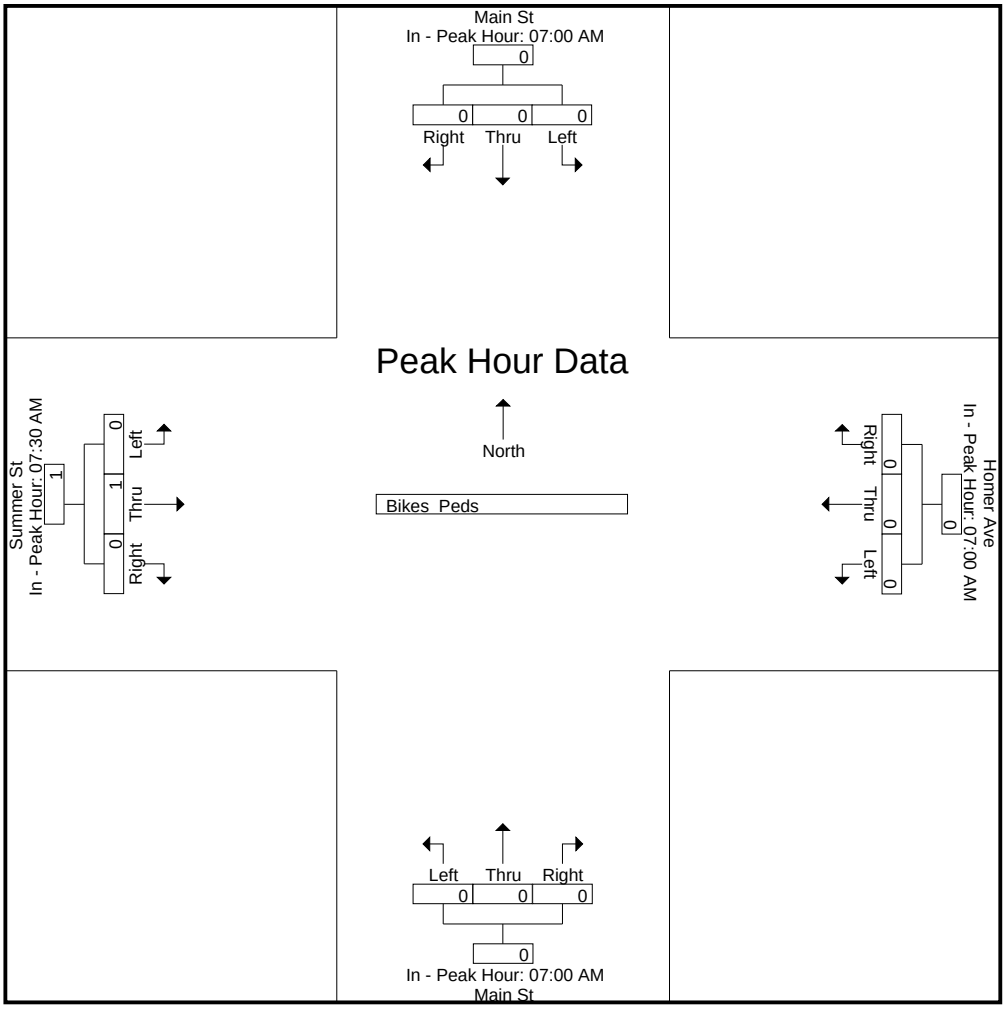
	07:00 AM				07:00 AM				07:00 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North			Homer Ave From East			Main St From South			Summer St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
02:00 PM	7	68	37	2	4	19	2	51	3	13	6	4	216
02:15 PM	13	53	19	2	12	17	2	47	2	14	8	6	195
02:30 PM	16	86	33	0	9	17	3	82	1	12	11	6	276
02:45 PM	17	68	24	0	16	30	4	68	1	25	8	7	268
Total	53	275	113	4	41	83	11	248	7	64	33	23	955
03:00 PM	14	67	42	1	6	23	1	85	2	9	7	4	261
03:15 PM	20	96	30	0	3	23	0	79	2	18	9	6	286
03:30 PM	16	93	36	1	8	21	0	80	1	15	7	6	284
03:45 PM	33	78	36	2	8	12	3	108	2	19	6	10	317
Total	83	334	144	4	25	79	4	352	7	61	29	26	1148
04:00 PM	20	91	38	0	4	18	3	102	1	29	4	9	319
04:15 PM	19	115	35	0	4	24	1	103	0	16	8	8	333
04:30 PM	27	94	35	0	6	38	3	101	1	13	5	5	328
04:45 PM	23	113	39	0	5	31	3	89	2	22	5	7	339
Total	89	413	147	0	19	111	10	395	4	80	22	29	1319
05:00 PM	26	118	45	1	7	27	2	86	2	17	7	8	346
05:15 PM	29	109	37	0	8	15	0	105	2	14	5	9	333
05:30 PM	22	103	39	1	6	22	3	98	5	19	6	5	329
05:45 PM	23	76	27	2	6	17	3	70	1	17	6	6	254
Total	100	406	148	4	27	81	8	359	10	67	24	28	1262
Grand Total	325	1428	552	12	112	354	33	1354	28	272	108	106	4684
Apprch %	14.1	62	23.9	2.5	23.4	74.1	2.3	95.7	2	56	22.2	21.8	
Total %	6.9	30.5	11.8	0.3	2.4	7.6	0.7	28.9	0.6	5.8	2.3	2.3	
Cars	313	1391	547	11	108	348	32	1328	27	268	105	105	4583
% Cars	96.3	97.4	99.1	91.7	96.4	98.3	97	98.1	96.4	98.5	97.2	99.1	97.8
Trucks	12	37	5	1	4	6	1	26	1	4	3	1	101
% Trucks	3.7	2.6	0.9	8.3	3.6	1.7	3	1.9	3.6	1.5	2.8	0.9	2.2

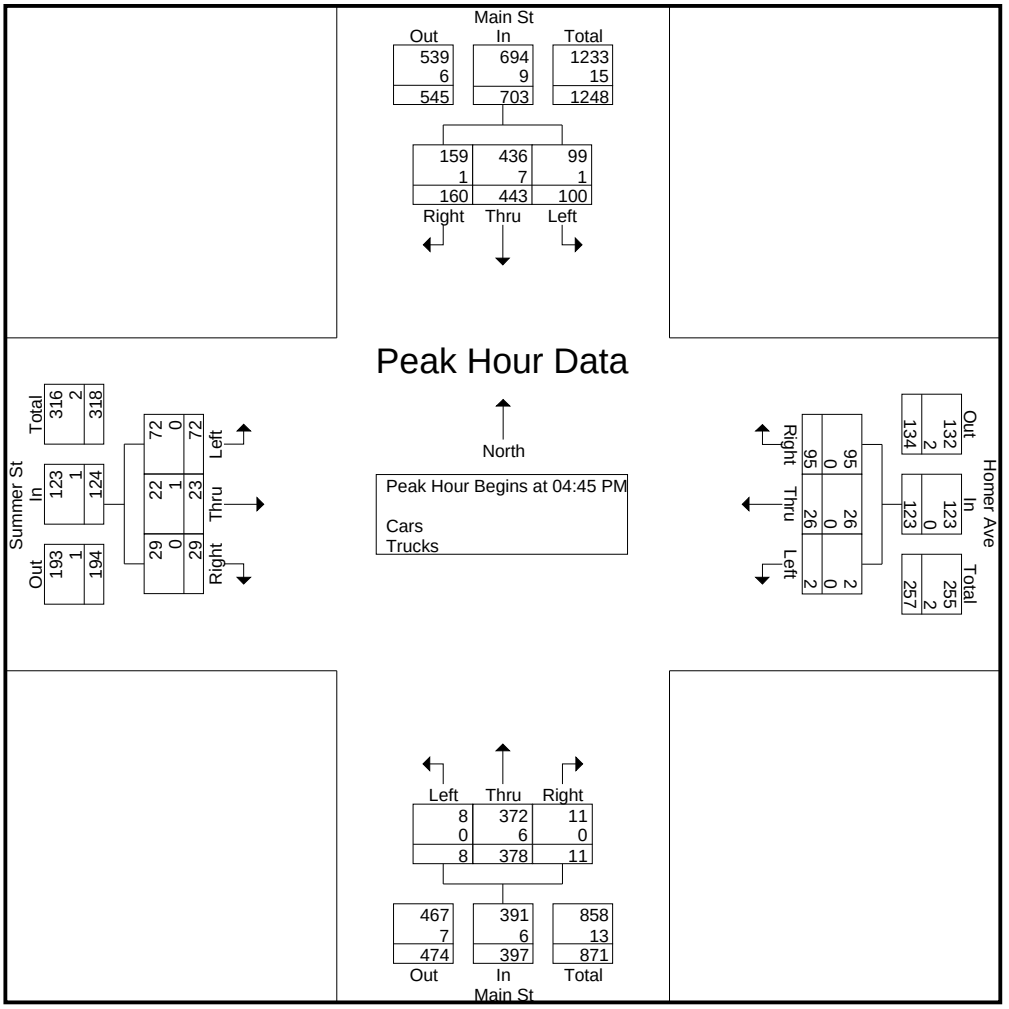
	Main St From North				Homer Ave From East				Main St From South				Summer St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	23	113	39	175	0	5	**31**	**36**	**3**	89	2	94	**22**	5	7	**34**	339
05:00 PM	26	**118**	**45**	**189**	**1**	7	27	35	2	86	2	90	17	**7**	8	32	**346**
05:15 PM	**29**	109	37	175	0	**8**	15	23	0	**105**	2	**107**	14	5	**9**	28	333
05:30 PM	22	103	39	164	1	6	22	29	3	98	**5**	106	19	6	5	30	329
Total Volume	100	443	160	703	2	26	95	123	8	378	11	397	72	23	29	124	1347
% App. Total	14.2	63	22.8		1.6	21.1	77.2		2	95.2	2.8		58.1	18.5	23.4		
PHF	.862	.939	.889	.930	.500	.813	.766	.854	.667	.900	.550	.928	.818	.821	.806	.912	.973
Cars	99	436	159	694	2	26	95	123	8	372	11	391	72	22	29	123	1331
% Cars	99.0	98.4	99.4	98.7	100	100	100	100	100	98.4	100	98.5	100	95.7	100	99.2	98.8
Trucks	1	7	1	9	0	0	0	0	0	6	0	6	0	1	0	1	16
% Trucks	1.0	1.6	0.6	1.3	0	0	0	0	0	1.6	0	1.5	0	4.3	0	0.8	1.2

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 2



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

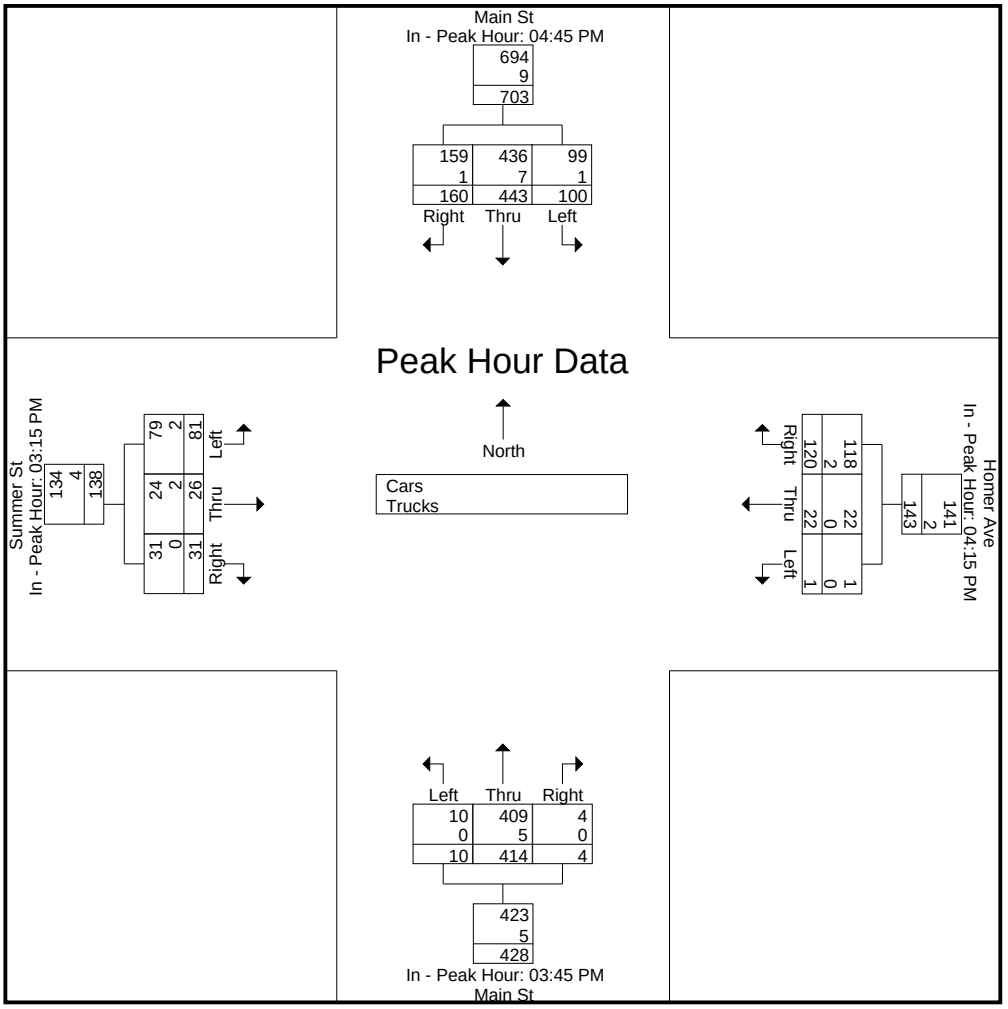
	04:45 PM				04:15 PM				03:45 PM				03:15 PM			
+0 mins.	23	113	39	175	0	4	24	28	**3**	**108**	**2**	**113**	18	**9**	6	33
+15 mins.	26	**118**	**45**	**189**	0	6	**38**	**44**	3	102	1	106	15	7	6	28
+30 mins.	**29**	109	37	175	0	5	31	36	1	103	0	104	19	6	**10**	35
+45 mins.	22	103	39	164	**1**	**7**	27	35	3	101	1	105	**29**	4	9	**42**
Total Volume	100	443	160	703	1	22	120	143	10	414	4	428	81	26	31	138
% App. Total	14.2	63	22.8		0.7	15.4	83.9		2.3	96.7	0.9		58.7	18.8	22.5	
PHF	.862	.939	.889	.930	.250	.786	.789	.813	.833	.958	.500	.947	.698	.722	.775	.821
Cars	99	436	159	694	1	22	118	141	10	409	4	423	79	24	31	134
% Cars	99	98.4	99.4	98.7	100	100	98.3	98.6	100	98.8	100	98.8	97.5	92.3	100	97.1
Trucks	1	7	1	9	0	0	2	2	0	5	0	5	2	2	0	4
% Trucks	1	1.6	0.6	1.3	0	0	1.7	1.4	0	1.2	0	1.2	2.5	7.7	0	2.9

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024

Groups Printed- Cars

	Main St From North			Homer Ave From East			Main St From South			Summer St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
02:00 PM	6	63	37	1	3	18	2	50	3	13	6	4	206
02:15 PM	13	52	19	2	10	17	2	47	2	13	8	6	191
02:30 PM	15	85	31	0	9	17	3	82	0	12	11	5	270
02:45 PM	17	68	24	0	15	29	3	64	1	25	8	7	261
Total	51	268	111	3	37	81	10	243	6	63	33	22	928
03:00 PM	14	67	41	1	6	22	1	83	2	9	7	4	257
03:15 PM	19	90	29	0	3	22	0	78	2	18	8	6	275
03:30 PM	16	87	36	1	8	21	0	74	1	15	7	6	272
03:45 PM	29	76	36	2	8	12	3	106	2	19	6	10	309
Total	78	320	142	4	25	77	4	341	7	61	28	26	1113
04:00 PM	17	88	38	0	4	18	3	102	1	27	3	9	310
04:15 PM	19	111	35	0	4	23	1	100	0	16	8	8	325
04:30 PM	26	93	35	0	6	37	3	101	1	13	5	5	325
04:45 PM	23	112	39	0	5	31	3	87	2	22	5	7	336
Total	85	404	147	0	19	109	10	390	4	78	21	29	1296
05:00 PM	26	118	44	1	7	27	2	86	2	17	7	8	345
05:15 PM	29	105	37	0	8	15	0	102	2	14	5	9	326
05:30 PM	21	101	39	1	6	22	3	97	5	19	5	5	324
05:45 PM	23	75	27	2	6	17	3	69	1	16	6	6	251
Total	99	399	147	4	27	81	8	354	10	66	23	28	1246
Grand Total	313	1391	547	11	108	348	32	1328	27	268	105	105	4583
Apprch %	13.9	61.8	24.3	2.4	23.1	74.5	2.3	95.7	1.9	56.1	22	22	
Total %	6.8	30.4	11.9	0.2	2.4	7.6	0.7	29	0.6	5.8	2.3	2.3	

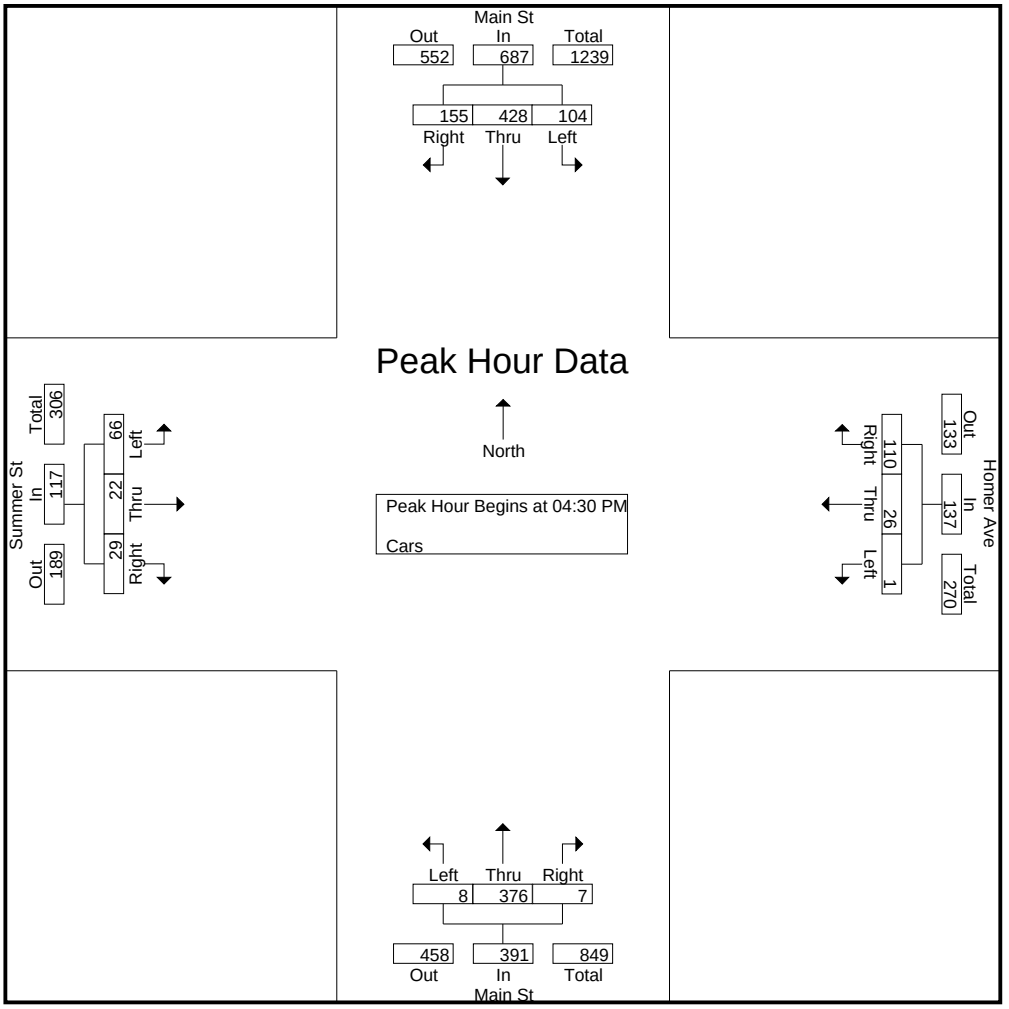
	Main St From North				Homer Ave From East				Main St From South				Summer St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	26	93	35	154	0	6	**37**	**43**	**3**	101	1	**105**	13	5	5	23	325
04:45 PM	23	112	39	174	0	5	31	36	3	87	**2**	92	**22**	5	7	**34**	336
05:00 PM	26	**118**	**44**	**188**	**1**	7	27	35	2	86	2	90	17	**7**	8	32	**345**
05:15 PM	**29**	105	37	171	0	**8**	15	23	0	**102**	2	104	14	5	**9**	28	326
Total Volume	104	428	155	687	1	26	110	137	8	376	7	391	66	22	29	117	1332
% App. Total	15.1	62.3	22.6		0.7	19	80.3		2	96.2	1.8		56.4	18.8	24.8		
PHF	.897	.907	.881	.914	.250	.813	.743	.797	.667	.922	.875	.931	.750	.786	.806	.860	.965

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 5



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

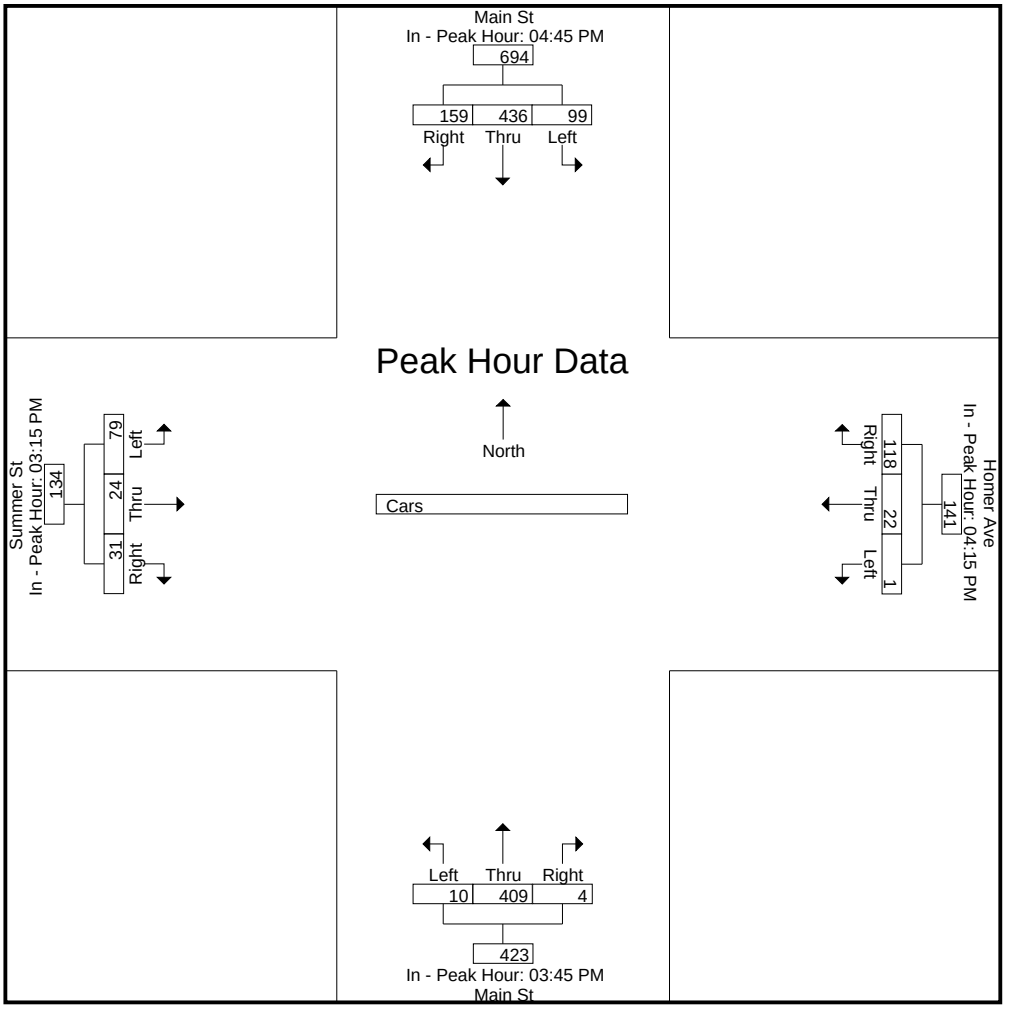
	04:45 PM				04:15 PM				03:45 PM				03:15 PM			
+0 mins.	23	112	39	174	0	4	23	27	**3**	**106**	**2**	**111**	18	**8**	6	32
+15 mins.	26	**118**	**44**	**188**	0	6	**37**	**43**	3	102	1	106	15	7	6	28
+30 mins.	**29**	105	37	171	0	5	31	36	1	100	0	101	19	6	**10**	35
+45 mins.	21	101	39	161	**1**	**7**	27	35	3	101	1	105	**27**	3	9	**39**
Total Volume	99	436	159	694	1	22	118	141	10	409	4	423	79	24	31	134
% App. Total	14.3	62.8	22.9		0.7	15.6	83.7		2.4	96.7	0.9		59	17.9	23.1	
PHF	.853	.924	.903	.923	.250	.786	.797	.820	.833	.965	.500	.953	.731	.750	.775	.859

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 7

Groups Printed- Trucks

	Main St From North			Homer Ave From East			Main St From South			Summer St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
02:00 PM	1	5	0	1	1	1	0	1	0	0	0	0	10
02:15 PM	0	1	0	0	2	0	0	0	0	1	0	0	4
02:30 PM	1	1	2	0	0	0	0	0	1	0	0	1	6
02:45 PM	0	0	0	0	1	1	1	4	0	0	0	0	7
Total	2	7	2	1	4	2	1	5	1	1	0	1	27
03:00 PM	0	0	1	0	0	1	0	2	0	0	0	0	4
03:15 PM	1	6	1	0	0	1	0	1	0	0	1	0	11
03:30 PM	0	6	0	0	0	0	0	6	0	0	0	0	12
03:45 PM	4	2	0	0	0	0	0	2	0	0	0	0	8
Total	5	14	2	0	0	2	0	11	0	0	1	0	35
04:00 PM	3	3	0	0	0	0	0	0	0	2	1	0	9
04:15 PM	0	4	0	0	0	1	0	3	0	0	0	0	8
04:30 PM	1	1	0	0	0	1	0	0	0	0	0	0	3
04:45 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
Total	4	9	0	0	0	2	0	5	0	2	1	0	23
05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	4	0	0	0	0	0	3	0	0	0	0	7
05:30 PM	1	2	0	0	0	0	0	1	0	0	1	0	5
05:45 PM	0	1	0	0	0	0	0	1	0	1	0	0	3
Total	1	7	1	0	0	0	0	5	0	1	1	0	16
Grand Total	12	37	5	1	4	6	1	26	1	4	3	1	101
Apprch %	22.2	68.5	9.3	9.1	36.4	54.5	3.6	92.9	3.6	50	37.5	12.5	
Total %	11.9	36.6	5	1	4	5.9	1	25.7	1	4	3	1	

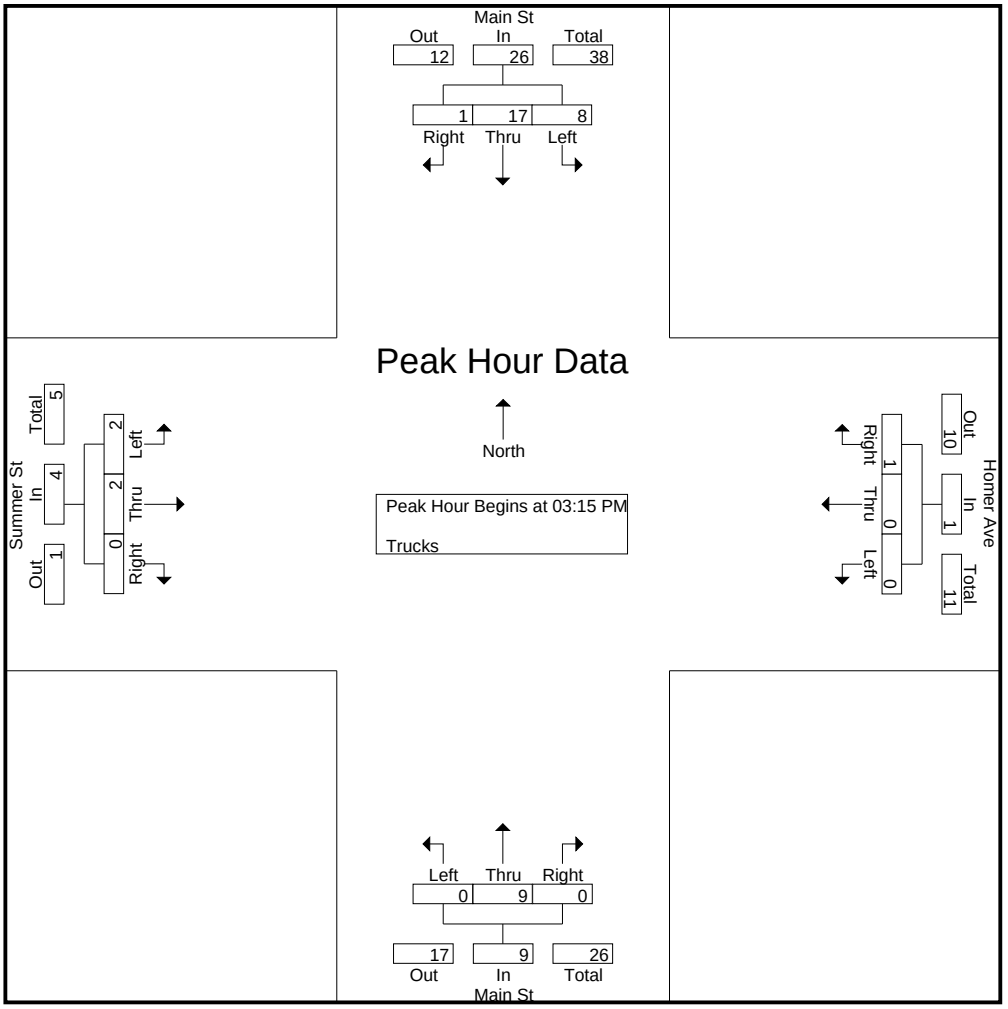
	Main St From North				Homer Ave From East				Main St From South				Summer St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	1	**6**	**1**	**8**	0	0	**1**	**1**	0	1	0	1	0	**1**	0	1	11
03:30 PM	0	6	0	6	0	0	0	0	0	**6**	0	**6**	0	0	0	0	**12**
03:45 PM	**4**	2	0	6	0	0	0	0	0	2	0	2	0	0	0	0	8
04:00 PM	3	3	0	6	0	0	0	0	0	0	0	0	**2**	1	0	**3**	9
Total Volume	8	17	1	26	0	0	1	1	0	9	0	9	2	2	0	4	40
% App. Total	30.8	65.4	3.8		0	0	100		0	100	0		50	50	0		
PHF	.500	.708	.250	.813	.000	.000	.250	.250	.000	.375	.000	.375	.250	.500	.000	.333	.833

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 8



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

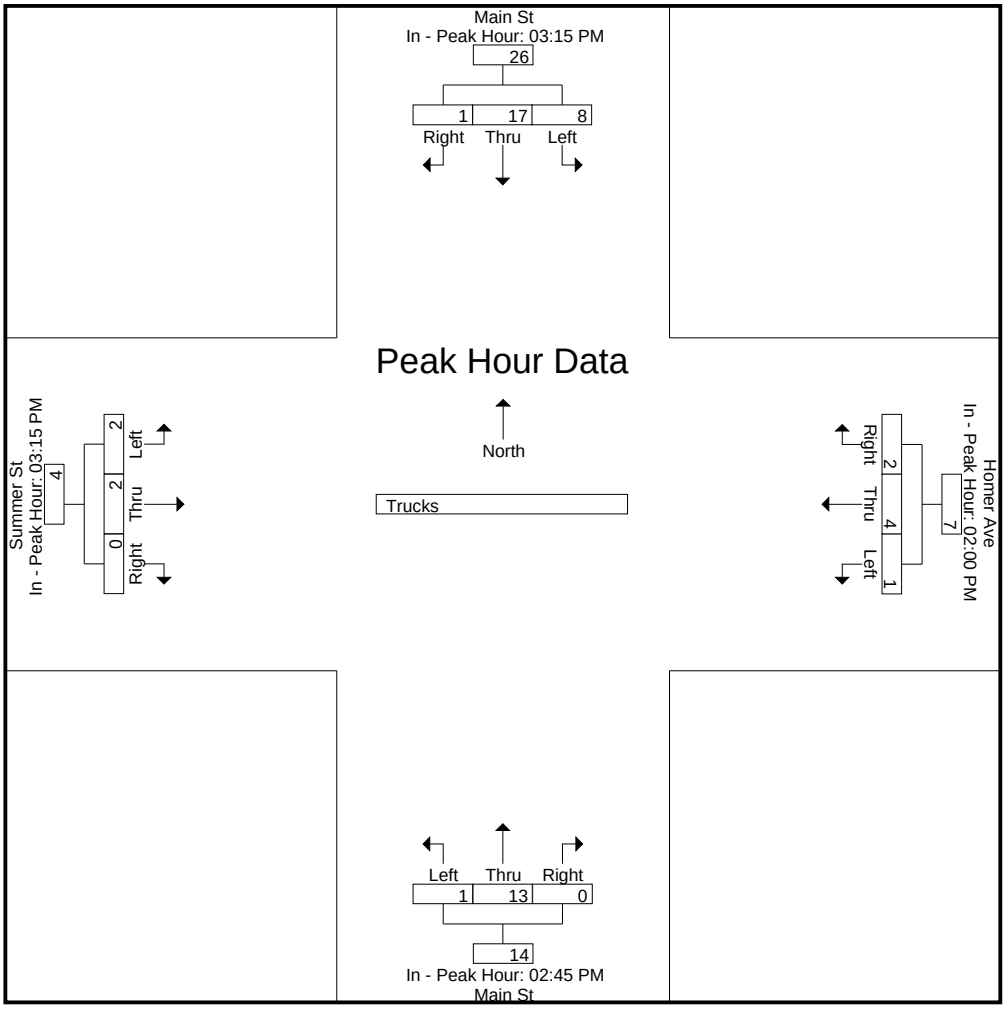
	03:15 PM				02:00 PM				02:45 PM				03:15 PM			
+0 mins.	1	**6**	**1**	**8**	**1**	1	**1**	**3**	**1**	4	0	5	0	**1**	0	1
+15 mins.	0	6	0	6	0	**2**	0	2	0	2	0	2	0	0	0	0
+30 mins.	**4**	2	0	6	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	3	3	0	6	0	1	1	2	0	**6**	0	**6**	**2**	1	0	**3**
Total Volume	8	17	1	26	1	4	2	7	1	13	0	14	2	2	0	4
% App. Total	30.8	65.4	3.8		14.3	57.1	28.6		7.1	92.9	0		50	50	0	
PHF	.500	.708	.250	.813	.250	.500	.500	.583	.250	.542	.000	.583	.250	.500	.000	.333

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Main St From North				Homer Ave From East				Main St From South				Summer 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
02:00 PM	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	4	8	0	8
02:15 PM	0	0	0	1	0	0	0	6	0	0	0	4	0	0	0	3	14	0	14
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
02:45 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	2
Total	0	0	0	2	0	0	0	8	0	0	0	7	0	0	0	9	26	0	26
03:00 PM	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	1	4	0	4
03:15 PM	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	3	9	0	9
03:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5	6	0	6
03:45 PM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	1	4	0	4
Total	0	0	0	6	0	0	0	7	0	0	0	0	0	0	0	10	23	0	23
04:00 PM	0	0	0	1	0	0	0	6	0	0	0	1	0	0	0	1	9	0	9
04:15 PM	0	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	6	0	6
04:30 PM	0	0	0	0	0	0	0	3	0	0	0	2	0	0	0	1	6	0	6
04:45 PM	0	0	0	3	0	0	0	2	0	0	1	0	0	2	0	2	7	3	10
Total	0	0	0	8	0	0	0	13	0	0	1	3	0	2	0	4	28	3	31
05:00 PM	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0	2	7	0	7
05:15 PM	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	0	4	0	4
05:30 PM	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0	3	9	0	9
05:45 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4	0	4
Total	0	0	0	8	0	0	0	7	0	0	0	4	0	0	0	5	24	0	24
Grand Total	0	0	0	24	0	0	0	35	0	0	1	14	0	2	0	28	101	3	104
Apprch %	0	0	0		0	0	0		0	0	100		0	100	0				
Total %	0	0	0		0	0	0		0	0	33.3		0	66.7	0		97.1	2.9	

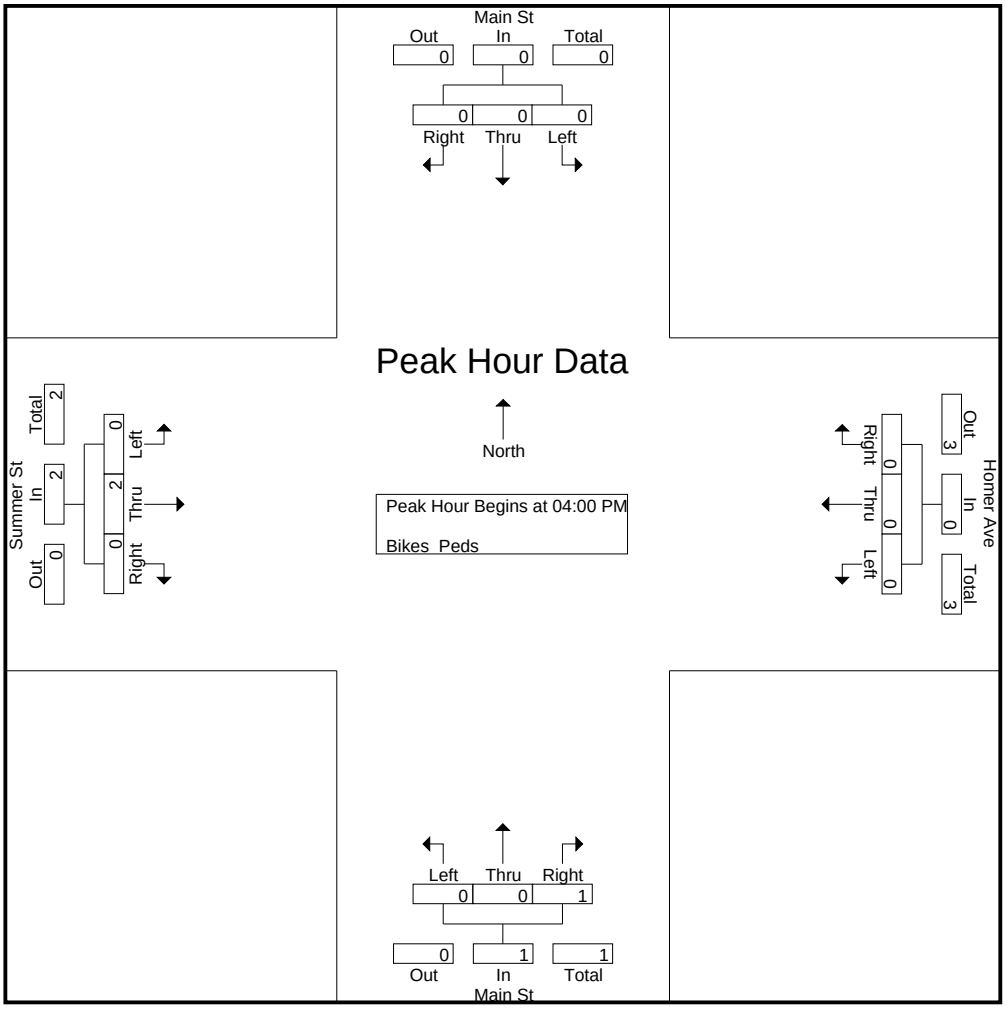
	Main St From North				Homer Ave From East				Main St From South				Summer St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	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
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	0	**1**	**1**	0	**2**	0	**2**	**3**
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	3
% App. Total	0	0	0		0	0	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.000	.250	.250

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 11



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

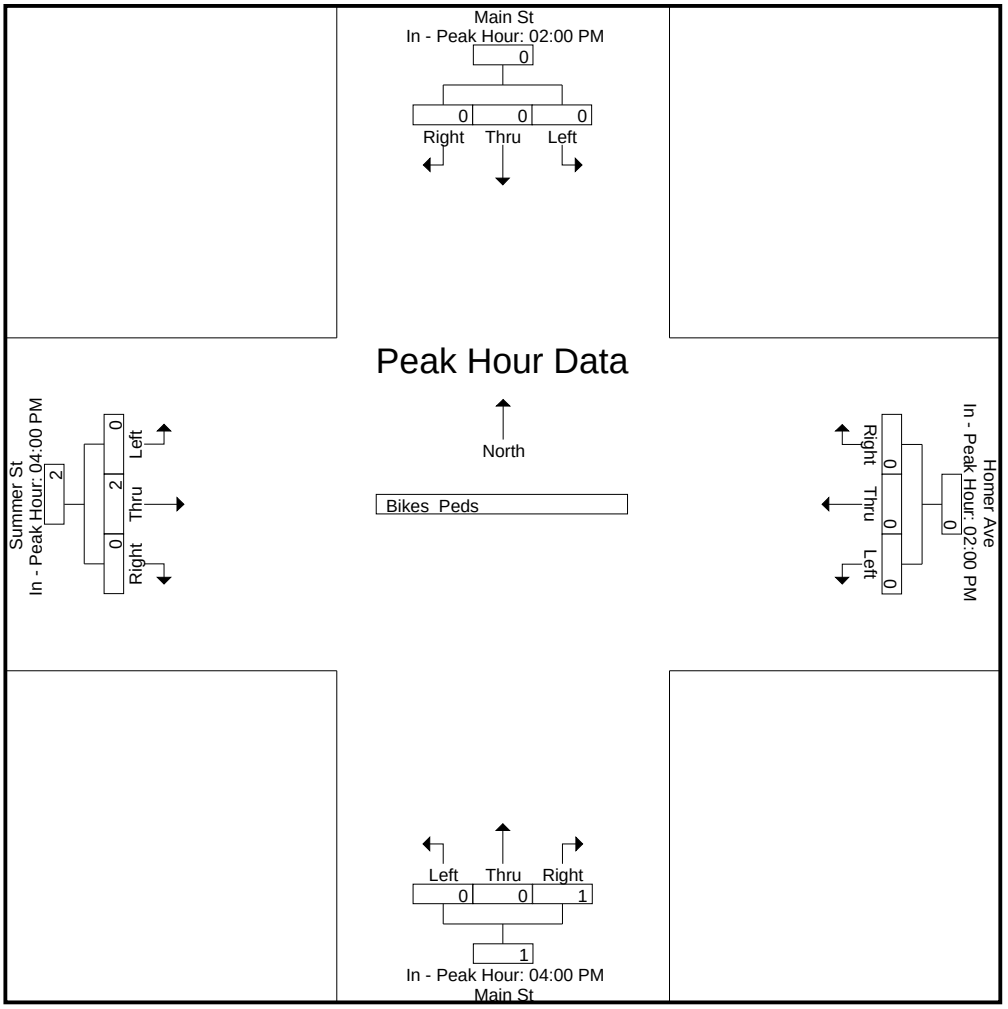
	02:00 PM				02:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	**2**	0	**2**
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2
% App. Total	0	0	0		0	0	0		0	0	100		0	100	0	
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 : Main Street
E/W Street : Homer Ave / Summer St
City/State : Ashland, MA
Weather : Clear

File Name : 98370003
Site Code : 98370003
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Myrtle St From North		Raymond Marchetti St From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	5	32	3	5	55	3	103
07:15 AM	5	37	4	4	43	5	98
07:30 AM	3	47	7	9	73	9	148
07:45 AM	7	58	10	8	64	13	160
Total	20	174	24	26	235	30	509
08:00 AM	6	50	8	4	59	15	142
08:15 AM	1	49	11	5	101	3	170
08:30 AM	2	40	3	3	79	2	129
08:45 AM	2	51	5	2	73	2	135
Total	11	190	27	14	312	22	576
Grand Total	31	364	51	40	547	52	1085
Apprch %	7.8	92.2	56	44	91.3	8.7	
Total %	2.9	33.5	4.7	3.7	50.4	4.8	
Cars	31	360	50	36	545	48	1070
% Cars	100	98.9	98	90	99.6	92.3	98.6
Trucks	0	4	1	4	2	4	15
% Trucks	0	1.1	2	10	0.4	7.7	1.4

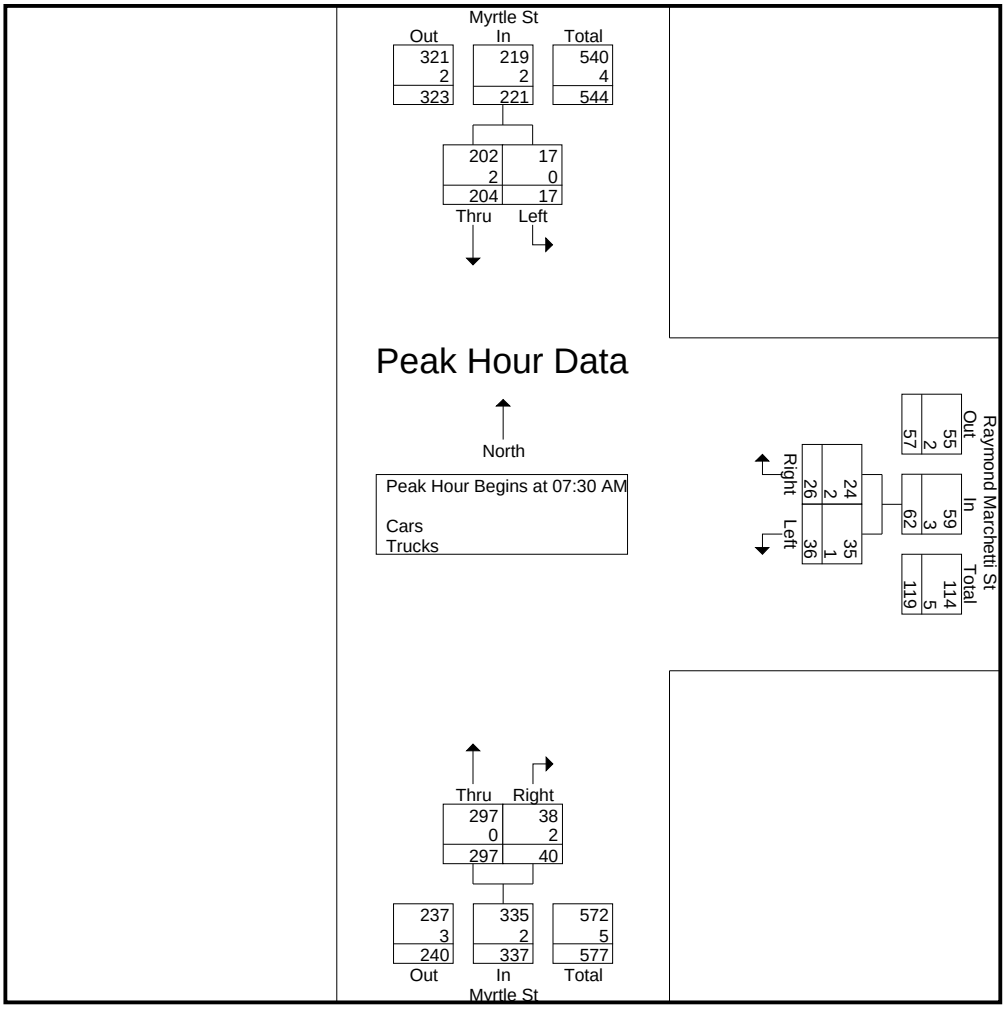
	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	3	47	50	7	**9**	16	73	9	82	148
07:45 AM	**7**	**58**	**65**	10	8	**18**	64	13	77	160
08:00 AM	6	50	56	8	4	12	59	**15**	74	142
08:15 AM	1	49	50	**11**	5	16	**101**	3	**104**	**170**
Total Volume	17	204	221	36	26	62	297	40	337	620
% App. Total	7.7	92.3		58.1	41.9		88.1	11.9		
PHF	.607	.879	.850	.818	.722	.861	.735	.667	.810	.912
Cars	17	202	219	35	24	59	297	38	335	613
% Cars	100	99.0	99.1	97.2	92.3	95.2	100	95.0	99.4	98.9
Trucks	0	2	2	1	2	3	0	2	2	7
% Trucks	0	1.0	0.9	2.8	7.7	4.8	0	5.0	0.6	1.1

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 2



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

Peak Hour for Each Approach Begins at:

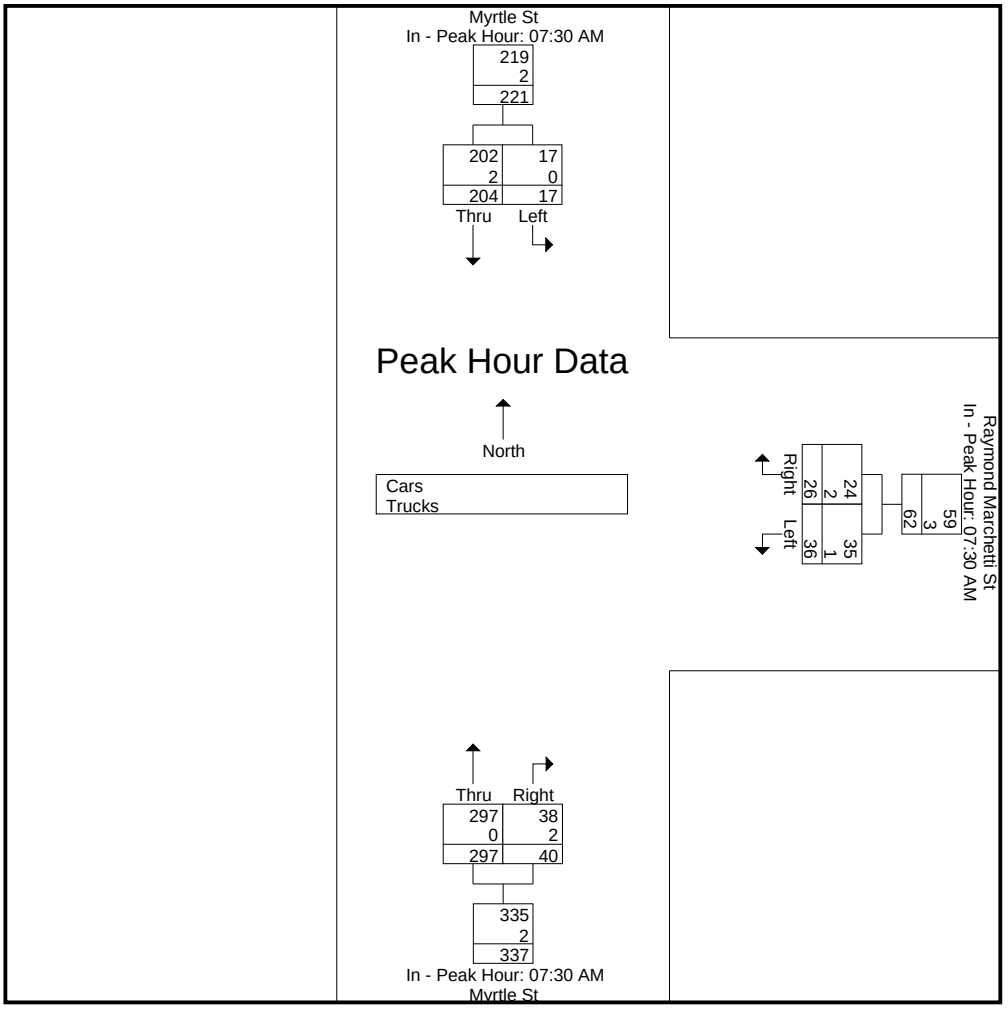
	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	3	47	50	7	**9**	16	73	9	82
+15 mins.	**7**	**58**	**65**	10	8	**18**	64	13	77
+30 mins.	6	50	56	8	4	12	59	**15**	74
+45 mins.	1	49	50	**11**	5	16	**101**	3	**104**
Total Volume	17	204	221	36	26	62	297	40	337
% App. Total	7.7	92.3		58.1	41.9		88.1	11.9	
PHF	.607	.879	.850	.818	.722	.861	.735	.667	.810
Cars	17	202	219	35	24	59	297	38	335
% Cars	100	99	99.1	97.2	92.3	95.2	100	95	99.4
Trucks	0	2	2	1	2	3	0	2	2
% Trucks	0	1	0.9	2.8	7.7	4.8	0	5	0.6

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 4

Groups Printed- Cars

	Myrtle St From North		Raymond Marchetti St From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	5	32	3	4	55	3	102
07:15 AM	5	37	4	4	42	3	95
07:30 AM	3	46	6	7	73	9	144
07:45 AM	7	58	10	8	64	11	158
Total	20	173	23	23	234	26	499
08:00 AM	6	49	8	4	59	15	141
08:15 AM	1	49	11	5	101	3	170
08:30 AM	2	38	3	2	79	2	126
08:45 AM	2	51	5	2	72	2	134
Total	11	187	27	13	311	22	571
Grand Total	31	360	50	36	545	48	1070
Apprch %	7.9	92.1	58.1	41.9	91.9	8.1	
Total %	2.9	33.6	4.7	3.4	50.9	4.5	

	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	3	46	49	6	7	13	73	9	82	144
07:45 AM	**7**	**58**	**65**	10	**8**	**18**	64	11	75	158
08:00 AM	6	49	55	8	4	12	59	**15**	74	141
08:15 AM	1	49	50	**11**	5	16	**101**	3	**104**	**170**
Total Volume	17	202	219	35	24	59	297	38	335	613
% App. Total	7.8	92.2		59.3	40.7		88.7	11.3		
PHF	.607	.871	.842	.795	.750	.819	.735	.633	.805	.901

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
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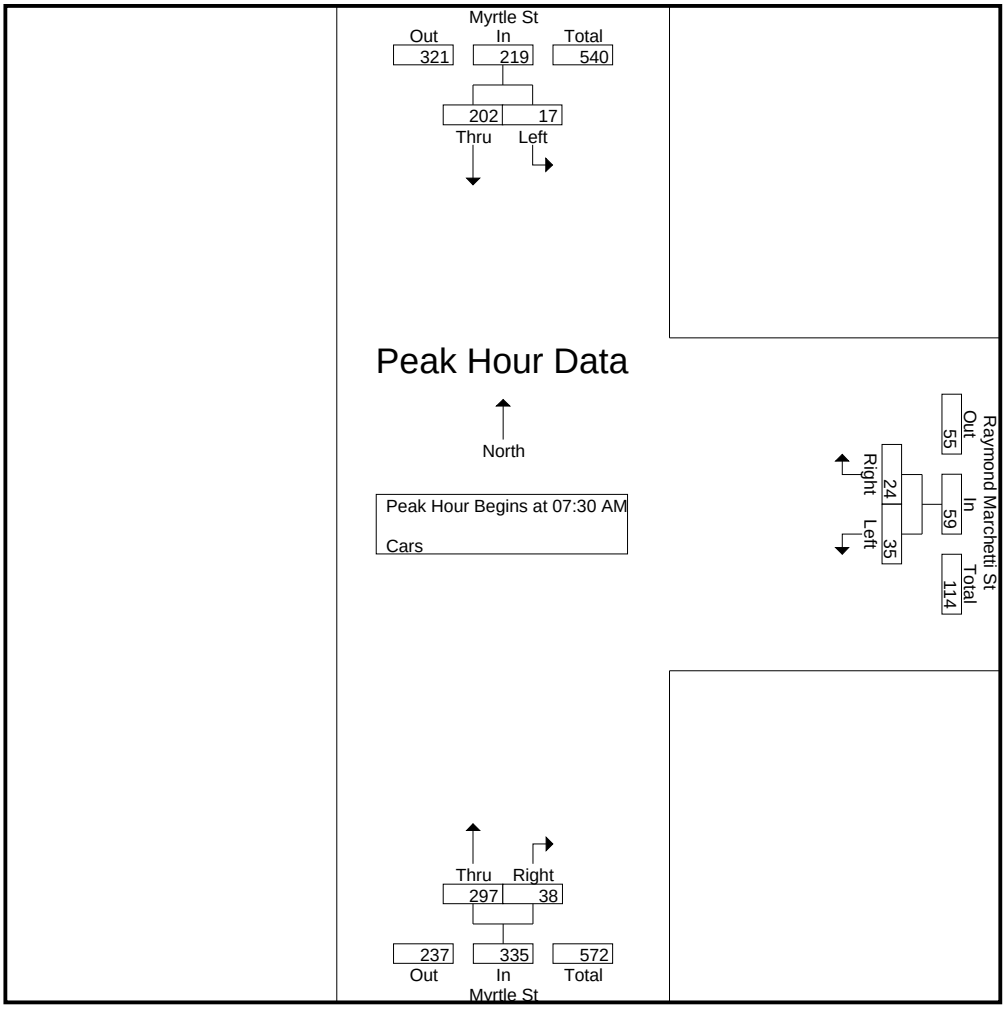


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

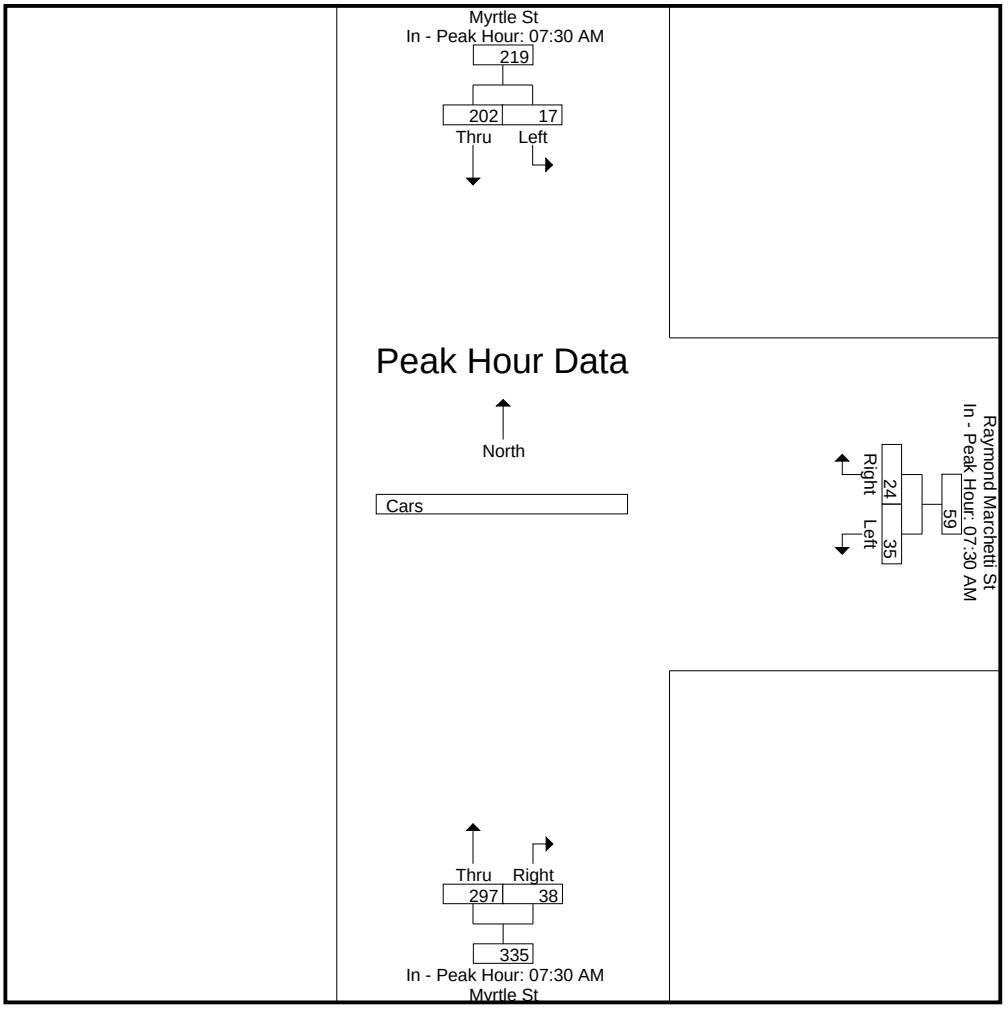
	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	3	46	49	6	7	13	73	9	82
+15 mins.	**7**	**58**	**65**	10	**8**	**18**	64	11	75
+30 mins.	6	49	55	8	4	12	59	**15**	74
+45 mins.	1	49	50	**11**	5	16	**101**	3	**104**
Total Volume	17	202	219	35	24	59	297	38	335
% App. Total	7.8	92.2		59.3	40.7		88.7	11.3	
PHF	.607	.871	.842	.795	.750	.819	.735	.633	.805

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024

Groups Printed- Trucks

	Myrtle St From North		Raymond Marchetti St From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	0	0	1	0	0	1
07:15 AM	0	0	0	0	1	2	3
07:30 AM	0	1	1	2	0	0	4
07:45 AM	0	0	0	0	0	2	2
Total	0	1	1	3	1	4	10
08:00 AM	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0
08:30 AM	0	2	0	1	0	0	3
08:45 AM	0	0	0	0	1	0	1
Total	0	3	0	1	1	0	5
Grand Total	0	4	1	4	2	4	15
Apprch %	0	100	20	80	33.3	66.7	
Total %	0	26.7	6.7	26.7	13.3	26.7	

	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	1	1	0	0	0	1
07:15 AM	0	0	0	0	0	0	**1**	**2**	**3**	3
07:30 AM	0	**1**	**1**	**1**	**2**	**3**	0	0	0	**4**
07:45 AM	0	0	0	0	0	0	0	2	2	2
Total Volume	0	1	1	1	3	4	1	4	5	10
% App. Total	0	100		25	75		20	80		
PHF	.000	.250	.250	.250	.375	.333	.250	.500	.417	.625

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
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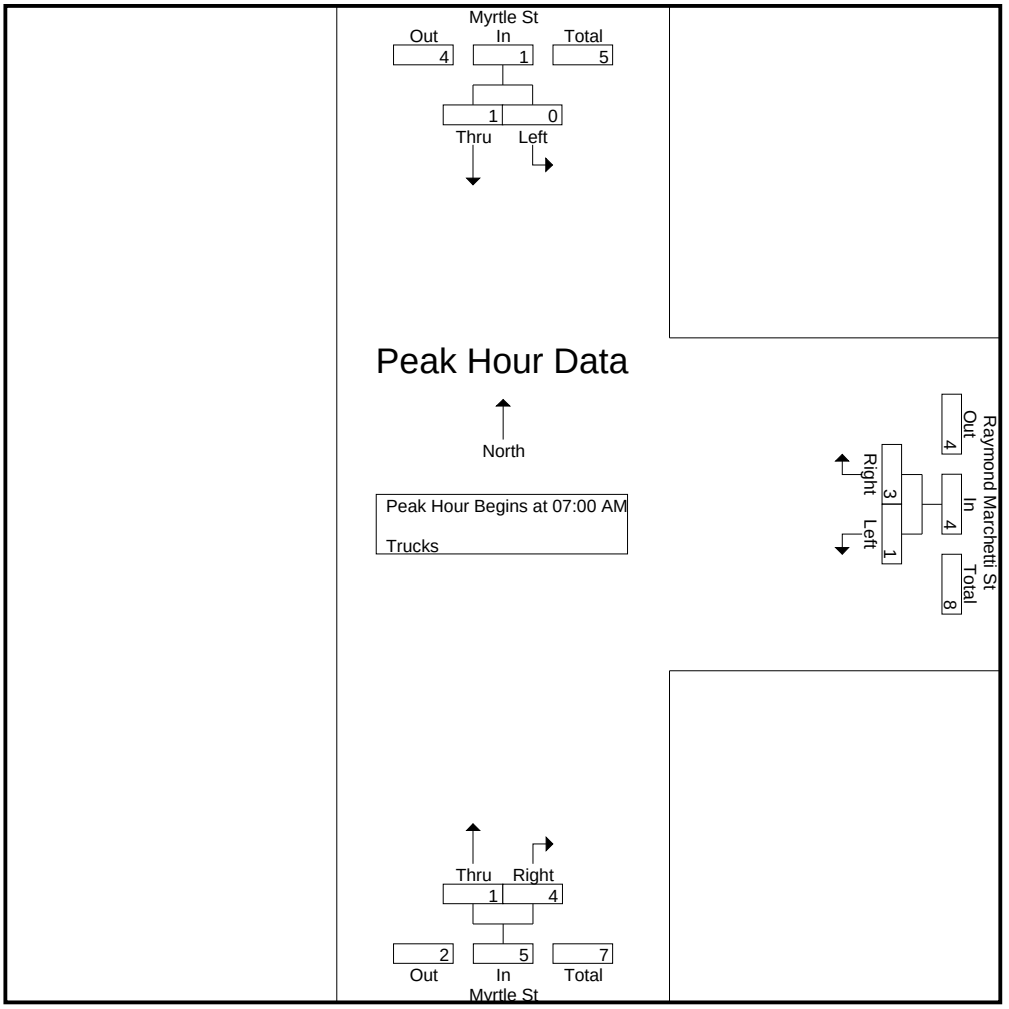

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	1	1	0	0	0
+15 mins.	0	1	1	0	0	0	**1**	**2**	**3**
+30 mins.	0	0	0	**1**	**2**	**3**	0	0	0
+45 mins.	0	**2**	**2**	0	0	0	0	2	2
Total Volume	0	3	3	1	3	4	1	4	5
% App. Total	0	100		25	75		20	80	
PHF	.000	.375	.375	.250	.375	.333	.250	.500	.417

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
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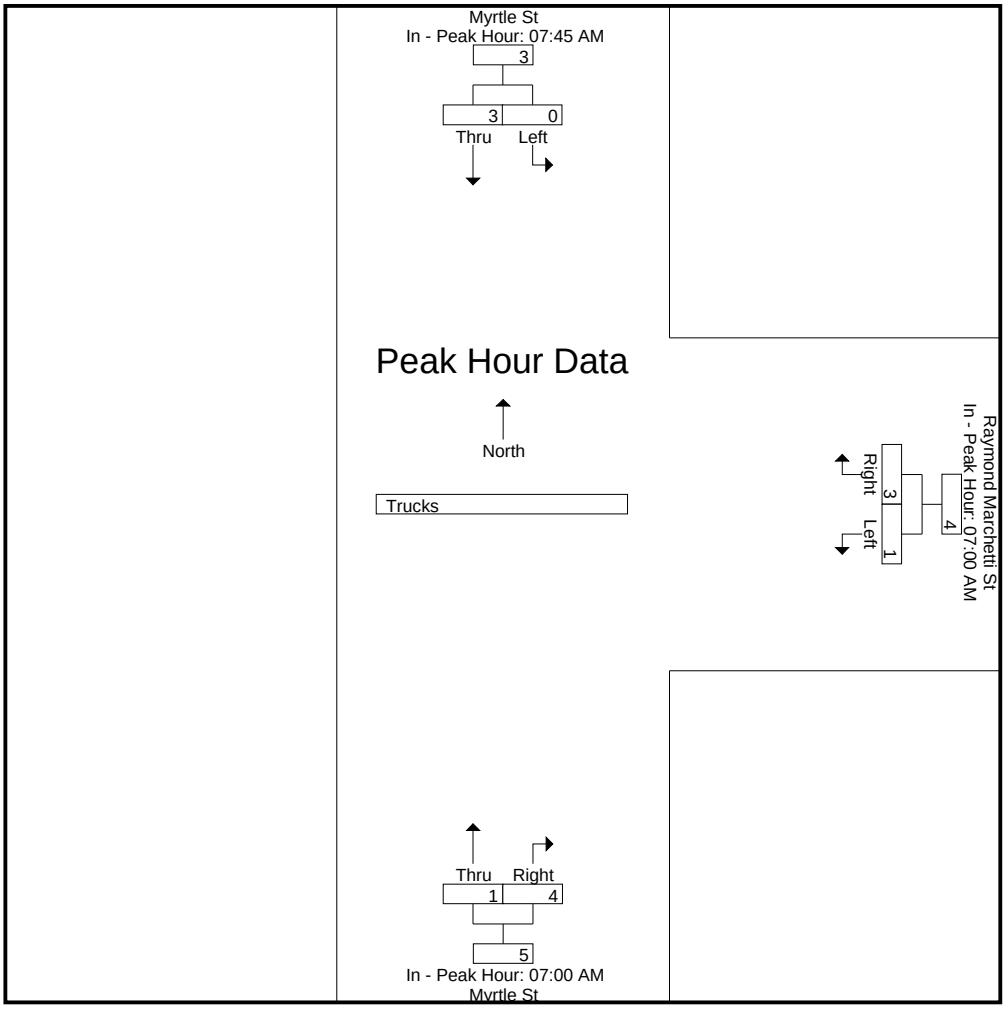

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 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
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	1	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	0	1	1
Grand Total	0	0	0	1	0	0	0	0	0	0	1	1
Apprch %	0	0		100	0		0	0				
Total %	0	0		100	0		0	0		0	100	

	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	**1**	0	**1**	0	0	0	**1**
Total Volume	0	0	0	1	0	1	0	0	0	1
% App. Total	0	0		100	0		0	0		
PHF	.000	.000	.000	.250	.000	.250	.000	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
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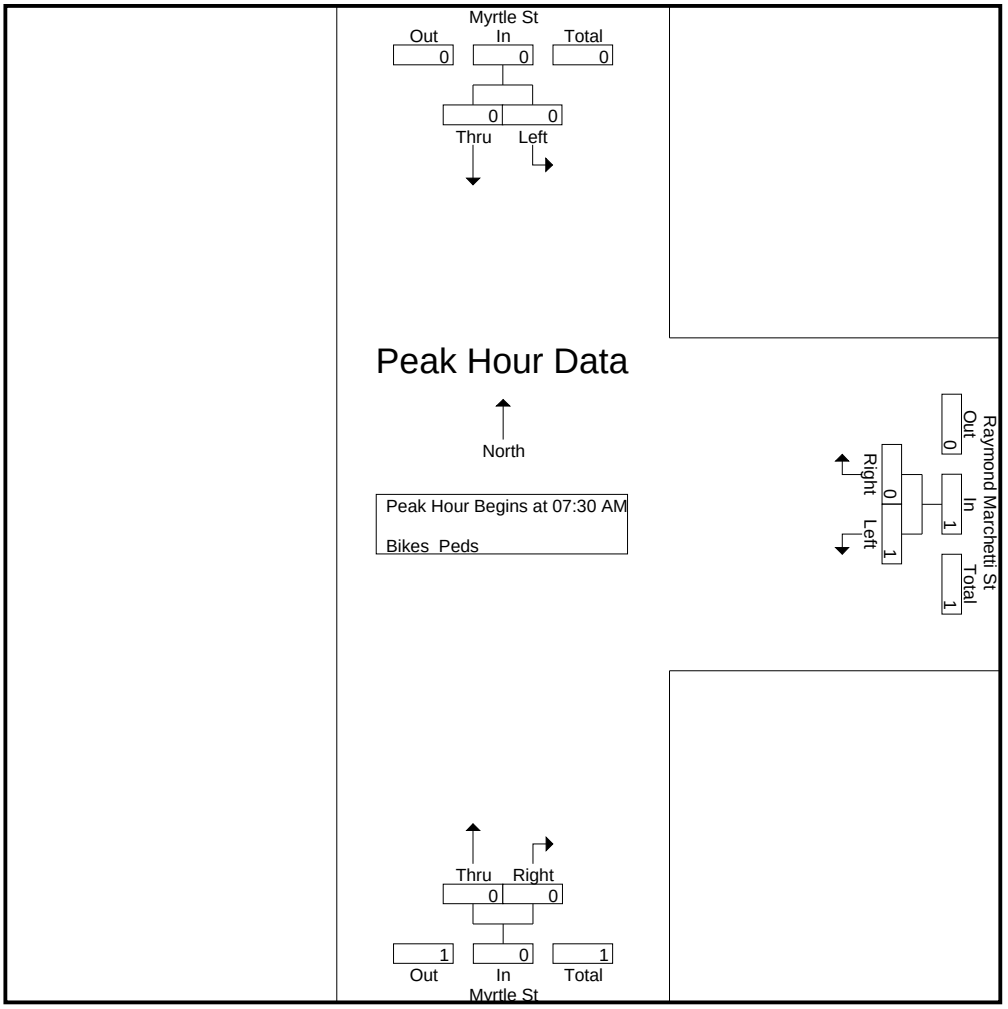

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:00 AM		
+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 : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
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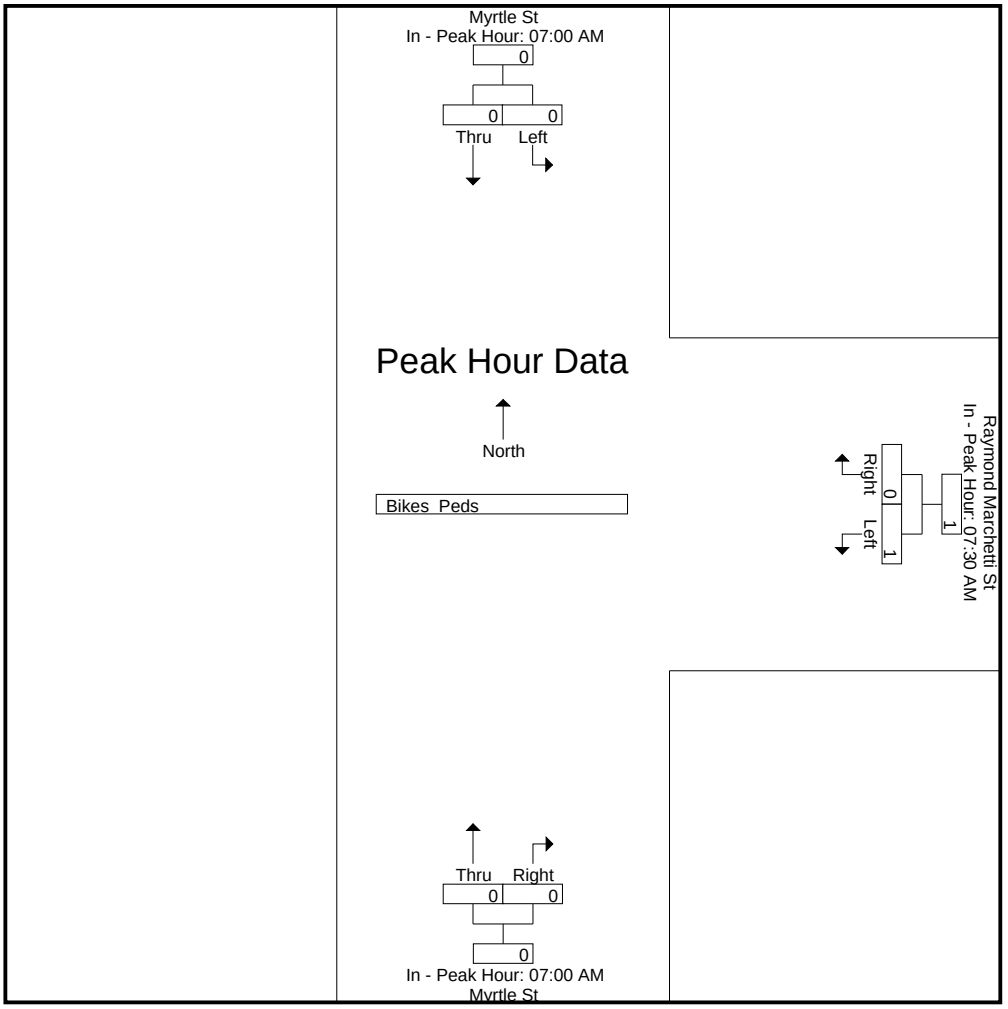

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Myrtle St From North		Raymond Marchetti St From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	9	64	4	7	39	2	125
02:15 PM	5	54	3	4	37	2	105
02:30 PM	3	76	10	2	51	9	151
02:45 PM	3	59	6	6	47	4	125
Total	20	253	23	19	174	17	506
03:00 PM	4	70	4	9	44	3	134
03:15 PM	6	93	6	6	52	4	167
03:30 PM	1	99	3	6	49	6	164
03:45 PM	6	78	2	5	62	3	156
Total	17	340	15	26	207	16	621
04:00 PM	3	82	6	1	64	4	160
04:15 PM	7	106	10	2	55	7	187
04:30 PM	7	96	7	2	58	7	177
04:45 PM	8	101	0	9	56	5	179
Total	25	385	23	14	233	23	703
05:00 PM	9	101	4	5	59	5	183
05:15 PM	7	113	4	2	48	2	176
05:30 PM	8	87	1	4	50	3	153
05:45 PM	5	87	2	1	51	4	150
Total	29	388	11	12	208	14	662
Grand Total	91	1366	72	71	822	70	2492
Apprch %	6.2	93.8	50.3	49.7	92.2	7.8	
Total %	3.7	54.8	2.9	2.8	33	2.8	
Cars	91	1354	69	69	813	68	2464
% Cars	100	99.1	95.8	97.2	98.9	97.1	98.9
Trucks	0	12	3	2	9	2	28
% Trucks	0	0.9	4.2	2.8	1.1	2.9	1.1

	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	7	**106**	**113**	**10**	2	**12**	55	**7**	62	**187**
04:30 PM	7	96	103	7	2	9	58	7	**65**	177
04:45 PM	8	101	109	0	**9**	9	56	5	61	179
05:00 PM	**9**	101	110	4	5	9	**59**	5	64	183
Total Volume	31	404	435	21	18	39	228	24	252	726
% App. Total	7.1	92.9		53.8	46.2		90.5	9.5		
PHF	.861	.953	.962	.525	.500	.813	.966	.857	.969	.971
Cars	31	402	433	21	18	39	226	24	250	722
% Cars	100	99.5	99.5	100	100	100	99.1	100	99.2	99.4
Trucks	0	2	2	0	0	0	2	0	2	4
% Trucks	0	0.5	0.5	0	0	0	0.9	0	0.8	0.6

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
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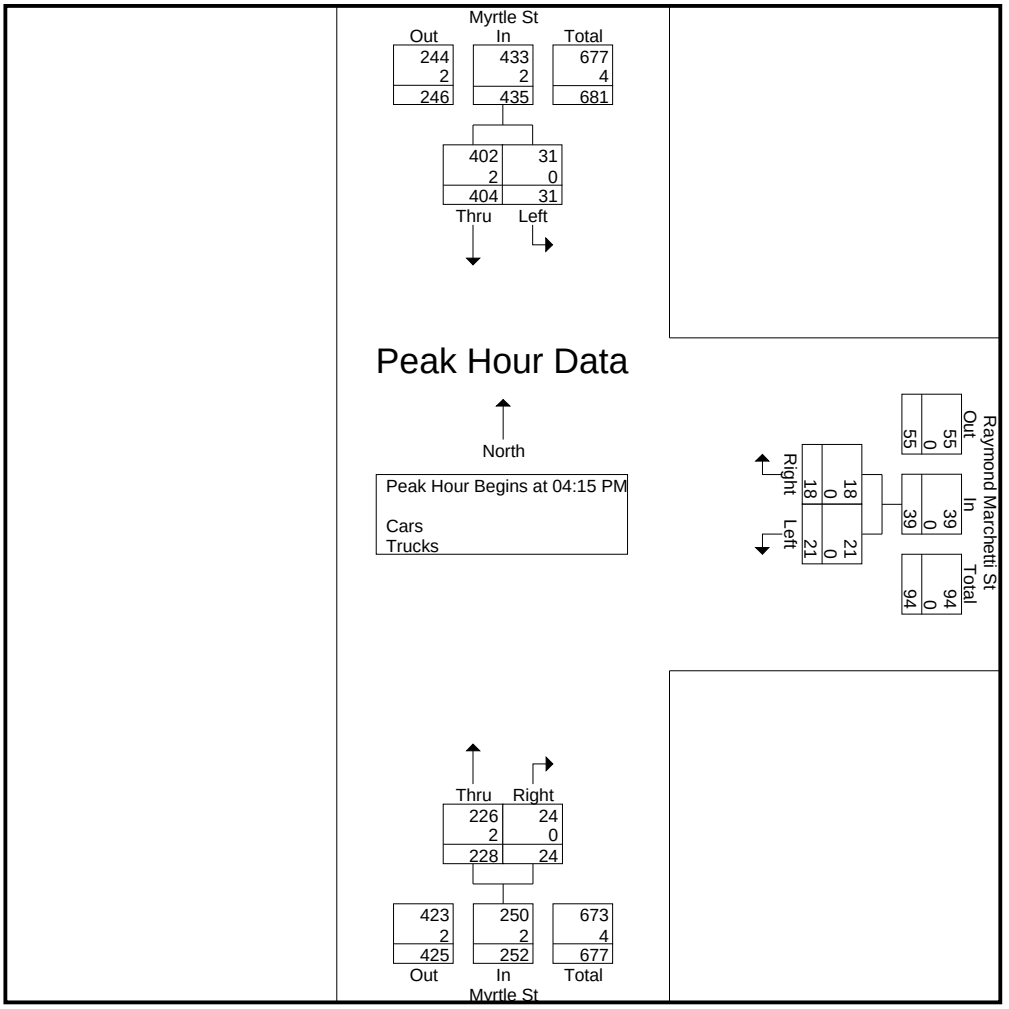

Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM			02:30 PM			03:45 PM		
+0 mins.	7	96	103	**10**	2	12	62	3	65
+15 mins.	8	101	109	6	6	12	**64**	4	**68**
+30 mins.	**9**	101	110	4	**9**	**13**	55	**7**	62
+45 mins.	7	**113**	**120**	6	6	12	58	7	65
Total Volume	31	411	442	26	23	49	239	21	260
% App. Total	7	93		53.1	46.9		91.9	8.1	
PHF	.861	.909	.921	.650	.639	.942	.934	.750	.956
Cars	31	410	441	24	23	47	239	21	260
% Cars	100	99.8	99.8	92.3	100	95.9	100	100	100
Trucks	0	1	1	2	0	2	0	0	0
% Trucks	0	0.2	0.2	7.7	0	4.1	0	0	0

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
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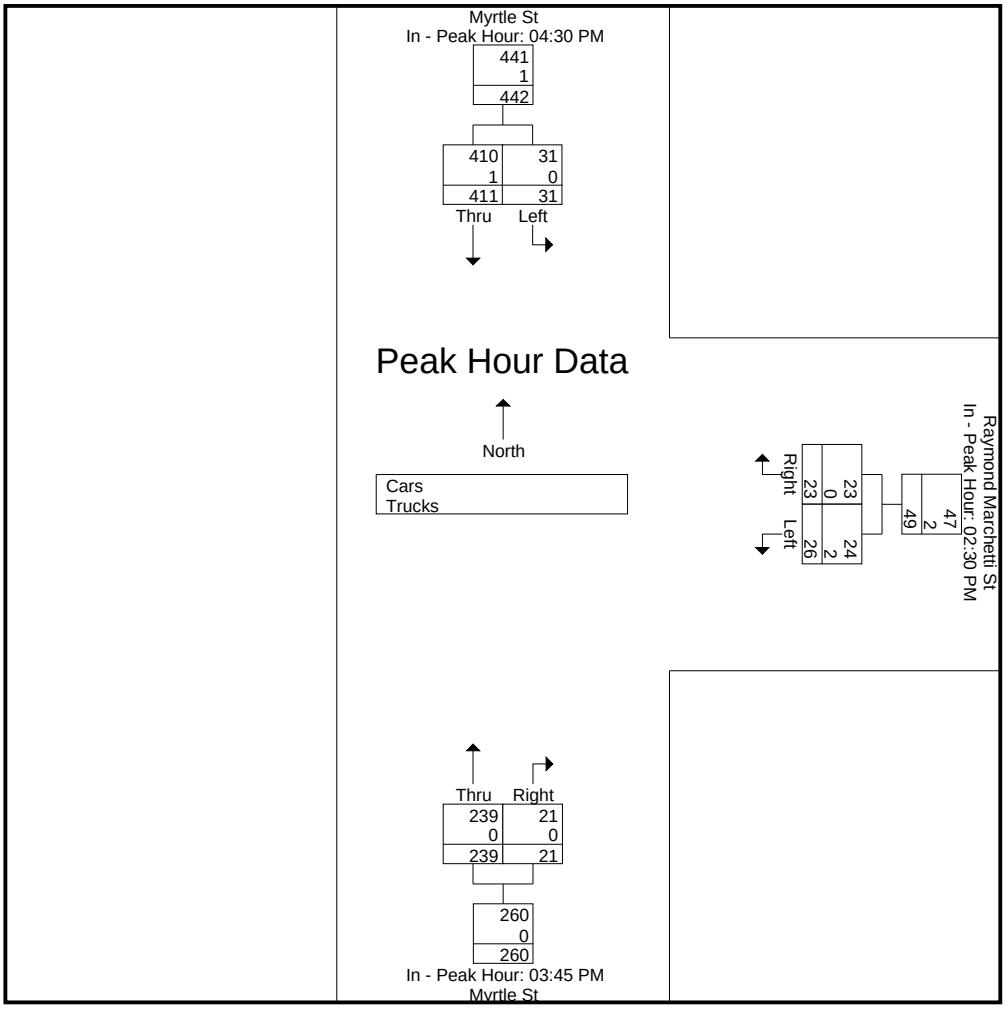


Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 4

Groups Printed- Cars

	Myrtle St From North		Raymond Marchetti St From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	9	61	4	6	38	2	120
02:15 PM	5	54	3	4	35	1	102
02:30 PM	3	75	9	2	50	9	148
02:45 PM	3	58	6	6	47	4	124
Total	20	248	22	18	170	16	494
03:00 PM	4	69	3	9	43	3	131
03:15 PM	6	92	6	6	51	3	164
03:30 PM	1	97	3	5	49	6	161
03:45 PM	6	78	2	5	62	3	156
Total	17	336	14	25	205	15	612
04:00 PM	3	82	5	1	64	4	159
04:15 PM	7	105	10	2	55	7	186
04:30 PM	7	95	7	2	58	7	176
04:45 PM	8	101	0	9	54	5	177
Total	25	383	22	14	231	23	698
05:00 PM	9	101	4	5	59	5	183
05:15 PM	7	113	4	2	47	2	175
05:30 PM	8	86	1	4	50	3	152
05:45 PM	5	87	2	1	51	4	150
Total	29	387	11	12	207	14	660
Grand Total	91	1354	69	69	813	68	2464
Apprch %	6.3	93.7	50	50	92.3	7.7	
Total %	3.7	55	2.8	2.8	33	2.8	

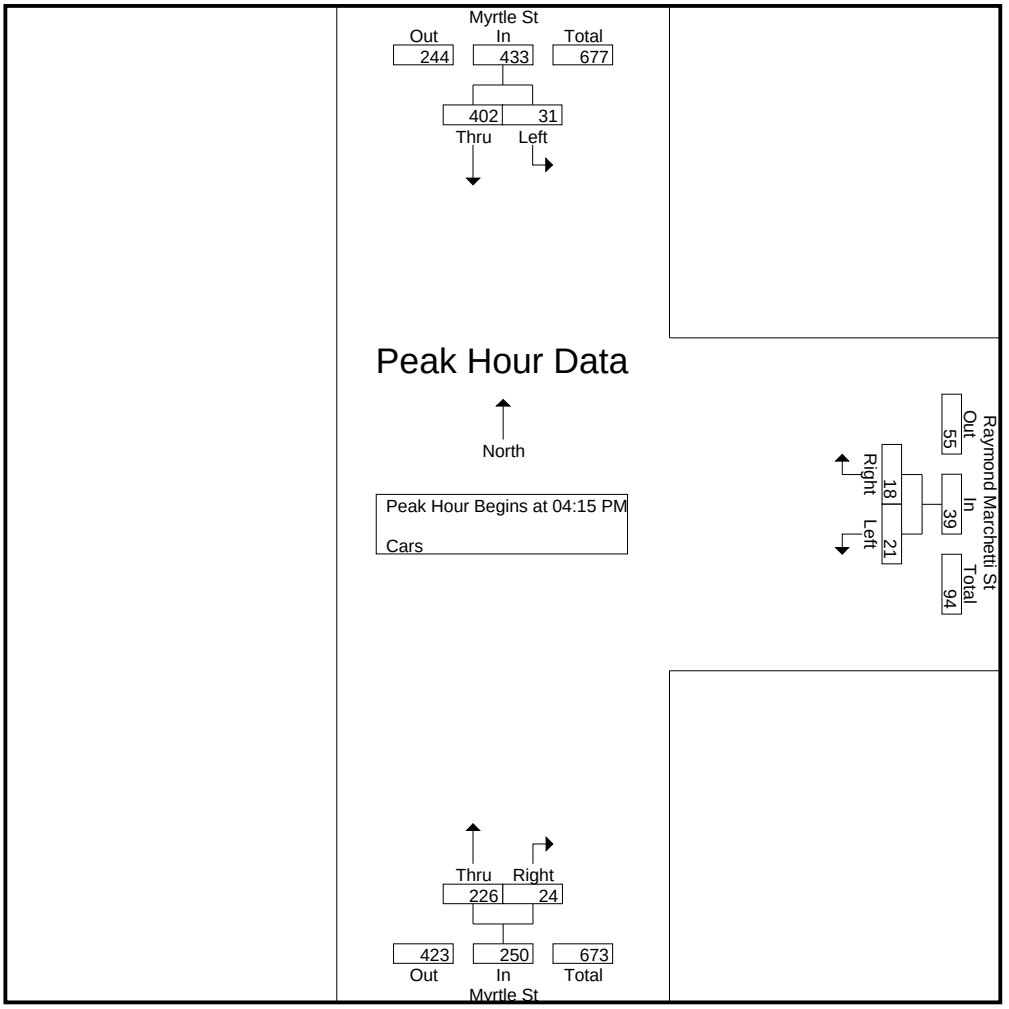
	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	7	**105**	**112**	**10**	2	**12**	55	**7**	62	**186**
04:30 PM	7	95	102	7	2	9	58	7	**65**	176
04:45 PM	8	101	109	0	**9**	9	54	5	59	177
05:00 PM	**9**	101	110	4	5	9	**59**	5	64	183
Total Volume	31	402	433	21	18	39	226	24	250	722
% App. Total	7.2	92.8		53.8	46.2		90.4	9.6		
PHF	.861	.957	.967	.525	.500	.813	.958	.857	.962	.970

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 5



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

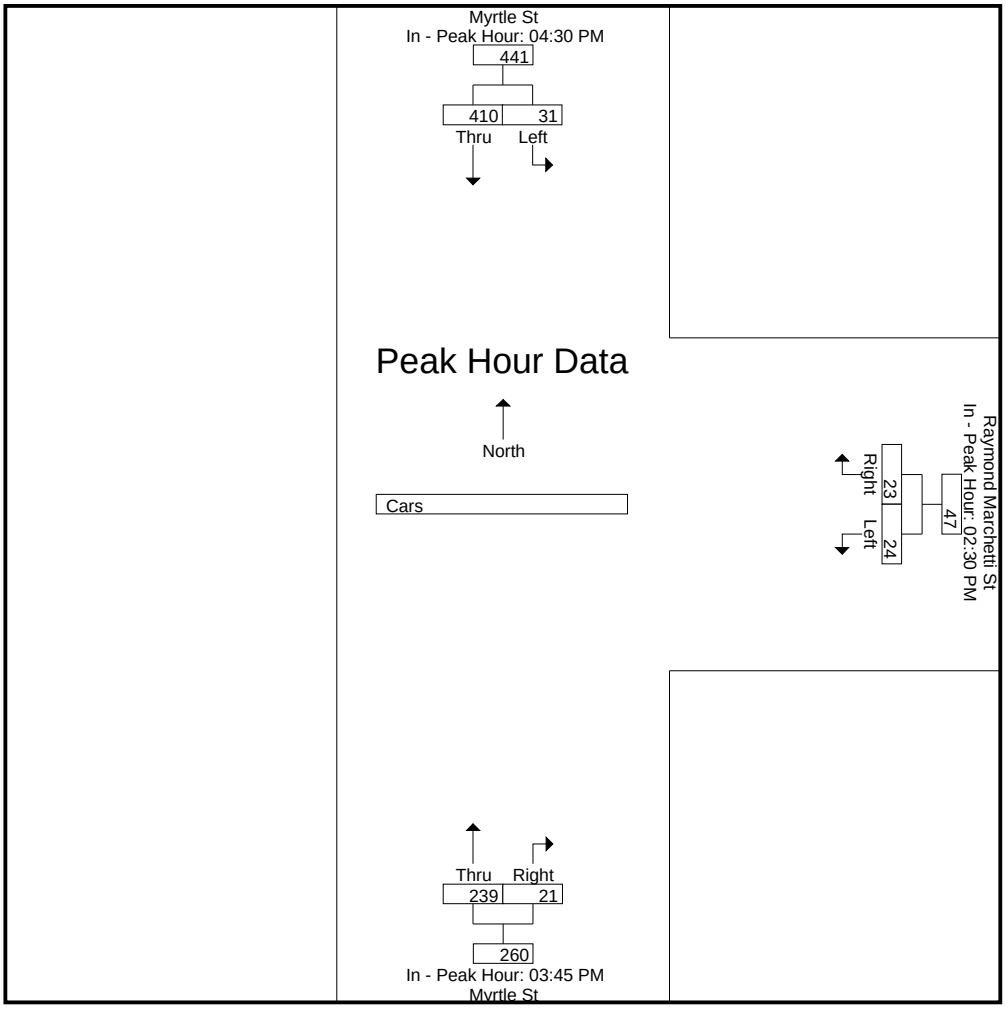
	04:30 PM			02:30 PM			03:45 PM		
+0 mins.	7	95	102	**9**	2	11	62	3	65
+15 mins.	8	101	109	6	6	**12**	**64**	4	**68**
+30 mins.	**9**	101	110	3	**9**	12	55	**7**	62
+45 mins.	7	**113**	**120**	6	6	12	58	7	65
Total Volume	31	410	441	24	23	47	239	21	260
% App. Total	7	93		51.1	48.9		91.9	8.1	
PHF	.861	.907	.919	.667	.639	.979	.934	.750	.956

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024

Groups Printed- Trucks

	Myrtle St From North		Raymond Marchetti St From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	0	3	0	1	1	0	5
02:15 PM	0	0	0	0	2	1	3
02:30 PM	0	1	1	0	1	0	3
02:45 PM	0	1	0	0	0	0	1
Total	0	5	1	1	4	1	12
03:00 PM	0	1	1	0	1	0	3
03:15 PM	0	1	0	0	1	1	3
03:30 PM	0	2	0	1	0	0	3
03:45 PM	0	0	0	0	0	0	0
Total	0	4	1	1	2	1	9
04:00 PM	0	0	1	0	0	0	1
04:15 PM	0	1	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	2	0	2
Total	0	2	1	0	2	0	5
05:00 PM	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	1
05:30 PM	0	1	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	2
Grand Total	0	12	3	2	9	2	28
Apprch %	0	100	60	40	81.8	18.2	
Total %	0	42.9	10.7	7.1	32.1	7.1	

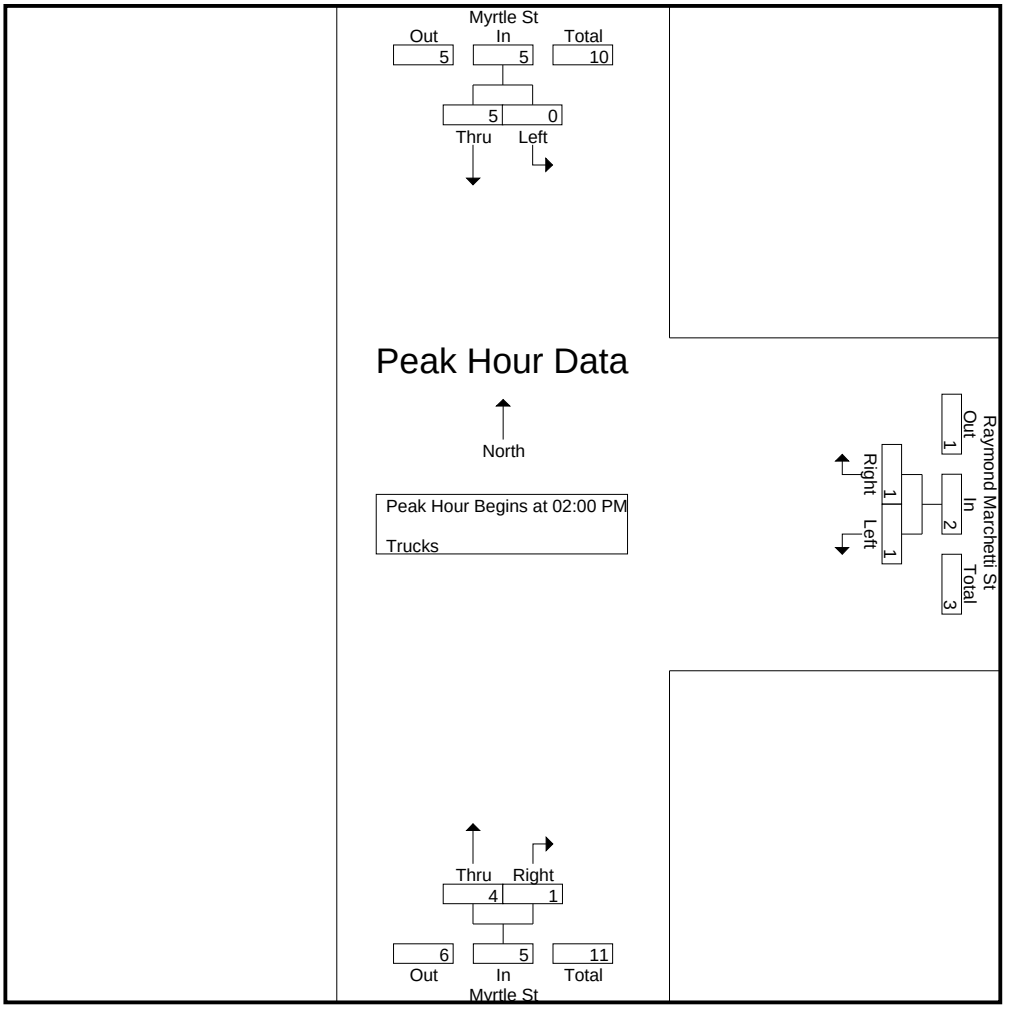
	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	**3**	**3**	0	**1**	**1**	1	0	1	**5**
02:15 PM	0	0	0	0	0	0	**2**	**1**	**3**	3
02:30 PM	0	1	1	**1**	0	1	1	0	1	3
02:45 PM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	5	5	1	1	2	4	1	5	12
% App. Total	0	100		50	50		80	20		
PHF	.000	.417	.417	.250	.250	.500	.500	.250	.417	.600

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 8



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

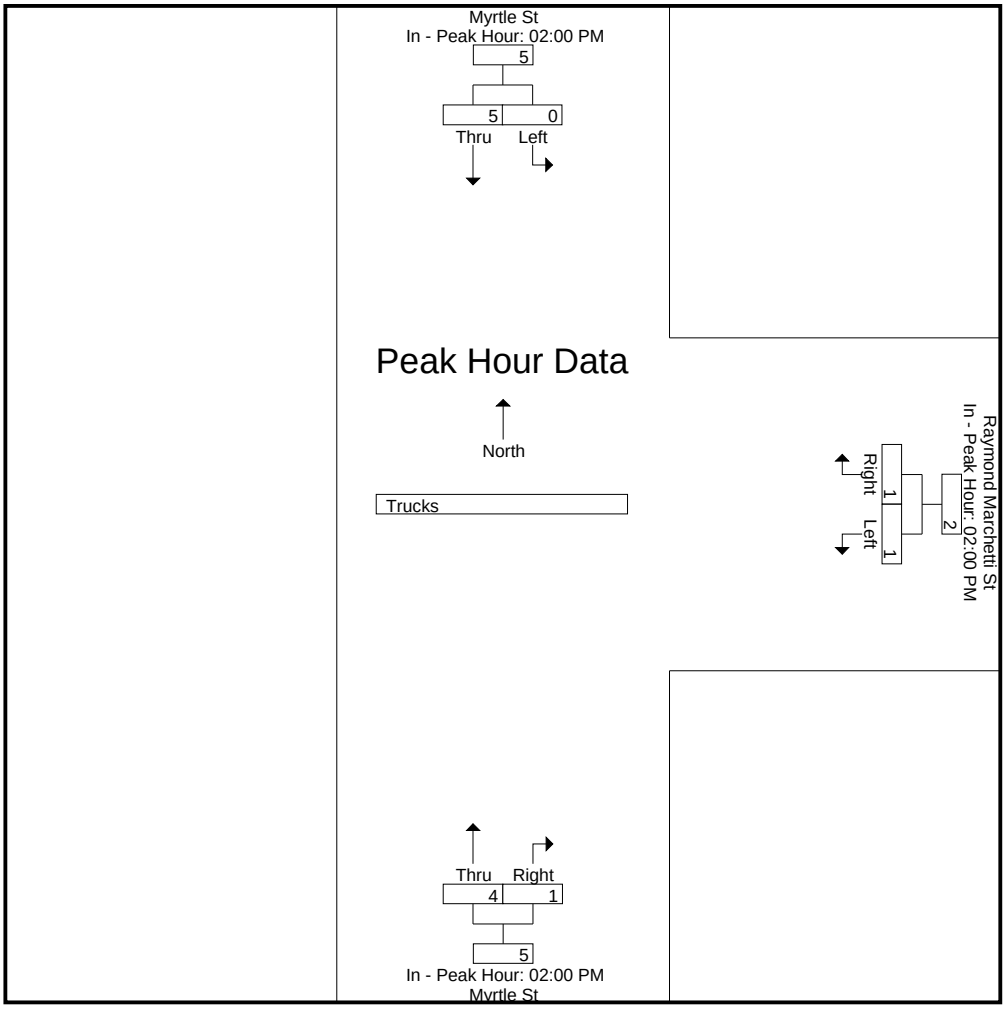
	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	**3**	**3**	0	**1**	**1**	1	0	1
+15 mins.	0	0	0	0	0	0	**2**	**1**	**3**
+30 mins.	0	1	1	**1**	0	1	1	0	1
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	5	5	1	1	2	4	1	5
% App. Total	0	100		50	50		80	20	
PHF	.000	.417	.417	.250	.250	.500	.500	.250	.417

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
02:00 PM	0	0	1	0	0	0	0	0	0	1	0	1
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	0	0	0	1	0	1
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
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	2	0	0	0	0	0	0	0	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	0	0	0	0	0	0	2	2
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	3	3	0	3
05:30 PM	0	0	0	0	0	0	0	0	1	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	0	0	0	0	0	0	0	6	6	0	6
Grand Total	0	2	1	0	0	0	0	0	6	7	2	9
Apprch %	0	100		0	0		0	0				
Total %	0	100		0	0		0	0		77.8	22.2	

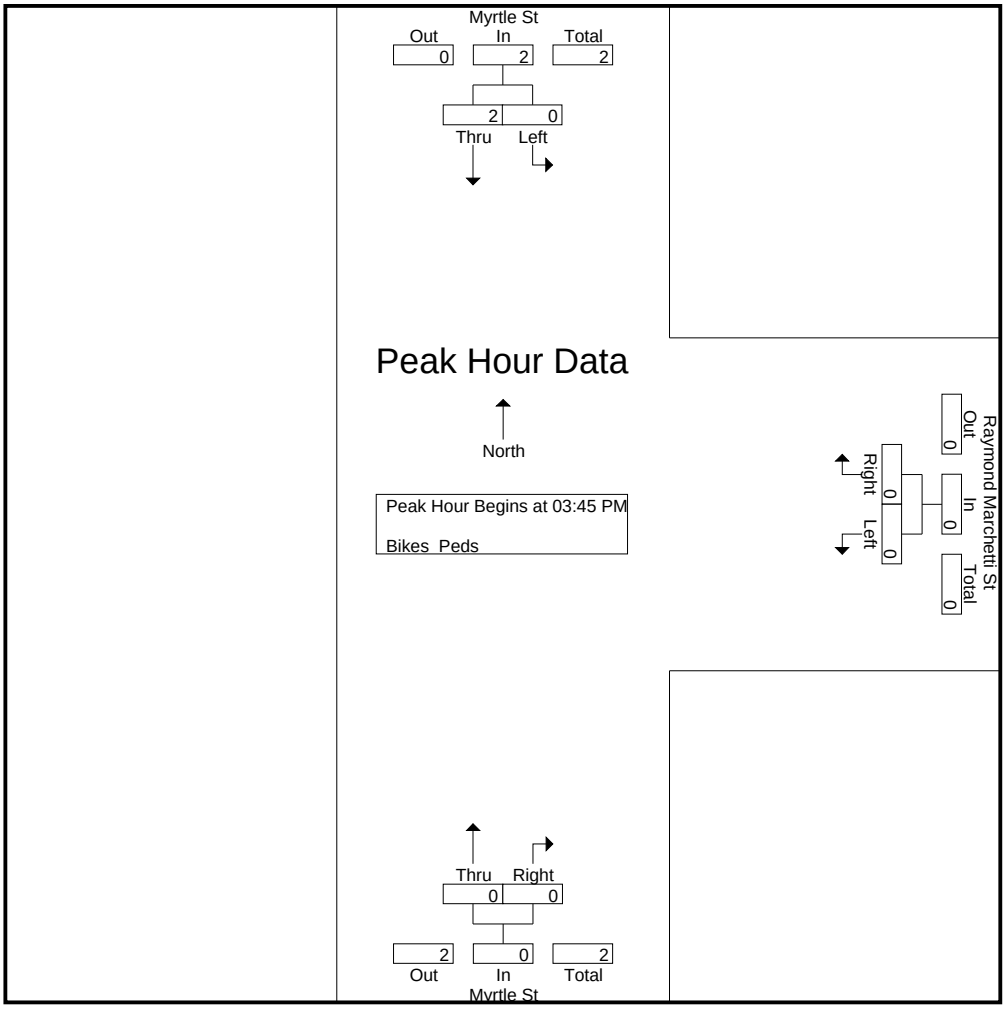
	Myrtle St From North			Raymond Marchetti St From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:45 PM										
03:45 PM	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	**2**	**2**	0	0	0	0	0	0	**2**
Total Volume	0	2	2	0	0	0	0	0	0	2
% App. Total	0	100		0	0		0	0		
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 11



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

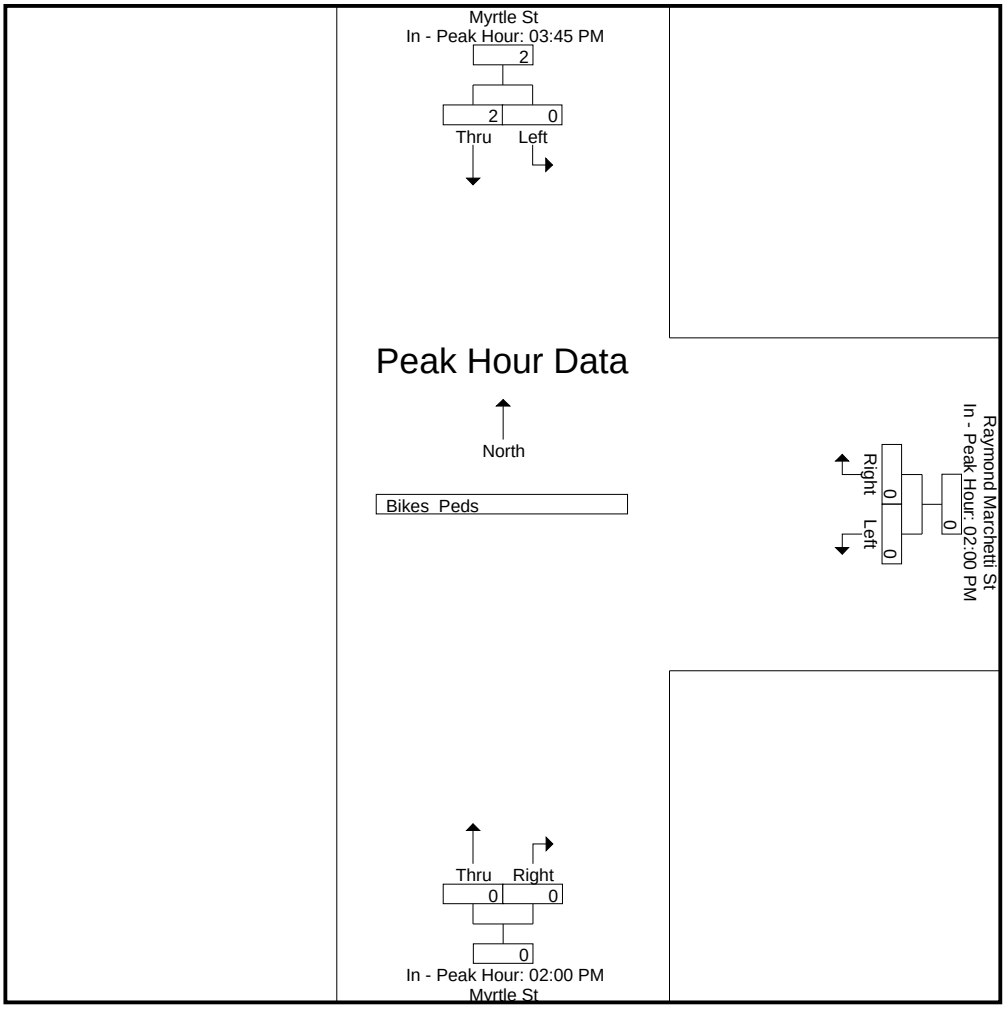
	03:45 PM			02:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	**2**	**2**	0	0	0	0	0	0
Total Volume	0	2	2	0	0	0	0	0	0
% App. Total	0	100		0	0		0	0	
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : Raymond Marchetti Street
City/State : Ashland, MA
Weather : Clear

File Name : 98370004
Site Code : 98370004
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North		10-50 Main St Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	44	0	0	47	0	91
07:15 AM	2	46	0	0	36	2	86
07:30 AM	0	58	0	0	63	2	123
07:45 AM	0	69	0	0	61	3	133
Total	2	217	0	0	207	7	433
08:00 AM	1	60	0	0	55	3	119
08:15 AM	0	69	0	0	100	2	171
08:30 AM	1	49	0	0	74	1	125
08:45 AM	2	60	1	0	72	0	135
Total	4	238	1	0	301	6	550
Grand Total	6	455	1	0	508	13	983
Apprch %	1.3	98.7	100	0	97.5	2.5	
Total %	0.6	46.3	0.1	0	51.7	1.3	
Cars	6	448	1	0	504	13	972
% Cars	100	98.5	100	0	99.2	100	98.9
Trucks	0	7	0	0	4	0	11
% Trucks	0	1.5	0	0	0.8	0	1.1

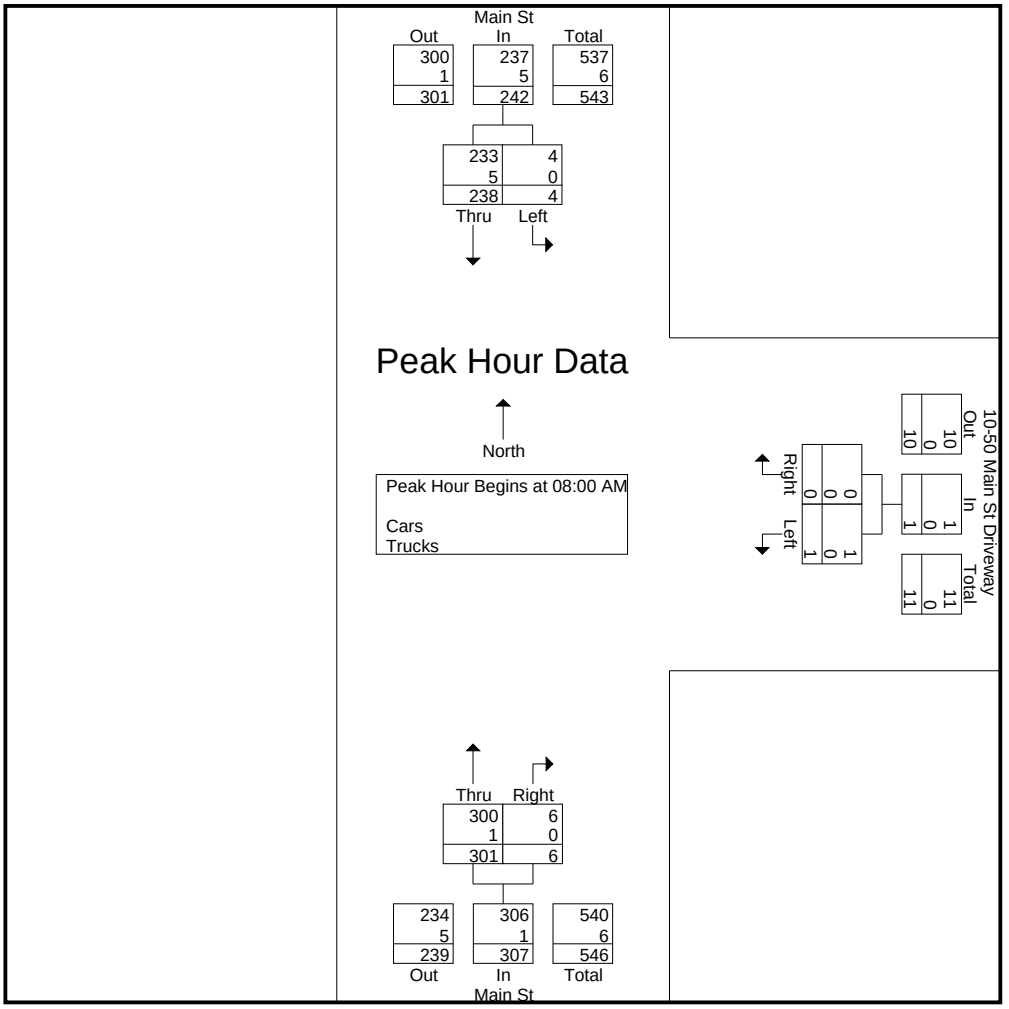
	Main St From North			10-50 Main St Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	1	60	61	0	0	0	55	**3**	58	119
08:15 AM	0	**69**	**69**	0	0	0	**100**	2	**102**	**171**
08:30 AM	1	49	50	0	0	0	74	1	75	125
08:45 AM	**2**	60	62	**1**	0	**1**	72	0	72	135
Total Volume	4	238	242	1	0	1	301	6	307	550
% App. Total	1.7	98.3		100	0		98	2		
PHF	.500	.862	.877	.250	.000	.250	.753	.500	.752	.804
Cars	4	233	237	1	0	1	300	6	306	544
% Cars	100	97.9	97.9	100	0	100	99.7	100	99.7	98.9
Trucks	0	5	5	0	0	0	1	0	1	6
% Trucks	0	2.1	2.1	0	0	0	0.3	0	0.3	1.1

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 2



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

Peak Hour for Each Approach Begins at:

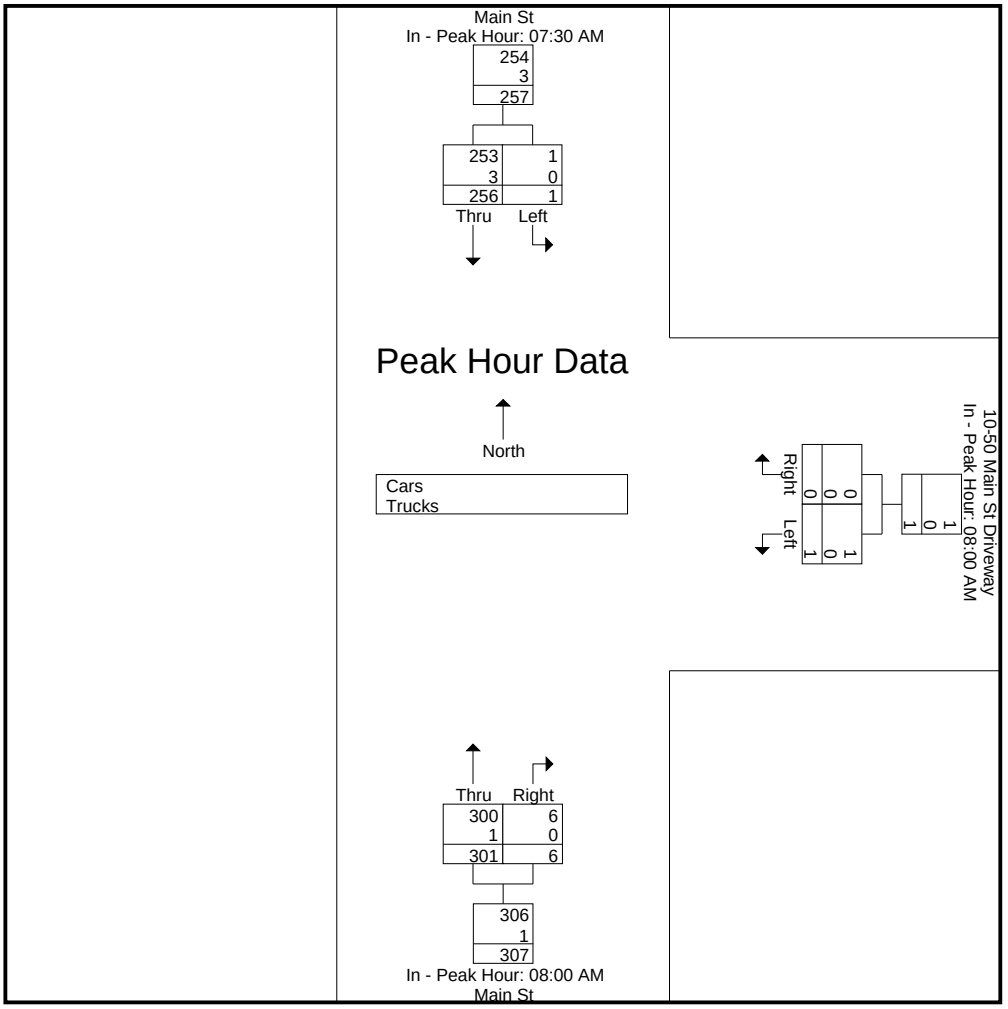
	07:30 AM			08:00 AM			08:00 AM		
+0 mins.	0	58	58	0	0	0	55	**3**	58
+15 mins.	0	**69**	**69**	0	0	0	**100**	2	**102**
+30 mins.	**1**	60	61	0	0	0	74	1	75
+45 mins.	0	69	69	**1**	0	**1**	72	0	72
Total Volume	1	256	257	1	0	1	301	6	307
% App. Total	0.4	99.6		100	0		98	2	
PHF	.250	.928	.931	.250	.000	.250	.753	.500	.752
Cars	1	253	254	1	0	1	300	6	306
% Cars	100	98.8	98.8	100	0	100	99.7	100	99.7
Trucks	0	3	3	0	0	0	1	0	1
% Trucks	0	1.2	1.2	0	0	0	0.3	0	0.3

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024

Groups Printed- Cars

	Main St From North		10-50 Main St Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	43	0	0	46	0	89
07:15 AM	2	46	0	0	35	2	85
07:30 AM	0	57	0	0	63	2	122
07:45 AM	0	69	0	0	60	3	132
Total	2	215	0	0	204	7	428
08:00 AM	1	58	0	0	55	3	117
08:15 AM	0	69	0	0	99	2	170
08:30 AM	1	47	0	0	74	1	123
08:45 AM	2	59	1	0	72	0	134
Total	4	233	1	0	300	6	544
Grand Total	6	448	1	0	504	13	972
Apprch %	1.3	98.7	100	0	97.5	2.5	
Total %	0.6	46.1	0.1	0	51.9	1.3	

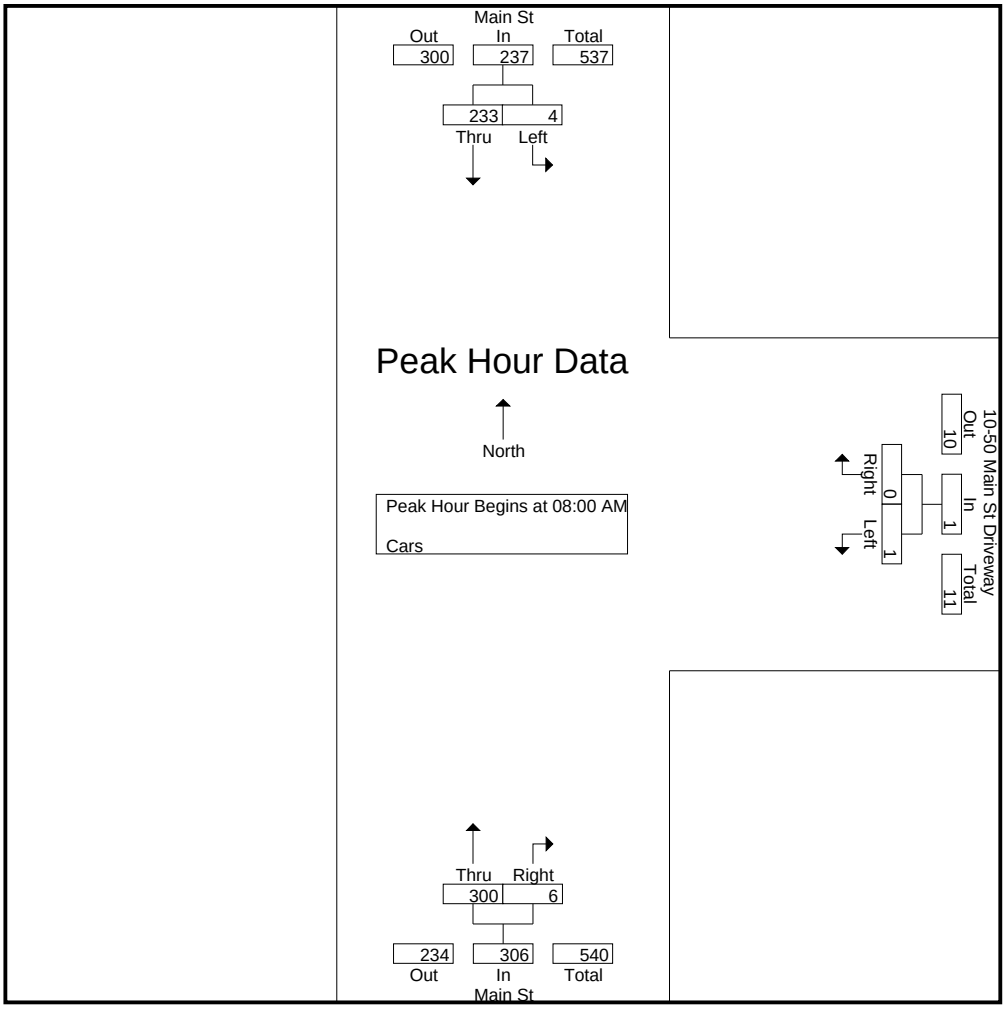
	Main St From North			10-50 Main St Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	1	58	59	0	0	0	55	**3**	58	117
08:15 AM	0	**69**	**69**	0	0	0	**99**	2	**101**	**170**
08:30 AM	1	47	48	0	0	0	74	1	75	123
08:45 AM	**2**	59	61	**1**	0	**1**	72	0	72	134
Total Volume	4	233	237	1	0	1	300	6	306	544
% App. Total	1.7	98.3		100	0		98	2		
PHF	.500	.844	.859	.250	.000	.250	.758	.500	.757	.800

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 5



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

Peak Hour for Each Approach Begins at:

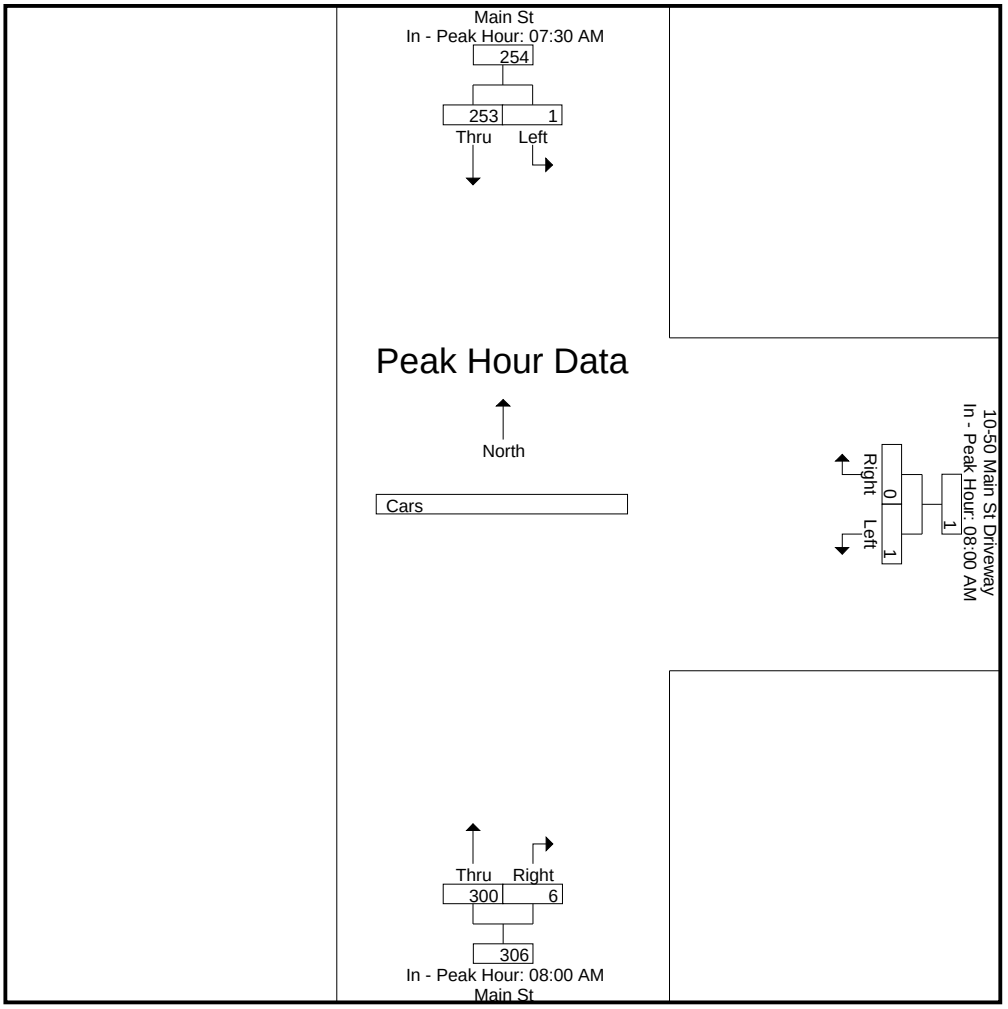
	07:30 AM			08:00 AM			08:00 AM		
+0 mins.	0	57	57	0	0	0	55	**3**	58
+15 mins.	0	**69**	**69**	0	0	0	**99**	2	**101**
+30 mins.	**1**	58	59	0	0	0	74	1	75
+45 mins.	0	69	69	**1**	0	**1**	72	0	72
Total Volume	1	253	254	1	0	1	300	6	306
% App. Total	0.4	99.6		100	0		98	2	
PHF	.250	.917	.920	.250	.000	.250	.758	.500	.757

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 7

Groups Printed- Trucks

	Main St From North		10-50 Main St Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	1	0	0	1	0	2
07:15 AM	0	0	0	0	1	0	1
07:30 AM	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	1	0	1
Total	0	2	0	0	3	0	5
08:00 AM	0	2	0	0	0	0	2
08:15 AM	0	0	0	0	1	0	1
08:30 AM	0	2	0	0	0	0	2
08:45 AM	0	1	0	0	0	0	1
Total	0	5	0	0	1	0	6
Grand Total	0	7	0	0	4	0	11
Apprch %	0	100	0	0	100	0	
Total %	0	63.6	0	0	36.4	0	

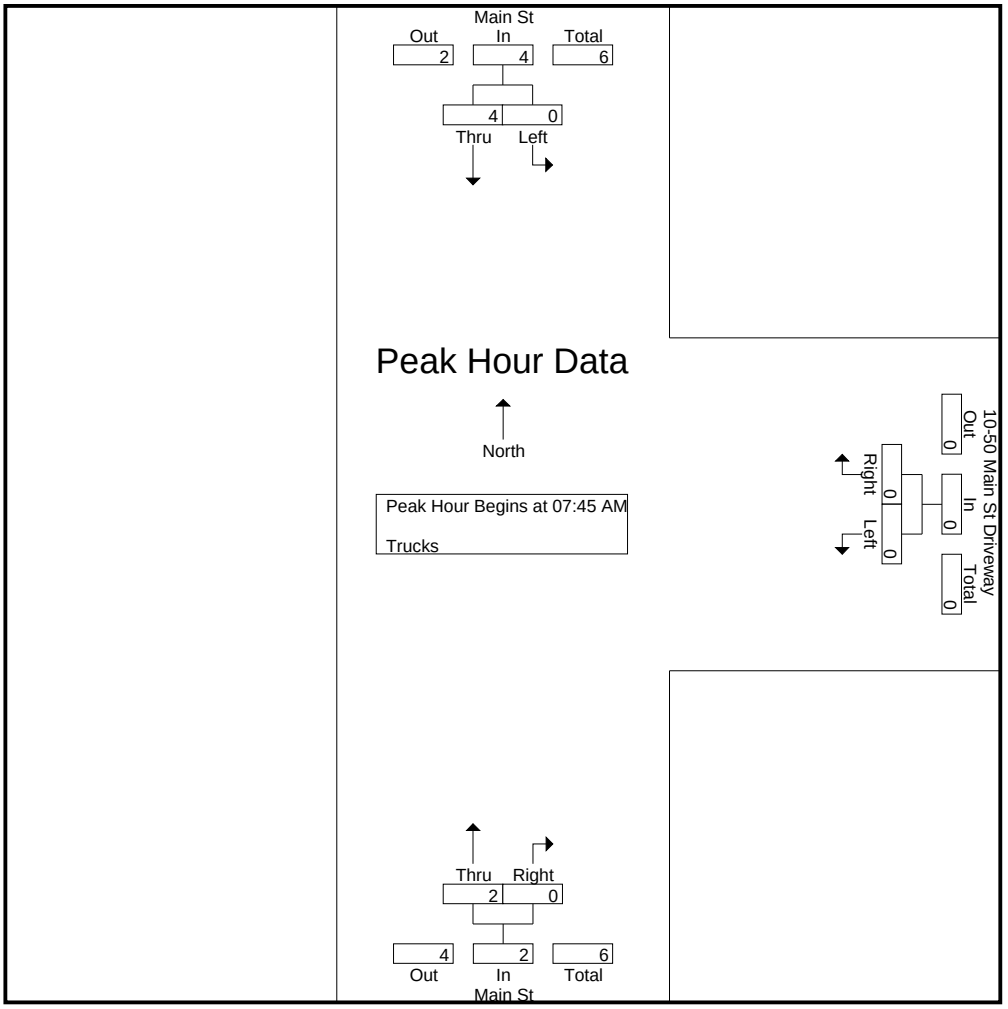
	Main St From North			10-50 Main St Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	0	0	**1**	0	**1**	1
08:00 AM	0	**2**	**2**	0	0	0	0	0	0	**2**
08:15 AM	0	0	0	0	0	0	1	0	1	1
08:30 AM	0	2	2	0	0	0	0	0	0	2
Total Volume	0	4	4	0	0	0	2	0	2	6
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500	.750

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 8



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

Peak Hour for Each Approach Begins at:

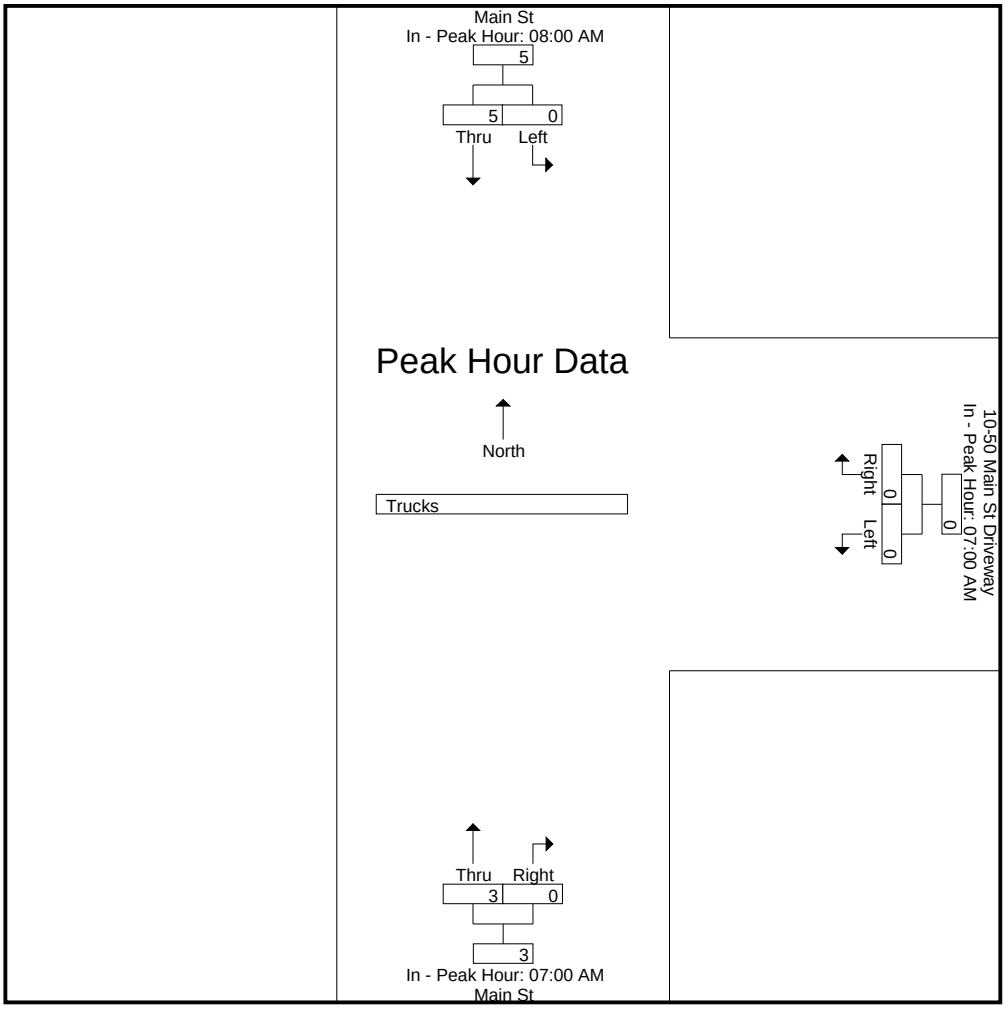
	08:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**2**	**2**	0	0	0	**1**	0	**1**
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	0	2	2	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	5	5	0	0	0	3	0	3
% App. Total	0	100		0	0		100	0	
PHF	.000	.625	.625	.000	.000	.000	.750	.000	.750

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Main St From North			10-50 Main St Driveway From East			Main St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 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
08:00 AM	0	0	0	0	0	1	0	0	0	1	0	1
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	1
08:30 AM	0	0	0	0	0	0	0	0	2	2	0	2
08:45 AM	0	0	0	0	0	2	0	0	0	2	0	2
Total	0	0	0	0	0	4	0	0	2	6	0	6
Grand Total	0	0	0	0	0	4	0	0	2	6	0	6
Apprch %	0	0		0	0		0	0				
Total %										100	0	

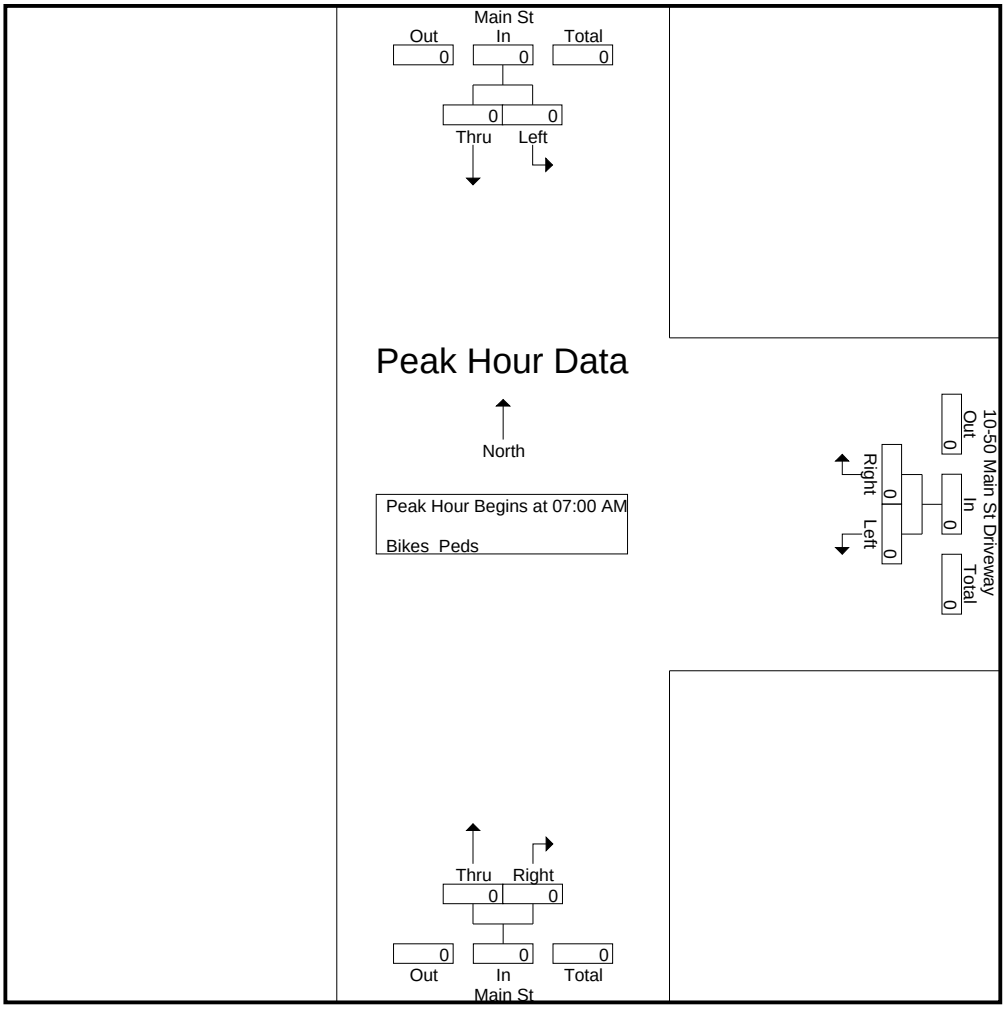
	Main St From North			10-50 Main St Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 11



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

Peak Hour for Each Approach Begins at:

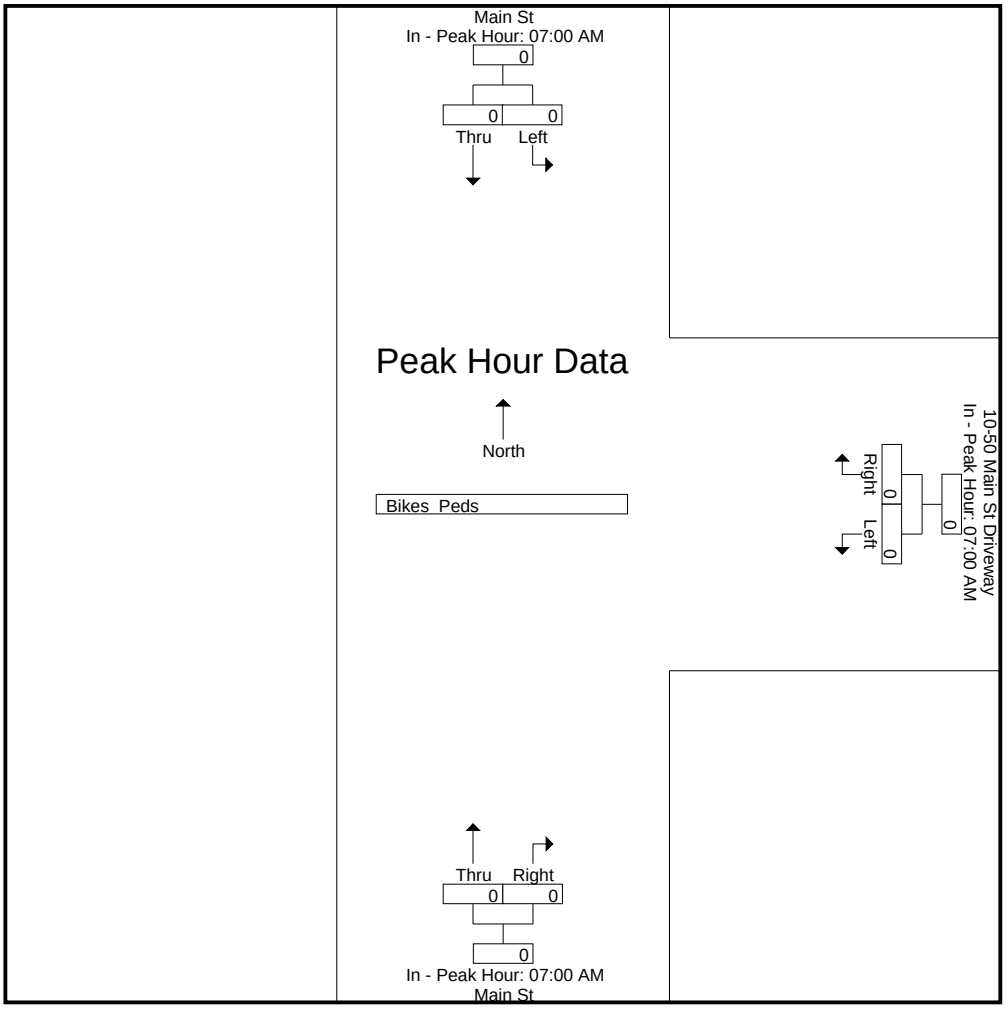
	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North		10-50 Main St Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	0	67	0	0	45	2	114
02:15 PM	1	62	0	0	33	3	99
02:30 PM	1	89	0	0	49	2	141
02:45 PM	2	67	0	0	44	2	115
Total	4	285	0	0	171	9	469
03:00 PM	1	74	0	0	49	5	129
03:15 PM	1	103	0	0	47	4	155
03:30 PM	2	112	0	0	53	4	171
03:45 PM	1	89	0	0	68	6	164
Total	5	378	0	0	217	19	619
04:00 PM	1	93	0	0	63	3	160
04:15 PM	1	113	0	0	63	2	179
04:30 PM	1	107	0	0	59	2	169
04:45 PM	0	107	0	0	63	6	176
Total	3	420	0	0	248	13	684
05:00 PM	1	104	0	0	60	8	173
05:15 PM	2	119	0	0	53	5	179
05:30 PM	0	105	0	0	58	2	165
05:45 PM	1	91	1	0	63	6	162
Total	4	419	1	0	234	21	679
Grand Total	16	1502	1	0	870	62	2451
Apprch %	1.1	98.9	100	0	93.3	6.7	
Total %	0.7	61.3	0	0	35.5	2.5	
Cars	16	1492	1	0	860	62	2431
% Cars	100	99.3	100	0	98.9	100	99.2
Trucks	0	10	0	0	10	0	20
% Trucks	0	0.7	0	0	1.1	0	0.8

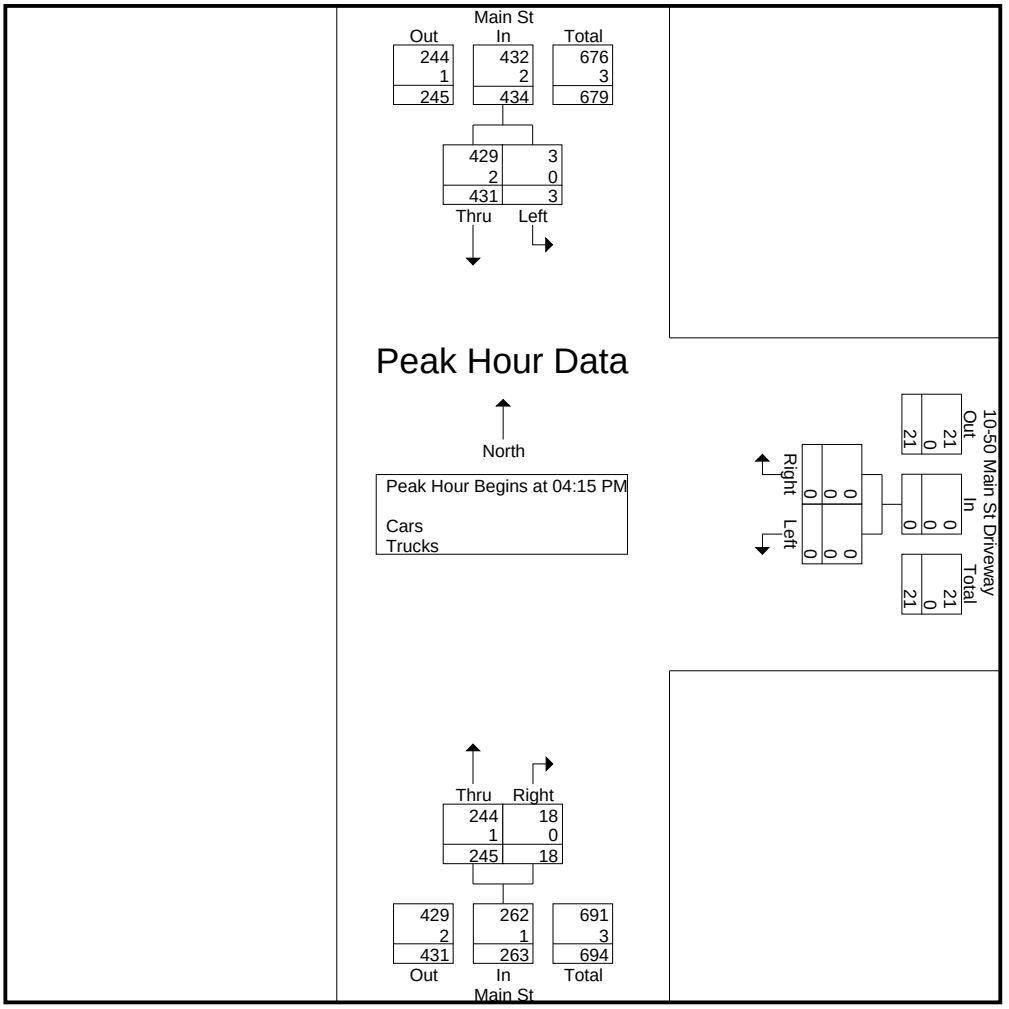
	Main St From North			10-50 Main St Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**1**	**113**	**114**	0	0	0	**63**	2	65	**179**
04:30 PM	1	107	108	0	0	0	59	2	61	169
04:45 PM	0	107	107	0	0	0	63	6	**69**	176
05:00 PM	1	104	105	0	0	0	60	**8**	68	173
Total Volume	3	431	434	0	0	0	245	18	263	697
% App. Total	0.7	99.3		0	0		93.2	6.8		
PHF	.750	.954	.952	.000	.000	.000	.972	.563	.953	.973
Cars	3	429	432	0	0	0	244	18	262	694
% Cars	100	99.5	99.5	0	0	0	99.6	100	99.6	99.6
Trucks	0	2	2	0	0	0	1	0	1	3
% Trucks	0	0.5	0.5	0	0	0	0.4	0	0.4	0.4

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 2



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

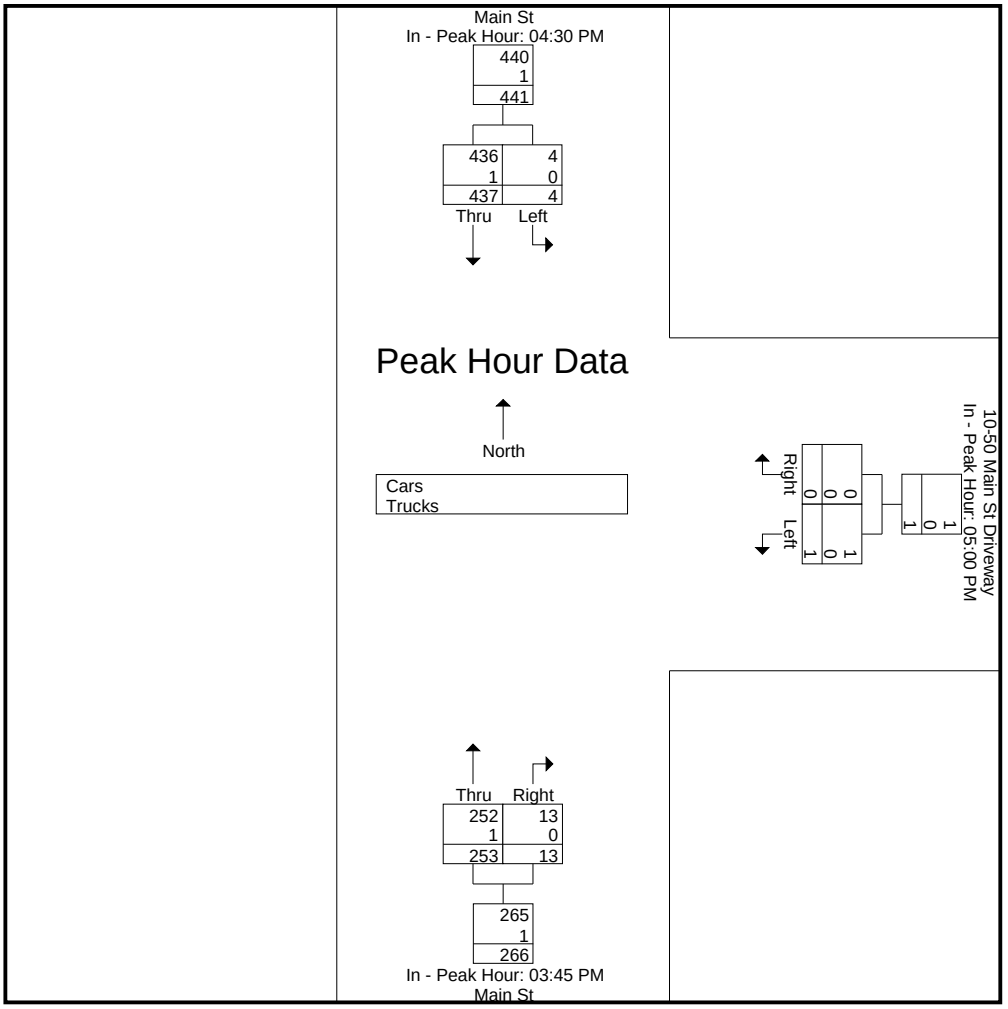
	04:30 PM			05:00 PM			03:45 PM		
+0 mins.	1	107	108	0	0	0	**68**	**6**	**74**
+15 mins.	0	107	107	0	0	0	63	3	66
+30 mins.	1	104	105	0	0	0	63	2	65
+45 mins.	**2**	**119**	**121**	**1**	0	**1**	59	2	61
Total Volume	4	437	441	1	0	1	253	13	266
% App. Total	0.9	99.1		100	0		95.1	4.9	
PHF	.500	.918	.911	.250	.000	.250	.930	.542	.899
Cars	4	436	440	1	0	1	252	13	265
% Cars	100	99.8	99.8	100	0	100	99.6	100	99.6
Trucks	0	1	1	0	0	0	1	0	1
% Trucks	0	0.2	0.2	0	0	0	0.4	0	0.4

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 4

Groups Printed- Cars

	Main St From North		10-50 Main St Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	0	65	0	0	43	2	110
02:15 PM	1	62	0	0	32	3	98
02:30 PM	1	88	0	0	48	2	139
02:45 PM	2	67	0	0	44	2	115
Total	4	282	0	0	167	9	462
03:00 PM	1	73	0	0	47	5	126
03:15 PM	1	102	0	0	47	4	154
03:30 PM	2	111	0	0	52	4	169
03:45 PM	1	87	0	0	68	6	162
Total	5	373	0	0	214	19	611
04:00 PM	1	93	0	0	62	3	159
04:15 PM	1	112	0	0	63	2	178
04:30 PM	1	106	0	0	59	2	168
04:45 PM	0	107	0	0	62	6	175
Total	3	418	0	0	246	13	680
05:00 PM	1	104	0	0	60	8	173
05:15 PM	2	119	0	0	52	5	178
05:30 PM	0	105	0	0	58	2	165
05:45 PM	1	91	1	0	63	6	162
Total	4	419	1	0	233	21	678
Grand Total	16	1492	1	0	860	62	2431
Apprch %	1.1	98.9	100	0	93.3	6.7	
Total %	0.7	61.4	0	0	35.4	2.6	

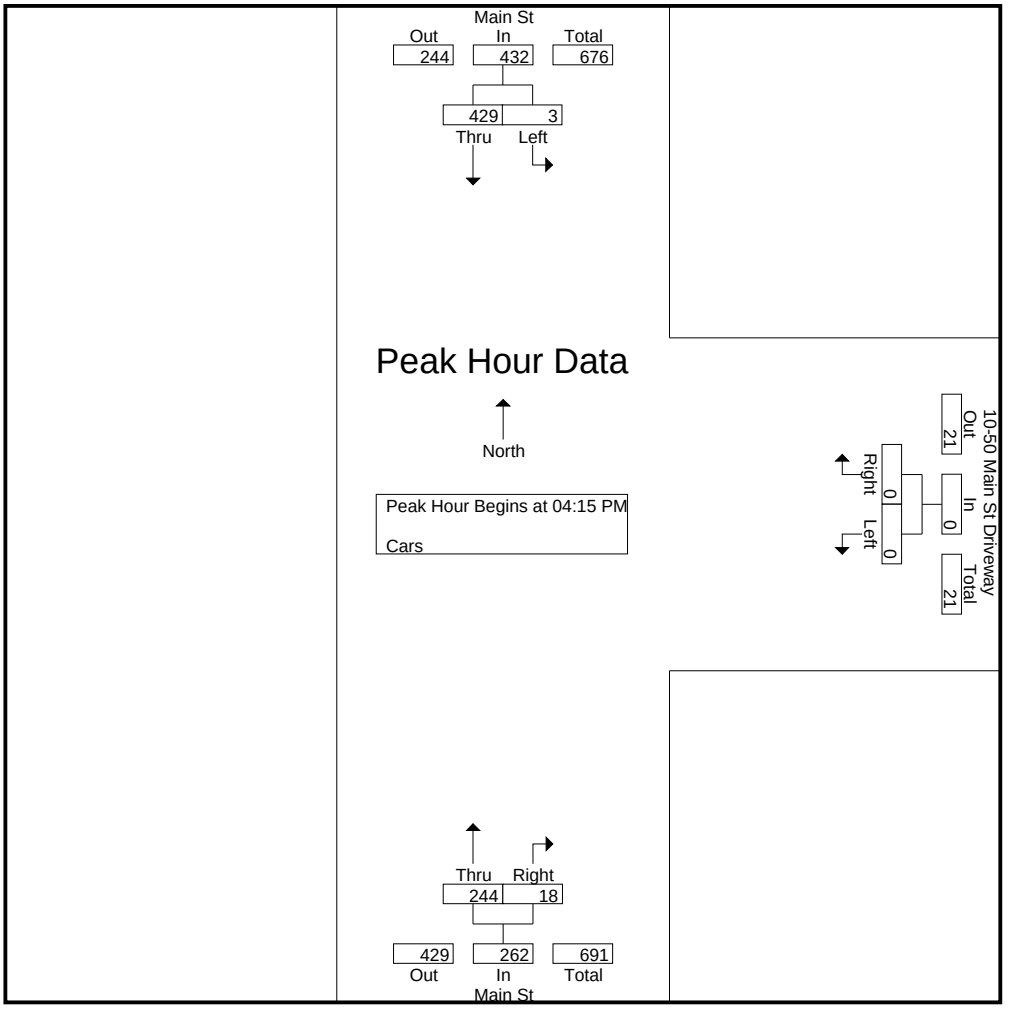
	Main St From North			10-50 Main St Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**1**	**112**	**113**	0	0	0	**63**	2	65	**178**
04:30 PM	1	106	107	0	0	0	59	2	61	168
04:45 PM	0	107	107	0	0	0	62	6	**68**	175
05:00 PM	1	104	105	0	0	0	60	**8**	68	173
Total Volume	3	429	432	0	0	0	244	18	262	694
% App. Total	0.7	99.3		0	0		93.1	6.9		
PHF	.750	.958	.956	.000	.000	.000	.968	.563	.963	.975

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 5



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

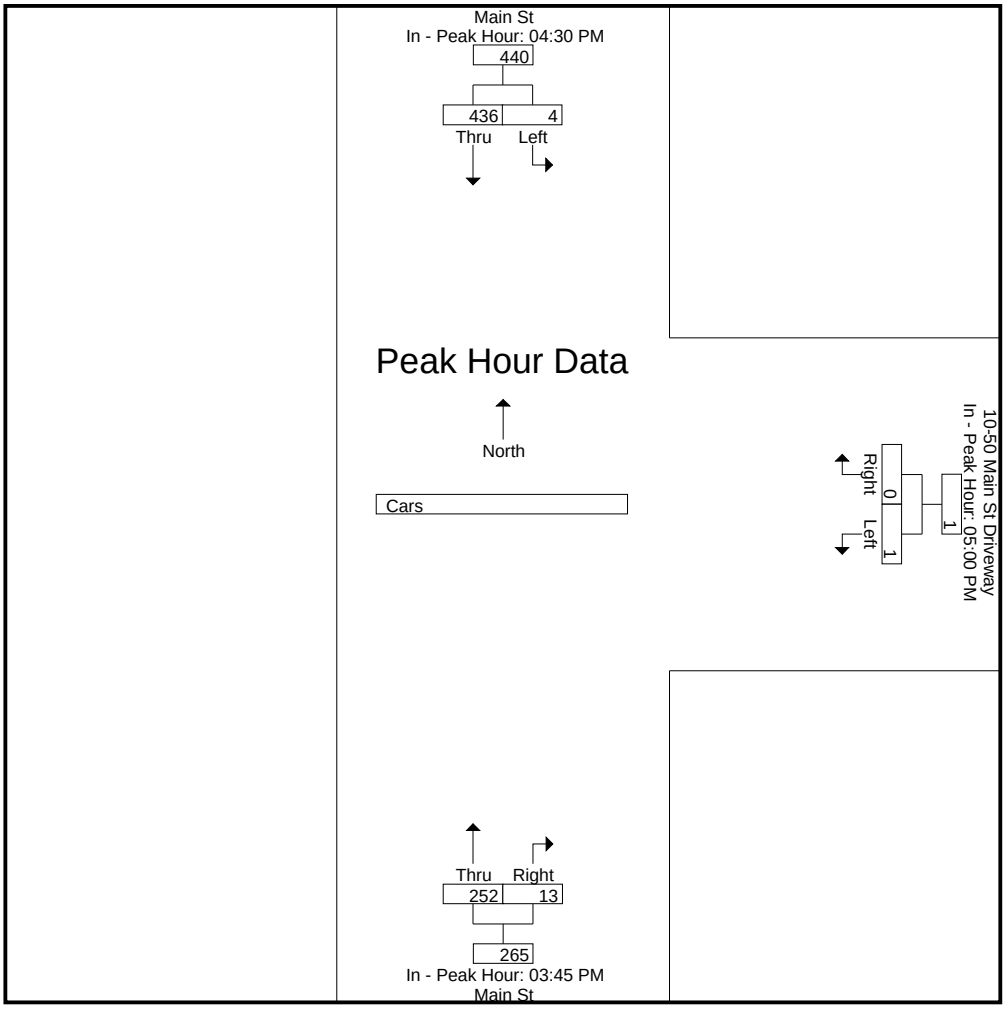
	04:30 PM			05:00 PM			03:45 PM		
+0 mins.	1	106	107	0	0	0	**68**	**6**	**74**
+15 mins.	0	107	107	0	0	0	62	3	65
+30 mins.	1	104	105	0	0	0	63	2	65
+45 mins.	**2**	**119**	**121**	**1**	0	**1**	59	2	61
Total Volume	4	436	440	1	0	1	252	13	265
% App. Total	0.9	99.1		100	0		95.1	4.9	
PHF	.500	.916	.909	.250	.000	.250	.926	.542	.895

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024

Groups Printed- Trucks

	Main St From North		10-50 Main St Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	0	2	0	0	2	0	4
02:15 PM	0	0	0	0	1	0	1
02:30 PM	0	1	0	0	1	0	2
02:45 PM	0	0	0	0	0	0	0
Total	0	3	0	0	4	0	7
03:00 PM	0	1	0	0	2	0	3
03:15 PM	0	1	0	0	0	0	1
03:30 PM	0	1	0	0	1	0	2
03:45 PM	0	2	0	0	0	0	2
Total	0	5	0	0	3	0	8
04:00 PM	0	0	0	0	1	0	1
04:15 PM	0	1	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	1	0	1
Total	0	2	0	0	2	0	4
05:00 PM	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	1
05:30 PM	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1
Grand Total	0	10	0	0	10	0	20
Apprch %	0	100	0	0	100	0	
Total %	0	50	0	0	50	0	

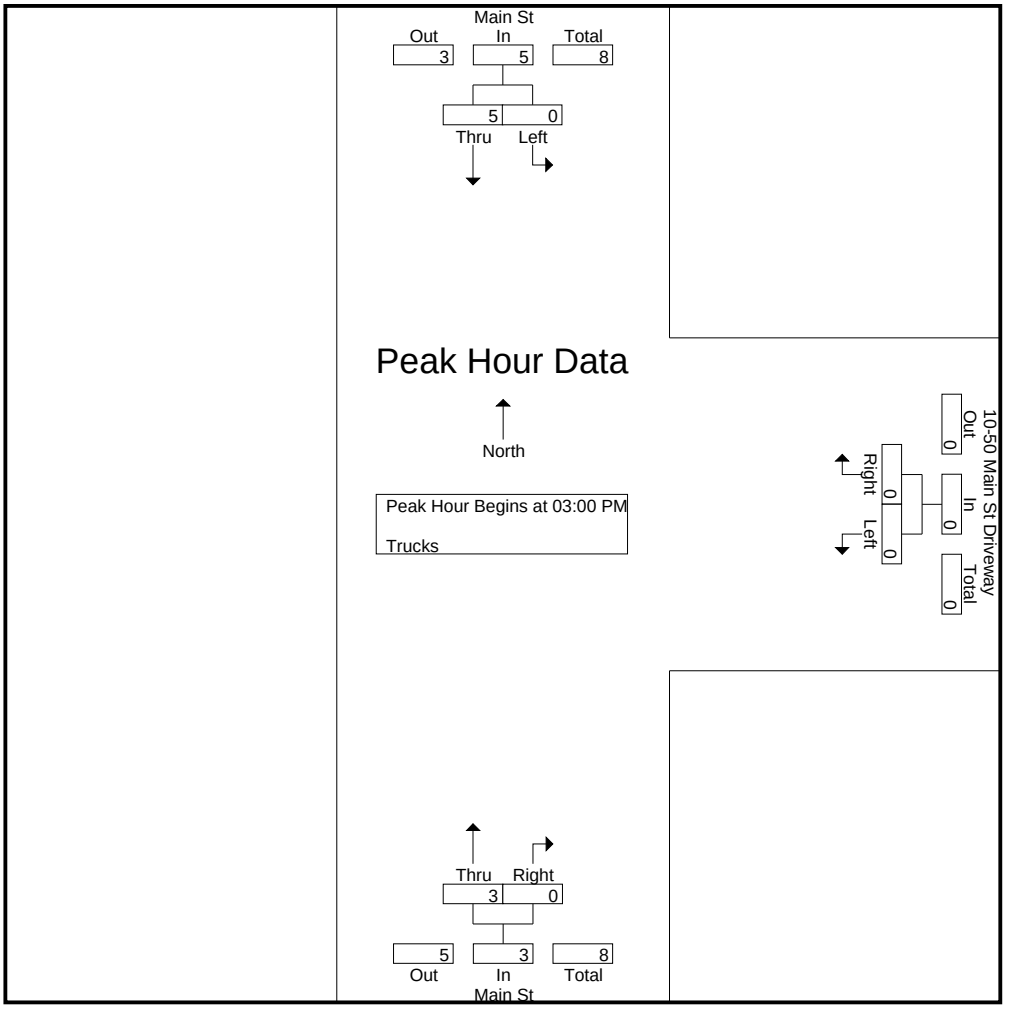
	Main St From North			10-50 Main St Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	0	1	1	0	0	0	**2**	0	**2**	**3**
03:15 PM	0	1	1	0	0	0	0	0	0	1
03:30 PM	0	1	1	0	0	0	1	0	1	2
03:45 PM	0	**2**	**2**	0	0	0	0	0	0	2
Total Volume	0	5	5	0	0	0	3	0	3	8
% App. Total	0	100		0	0		100	0		
PHF	.000	.625	.625	.000	.000	.000	.375	.000	.375	.667

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 8



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

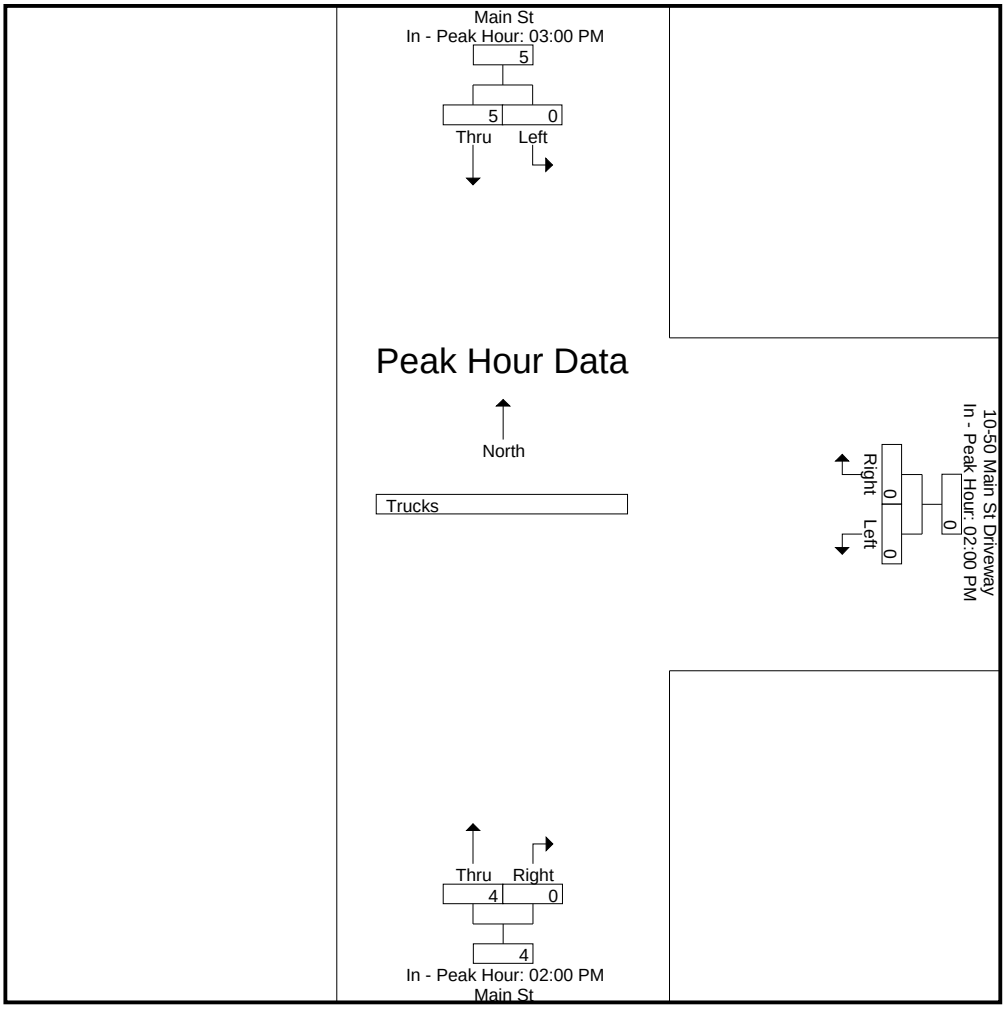
	03:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	1	1	0	0	0	**2**	0	**2**
+15 mins.	0	1	1	0	0	0	1	0	1
+30 mins.	0	1	1	0	0	0	1	0	1
+45 mins.	0	**2**	**2**	0	0	0	0	0	0
Total Volume	0	5	5	0	0	0	4	0	4
% App. Total	0	100		0	0		100	0	
PHF	.000	.625	.625	.000	.000	.000	.500	.000	.500

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 10

Groups Printed- Bikes Peds

	Main St From North			10-50 Main St Driveway From East			Main St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	2	0	0	0	2	0	2
02:30 PM	0	0	0	0	0	1	0	0	0	1	0	1
02:45 PM	0	0	0	0	0	3	0	0	1	4	0	4
Total	0	0	0	0	0	6	0	0	1	7	0	7
03:00 PM	0	0	0	0	0	2	0	0	0	2	0	2
03:15 PM	0	0	0	0	0	3	0	0	0	3	0	3
03:30 PM	0	0	0	0	0	13	0	0	0	13	0	13
03:45 PM	0	0	0	0	0	1	0	0	0	1	0	1
Total	0	0	0	0	0	19	0	0	0	19	0	19
04:00 PM	0	0	0	0	0	4	0	0	0	4	0	4
04:15 PM	0	0	0	0	0	5	0	0	0	5	0	5
04:30 PM	0	0	0	0	0	4	0	0	0	4	0	4
04:45 PM	0	0	0	0	0	1	0	0	0	1	0	1
Total	0	0	0	0	0	14	0	0	0	14	0	14
05:00 PM	0	0	0	0	0	0	0	0	1	1	0	1
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	1
05:30 PM	0	0	0	0	0	3	0	0	0	3	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	4	0	0	1	5	0	5
Grand Total	0	0	0	0	0	43	0	0	2	45	0	45
Apprch %	0	0		0	0		0	0				
Total %										100	0	

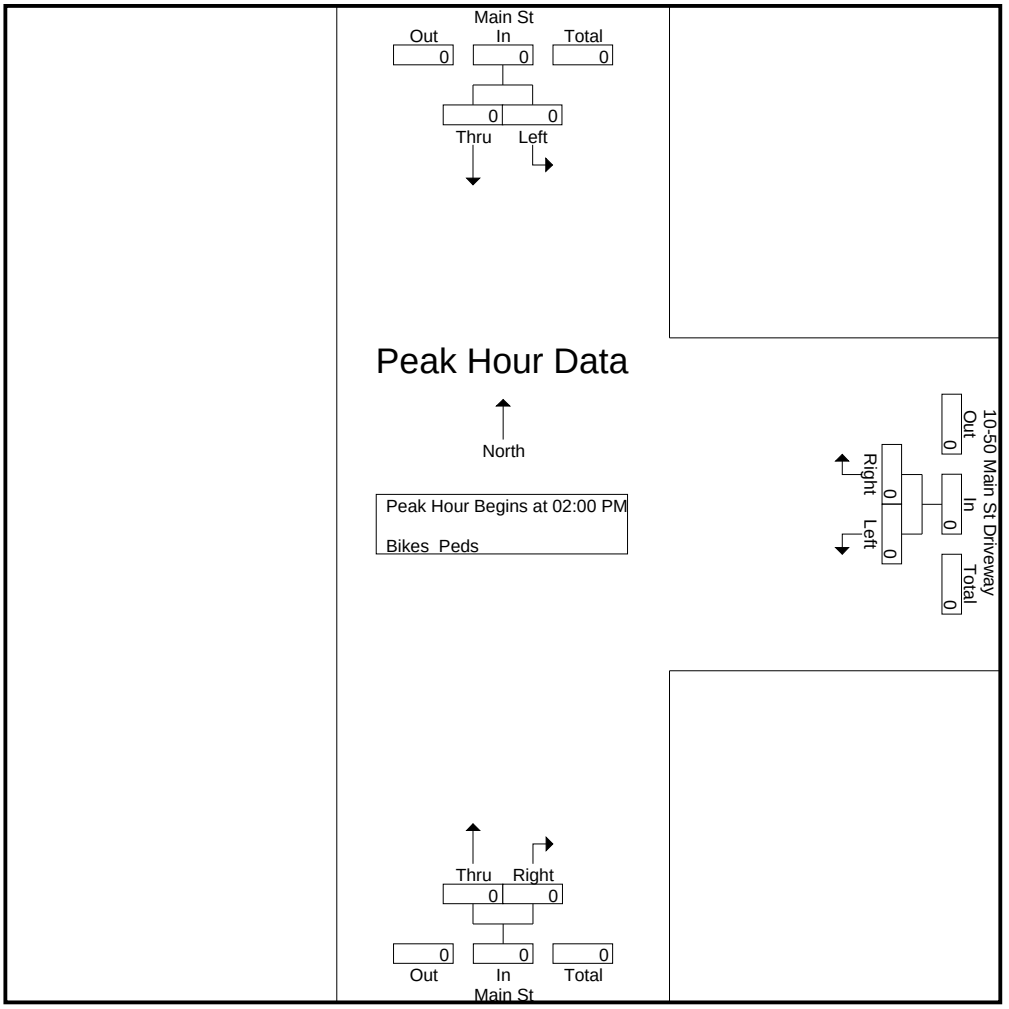
	Main St From North			10-50 Main St Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 11



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

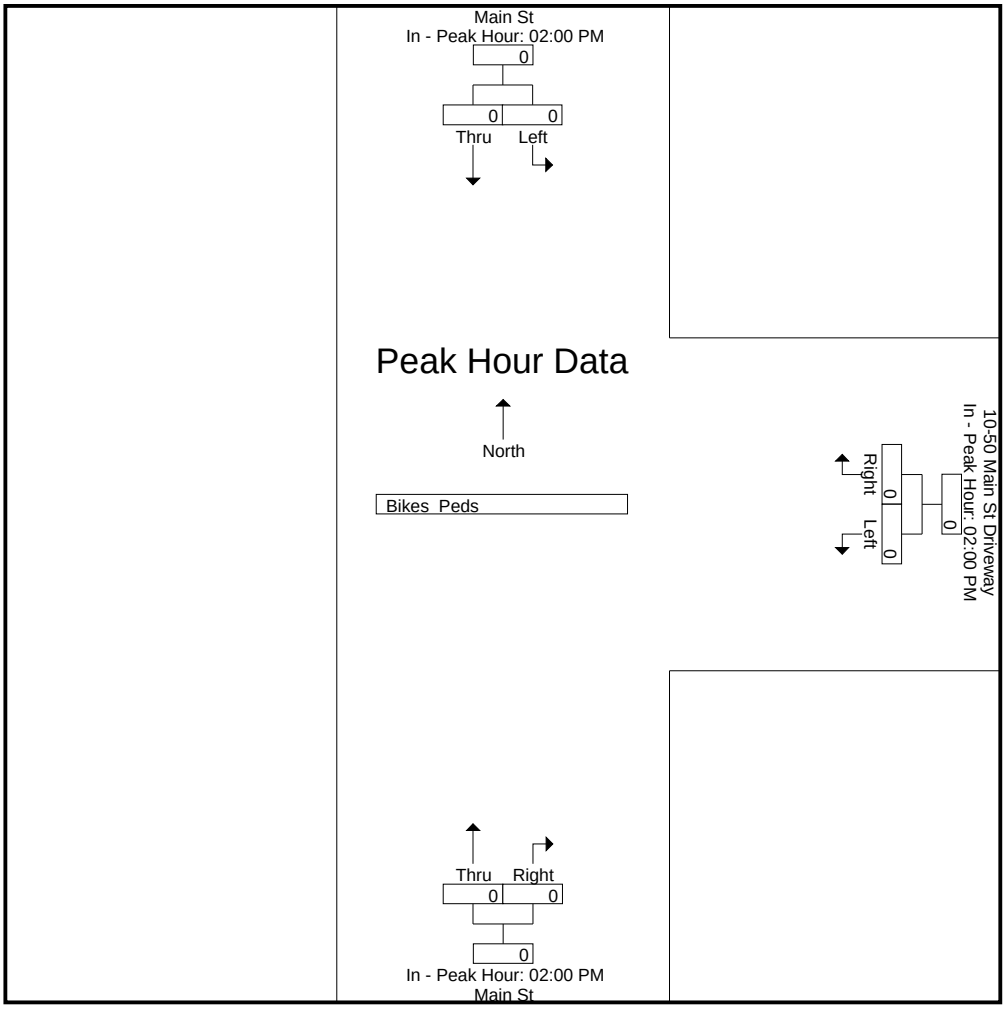
	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : 10-50 Main Street Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370005
Site Code : 98370005
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North		CrossFit Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	125	0	0	113	1	239
07:15 AM	0	141	0	0	120	1	262
07:30 AM	0	156	2	3	159	0	320
07:45 AM	0	203	1	0	162	0	366
Total	0	625	3	3	554	2	1187
08:00 AM	0	181	1	0	159	1	342
08:15 AM	2	161	0	3	181	0	347
08:30 AM	0	151	0	0	164	0	315
08:45 AM	0	132	0	0	120	0	252
Total	2	625	1	3	624	1	1256
Grand Total	2	1250	4	6	1178	3	2443
Apprch %	0.2	99.8	40	60	99.7	0.3	
Total %	0.1	51.2	0.2	0.2	48.2	0.1	
Cars	2	1222	4	6	1162	3	2399
% Cars	100	97.8	100	100	98.6	100	98.2
Trucks	0	28	0	0	16	0	44
% Trucks	0	2.2	0	0	1.4	0	1.8

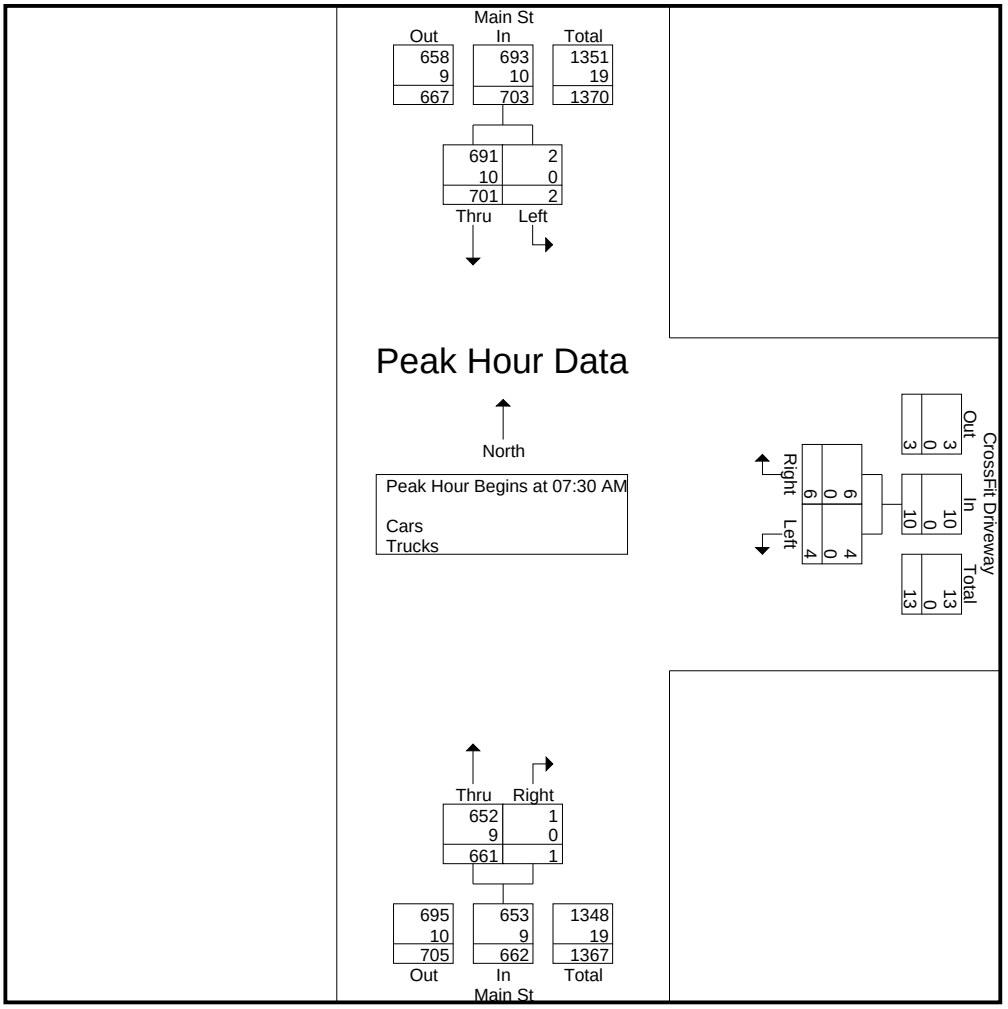
	Main St From North			CrossFit Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	156	156	**2**	**3**	**5**	159	0	159	320
07:45 AM	0	**203**	**203**	1	0	1	162	0	162	**366**
08:00 AM	0	181	181	1	0	1	159	**1**	160	342
08:15 AM	**2**	161	163	0	3	3	**181**	0	**181**	347
Total Volume	2	701	703	4	6	10	661	1	662	1375
% App. Total	0.3	99.7		40	60		99.8	0.2		
PHF	.250	.863	.866	.500	.500	.500	.913	.250	.914	.939
Cars	2	691	693	4	6	10	652	1	653	1356
% Cars	100	98.6	98.6	100	100	100	98.6	100	98.6	98.6
Trucks	0	10	10	0	0	0	9	0	9	19
% Trucks	0	1.4	1.4	0	0	0	1.4	0	1.4	1.4

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 2



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

Peak Hour for Each Approach Begins at:

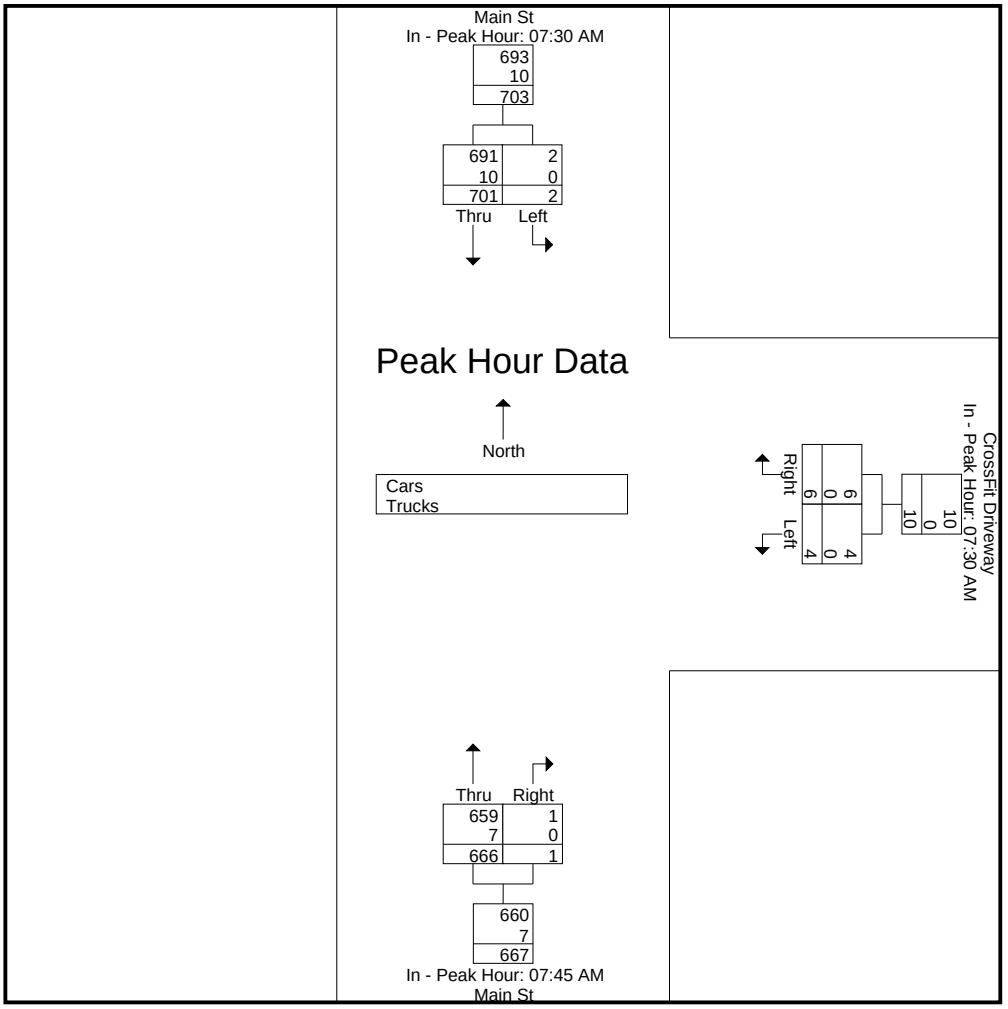
	07:30 AM			07:30 AM			07:45 AM		
+0 mins.	0	156	156	**2**	**3**	**5**	162	0	162
+15 mins.	0	**203**	**203**	1	0	1	159	**1**	160
+30 mins.	0	181	181	1	0	1	**181**	0	**181**
+45 mins.	**2**	161	163	0	3	3	164	0	164
Total Volume	2	701	703	4	6	10	666	1	667
% App. Total	0.3	99.7		40	60		99.9	0.1	
PHF	.250	.863	.866	.500	.500	.500	.920	.250	.921
Cars	2	691	693	4	6	10	659	1	660
% Cars	100	98.6	98.6	100	100	100	98.9	100	99
Trucks	0	10	10	0	0	0	7	0	7
% Trucks	0	1.4	1.4	0	0	0	1.1	0	1

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024

Groups Printed- Cars

	Main St From North		CrossFit Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	124	0	0	109	1	234
07:15 AM	0	135	0	0	118	1	254
07:30 AM	0	152	2	3	156	0	313
07:45 AM	0	203	1	0	161	0	365
Total	0	614	3	3	544	2	1166
08:00 AM	0	177	1	0	158	1	337
08:15 AM	2	159	0	3	177	0	341
08:30 AM	0	144	0	0	163	0	307
08:45 AM	0	128	0	0	120	0	248
Total	2	608	1	3	618	1	1233
Grand Total	2	1222	4	6	1162	3	2399
Apprch %	0.2	99.8	40	60	99.7	0.3	
Total %	0.1	50.9	0.2	0.3	48.4	0.1	

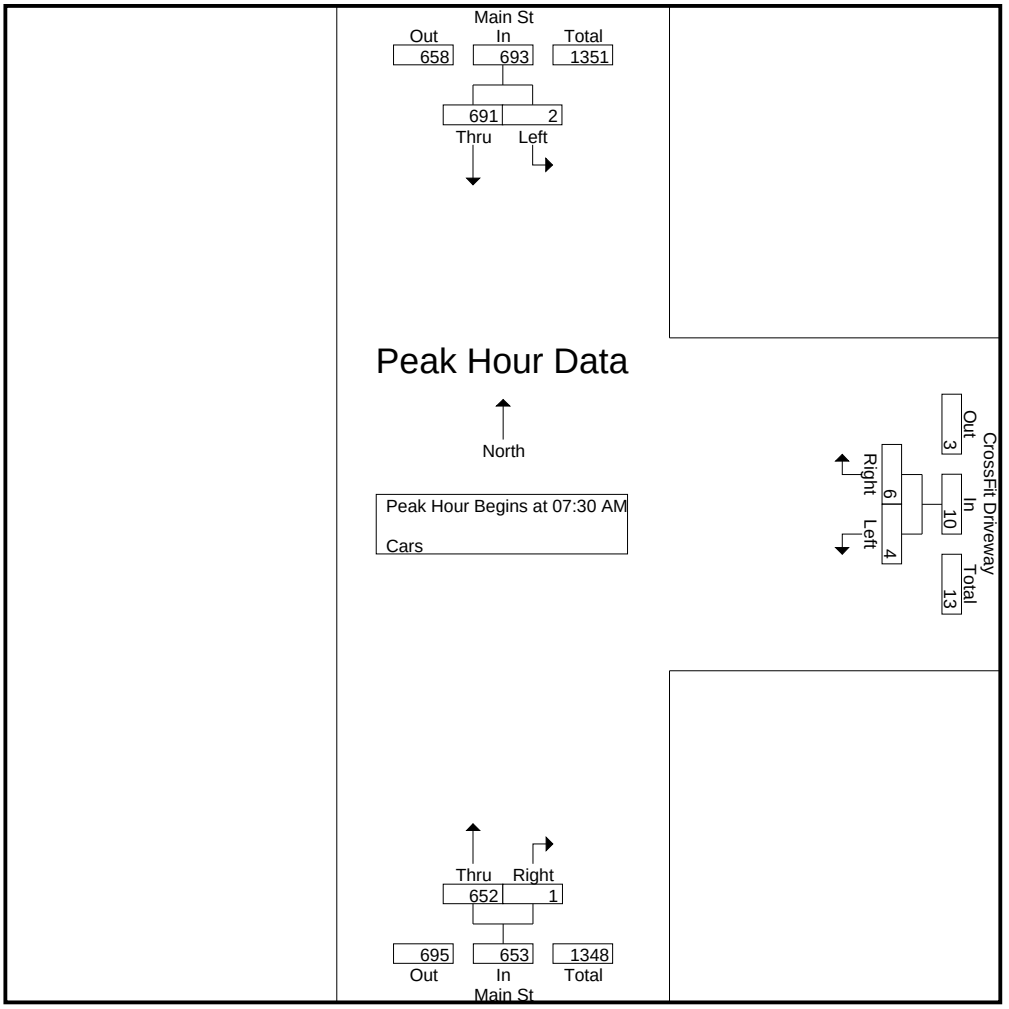
	Main St From North			CrossFit Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	152	152	**2**	**3**	**5**	156	0	156	313
07:45 AM	0	**203**	**203**	1	0	1	161	0	161	**365**
08:00 AM	0	177	177	1	0	1	158	**1**	159	337
08:15 AM	**2**	159	161	0	3	3	**177**	0	**177**	341
Total Volume	2	691	693	4	6	10	652	1	653	1356
% App. Total	0.3	99.7		40	60		99.8	0.2		
PHF	.250	.851	.853	.500	.500	.500	.921	.250	.922	.929

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 5



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

Peak Hour for Each Approach Begins at:

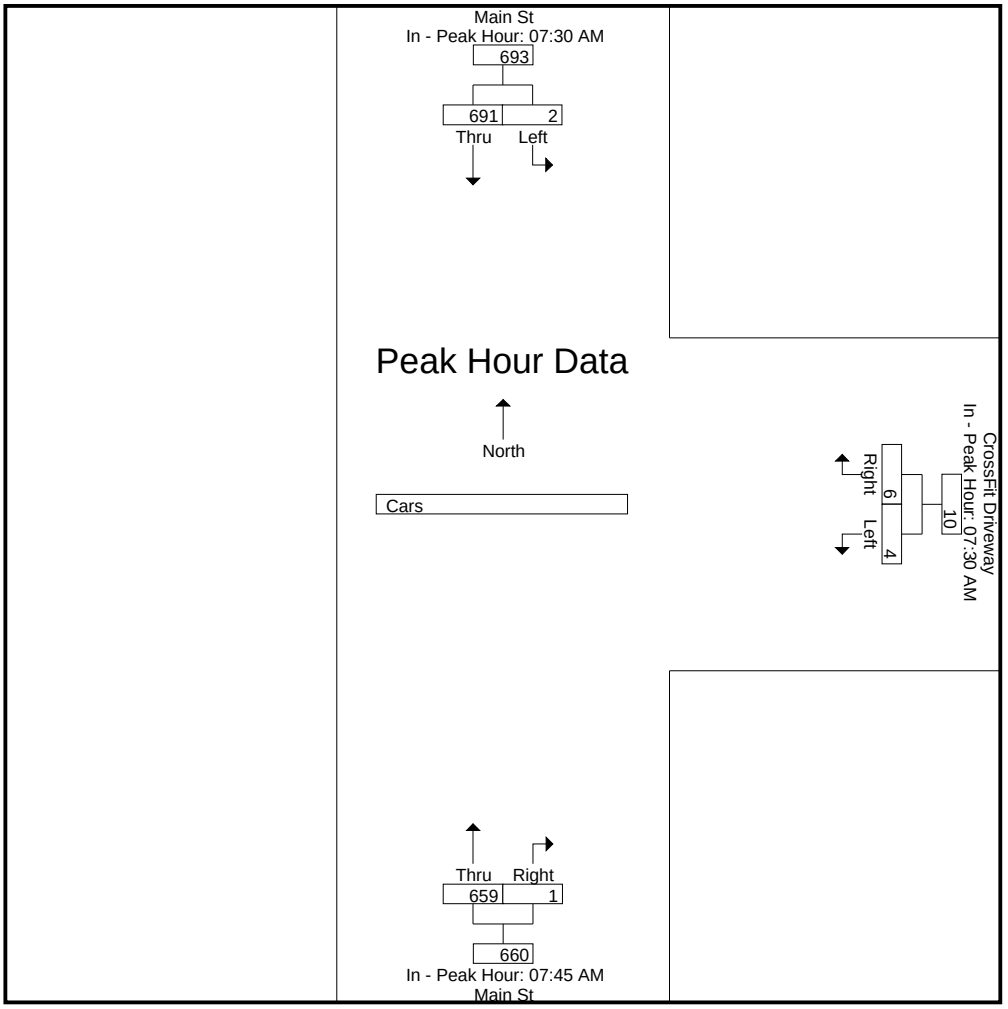
	07:30 AM			07:30 AM			07:45 AM		
+0 mins.	0	152	152	**2**	**3**	**5**	161	0	161
+15 mins.	0	**203**	**203**	1	0	1	158	**1**	159
+30 mins.	0	177	177	1	0	1	**177**	0	**177**
+45 mins.	**2**	159	161	0	3	3	163	0	163
Total Volume	2	691	693	4	6	10	659	1	660
% App. Total	0.3	99.7		40	60		99.8	0.2	
PHF	.250	.851	.853	.500	.500	.500	.931	.250	.932

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024

Groups Printed- Trucks

	Main St From North		CrossFit Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	1	0	0	4	0	5
07:15 AM	0	6	0	0	2	0	8
07:30 AM	0	4	0	0	3	0	7
07:45 AM	0	0	0	0	1	0	1
Total	0	11	0	0	10	0	21
08:00 AM	0	4	0	0	1	0	5
08:15 AM	0	2	0	0	4	0	6
08:30 AM	0	7	0	0	1	0	8
08:45 AM	0	4	0	0	0	0	4
Total	0	17	0	0	6	0	23
Grand Total	0	28	0	0	16	0	44
Apprch %	0	100	0	0	100	0	
Total %	0	63.6	0	0	36.4	0	

	Main St From North			CrossFit Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	4	4	0	0	0	1	0	1	5
08:15 AM	0	2	2	0	0	0	**4**	0	**4**	6
08:30 AM	0	**7**	**7**	0	0	0	1	0	1	**8**
08:45 AM	0	4	4	0	0	0	0	0	0	4
Total Volume	0	17	17	0	0	0	6	0	6	23
% App. Total	0	100		0	0		100	0		
PHF	.000	.607	.607	.000	.000	.000	.375	.000	.375	.719

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
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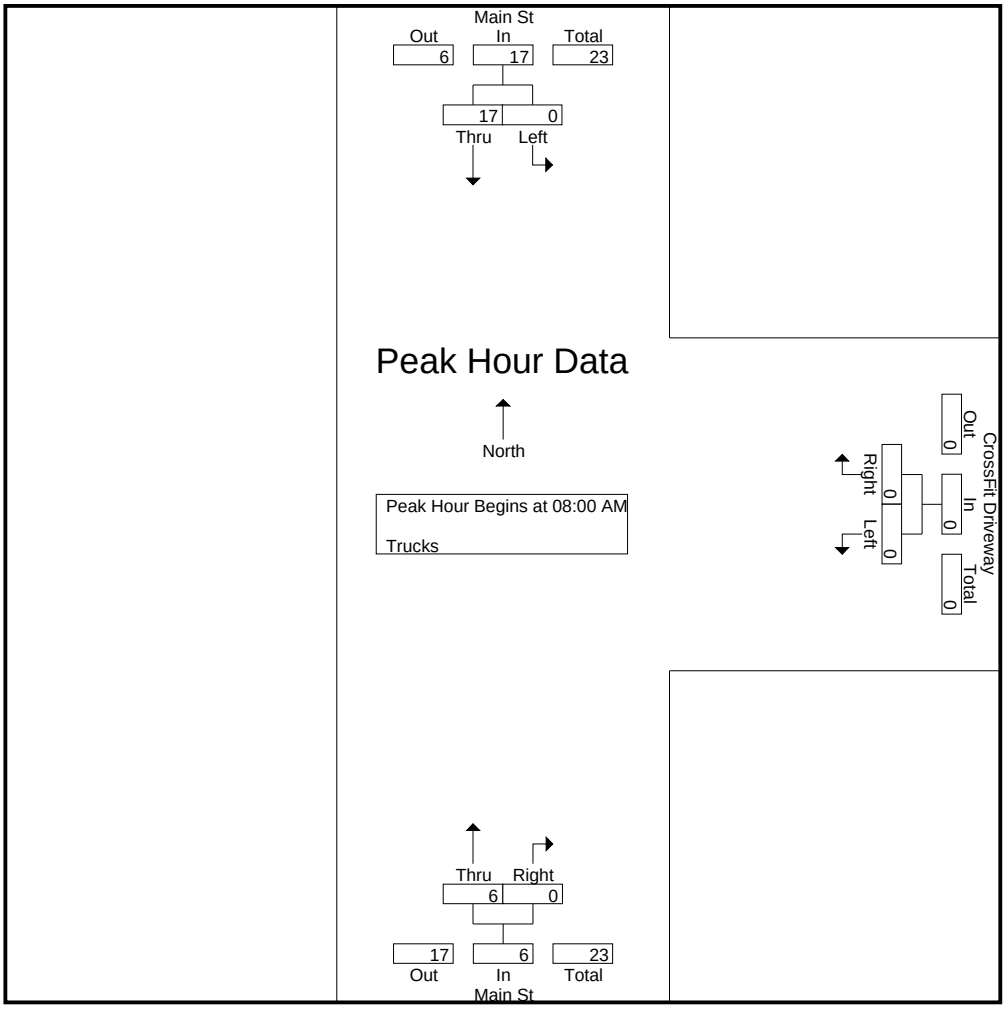

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	4	4	0	0	0	**4**	0	**4**
+15 mins.	0	2	2	0	0	0	2	0	2
+30 mins.	0	**7**	**7**	0	0	0	3	0	3
+45 mins.	0	4	4	0	0	0	1	0	1
Total Volume	0	17	17	0	0	0	10	0	10
% App. Total	0	100		0	0		100	0	
PHF	.000	.607	.607	.000	.000	.000	.625	.000	.625

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
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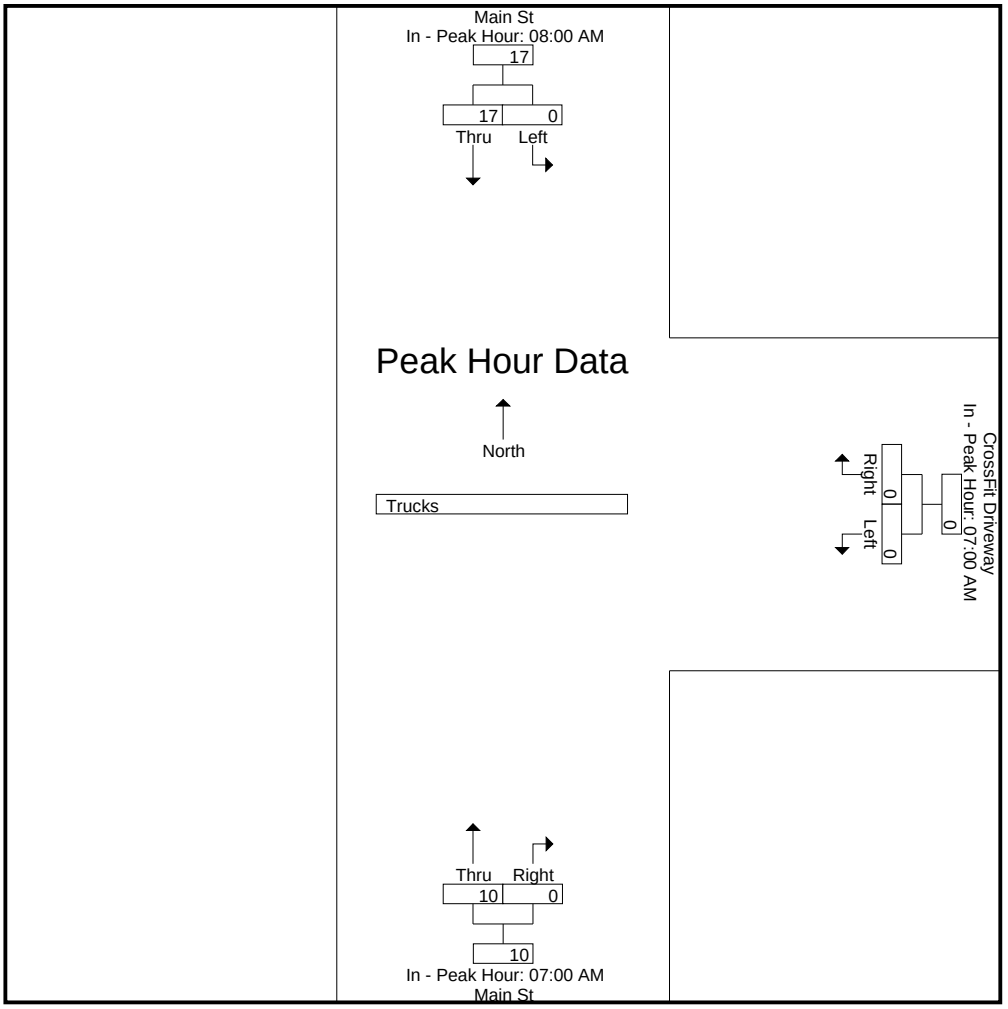


Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Main St From North			CrossFit Driveway From East			Main St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	0	0	0	0	0	0	0	2	2	0	2
08:00 AM	0	1	0	0	0	1	0	0	0	1	1	2
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	2	0	0	0	2	0	2
Total	0	1	0	0	0	4	0	0	0	4	1	5
Grand Total	0	1	0	0	0	4	0	0	2	6	1	7
Apprch %	0	100		0	0		0	0				
Total %	0	100		0	0		0	0		85.7	14.3	

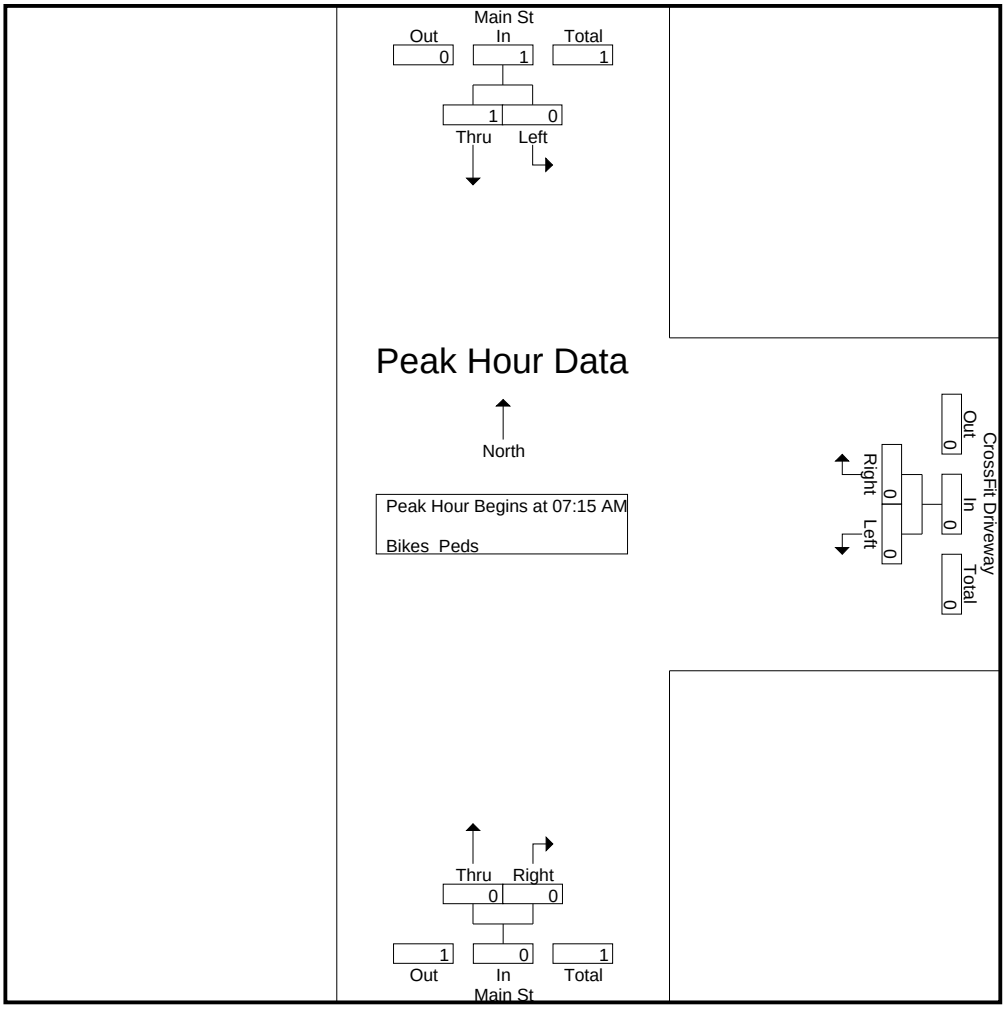
	Main St From North			CrossFit Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	**1**	**1**	0	0	0	0	0	0	**1**
Total Volume	0	1	1	0	0	0	0	0	0	1
% App. Total	0	100		0	0		0	0		
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 11



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

Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			07:00 AM		
+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	**1**	**1**	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	0	0	0
% App. Total	0	100		0	0		0	0	
PHF	.000	.250	.250	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
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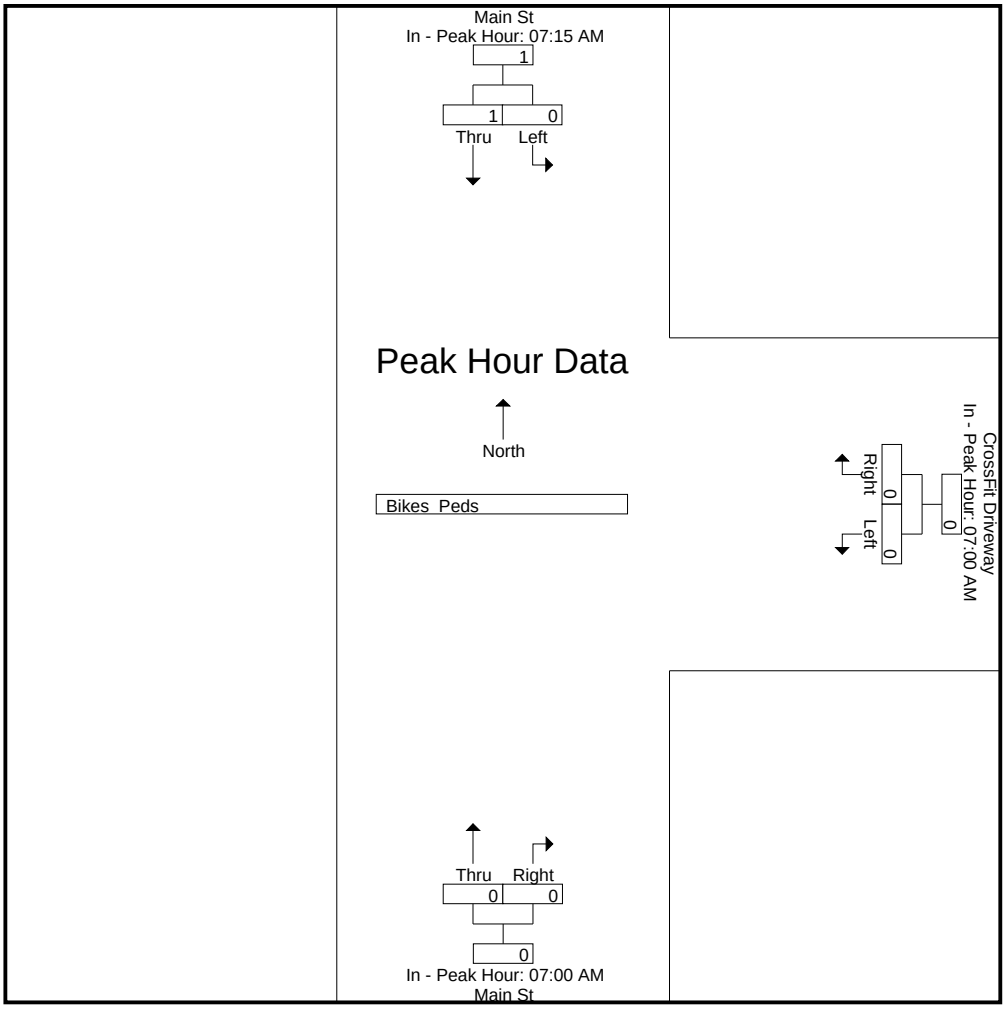


Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Main St From North		CrossFit Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	1	104	0	0	117	0	222
02:15 PM	1	105	1	1	100	3	211
02:30 PM	0	131	0	0	128	0	259
02:45 PM	0	134	0	0	169	0	303
Total	2	474	1	1	514	3	995
03:00 PM	0	143	0	1	152	1	297
03:15 PM	0	171	1	0	141	3	316
03:30 PM	1	159	0	2	163	1	326
03:45 PM	0	162	1	0	155	1	319
Total	1	635	2	3	611	6	1258
04:00 PM	2	154	1	1	175	3	336
04:15 PM	2	184	1	0	163	3	353
04:30 PM	0	155	1	0	180	2	338
04:45 PM	0	195	0	1	187	1	384
Total	4	688	3	2	705	9	1411
05:00 PM	1	191	0	0	181	3	376
05:15 PM	4	175	2	0	168	6	355
05:30 PM	0	170	6	2	171	1	350
05:45 PM	0	143	0	2	138	1	284
Total	5	679	8	4	658	11	1365
Grand Total	12	2476	14	10	2488	29	5029
Apprch %	0.5	99.5	58.3	41.7	98.8	1.2	
Total %	0.2	49.2	0.3	0.2	49.5	0.6	
Cars	12	2423	14	10	2445	29	4933
% Cars	100	97.9	100	100	98.3	100	98.1
Trucks	0	53	0	0	43	0	96
% Trucks	0	2.1	0	0	1.7	0	1.9

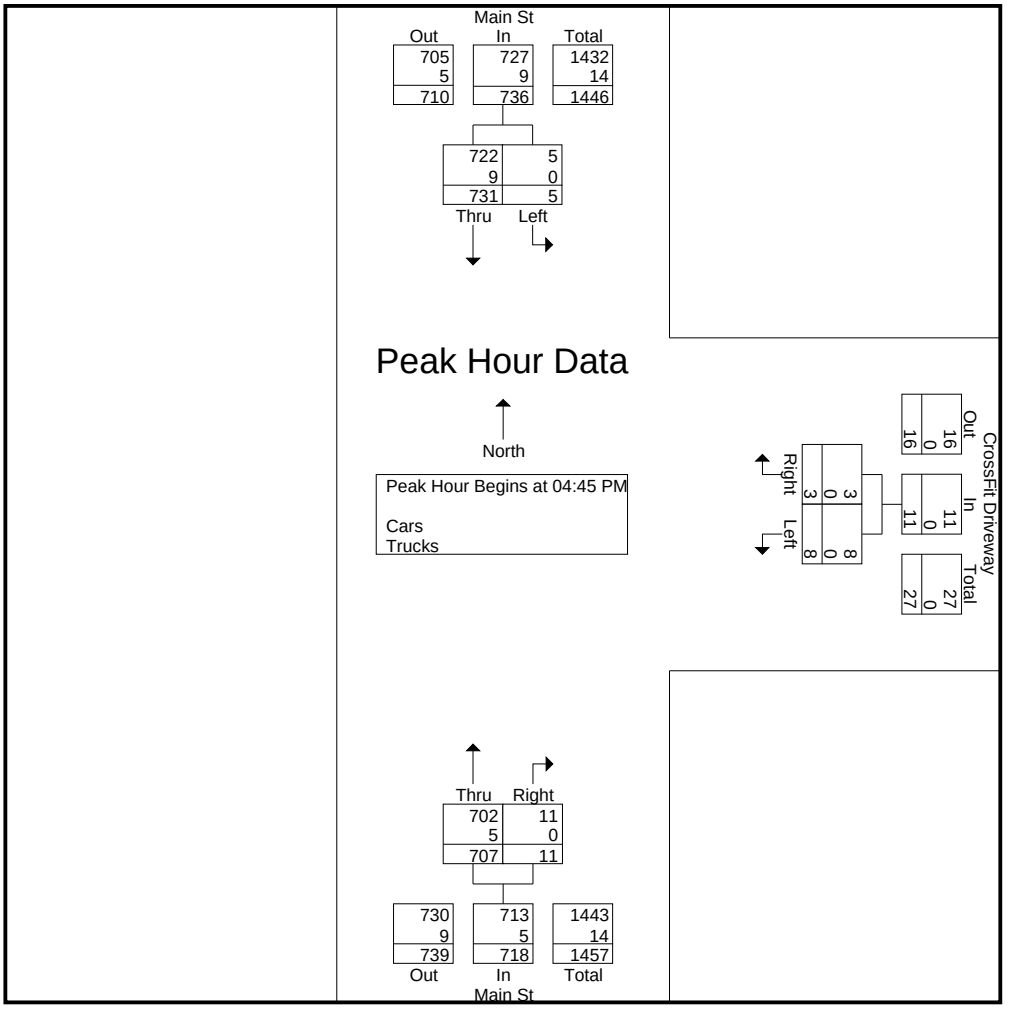
	Main St From North			CrossFit Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**195**	**195**	0	1	1	**187**	1	**188**	**384**
05:00 PM	1	191	192	0	0	0	181	3	184	376
05:15 PM	**4**	175	179	2	0	2	168	**6**	174	355
05:30 PM	0	170	170	**6**	**2**	**8**	171	1	172	350
Total Volume	5	731	736	8	3	11	707	11	718	1465
% App. Total	0.7	99.3		72.7	27.3		98.5	1.5		
PHF	.313	.937	.944	.333	.375	.344	.945	.458	.955	.954
Cars	5	722	727	8	3	11	702	11	713	1451
% Cars	100	98.8	98.8	100	100	100	99.3	100	99.3	99.0
Trucks	0	9	9	0	0	0	5	0	5	14
% Trucks	0	1.2	1.2	0	0	0	0.7	0	0.7	1.0

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 2



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

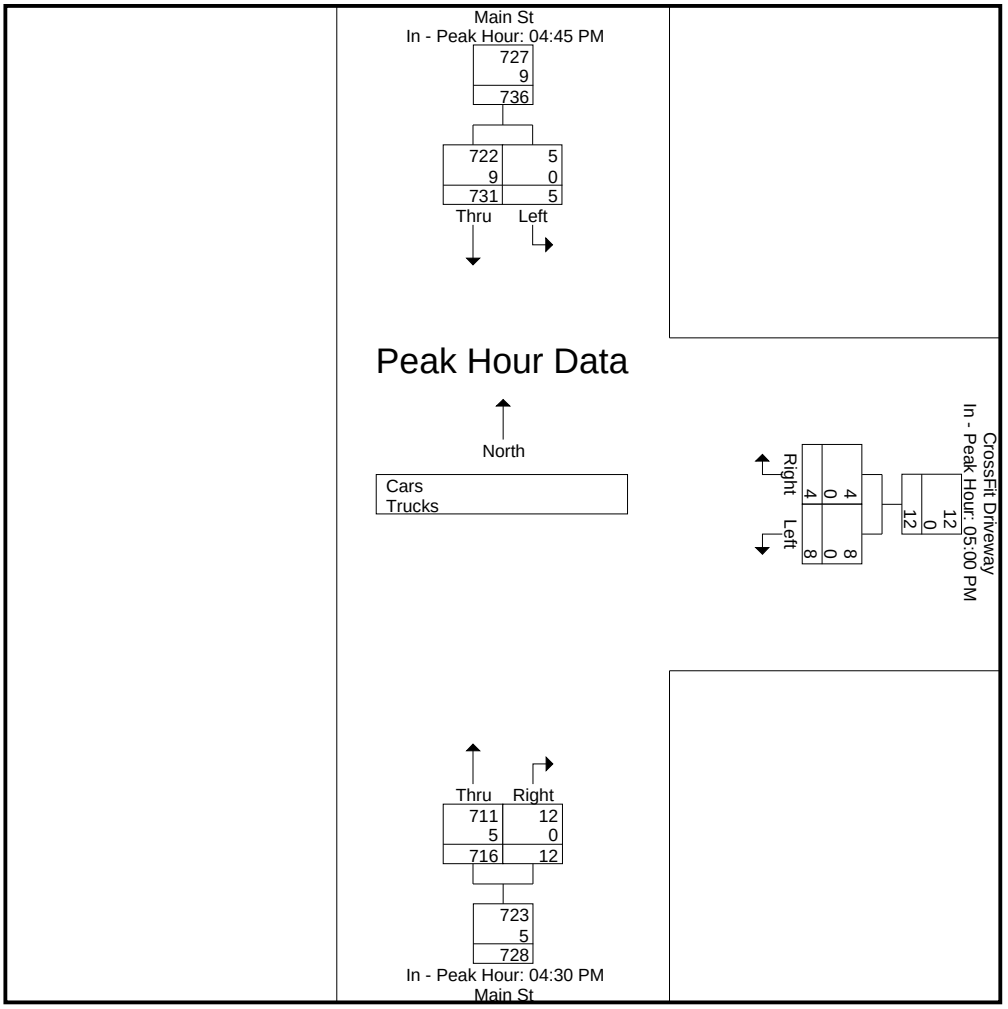
	04:45 PM			05:00 PM			04:30 PM		
+0 mins.	0	**195**	**195**	0	0	0	180	2	182
+15 mins.	1	191	192	2	0	2	**187**	1	**188**
+30 mins.	**4**	175	179	**6**	**2**	**8**	181	3	184
+45 mins.	0	170	170	0	2	2	168	**6**	174
Total Volume	5	731	736	8	4	12	716	12	728
% App. Total	0.7	99.3		66.7	33.3		98.4	1.6	
PHF	.313	.937	.944	.333	.500	.375	.957	.500	.968
Cars	5	722	727	8	4	12	711	12	723
% Cars	100	98.8	98.8	100	100	100	99.3	100	99.3
Trucks	0	9	9	0	0	0	5	0	5
% Trucks	0	1.2	1.2	0	0	0	0.7	0	0.7

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 4

Groups Printed- Cars

	Main St From North		CrossFit Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	1	101	0	0	108	0	210
02:15 PM	1	104	1	1	99	3	209
02:30 PM	0	127	0	0	125	0	252
02:45 PM	0	133	0	0	164	0	297
Total	2	465	1	1	496	3	968
03:00 PM	0	140	0	1	149	1	291
03:15 PM	0	164	1	0	139	3	307
03:30 PM	1	153	0	2	156	1	313
03:45 PM	0	154	1	0	155	1	311
Total	1	611	2	3	599	6	1222
04:00 PM	2	149	1	1	174	3	330
04:15 PM	2	181	1	0	158	3	345
04:30 PM	0	153	1	0	179	2	335
04:45 PM	0	195	0	1	185	1	382
Total	4	678	3	2	696	9	1392
05:00 PM	1	190	0	0	181	3	375
05:15 PM	4	170	2	0	166	6	348
05:30 PM	0	167	6	2	170	1	346
05:45 PM	0	142	0	2	137	1	282
Total	5	669	8	4	654	11	1351
Grand Total	12	2423	14	10	2445	29	4933
Apprch %	0.5	99.5	58.3	41.7	98.8	1.2	
Total %	0.2	49.1	0.3	0.2	49.6	0.6	

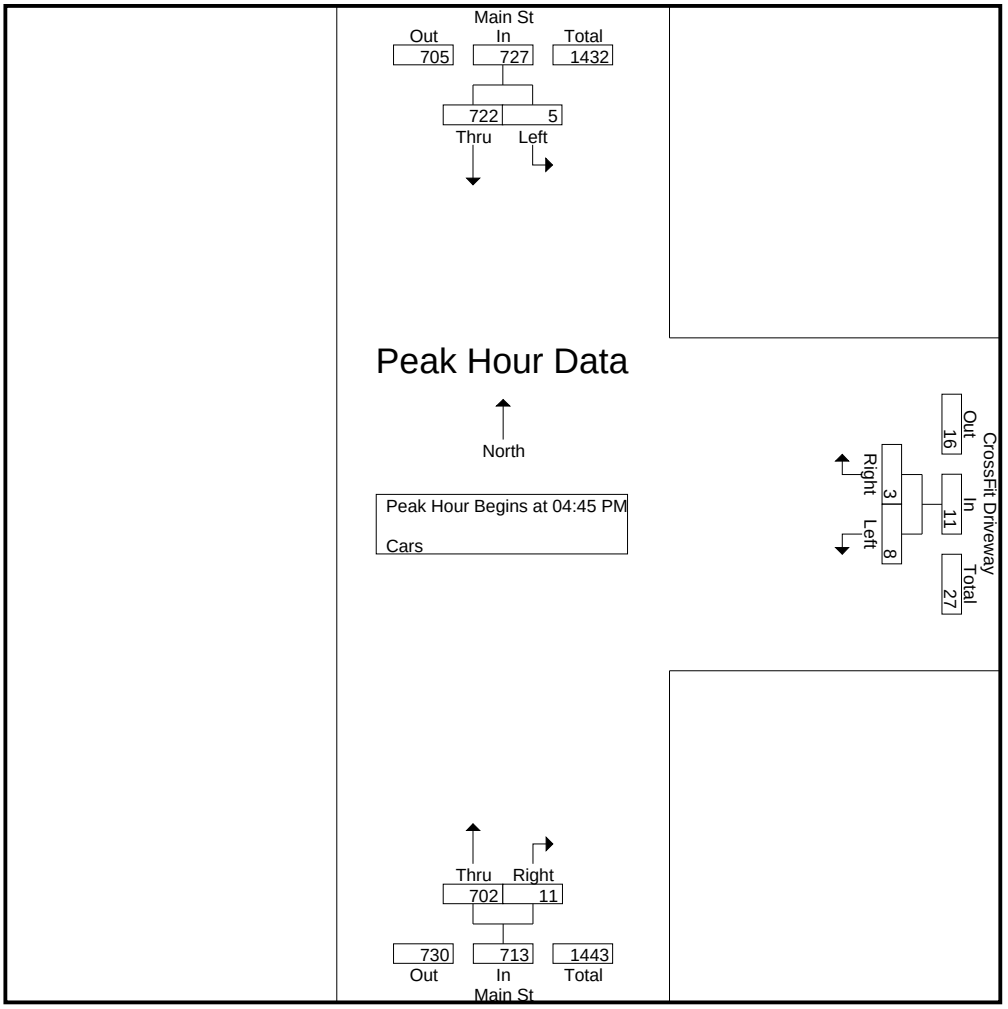
	Main St From North			CrossFit Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**195**	**195**	0	1	1	**185**	1	**186**	**382**
05:00 PM	1	190	191	0	0	0	181	3	184	375
05:15 PM	**4**	170	174	2	0	2	166	**6**	172	348
05:30 PM	0	167	167	**6**	**2**	**8**	170	1	171	346
Total Volume	5	722	727	8	3	11	702	11	713	1451
% App. Total	0.7	99.3		72.7	27.3		98.5	1.5		
PHF	.313	.926	.932	.333	.375	.344	.949	.458	.958	.950

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 5



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

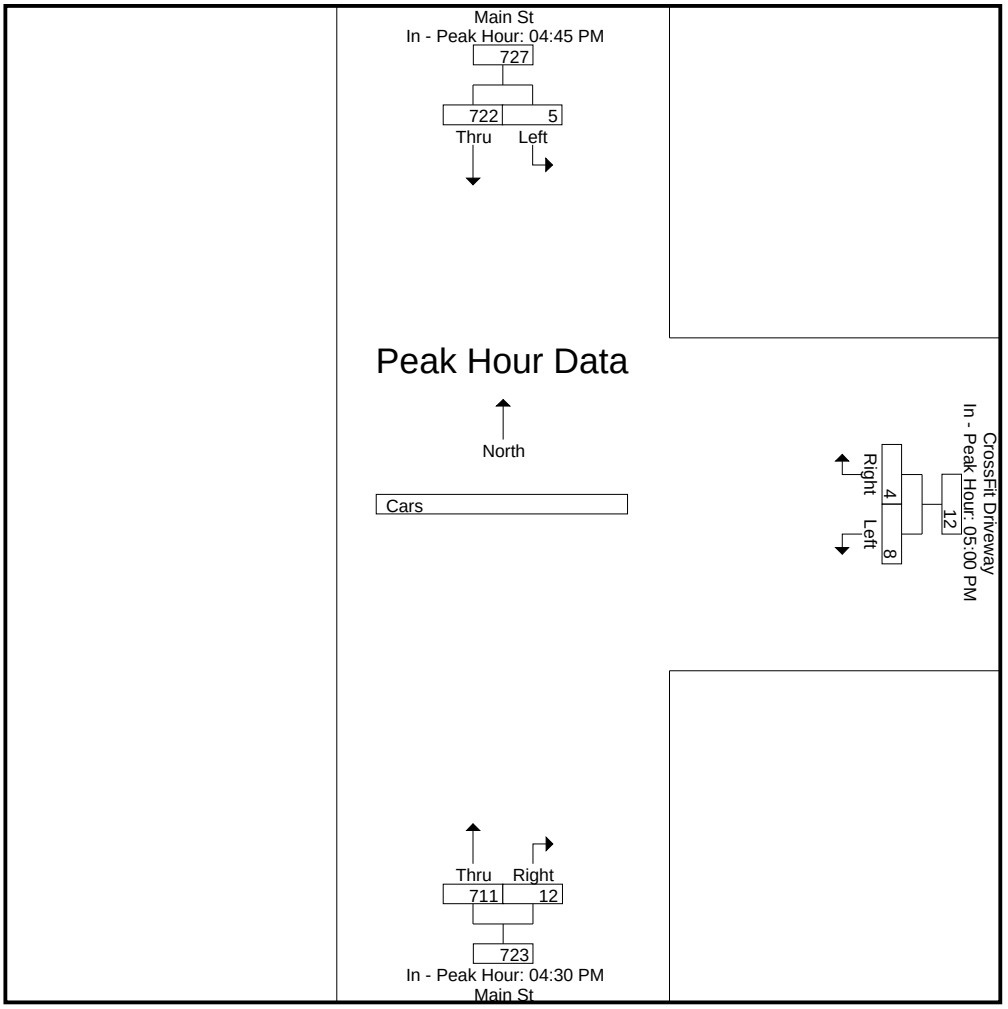
	04:45 PM			05:00 PM			04:30 PM		
+0 mins.	0	**195**	**195**	0	0	0	179	2	181
+15 mins.	1	190	191	2	0	2	**185**	1	**186**
+30 mins.	**4**	170	174	**6**	**2**	**8**	181	3	184
+45 mins.	0	167	167	0	2	2	166	**6**	172
Total Volume	5	722	727	8	4	12	711	12	723
% App. Total	0.7	99.3		66.7	33.3		98.3	1.7	
PHF	.313	.926	.932	.333	.500	.375	.961	.500	.972

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024

Groups Printed- Trucks

	Main St From North		CrossFit Driveway From East		Main St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	0	3	0	0	9	0	12
02:15 PM	0	1	0	0	1	0	2
02:30 PM	0	4	0	0	3	0	7
02:45 PM	0	1	0	0	5	0	6
Total	0	9	0	0	18	0	27
03:00 PM	0	3	0	0	3	0	6
03:15 PM	0	7	0	0	2	0	9
03:30 PM	0	6	0	0	7	0	13
03:45 PM	0	8	0	0	0	0	8
Total	0	24	0	0	12	0	36
04:00 PM	0	5	0	0	1	0	6
04:15 PM	0	3	0	0	5	0	8
04:30 PM	0	2	0	0	1	0	3
04:45 PM	0	0	0	0	2	0	2
Total	0	10	0	0	9	0	19
05:00 PM	0	1	0	0	0	0	1
05:15 PM	0	5	0	0	2	0	7
05:30 PM	0	3	0	0	1	0	4
05:45 PM	0	1	0	0	1	0	2
Total	0	10	0	0	4	0	14
Grand Total	0	53	0	0	43	0	96
Apprch %	0	100	0	0	100	0	
Total %	0	55.2	0	0	44.8	0	

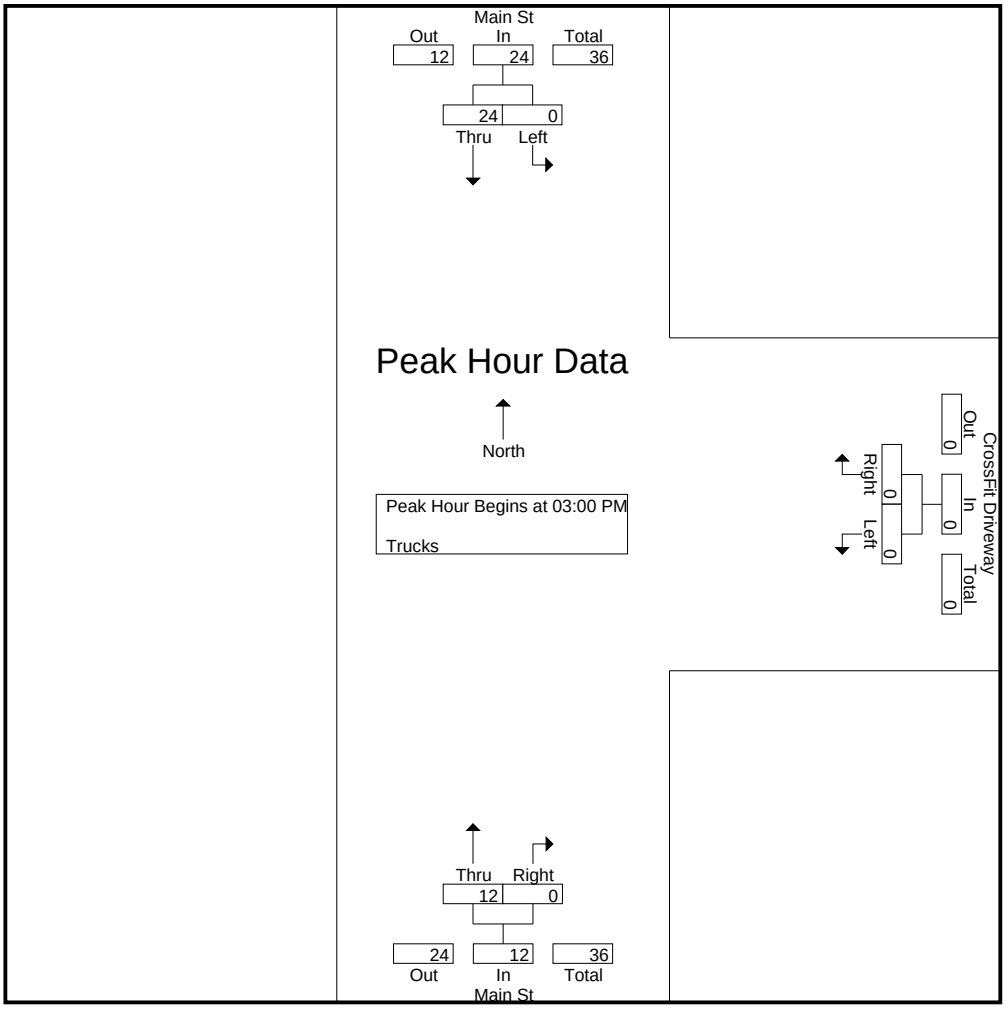
	Main St From North			CrossFit Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	0	3	3	0	0	0	3	0	3	6
03:15 PM	0	7	7	0	0	0	2	0	2	9
03:30 PM	0	6	6	0	0	0	**7**	0	**7**	**13**
03:45 PM	0	**8**	**8**	0	0	0	0	0	0	8
Total Volume	0	24	24	0	0	0	12	0	12	36
% App. Total	0	100		0	0		100	0		
PHF	.000	.750	.750	.000	.000	.000	.429	.000	.429	.692

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 8



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

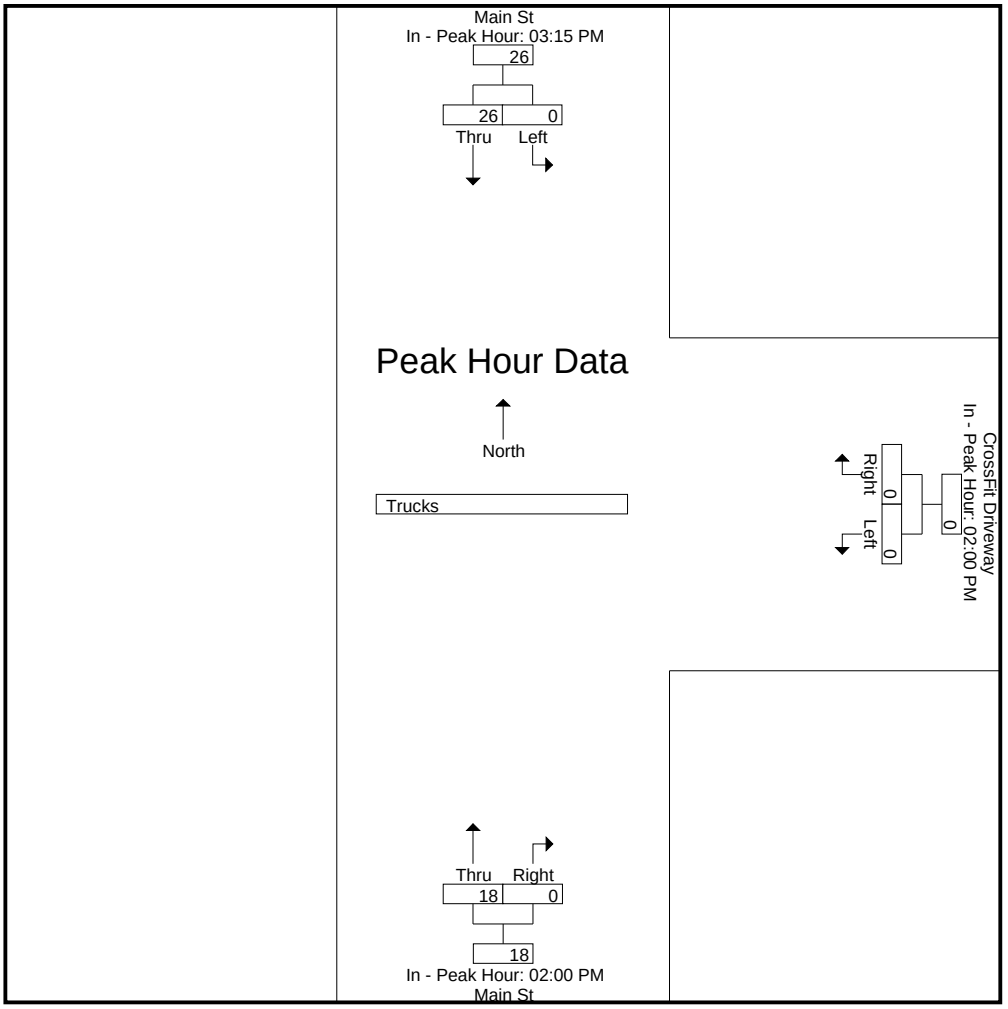
	03:15 PM			02:00 PM			02:00 PM		
+0 mins.	0	7	7	0	0	0	**9**	0	**9**
+15 mins.	0	6	6	0	0	0	1	0	1
+30 mins.	0	**8**	**8**	0	0	0	3	0	3
+45 mins.	0	5	5	0	0	0	5	0	5
Total Volume	0	26	26	0	0	0	18	0	18
% App. Total	0	100		0	0		100	0	
PHF	.000	.813	.813	.000	.000	.000	.500	.000	.500

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Main St From North			CrossFit Driveway From East			Main St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	2	0	0	0	2	0	2
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	3	0	0	0	3	0	3
Total	0	0	0	0	0	5	0	0	0	5	0	5
03:00 PM	0	0	0	0	0	2	0	0	0	2	0	2
03:15 PM	0	0	0	0	0	2	0	0	0	2	0	2
03:30 PM	0	0	1	0	0	1	0	0	0	2	0	2
03:45 PM	0	2	1	0	0	1	0	0	0	2	2	4
Total	0	2	2	0	0	6	0	0	0	8	2	10
04:00 PM	0	0	0	0	0	4	0	0	0	4	0	4
04:15 PM	0	0	0	0	0	7	0	0	0	7	0	7
04:30 PM	0	0	0	0	0	4	0	0	0	4	0	4
04:45 PM	0	2	0	0	0	1	0	0	0	1	2	3
Total	0	2	0	0	0	16	0	0	0	16	2	18
05:00 PM	0	0	0	0	0	1	0	0	0	1	0	1
05:15 PM	0	0	0	0	0	0	2	0	0	0	2	2
05:30 PM	0	0	0	0	0	4	0	0	0	4	0	4
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	5	2	0	0	5	2	7
Grand Total	0	4	2	0	0	32	2	0	0	34	6	40
Apprch %	0	100		0	0		100	0				
Total %	0	66.7		0	0		33.3	0		85	15	

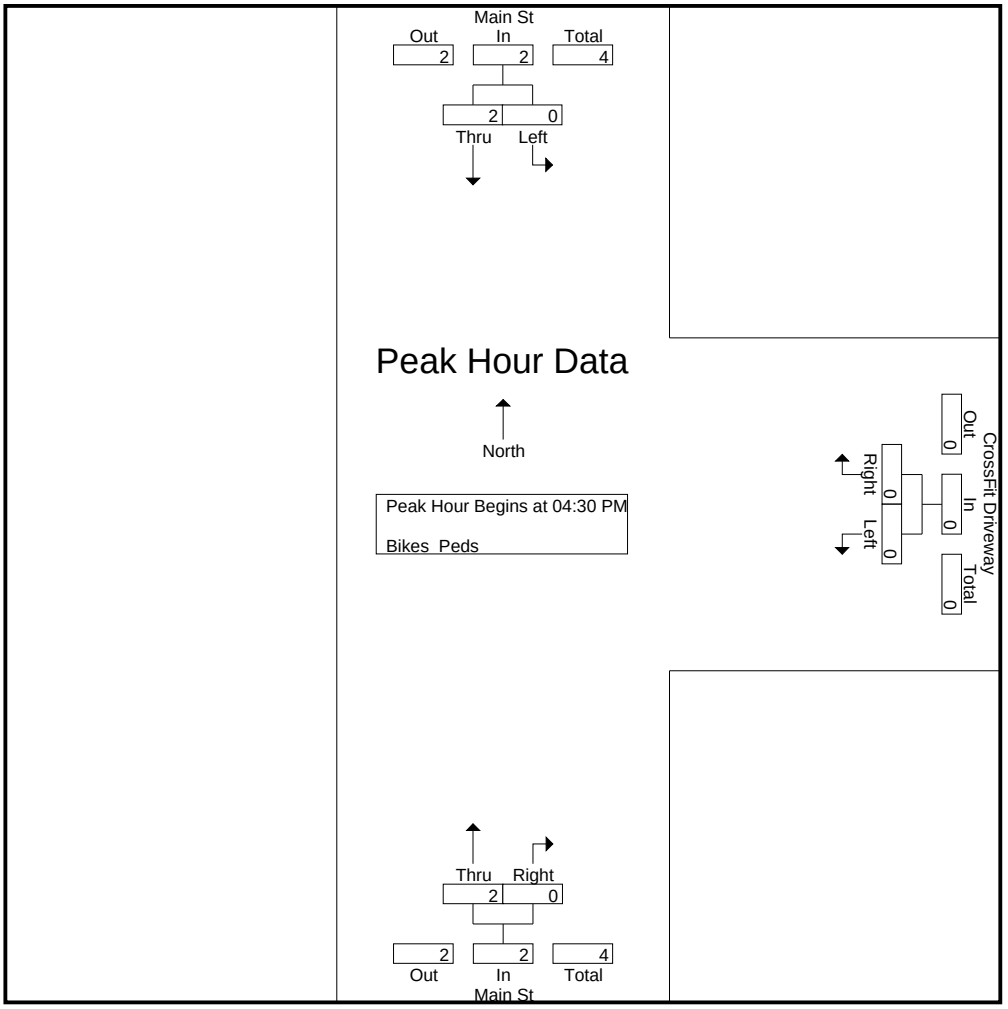
	Main St From North			CrossFit Driveway From East			Main St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	**2**	**2**	0	0	0	0	0	0	**2**
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	**2**	0	**2**	2
Total Volume	0	2	2	0	0	0	2	0	2	4
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250	.500

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 11



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

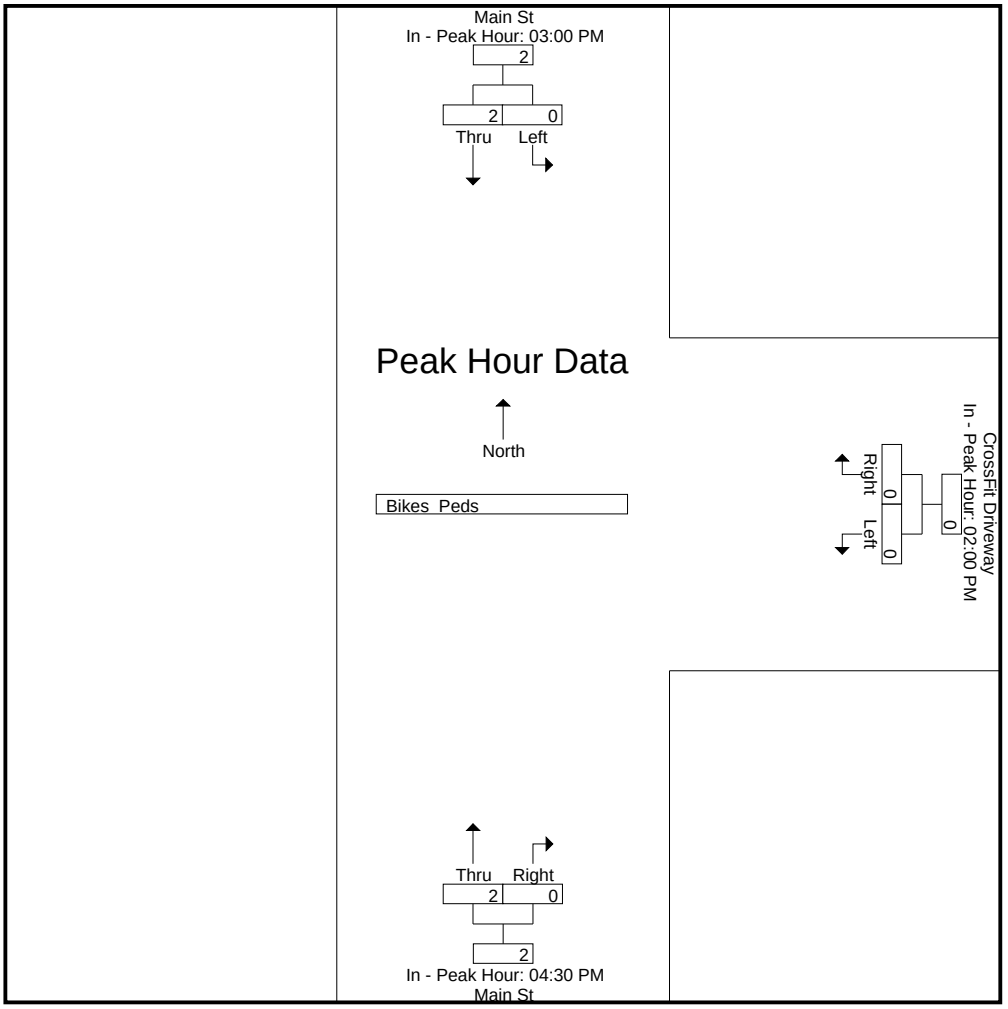
	03:00 PM			02:00 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	**2**	**2**	0	0	0	**2**	0	**2**
Total Volume	0	2	2	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Main Street
E/W Street : CrossFit Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370006
Site Code : 98370006
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Myrtle St From North			10-50 Main St Dwy From East			Myrtle St From South			Water St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	37	0	1	0	1	0	44	0	13	0	1	97
07:15 AM	0	48	0	0	0	1	0	38	0	11	0	1	99
07:30 AM	0	56	0	0	0	0	0	63	0	17	0	0	136
07:45 AM	0	66	0	0	0	1	0	58	0	7	0	0	132
Total	0	207	0	1	0	3	0	203	0	48	0	2	464
08:00 AM	1	59	0	0	0	0	0	54	0	9	0	1	124
08:15 AM	0	67	1	1	0	1	0	98	0	11	0	2	181
08:30 AM	0	50	0	1	0	0	0	70	1	10	1	1	134
08:45 AM	0	60	0	2	0	1	0	73	0	6	1	1	144
Total	1	236	1	4	0	2	0	295	1	36	2	5	583
Grand Total	1	443	1	5	0	5	0	498	1	84	2	7	1047
Apprch %	0.2	99.6	0.2	50	0	50	0	99.8	0.2	90.3	2.2	7.5	
Total %	0.1	42.3	0.1	0.5	0	0.5	0	47.6	0.1	8	0.2	0.7	
Cars	1	435	1	5	0	5	0	492	1	83	2	7	1032
% Cars	100	98.2	100	100	0	100	0	98.8	100	98.8	100	100	98.6
Trucks	0	8	0	0	0	0	0	6	0	1	0	0	15
% Trucks	0	1.8	0	0	0	0	0	1.2	0	1.2	0	0	1.4

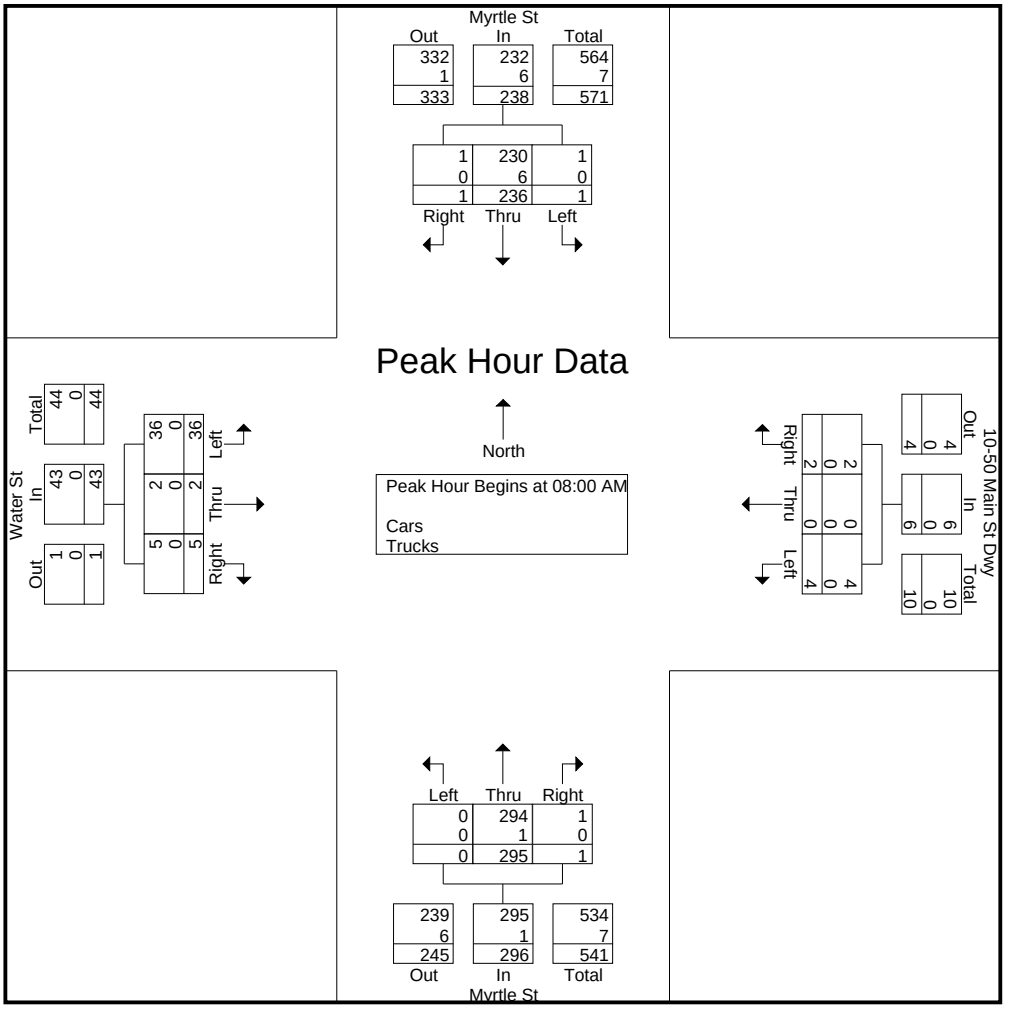
	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**1**	59	0	60	0	0	0	0	0	54	0	54	9	0	1	10	124
08:15 AM	0	**67**	**1**	**68**	1	0	**1**	2	0	**98**	0	**98**	**11**	0	**2**	**13**	**181**
08:30 AM	0	50	0	50	1	0	0	1	0	70	**1**	71	10	**1**	1	12	134
08:45 AM	0	60	0	60	**2**	0	1	**3**	0	73	0	73	6	1	1	8	144
Total Volume	1	236	1	238	4	0	2	6	0	295	1	296	36	2	5	43	583
% App. Total	0.4	99.2	0.4		66.7	0	33.3		0	99.7	0.3		83.7	4.7	11.6		
PHF	.250	.881	.250	.875	.500	.000	.500	.500	.000	.753	.250	.755	.818	.500	.625	.827	.805
Cars	1	230	1	232	4	0	2	6	0	294	1	295	36	2	5	43	576
% Cars	100	97.5	100	97.5	100	0	100	100	0	99.7	100	99.7	100	100	100	100	98.8
Trucks	0	6	0	6	0	0	0	0	0	1	0	1	0	0	0	0	7
% Trucks	0	2.5	0	2.5	0	0	0	0	0	0.3	0	0.3	0	0	0	0	1.2

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 2



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

Peak Hour for Each Approach Begins at:

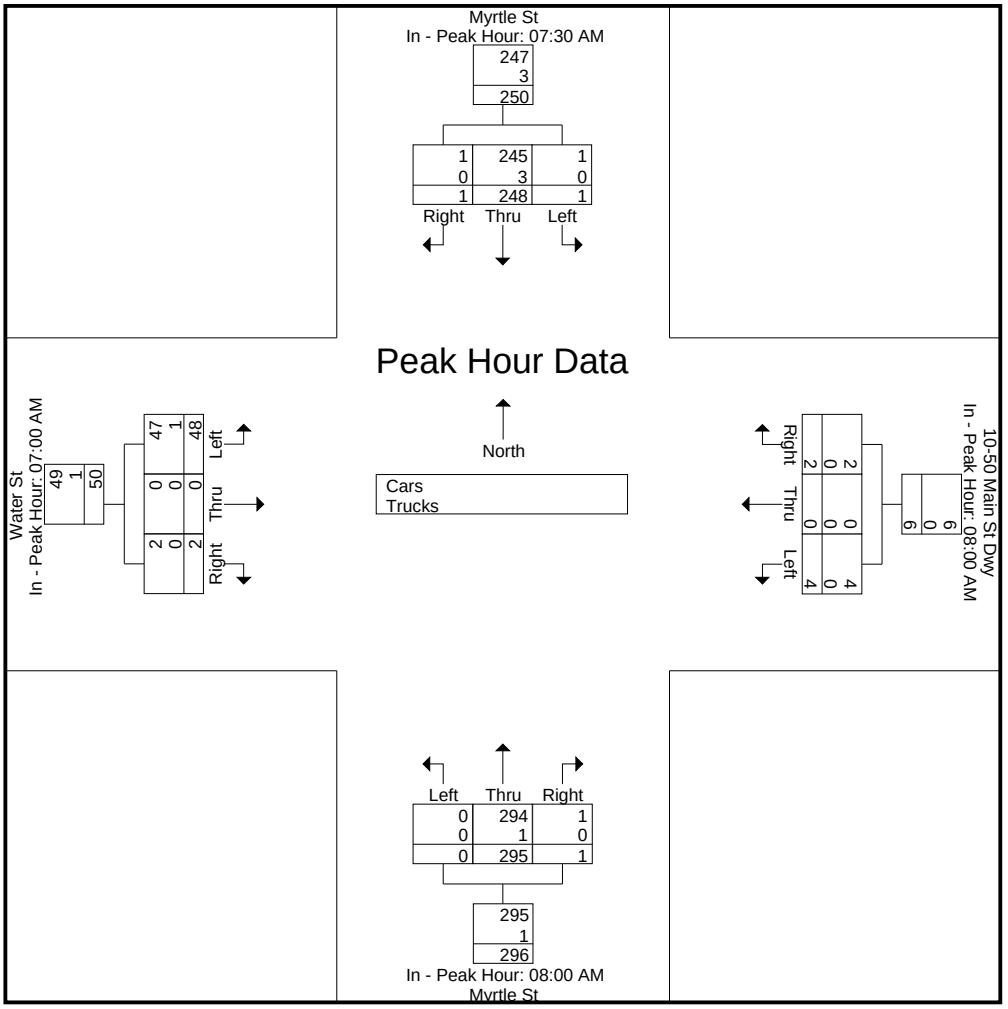
	07:30 AM				08:00 AM				08:00 AM				07:00 AM			
+0 mins.	0	56	0	56	0	0	0	0	0	54	0	54	13	0	**1**	14
+15 mins.	0	66	0	66	1	0	**1**	2	0	**98**	0	**98**	11	0	1	12
+30 mins.	**1**	59	0	60	1	0	0	1	0	70	**1**	71	**17**	0	0	**17**
+45 mins.	0	**67**	**1**	**68**	**2**	0	1	**3**	0	73	0	73	7	0	0	7
Total Volume	1	248	1	250	4	0	2	6	0	295	1	296	48	0	2	50
% App. Total	0.4	99.2	0.4		66.7	0	33.3		0	99.7	0.3		96	0	4	
PHF	.250	.925	.250	.919	.500	.000	.500	.500	.000	.753	.250	.755	.706	.000	.500	.735
Cars	1	245	1	247	4	0	2	6	0	294	1	295	47	0	2	49
% Cars	100	98.8	100	98.8	100	0	100	100	0	99.7	100	99.7	97.9	0	100	98
Trucks	0	3	0	3	0	0	0	0	0	1	0	1	1	0	0	1
% Trucks	0	1.2	0	1.2	0	0	0	0	0	0.3	0	0.3	2.1	0	0	2

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024

Groups Printed- Cars

	Myrtle St From North			10-50 Main St Dwy From East			Myrtle St From South			Water St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	36	0	1	0	1	0	43	0	13	0	1	95
07:15 AM	0	48	0	0	0	1	0	35	0	11	0	1	96
07:30 AM	0	55	0	0	0	0	0	63	0	16	0	0	134
07:45 AM	0	66	0	0	0	1	0	57	0	7	0	0	131
Total	0	205	0	1	0	3	0	198	0	47	0	2	456
08:00 AM	1	57	0	0	0	0	0	54	0	9	0	1	122
08:15 AM	0	67	1	1	0	1	0	97	0	11	0	2	180
08:30 AM	0	47	0	1	0	0	0	70	1	10	1	1	131
08:45 AM	0	59	0	2	0	1	0	73	0	6	1	1	143
Total	1	230	1	4	0	2	0	294	1	36	2	5	576
Grand Total	1	435	1	5	0	5	0	492	1	83	2	7	1032
Apprch %	0.2	99.5	0.2	50	0	50	0	99.8	0.2	90.2	2.2	7.6	
Total %	0.1	42.2	0.1	0.5	0	0.5	0	47.7	0.1	8	0.2	0.7	

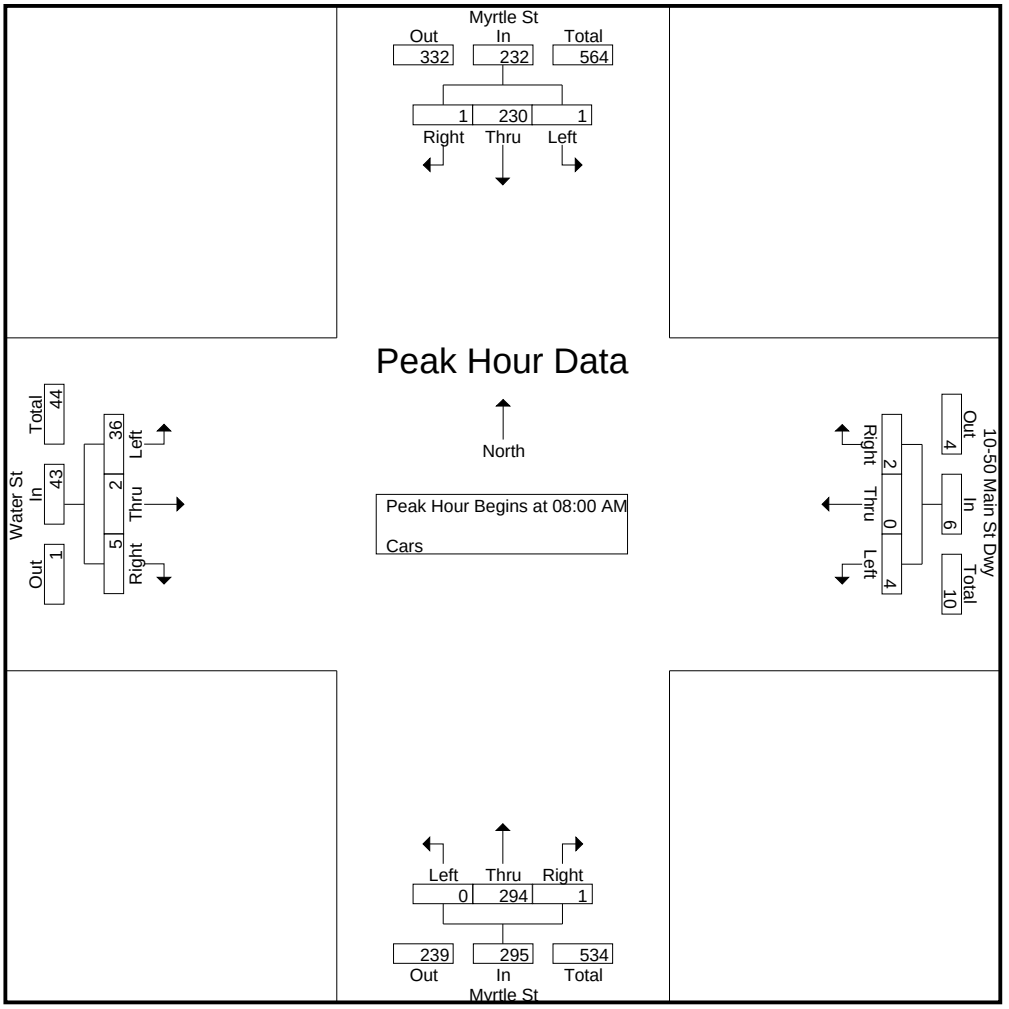
	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**1**	57	0	58	0	0	0	0	0	54	0	54	9	0	1	10	122
08:15 AM	0	**67**	**1**	**68**	1	0	**1**	2	0	**97**	0	**97**	**11**	0	**2**	**13**	**180**
08:30 AM	0	47	0	47	1	0	0	1	0	70	**1**	71	10	**1**	1	12	131
08:45 AM	0	59	0	59	**2**	0	1	**3**	0	73	0	73	6	1	1	8	143
Total Volume	1	230	1	232	4	0	2	6	0	294	1	295	36	2	5	43	576
% App. Total	0.4	99.1	0.4		66.7	0	33.3		0	99.7	0.3		83.7	4.7	11.6		
PHF	.250	.858	.250	.853	.500	.000	.500	.500	.000	.758	.250	.760	.818	.500	.625	.827	.800

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 5



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

Peak Hour for Each Approach Begins at:

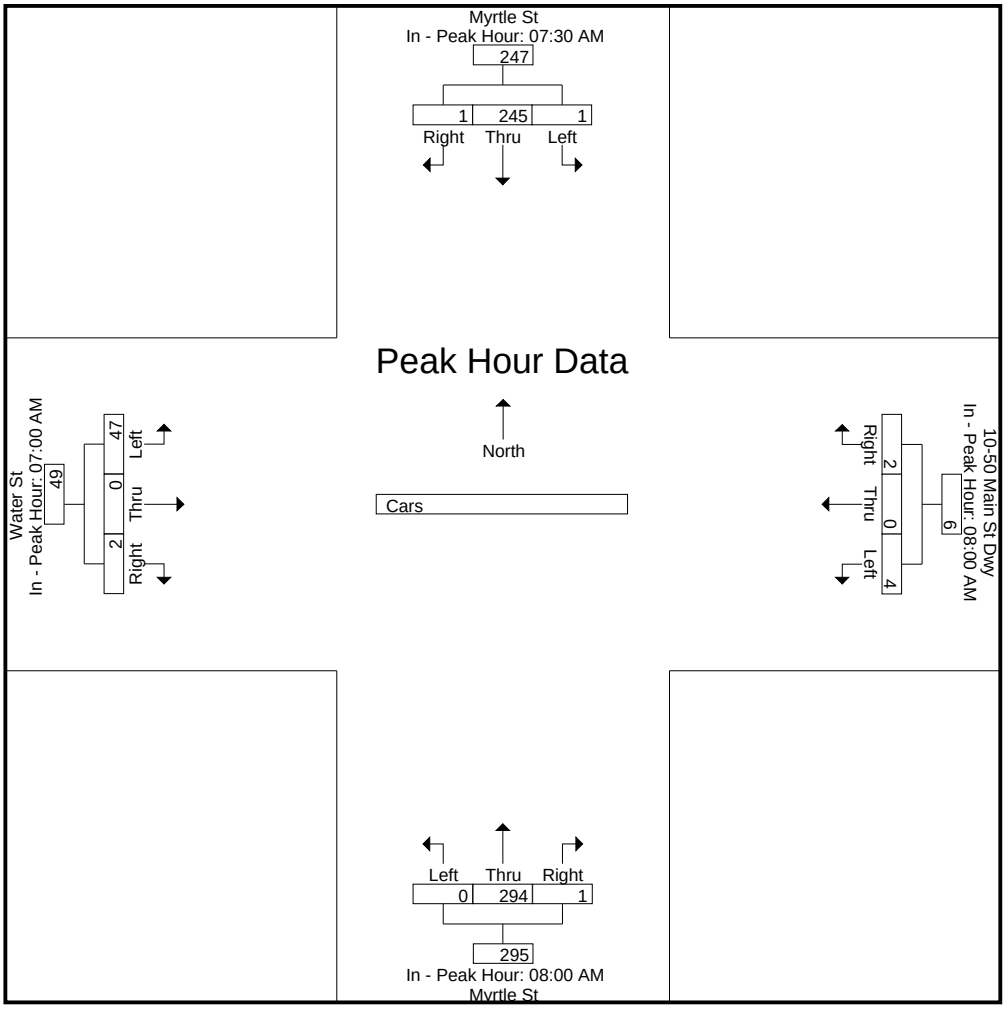
	07:30 AM				08:00 AM				08:00 AM				07:00 AM			
+0 mins.	0	55	0	55	0	0	0	0	0	54	0	54	13	0	**1**	14
+15 mins.	0	66	0	66	1	0	**1**	2	0	**97**	0	**97**	11	0	1	12
+30 mins.	**1**	57	0	58	1	0	0	1	0	70	**1**	71	**16**	0	0	**16**
+45 mins.	0	**67**	**1**	**68**	**2**	0	1	**3**	0	73	0	73	7	0	0	7
Total Volume	1	245	1	247	4	0	2	6	0	294	1	295	47	0	2	49
% App. Total	0.4	99.2	0.4		66.7	0	33.3		0	99.7	0.3		95.9	0	4.1	
PHF	.250	.914	.250	.908	.500	.000	.500	.500	.000	.758	.250	.760	.734	.000	.500	.766

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024

Groups Printed- Trucks

	Myrtle St From North			10-50 Main St Dwy From East			Myrtle St From South			Water St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
07:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	2
07:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	2	0	0	0	0	0	5	0	1	0	0	8
08:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
08:30 AM	0	3	0	0	0	0	0	0	0	0	0	0	3
08:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	6	0	0	0	0	0	1	0	0	0	0	7
Grand Total	0	8	0	0	0	0	0	6	0	1	0	0	15
Apprch %	0	100	0	0	0	0	0	100	0	100	0	0	
Total %	0	53.3	0	0	0	0	0	40	0	6.7	0	0	

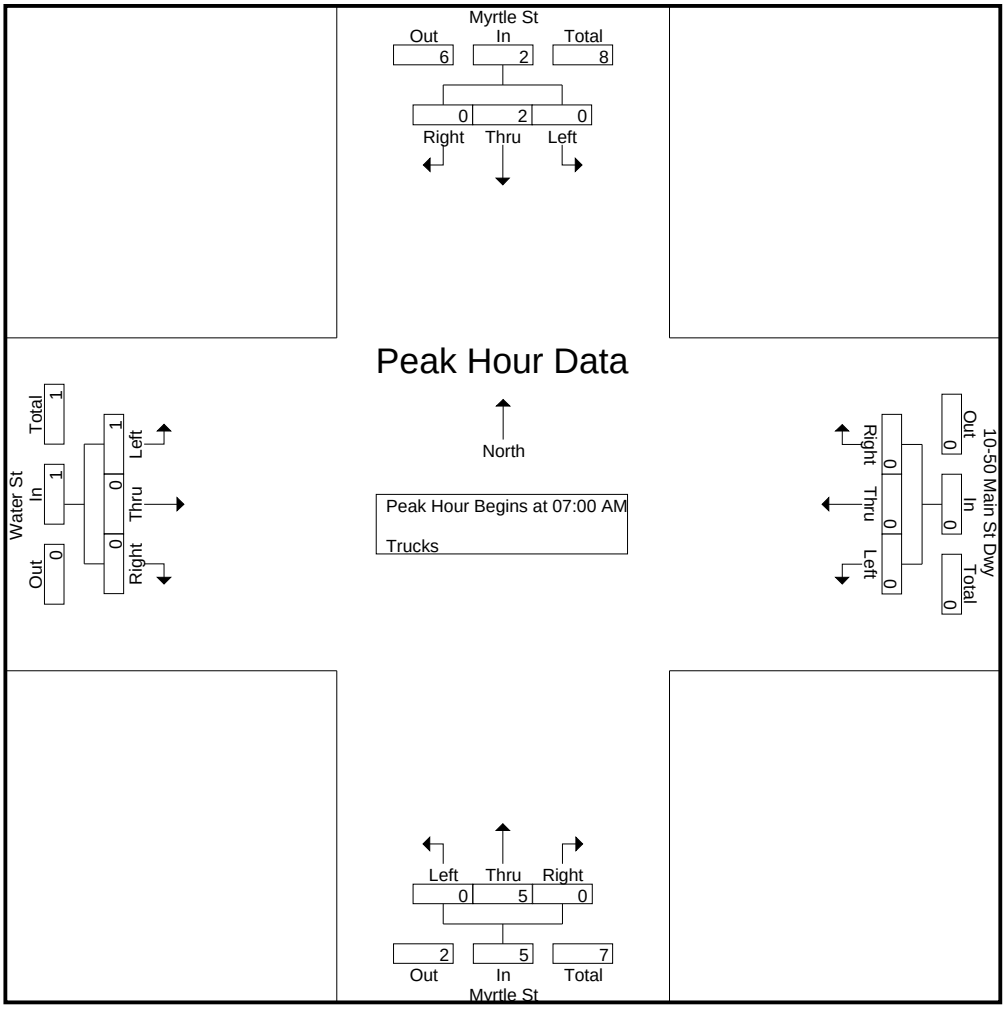
	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**1**	0	**1**	0	0	0	0	0	1	0	1	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	**3**	0	**3**	0	0	0	0	**3**
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	**1**	0	0	**1**	2
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	5	0	5	1	0	0	1	8
% App. Total	0	100	0		0	0	0		0	100	0		100	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.417	.000	.417	.250	.000	.000	.250	.667

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 8



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

Peak Hour for Each Approach Begins at:

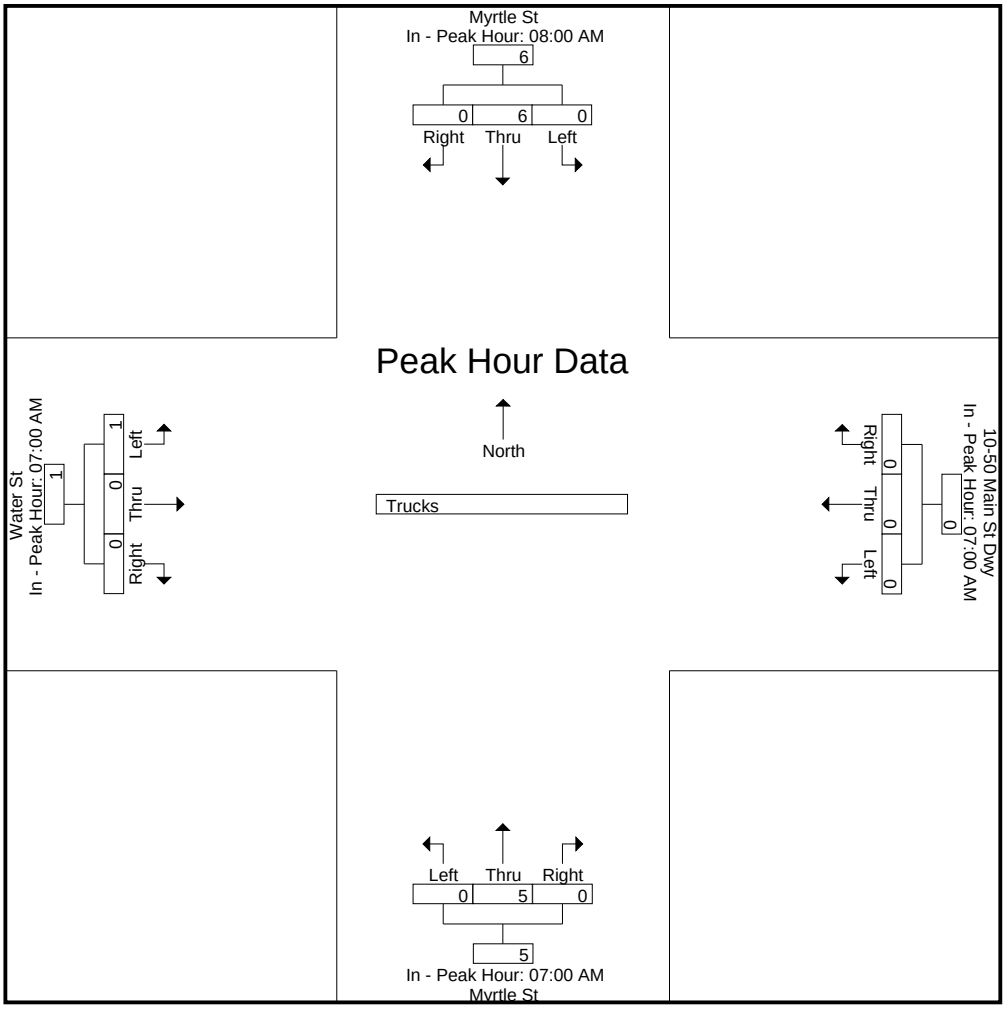
	08:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	**3**	0	**3**	0	0	0	0
+30 mins.	0	**3**	0	**3**	0	0	0	0	0	0	0	0	**1**	0	0	**1**
+45 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	6	0	6	0	0	0	0	0	5	0	5	1	0	0	1
% App. Total	0	100	0		0	0	0		0	100	0		100	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.417	.000	.417	.250	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 10

Groups Printed- Bikes Peds

	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water 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
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 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	1	1	0	1
08:00 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	2
08:15 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	3	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
08:45 AM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	1	4	0	4
Total	0	0	0	4	0	0	0	3	0	0	0	0	0	0	0	3	10	0	10
Grand Total	0	0	0	4	0	0	0	3	0	0	0	0	0	0	0	4	11	0	11
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0				
Total %																	100	0	

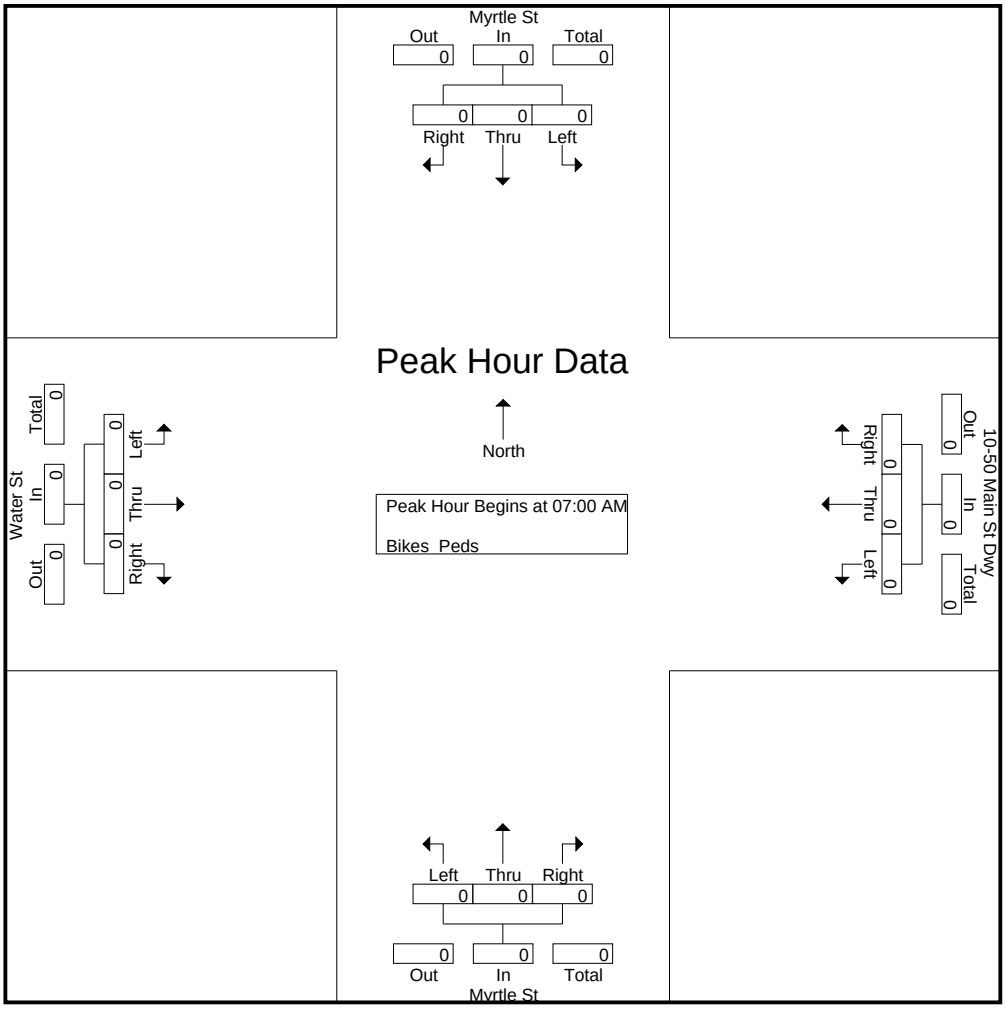
	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 11



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

Peak Hour for Each Approach Begins at:

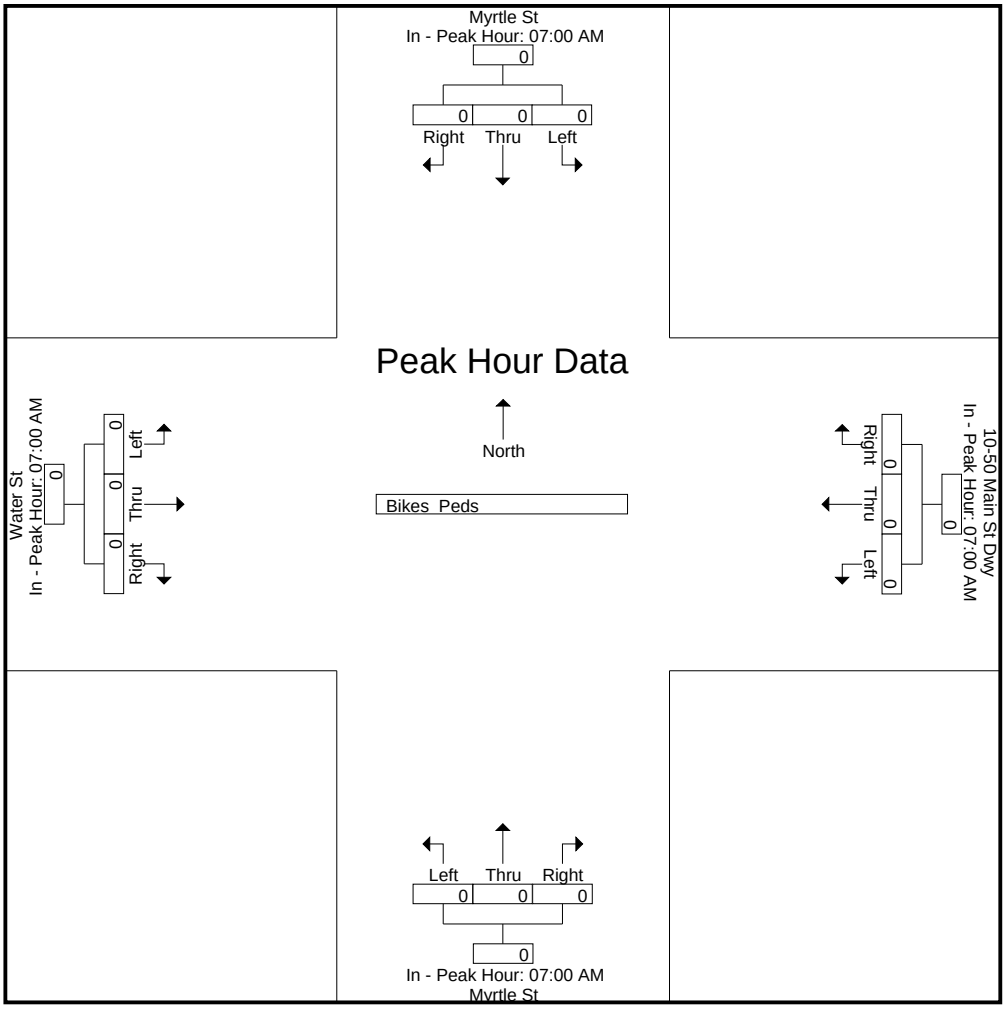
	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Myrtle St From North			10-50 Main St Dwy From East			Myrtle St From South			Water St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
02:00 PM	0	66	0	0	0	1	0	44	0	2	0	0	113
02:15 PM	0	64	0	3	0	1	0	33	0	6	0	1	108
02:30 PM	0	84	0	3	0	2	0	49	0	3	0	3	144
02:45 PM	0	67	0	3	0	0	0	43	0	11	0	1	125
Total	0	281	0	9	0	4	0	169	0	22	0	5	490
03:00 PM	0	70	0	2	0	1	0	46	0	5	0	0	124
03:15 PM	0	98	0	3	0	1	0	48	0	6	0	0	156
03:30 PM	0	108	0	5	0	4	0	52	1	3	0	0	173
03:45 PM	0	84	0	5	0	3	0	65	0	4	0	1	162
Total	0	360	0	15	0	9	0	211	1	18	0	1	615
04:00 PM	0	89	0	6	0	4	0	64	0	7	0	0	170
04:15 PM	0	113	0	0	0	1	0	62	0	4	0	0	180
04:30 PM	1	103	0	2	0	5	0	58	0	6	0	1	176
04:45 PM	0	103	0	1	0	2	0	62	0	6	0	0	174
Total	1	408	0	9	0	12	0	246	0	23	0	1	700
05:00 PM	0	109	0	3	0	2	0	60	1	2	0	0	177
05:15 PM	0	115	0	3	0	3	0	53	1	3	0	1	179
05:30 PM	0	99	0	1	0	2	0	58	0	4	0	0	164
05:45 PM	0	92	0	3	0	2	0	59	1	6	0	0	163
Total	0	415	0	10	0	9	0	230	3	15	0	1	683
Grand Total	1	1464	0	43	0	34	0	856	4	78	0	8	2488
Apprch %	0.1	99.9	0	55.8	0	44.2	0	99.5	0.5	90.7	0	9.3	
Total %	0	58.8	0	1.7	0	1.4	0	34.4	0.2	3.1	0	0.3	
Cars	1	1447	0	43	0	34	0	842	4	78	0	8	2457
% Cars	100	98.8	0	100	0	100	0	98.4	100	100	0	100	98.8
Trucks	0	17	0	0	0	0	0	14	0	0	0	0	31
% Trucks	0	1.2	0	0	0	0	0	1.6	0	0	0	0	1.2

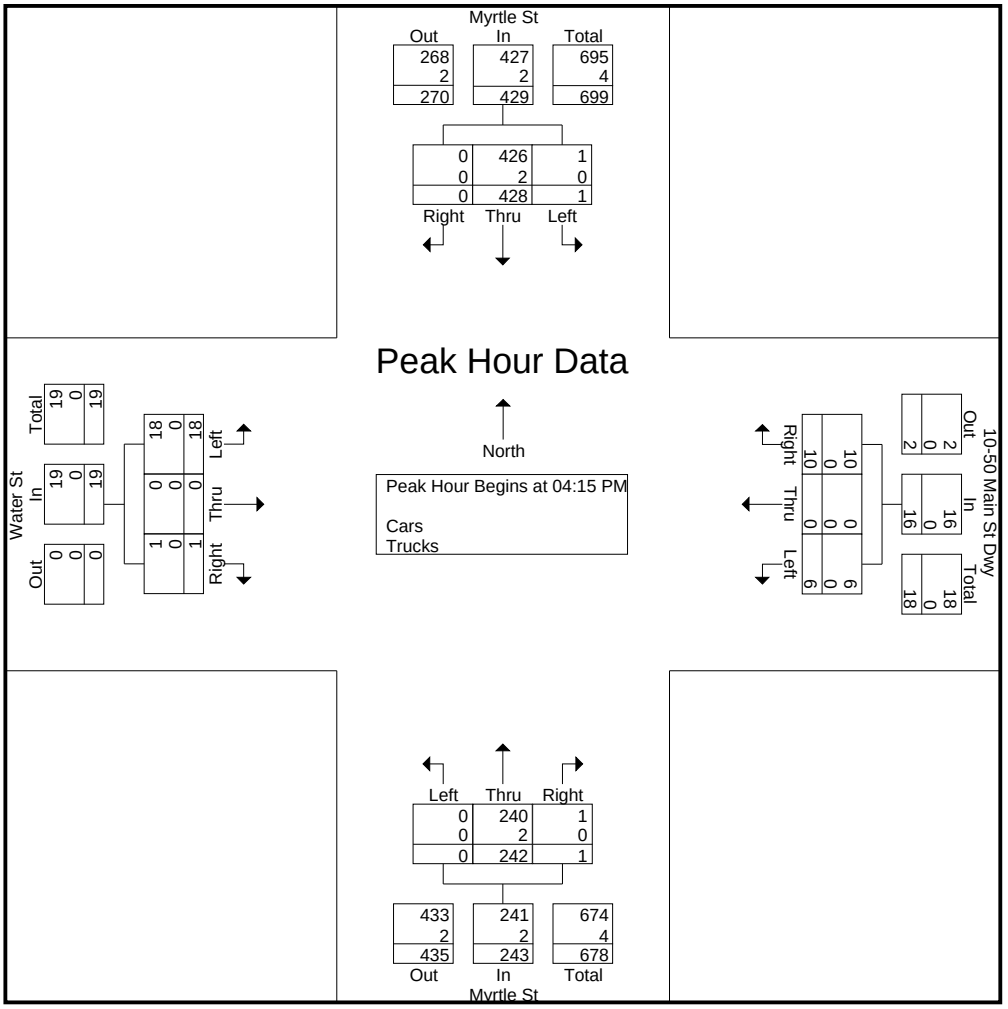
	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**113**	0	**113**	0	0	1	1	0	**62**	0	**62**	4	0	0	4	**180**
04:30 PM	**1**	103	0	104	2	0	**5**	**7**	0	58	0	58	**6**	0	**1**	**7**	176
04:45 PM	0	103	0	103	1	0	2	3	0	62	0	62	6	0	0	6	174
05:00 PM	0	109	0	109	**3**	0	2	5	0	60	**1**	61	2	0	0	2	177
Total Volume	1	428	0	429	6	0	10	16	0	242	1	243	18	0	1	19	707
% App. Total	0.2	99.8	0		37.5	0	62.5		0	99.6	0.4		94.7	0	5.3		
PHF	.250	.947	.000	.949	.500	.000	.500	.571	.000	.976	.250	.980	.750	.000	.250	.679	.982
Cars	1	426	0	427	6	0	10	16	0	240	1	241	18	0	1	19	703
% Cars	100	99.5	0	99.5	100	0	100	100	0	99.2	100	99.2	100	0	100	100	99.4
Trucks	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
% Trucks	0	0.5	0	0.5	0	0	0	0	0	0.8	0	0.8	0	0	0	0	0.6

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 2



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

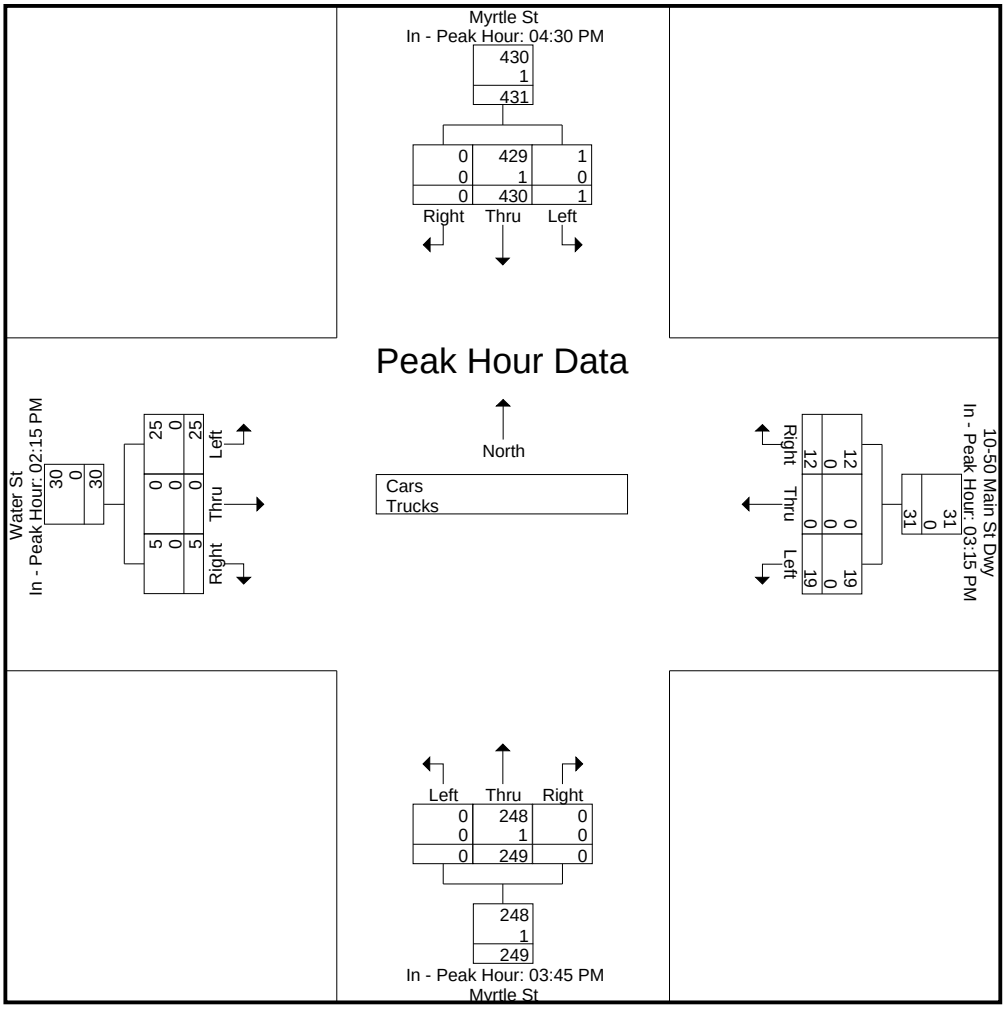
	04:30 PM				03:15 PM				03:45 PM				02:15 PM			
+0 mins.	**1**	103	0	104	3	0	1	4	0	**65**	0	**65**	6	0	1	7
+15 mins.	0	103	0	103	5	0	**4**	9	0	64	0	64	3	0	**3**	6
+30 mins.	0	109	0	109	5	0	3	8	0	62	0	62	**11**	0	1	**12**
+45 mins.	0	**115**	0	**115**	**6**	0	4	**10**	0	58	0	58	5	0	0	5
Total Volume	1	430	0	431	19	0	12	31	0	249	0	249	25	0	5	30
% App. Total	0.2	99.8	0		61.3	0	38.7		0	100	0		83.3	0	16.7	
PHF	.250	.935	.000	.937	.792	.000	.750	.775	.000	.958	.000	.958	.568	.000	.417	.625
Cars	1	429	0	430	19	0	12	31	0	248	0	248	25	0	5	30
% Cars	100	99.8	0	99.8	100	0	100	100	0	99.6	0	99.6	100	0	100	100
Trucks	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
% Trucks	0	0.2	0	0.2	0	0	0	0	0	0.4	0	0.4	0	0	0	0

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 4

Groups Printed- Cars

	Myrtle St From North			10-50 Main St Dwy From East			Myrtle St From South			Water St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
02:00 PM	0	63	0	0	0	1	0	42	0	2	0	0	108
02:15 PM	0	64	0	3	0	1	0	32	0	6	0	1	107
02:30 PM	0	82	0	3	0	2	0	47	0	3	0	3	140
02:45 PM	0	66	0	3	0	0	0	42	0	11	0	1	123
Total	0	275	0	9	0	4	0	163	0	22	0	5	478
03:00 PM	0	68	0	2	0	1	0	44	0	5	0	0	120
03:15 PM	0	97	0	3	0	1	0	48	0	6	0	0	155
03:30 PM	0	106	0	5	0	4	0	51	1	3	0	0	170
03:45 PM	0	82	0	5	0	3	0	65	0	4	0	1	160
Total	0	353	0	15	0	9	0	208	1	18	0	1	605
04:00 PM	0	89	0	6	0	4	0	63	0	7	0	0	169
04:15 PM	0	112	0	0	0	1	0	62	0	4	0	0	179
04:30 PM	1	102	0	2	0	5	0	58	0	6	0	1	175
04:45 PM	0	103	0	1	0	2	0	60	0	6	0	0	172
Total	1	406	0	9	0	12	0	243	0	23	0	1	695
05:00 PM	0	109	0	3	0	2	0	60	1	2	0	0	177
05:15 PM	0	115	0	3	0	3	0	52	1	3	0	1	178
05:30 PM	0	98	0	1	0	2	0	57	0	4	0	0	162
05:45 PM	0	91	0	3	0	2	0	59	1	6	0	0	162
Total	0	413	0	10	0	9	0	228	3	15	0	1	679
Grand Total	1	1447	0	43	0	34	0	842	4	78	0	8	2457
Apprch %	0.1	99.9	0	55.8	0	44.2	0	99.5	0.5	90.7	0	9.3	
Total %	0	58.9	0	1.8	0	1.4	0	34.3	0.2	3.2	0	0.3	

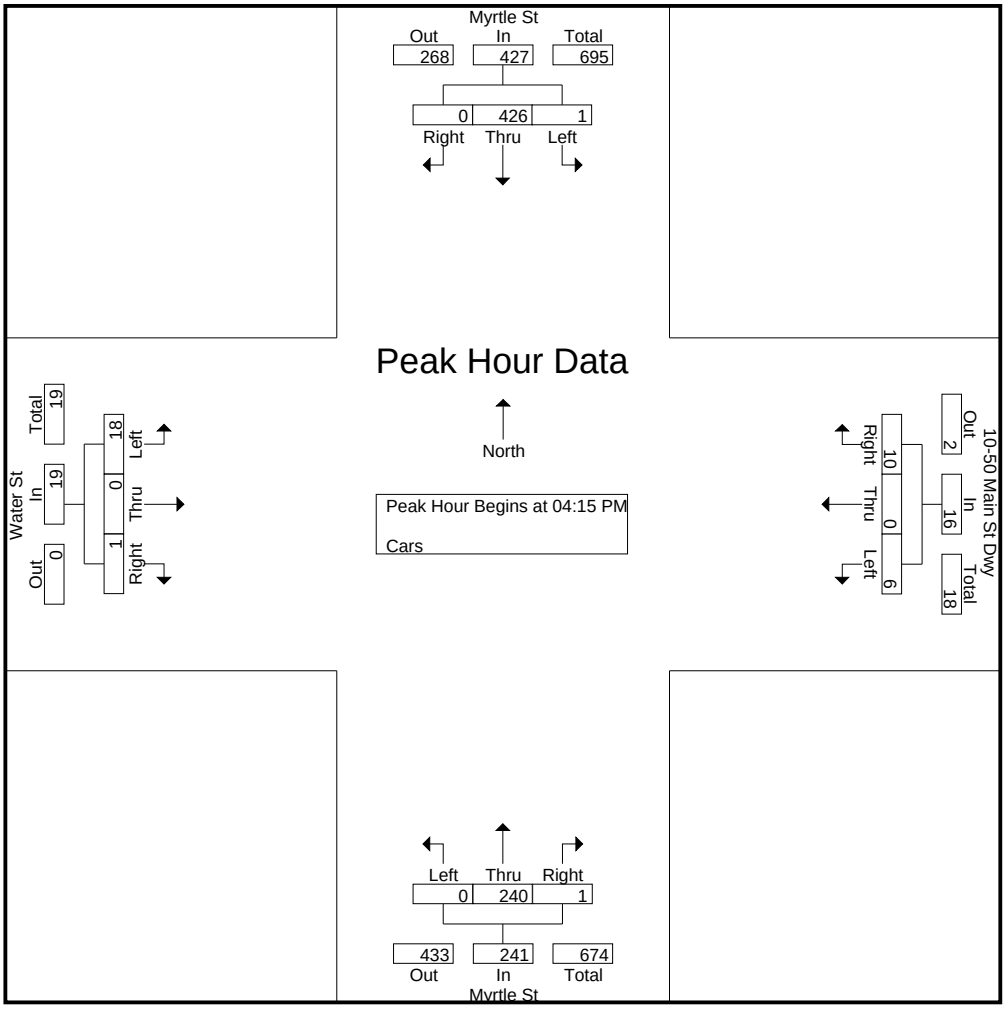
	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**112**	0	**112**	0	0	1	1	0	**62**	0	**62**	4	0	0	4	**179**
04:30 PM	**1**	102	0	103	2	0	**5**	**7**	0	58	0	58	**6**	0	**1**	**7**	175
04:45 PM	0	103	0	103	1	0	2	3	0	60	0	60	6	0	0	6	172
05:00 PM	0	109	0	109	**3**	0	2	5	0	60	**1**	61	2	0	0	2	177
Total Volume	1	426	0	427	6	0	10	16	0	240	1	241	18	0	1	19	703
% App. Total	0.2	99.8	0		37.5	0	62.5		0	99.6	0.4		94.7	0	5.3		
PHF	.250	.951	.000	.953	.500	.000	.500	.571	.000	.968	.250	.972	.750	.000	.250	.679	.982

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 5



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

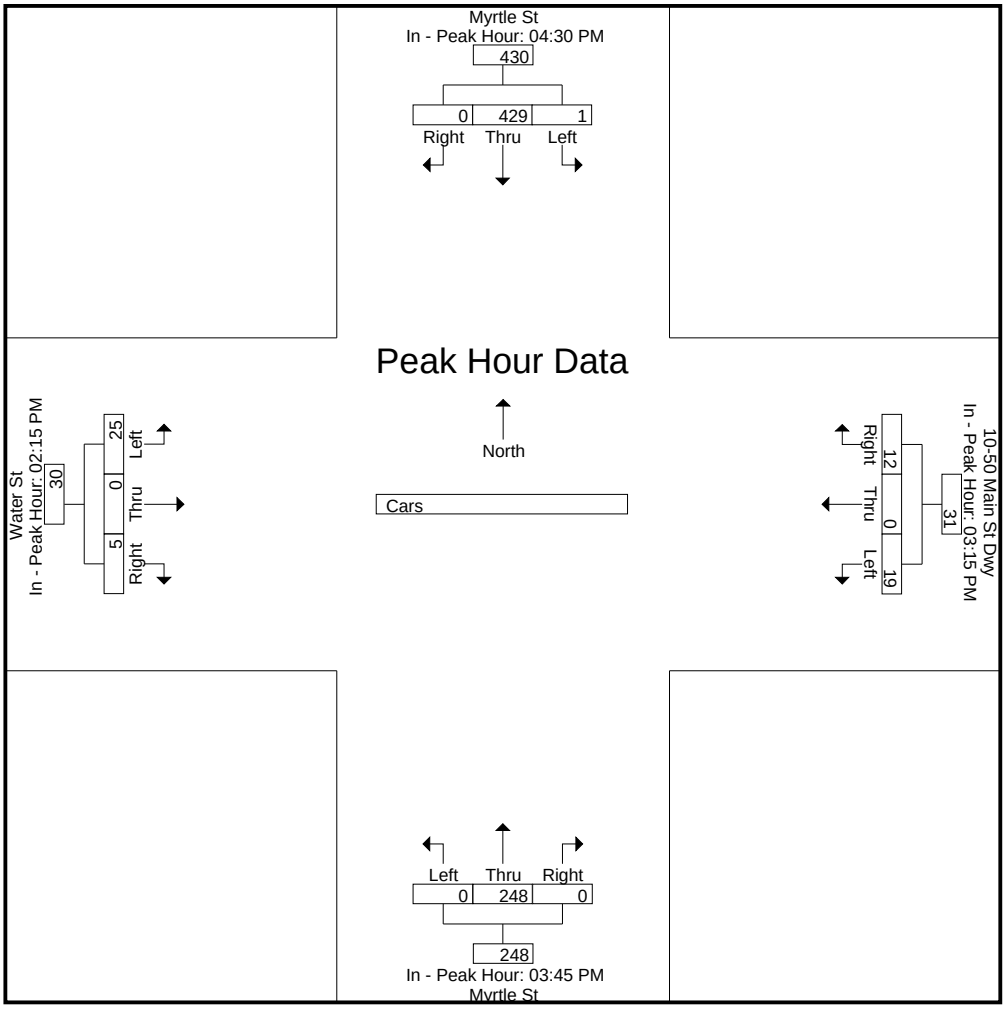
	04:30 PM				03:15 PM				03:45 PM				02:15 PM			
+0 mins.	**1**	102	0	103	3	0	1	4	0	**65**	0	**65**	6	0	1	7
+15 mins.	0	103	0	103	5	0	**4**	9	0	63	0	63	3	0	**3**	6
+30 mins.	0	109	0	109	5	0	3	8	0	62	0	62	**11**	0	1	**12**
+45 mins.	0	**115**	0	**115**	**6**	0	4	**10**	0	58	0	58	5	0	0	5
Total Volume	1	429	0	430	19	0	12	31	0	248	0	248	25	0	5	30
% App. Total	0.2	99.8	0		61.3	0	38.7		0	100	0		83.3	0	16.7	
PHF	.250	.933	.000	.935	.792	.000	.750	.775	.000	.954	.000	.954	.568	.000	.417	.625

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024

Groups Printed- Trucks

	Myrtle St From North			10-50 Main St Dwy From East			Myrtle St From South			Water St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
02:00 PM	0	3	0	0	0	0	0	2	0	0	0	0	5
02:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
02:30 PM	0	2	0	0	0	0	0	2	0	0	0	0	4
02:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	0	6	0	0	0	0	0	6	0	0	0	0	12
03:00 PM	0	2	0	0	0	0	0	2	0	0	0	0	4
03:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
03:30 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
03:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	7	0	0	0	0	0	3	0	0	0	0	10
04:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
Total	0	2	0	0	0	0	0	3	0	0	0	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
05:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	0	0	0	2	0	0	0	0	4
Grand Total	0	17	0	0	0	0	0	14	0	0	0	0	31
Apprch %	0	100	0	0	0	0	0	100	0	0	0	0	
Total %	0	54.8	0	0	0	0	0	45.2	0	0	0	0	

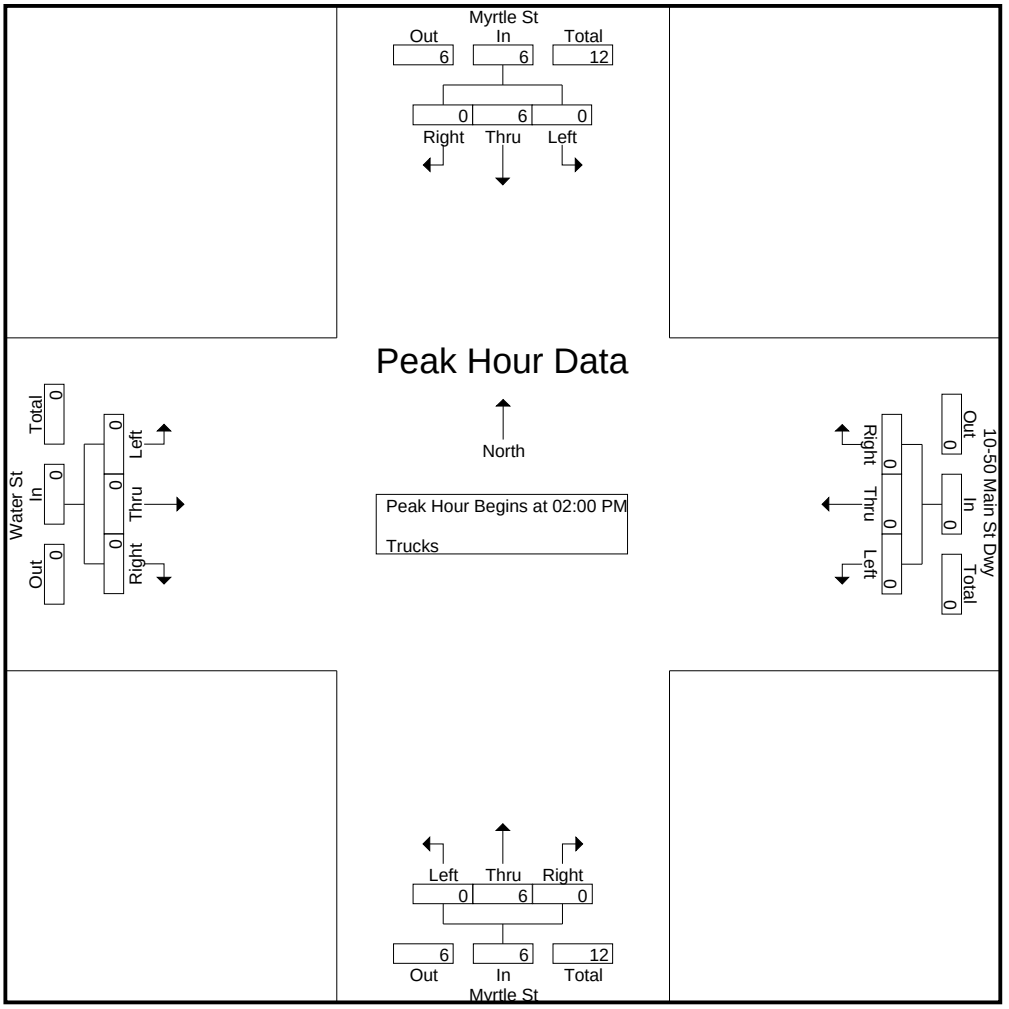
	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	**3**	0	**3**	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**5**
02:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
02:30 PM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
02:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total Volume	0	6	0	6	0	0	0	0	0	6	0	6	0	0	0	0	12
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.600

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 8



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

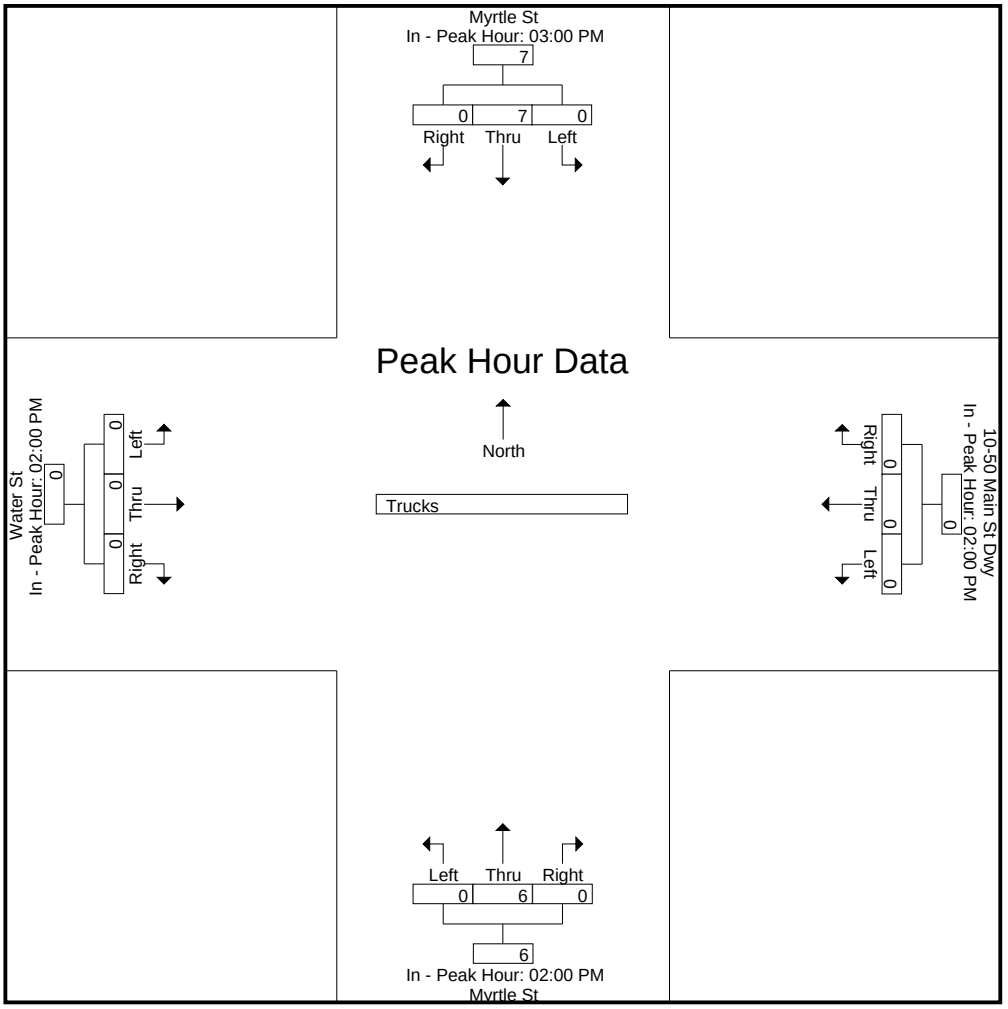
	03:00 PM				02:00 PM				02:00 PM				02:00 PM			
+0 mins.	0	**2**	0	**2**	0	0	0	0	0	**2**	0	**2**	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0
+45 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	7	0	7	0	0	0	0	0	6	0	6	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.875	.000	.875	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 10

Groups Printed- Bikes Peds

	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water 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
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
02:15 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	5	0	5
02:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2
02:45 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	2
Total	0	0	0	4	0	0	0	3	0	0	0	0	0	0	0	3	10	0	10
03:00 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	5	0	5
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	0	10
03:30 PM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	0	8
03:45 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	3	0	3
Total	0	0	0	3	0	0	0	11	0	0	0	0	0	0	0	12	26	0	26
04:00 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	5	0	5
04:15 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4	0	4
04:30 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	4	6	0	6
04:45 PM	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	2	4	2	6
Total	0	2	0	6	0	0	0	6	0	0	0	0	0	0	0	7	19	2	21
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	5
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	1	2	3
05:30 PM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	5	0	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	0	0	2	0	2	0	0	0	0	0	7	11	2	13
Grand Total	0	2	0	15	0	0	0	22	0	2	0	0	0	0	0	29	66	4	70
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0				
Total %	0	50	0		0	0	0		0	50	0		0	0	0		94.3	5.7	

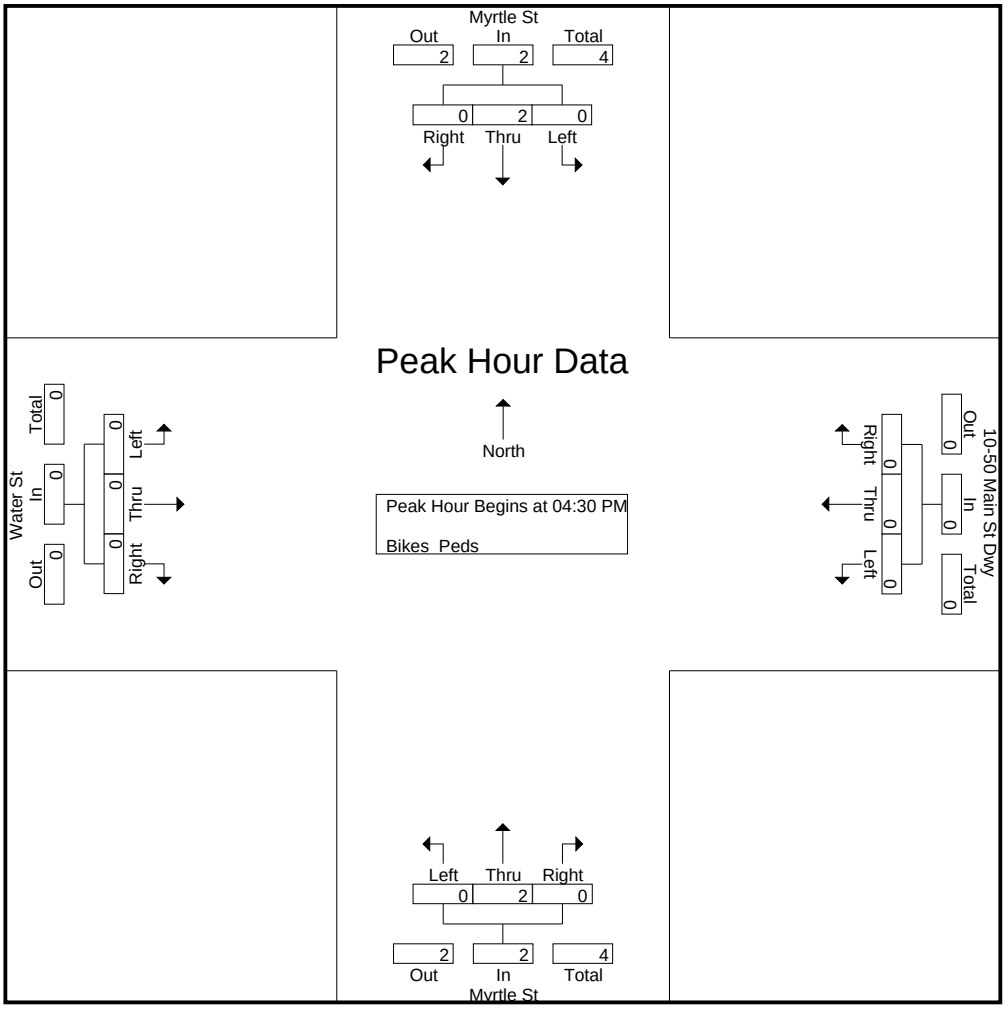
	Myrtle St From North				10-50 Main St Dwy From East				Myrtle St From South				Water St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
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
04:45 PM	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	**2**
05:00 PM	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	**2**	0	**2**	0	0	0	0	2
Total Volume	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.500

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 11



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

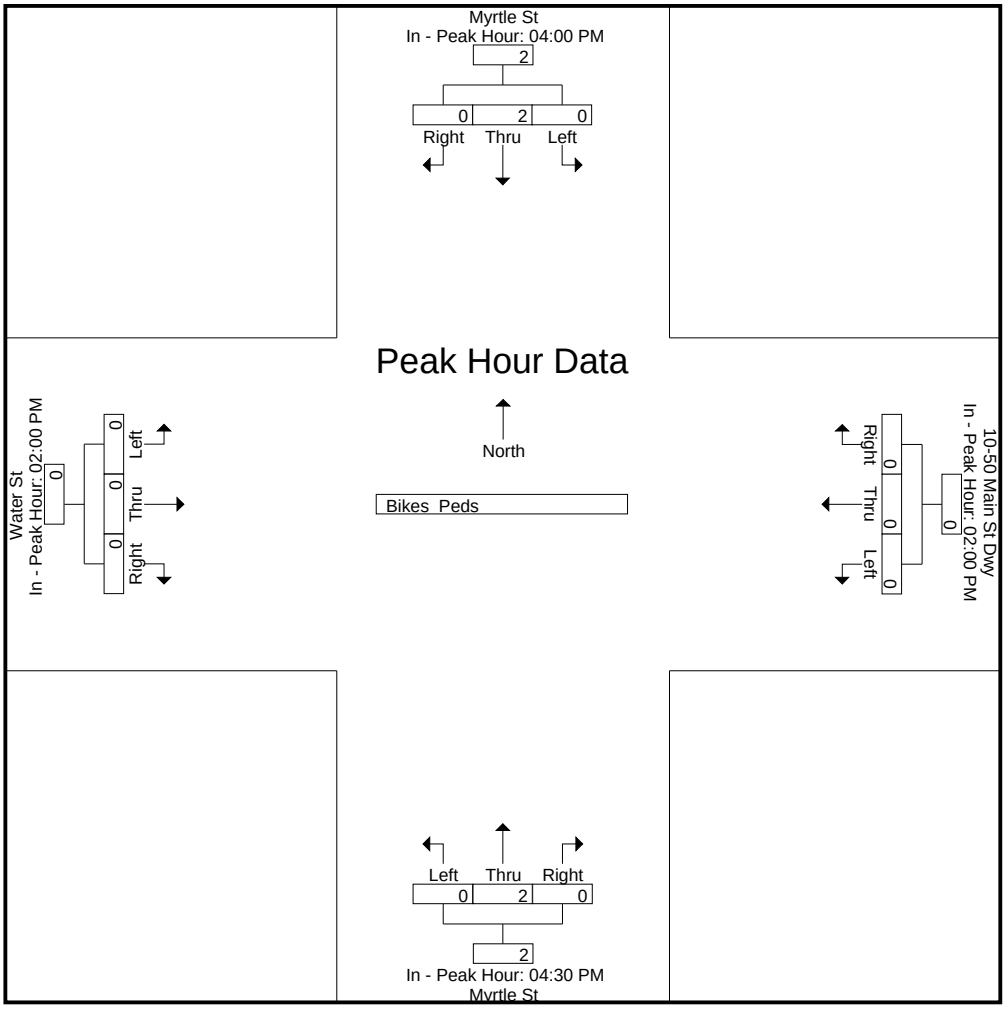
	04:00 PM				02:00 PM				04:30 PM				02:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	**2**	0	**2**	0	0	0	0	0	**2**	0	**2**	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : 10-50 Main St Dwy / Water St
City/State : Ashland, MA
Weather : Clear

File Name : 98370007
Site Code : 98370007
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Myrtle St From North		LFX Enterprise Driveway From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	37	0	1	58	0	96
07:15 AM	0	45	3	0	48	2	98
07:30 AM	3	56	0	0	80	1	140
07:45 AM	2	66	0	0	64	2	134
Total	5	204	3	1	250	5	468
08:00 AM	2	60	0	0	60	1	123
08:15 AM	0	65	3	0	106	6	180
08:30 AM	0	50	0	0	80	0	130
08:45 AM	0	61	0	0	80	0	141
Total	2	236	3	0	326	7	574
Grand Total	7	440	6	1	576	12	1042
Apprch %	1.6	98.4	85.7	14.3	98	2	
Total %	0.7	42.2	0.6	0.1	55.3	1.2	
Cars	7	432	6	1	569	12	1027
% Cars	100	98.2	100	100	98.8	100	98.6
Trucks	0	8	0	0	7	0	15
% Trucks	0	1.8	0	0	1.2	0	1.4

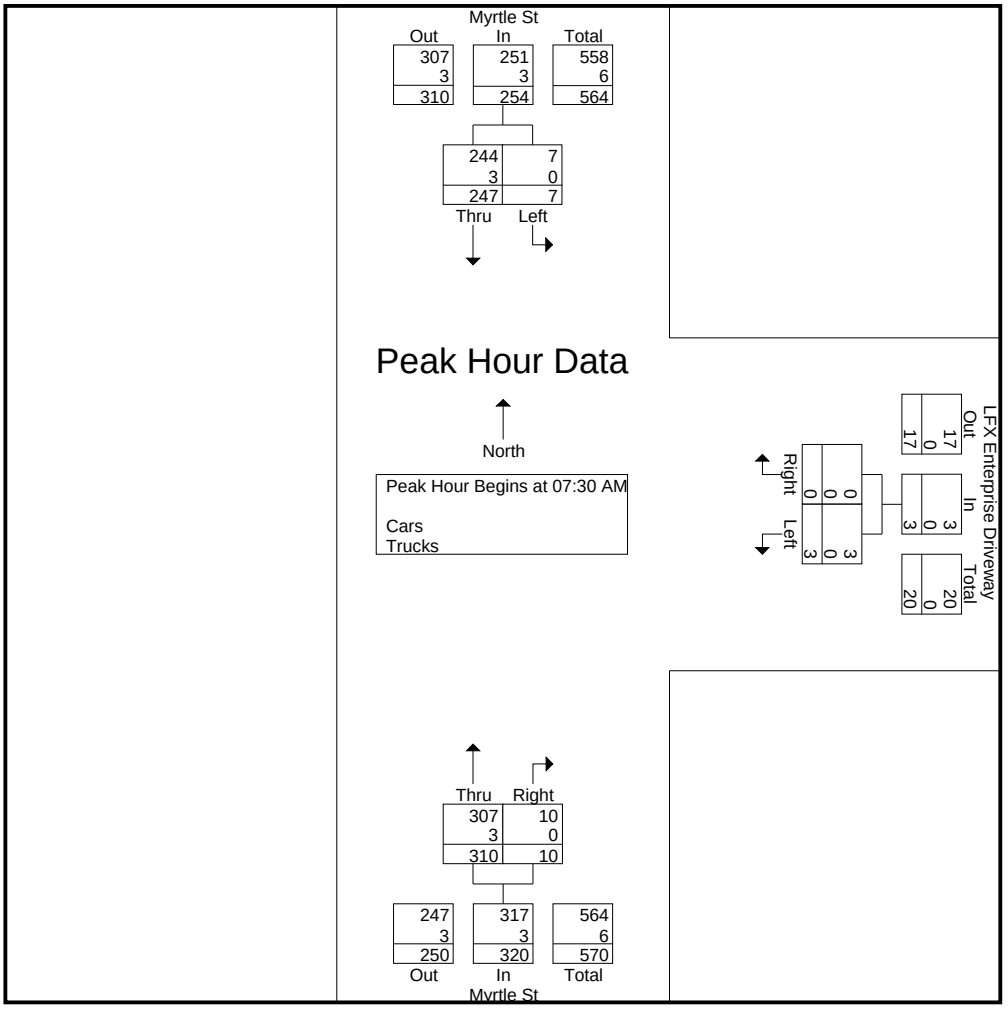
	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**3**	56	59	0	0	0	80	1	81	140
07:45 AM	2	**66**	**68**	0	0	0	64	2	66	134
08:00 AM	2	60	62	0	0	0	60	1	61	123
08:15 AM	0	65	65	**3**	0	**3**	**106**	**6**	**112**	**180**
Total Volume	7	247	254	3	0	3	310	10	320	577
% App. Total	2.8	97.2		100	0		96.9	3.1		
PHF	.583	.936	.934	.250	.000	.250	.731	.417	.714	.801
Cars	7	244	251	3	0	3	307	10	317	571
% Cars	100	98.8	98.8	100	0	100	99.0	100	99.1	99.0
Trucks	0	3	3	0	0	0	3	0	3	6
% Trucks	0	1.2	1.2	0	0	0	1.0	0	0.9	1.0

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 2



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

Peak Hour for Each Approach Begins at:

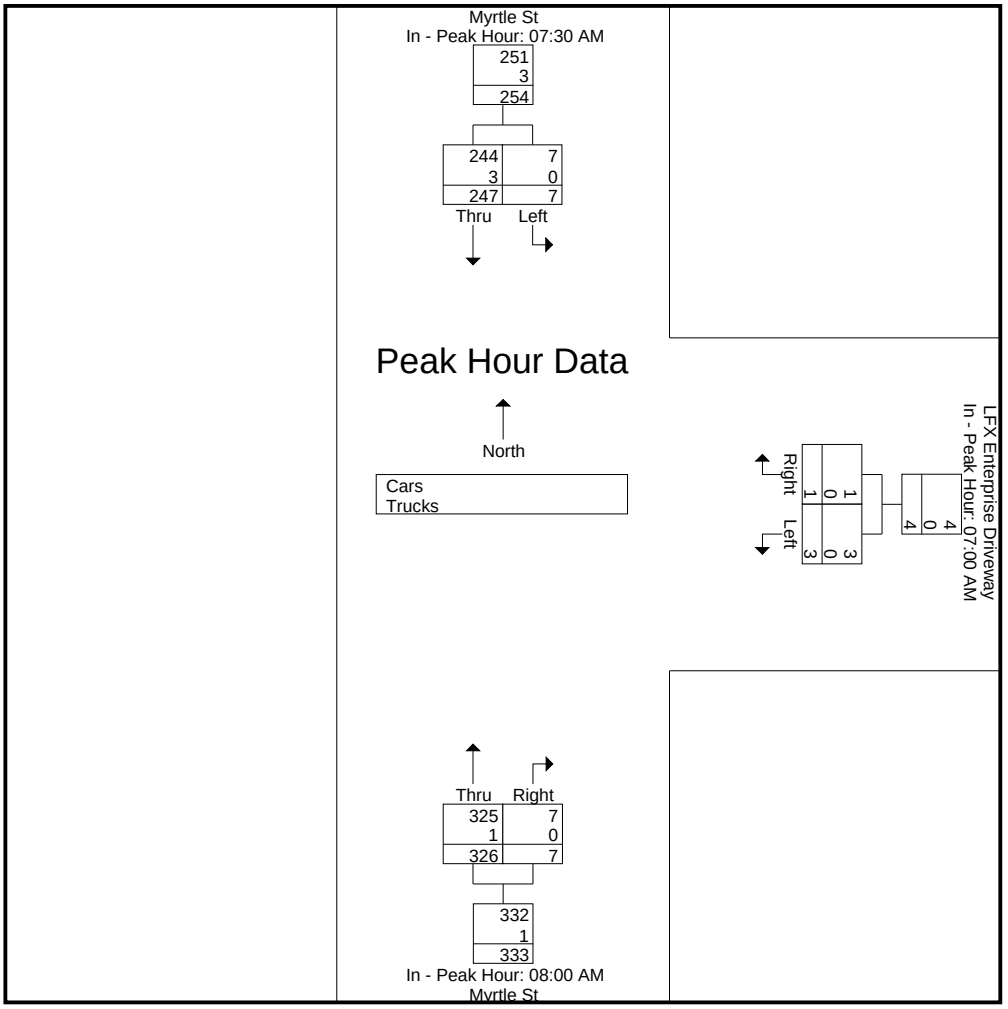
	07:30 AM			07:00 AM			08:00 AM		
+0 mins.	**3**	56	59	0	**1**	1	60	1	61
+15 mins.	2	**66**	**68**	**3**	0	**3**	**106**	**6**	**112**
+30 mins.	2	60	62	0	0	0	80	0	80
+45 mins.	0	65	65	0	0	0	80	0	80
Total Volume	7	247	254	3	1	4	326	7	333
% App. Total	2.8	97.2		75	25		97.9	2.1	
PHF	.583	.936	.934	.250	.250	.333	.769	.292	.743
Cars	7	244	251	3	1	4	325	7	332
% Cars	100	98.8	98.8	100	100	100	99.7	100	99.7
Trucks	0	3	3	0	0	0	1	0	1
% Trucks	0	1.2	1.2	0	0	0	0.3	0	0.3

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 4

Groups Printed- Cars

	Myrtle St From North		LFX Enterprise Driveway From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	36	0	1	57	0	94
07:15 AM	0	45	3	0	45	2	95
07:30 AM	3	55	0	0	79	1	138
07:45 AM	2	66	0	0	63	2	133
Total	5	202	3	1	244	5	460
08:00 AM	2	58	0	0	60	1	121
08:15 AM	0	65	3	0	105	6	179
08:30 AM	0	47	0	0	80	0	127
08:45 AM	0	60	0	0	80	0	140
Total	2	230	3	0	325	7	567
Grand Total	7	432	6	1	569	12	1027
Apprch %	1.6	98.4	85.7	14.3	97.9	2.1	
Total %	0.7	42.1	0.6	0.1	55.4	1.2	

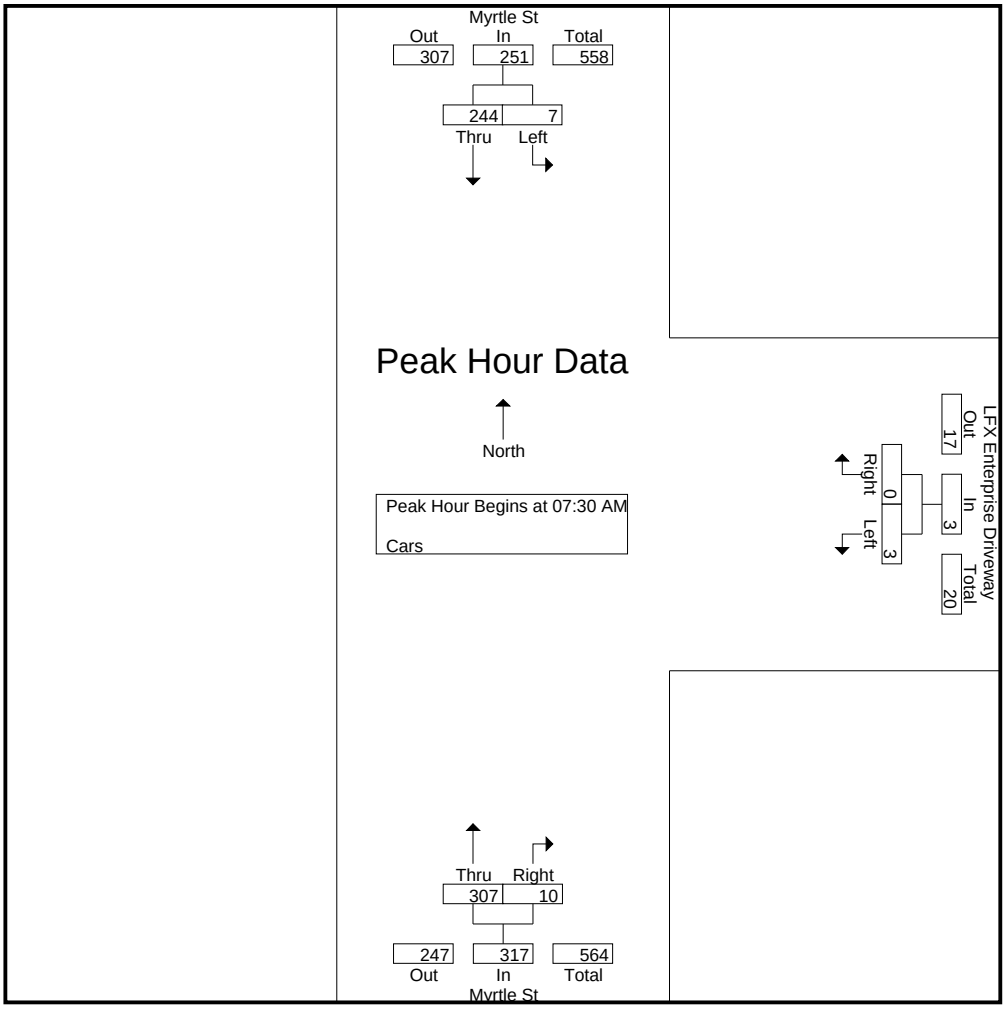
	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**3**	55	58	0	0	0	79	1	80	138
07:45 AM	2	**66**	**68**	0	0	0	63	2	65	133
08:00 AM	2	58	60	0	0	0	60	1	61	121
08:15 AM	0	65	65	**3**	0	**3**	**105**	**6**	**111**	**179**
Total Volume	7	244	251	3	0	3	307	10	317	571
% App. Total	2.8	97.2		100	0		96.8	3.2		
PHF	.583	.924	.923	.250	.000	.250	.731	.417	.714	.797

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 5



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

Peak Hour for Each Approach Begins at:

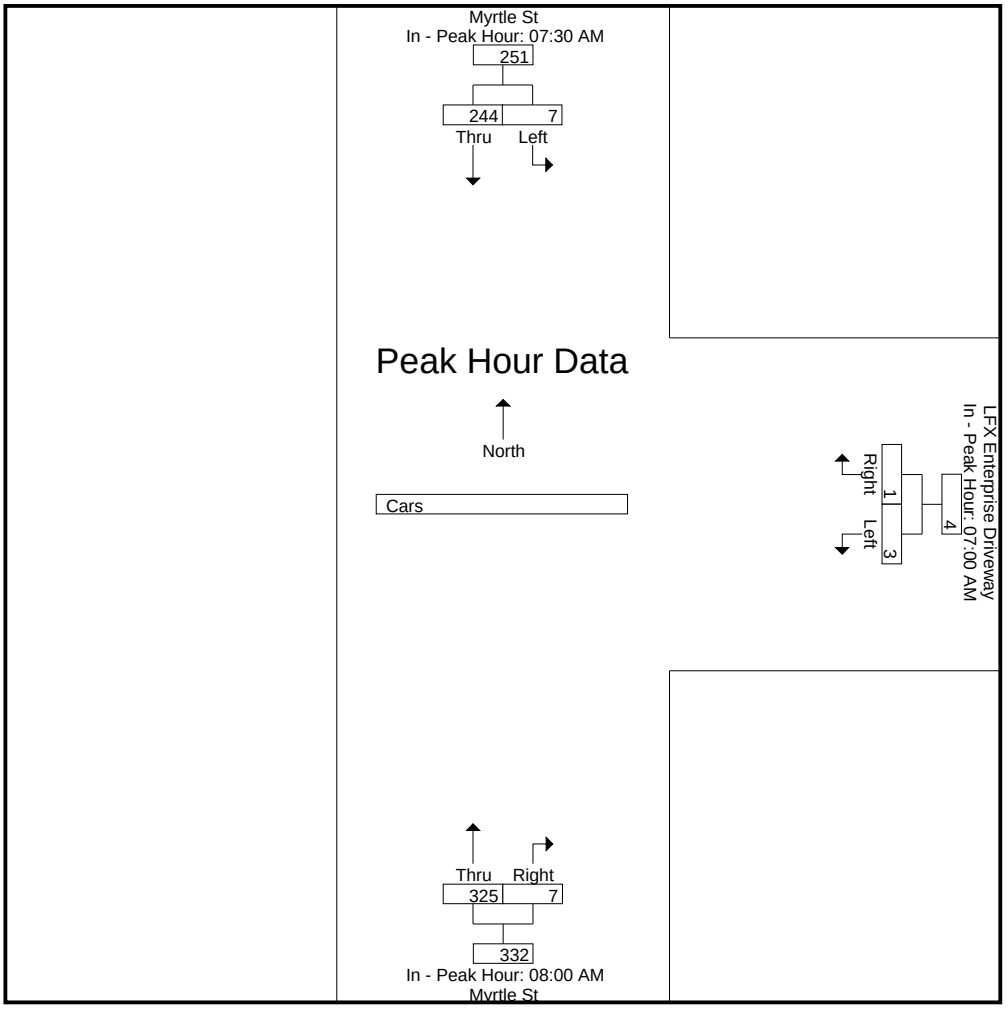
	07:30 AM			07:00 AM			08:00 AM		
+0 mins.	**3**	55	58	0	**1**	1	60	1	61
+15 mins.	2	**66**	**68**	**3**	0	**3**	**105**	**6**	**111**
+30 mins.	2	58	60	0	0	0	80	0	80
+45 mins.	0	65	65	0	0	0	80	0	80
Total Volume	7	244	251	3	1	4	325	7	332
% App. Total	2.8	97.2		75	25		97.9	2.1	
PHF	.583	.924	.923	.250	.250	.333	.774	.292	.748

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 7

Groups Printed- Trucks

	Myrtle St From North		LFX Enterprise Driveway From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
07:00 AM	0	1	0	0	1	0	2
07:15 AM	0	0	0	0	3	0	3
07:30 AM	0	1	0	0	1	0	2
07:45 AM	0	0	0	0	1	0	1
Total	0	2	0	0	6	0	8
08:00 AM	0	2	0	0	0	0	2
08:15 AM	0	0	0	0	1	0	1
08:30 AM	0	3	0	0	0	0	3
08:45 AM	0	1	0	0	0	0	1
Total	0	6	0	0	1	0	7
Grand Total	0	8	0	0	7	0	15
Apprch %	0	100	0	0	100	0	
Total %	0	53.3	0	0	46.7	0	

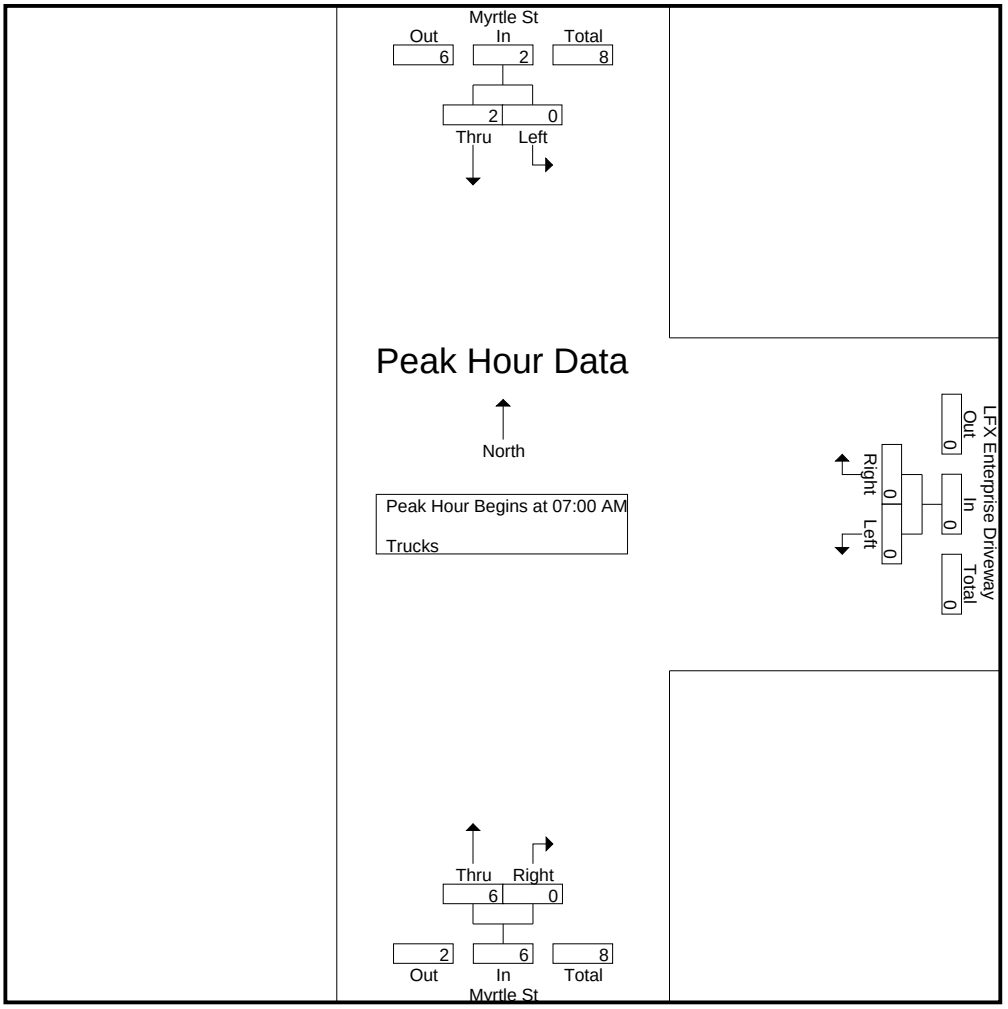
	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	**1**	0	0	0	1	0	1	2
07:15 AM	0	0	0	0	0	0	**3**	0	**3**	**3**
07:30 AM	0	1	1	0	0	0	1	0	1	2
07:45 AM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	2	2	0	0	0	6	0	6	8
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500	.667

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 8



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

Peak Hour for Each Approach Begins at:

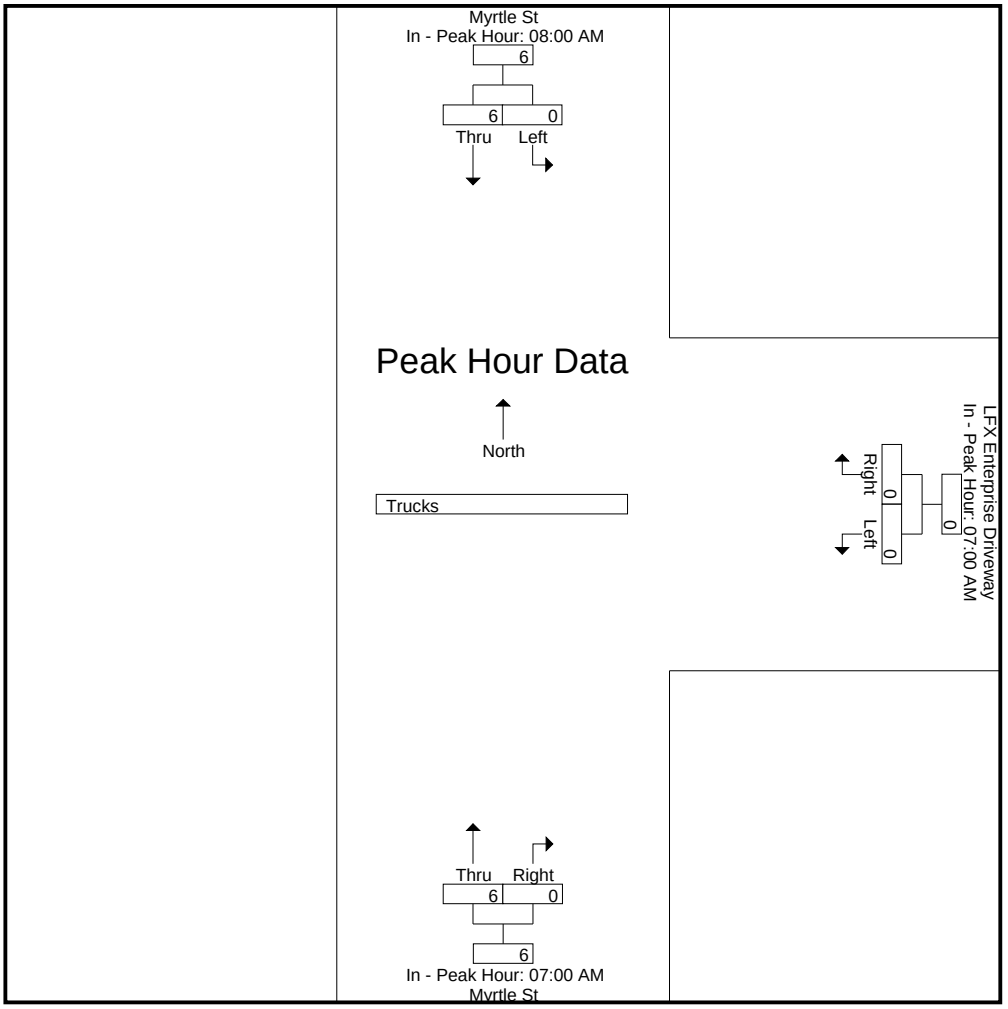
	08:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	2	2	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	**3**	0	**3**
+30 mins.	0	**3**	**3**	0	0	0	1	0	1
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	6	6	0	0	0	6	0	6
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024

Groups Printed- Bikes Peds

	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 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
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	3	0	0	0	0	0	0	3	0	3
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	3	0	0	0	0	0	0	3	0	3
Grand Total	0	0	3	0	0	0	0	0	0	3	0	3
Apprch %	0	0		0	0		0	0				
Total %										100	0	

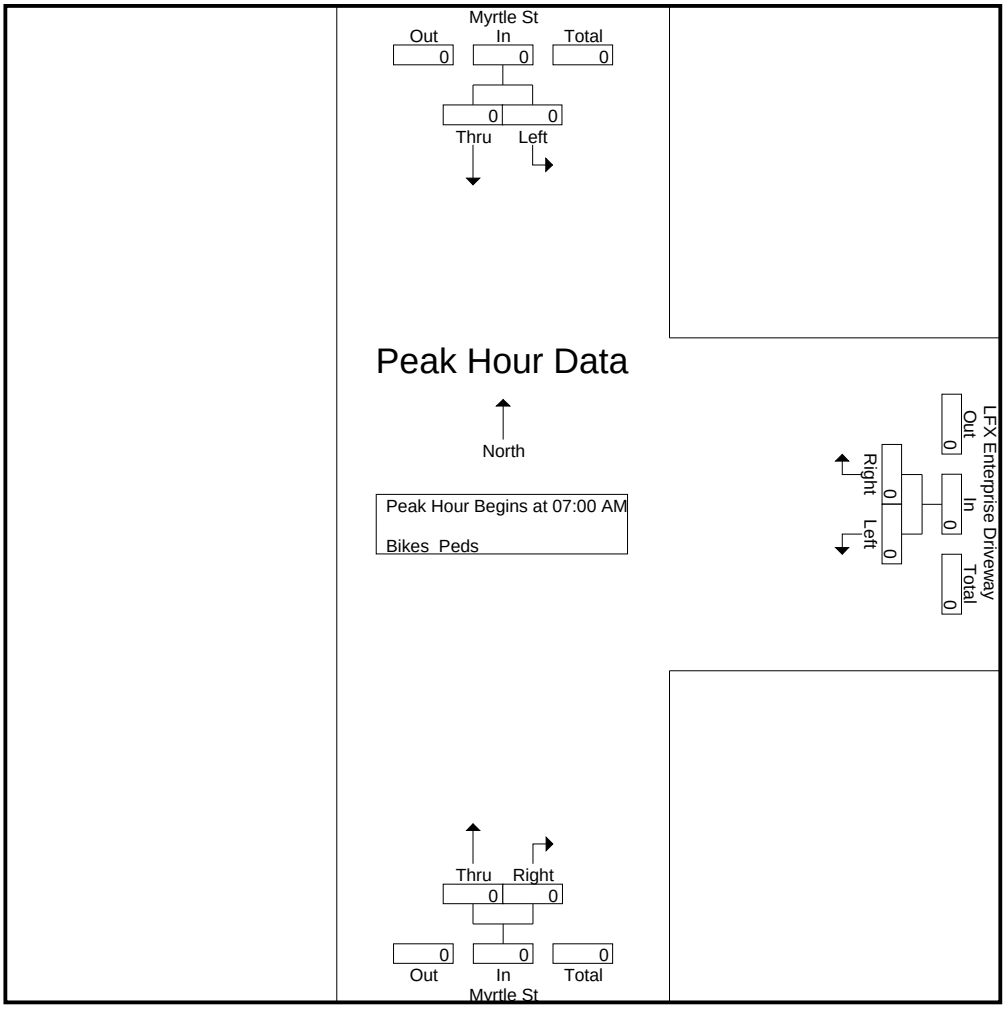
	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 11



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

Peak Hour for Each Approach Begins at:

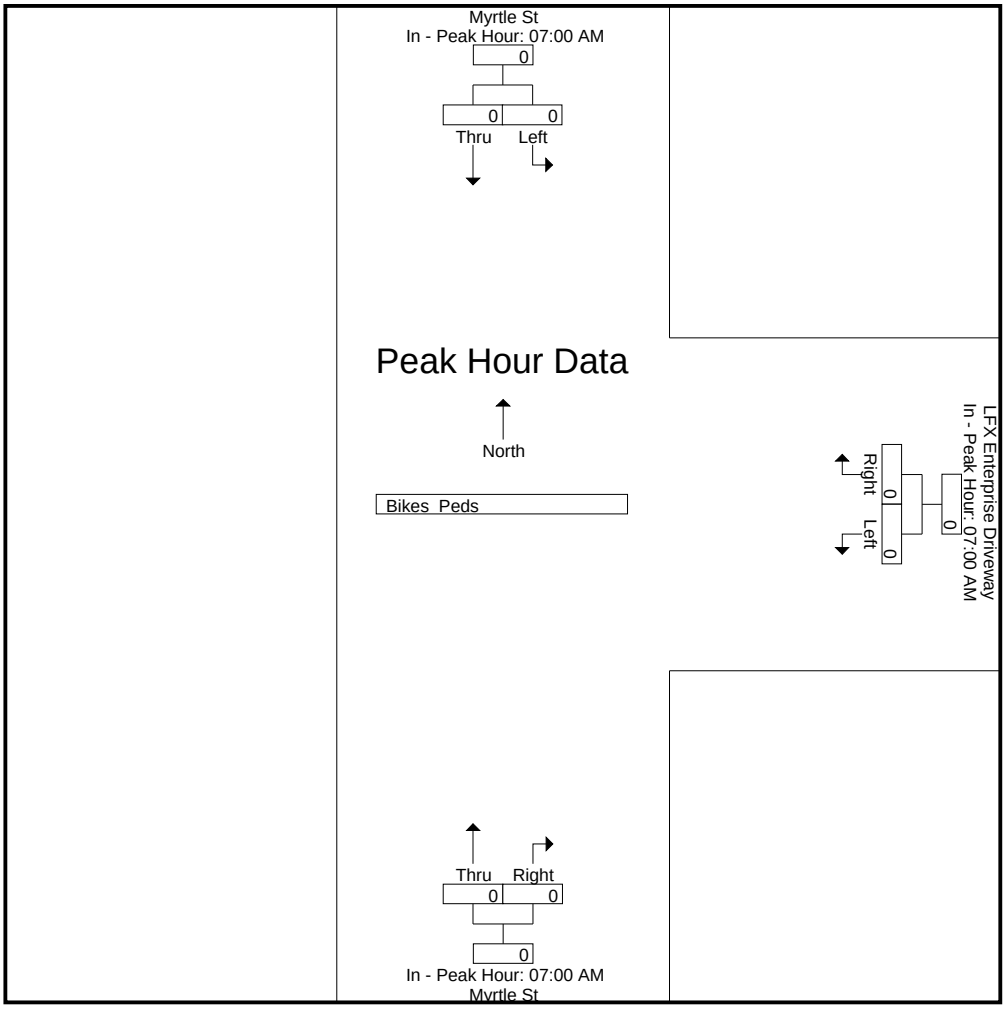
	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 1

Groups Printed- Cars - Trucks

	Myrtle St From North		LFX Enterprise Driveway From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	1	68	0	0	46	1	116
02:15 PM	0	57	1	0	38	1	97
02:30 PM	3	89	0	3	55	0	150
02:45 PM	1	63	0	0	53	0	117
Total	5	277	1	3	192	2	480
03:00 PM	0	83	1	1	54	0	139
03:15 PM	0	89	0	1	52	1	143
03:30 PM	0	105	3	1	60	0	169
03:45 PM	0	0	0	0	0	0	0
Total	0	277	4	3	166	1	451
04:00 PM	2	90	1	2	74	2	171
04:15 PM	1	112	2	2	66	1	184
04:30 PM	1	101	3	3	68	1	177
04:45 PM	1	102	2	0	67	1	173
Total	5	405	8	7	275	5	705
05:00 PM	2	106	3	1	66	0	178
05:15 PM	1	108	2	2	58	0	171
05:30 PM	0	100	3	0	59	5	167
05:45 PM	0	91	1	0	62	3	157
Total	3	405	9	3	245	8	673
Grand Total	13	1364	22	16	878	16	2309
Apprch %	0.9	99.1	57.9	42.1	98.2	1.8	
Total %	0.6	59.1	1	0.7	38	0.7	
Cars	13	1350	22	16	868	16	2285
% Cars	100	99	100	100	98.9	100	99
Trucks	0	14	0	0	10	0	24
% Trucks	0	1	0	0	1.1	0	1

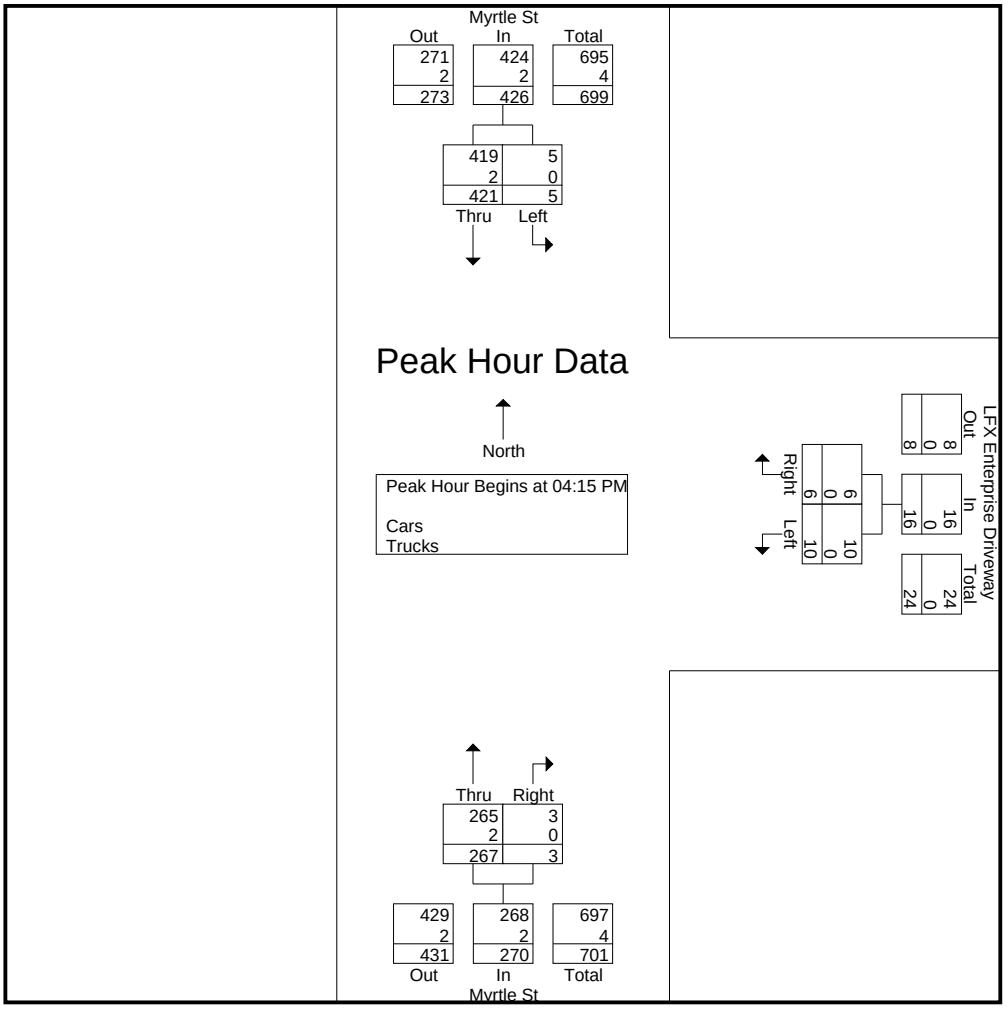
	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	1	**112**	**113**	2	2	4	66	**1**	67	**184**
04:30 PM	1	101	102	**3**	**3**	**6**	**68**	1	**69**	177
04:45 PM	1	102	103	2	0	2	67	1	68	173
05:00 PM	**2**	106	108	3	1	4	66	0	66	178
Total Volume	5	421	426	10	6	16	267	3	270	712
% App. Total	1.2	98.8		62.5	37.5		98.9	1.1		
PHF	.625	.940	.942	.833	.500	.667	.982	.750	.978	.967
Cars	5	419	424	10	6	16	265	3	268	708
% Cars	100	99.5	99.5	100	100	100	99.3	100	99.3	99.4
Trucks	0	2	2	0	0	0	2	0	2	4
% Trucks	0	0.5	0.5	0	0	0	0.7	0	0.7	0.6

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 2



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:00 PM		
+0 mins.	1	**112**	**113**	2	2	4	**74**	**2**	**76**
+15 mins.	1	101	102	**3**	**3**	**6**	66	1	67
+30 mins.	1	102	103	2	0	2	68	1	69
+45 mins.	**2**	106	108	3	1	4	67	1	68
Total Volume	5	421	426	10	6	16	275	5	280
% App. Total	1.2	98.8		62.5	37.5		98.2	1.8	
PHF	.625	.940	.942	.833	.500	.667	.929	.625	.921
Cars	5	419	424	10	6	16	272	5	277
% Cars	100	99.5	99.5	100	100	100	98.9	100	98.9
Trucks	0	2	2	0	0	0	3	0	3
% Trucks	0	0.5	0.5	0	0	0	1.1	0	1.1

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
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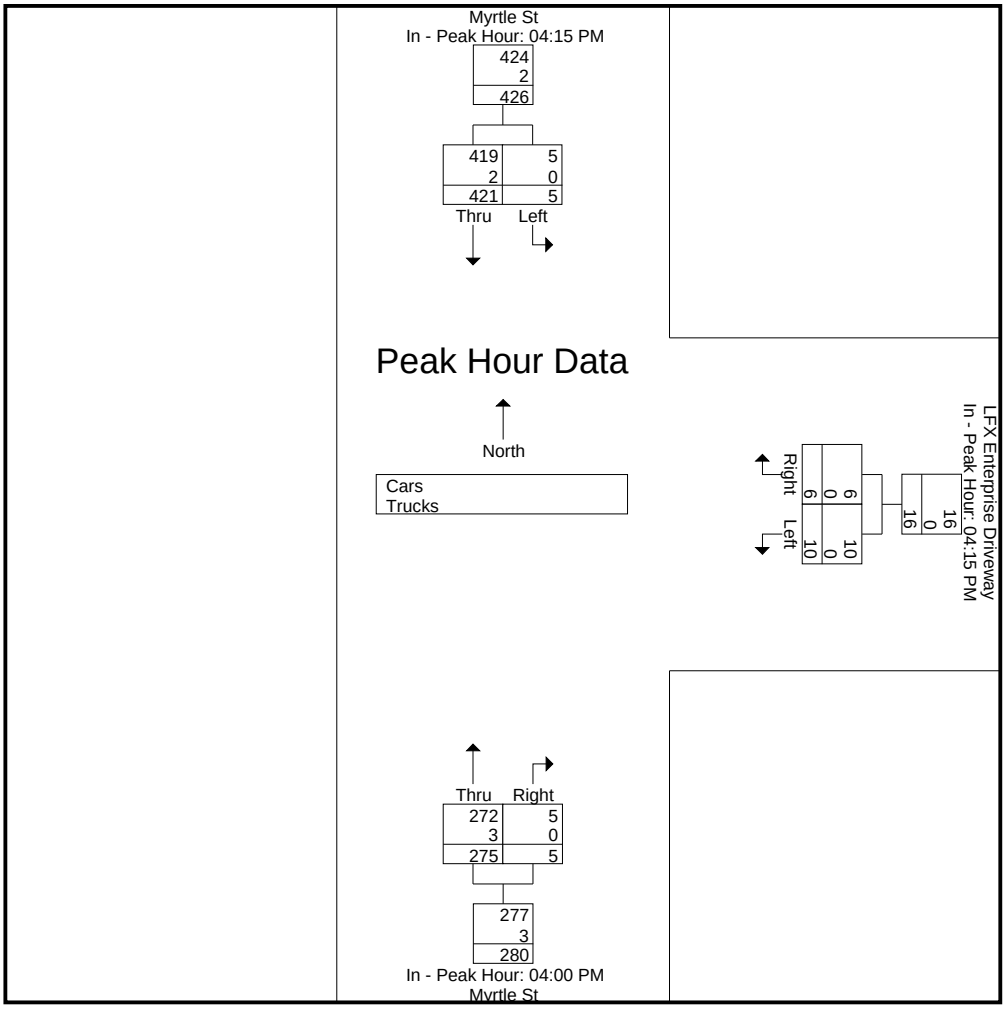

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 4

Groups Printed- Cars

	Myrtle St From North		LFX Enterprise Driveway From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	1	65	0	0	44	1	111
02:15 PM	0	57	1	0	37	1	96
02:30 PM	3	87	0	3	54	0	147
02:45 PM	1	62	0	0	53	0	116
Total	5	271	1	3	188	2	470
03:00 PM	0	81	1	1	52	0	135
03:15 PM	0	88	0	1	52	1	142
03:30 PM	0	103	3	1	60	0	167
03:45 PM	0	0	0	0	0	0	0
Total	0	272	4	3	164	1	444
04:00 PM	2	90	1	2	73	2	170
04:15 PM	1	111	2	2	66	1	183
04:30 PM	1	100	3	3	68	1	176
04:45 PM	1	102	2	0	65	1	171
Total	5	403	8	7	272	5	700
05:00 PM	2	106	3	1	66	0	178
05:15 PM	1	108	2	2	57	0	170
05:30 PM	0	99	3	0	59	5	166
05:45 PM	0	91	1	0	62	3	157
Total	3	404	9	3	244	8	671
Grand Total	13	1350	22	16	868	16	2285
Apprch %	1	99	57.9	42.1	98.2	1.8	
Total %	0.6	59.1	1	0.7	38	0.7	

	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	1	**111**	**112**	2	2	4	66	**1**	67	**183**
04:30 PM	1	100	101	**3**	**3**	**6**	**68**	1	**69**	176
04:45 PM	1	102	103	2	0	2	65	1	66	171
05:00 PM	**2**	106	108	3	1	4	66	0	66	178
Total Volume	5	419	424	10	6	16	265	3	268	708
% App. Total	1.2	98.8		62.5	37.5		98.9	1.1		
PHF	.625	.944	.946	.833	.500	.667	.974	.750	.971	.967

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
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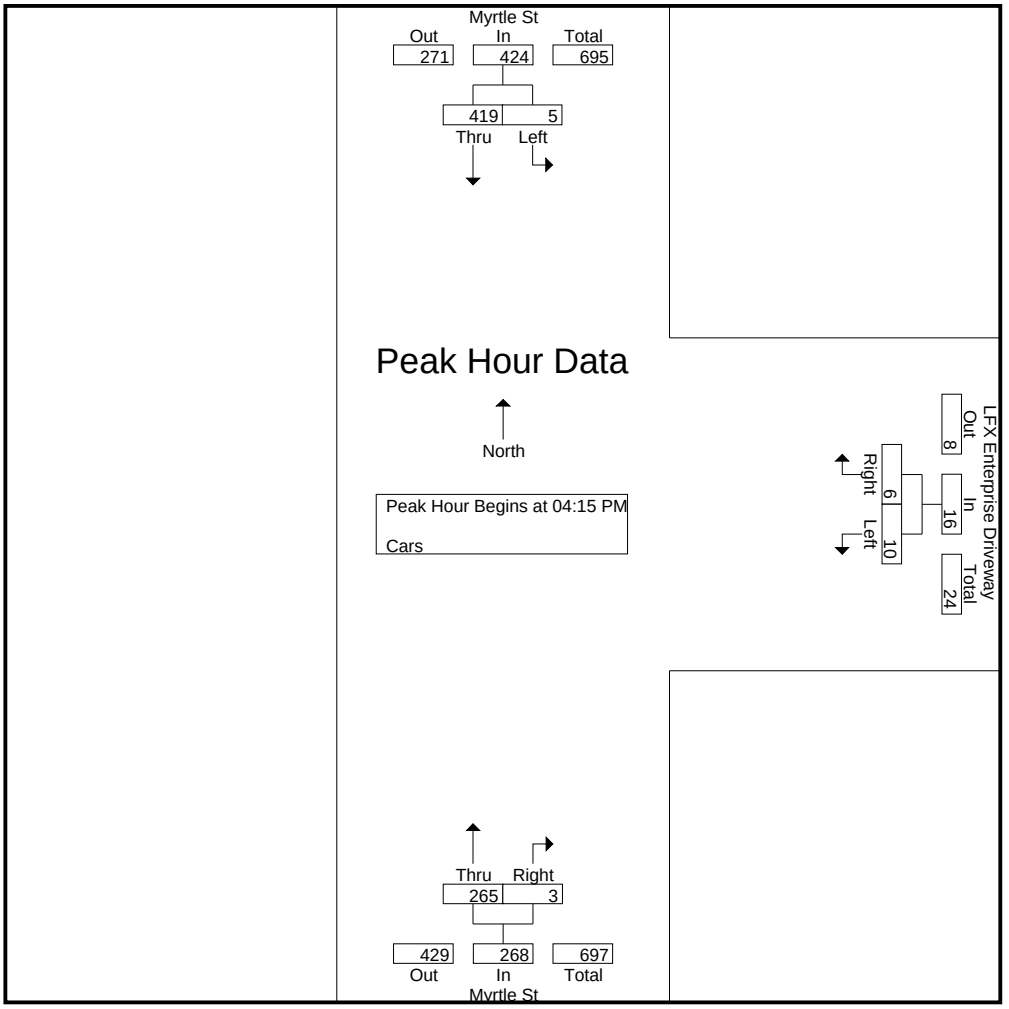


Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

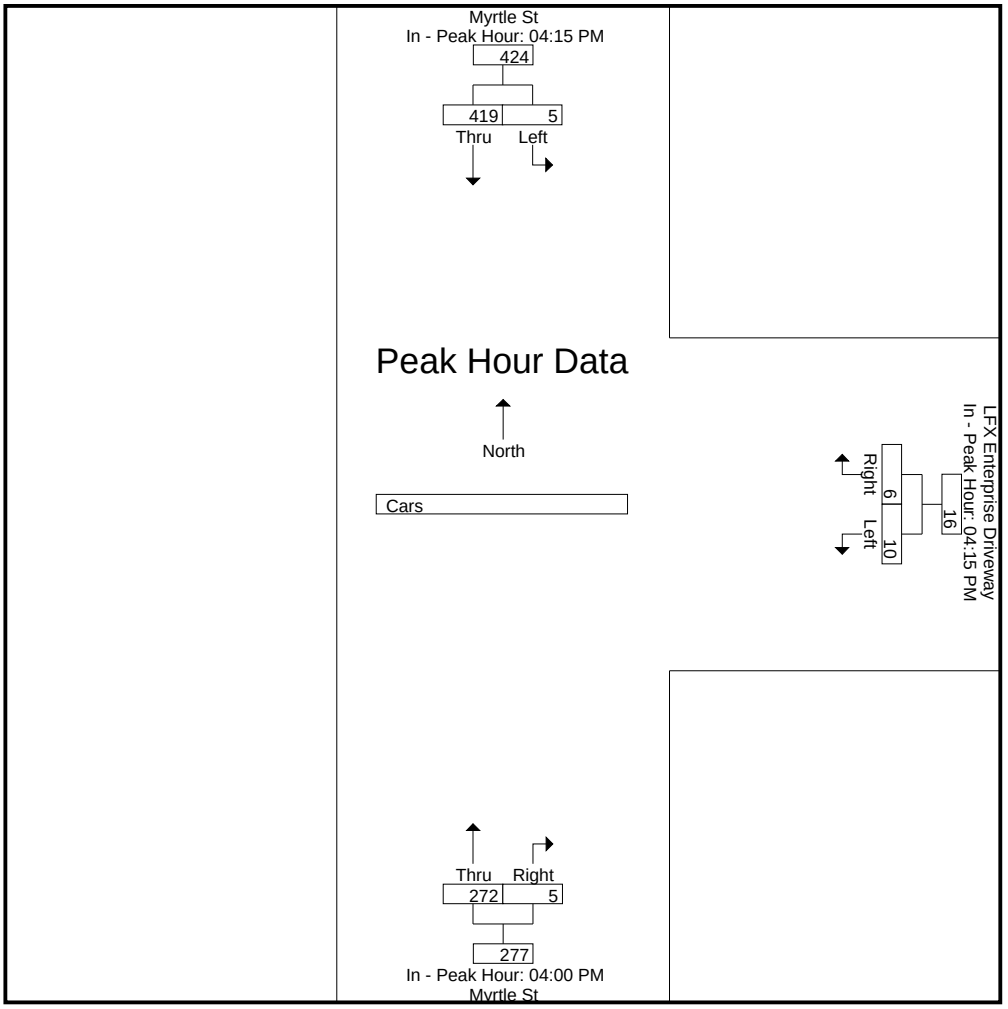
	04:15 PM			04:15 PM			04:00 PM		
+0 mins.	1	**111**	**112**	2	2	4	**73**	**2**	**75**
+15 mins.	1	100	101	**3**	**3**	**6**	66	1	67
+30 mins.	1	102	103	2	0	2	68	1	69
+45 mins.	**2**	106	108	3	1	4	65	1	66
Total Volume	5	419	424	10	6	16	272	5	277
% App. Total	1.2	98.8		62.5	37.5		98.2	1.8	
PHF	.625	.944	.946	.833	.500	.667	.932	.625	.923

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 7

Groups Printed- Trucks

	Myrtle St From North		LFX Enterprise Driveway From East		Myrtle St From South		
Start Time	Left	Thru	Left	Right	Thru	Right	Int. Total
02:00 PM	0	3	0	0	2	0	5
02:15 PM	0	0	0	0	1	0	1
02:30 PM	0	2	0	0	1	0	3
02:45 PM	0	1	0	0	0	0	1
Total	0	6	0	0	4	0	10
03:00 PM	0	2	0	0	2	0	4
03:15 PM	0	1	0	0	0	0	1
03:30 PM	0	2	0	0	0	0	2
03:45 PM	0	0	0	0	0	0	0
Total	0	5	0	0	2	0	7
04:00 PM	0	0	0	0	1	0	1
04:15 PM	0	1	0	0	0	0	1
04:30 PM	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	2	0	2
Total	0	2	0	0	3	0	5
05:00 PM	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	1
05:30 PM	0	1	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	2
Grand Total	0	14	0	0	10	0	24
Apprch %	0	100	0	0	100	0	
Total %	0	58.3	0	0	41.7	0	

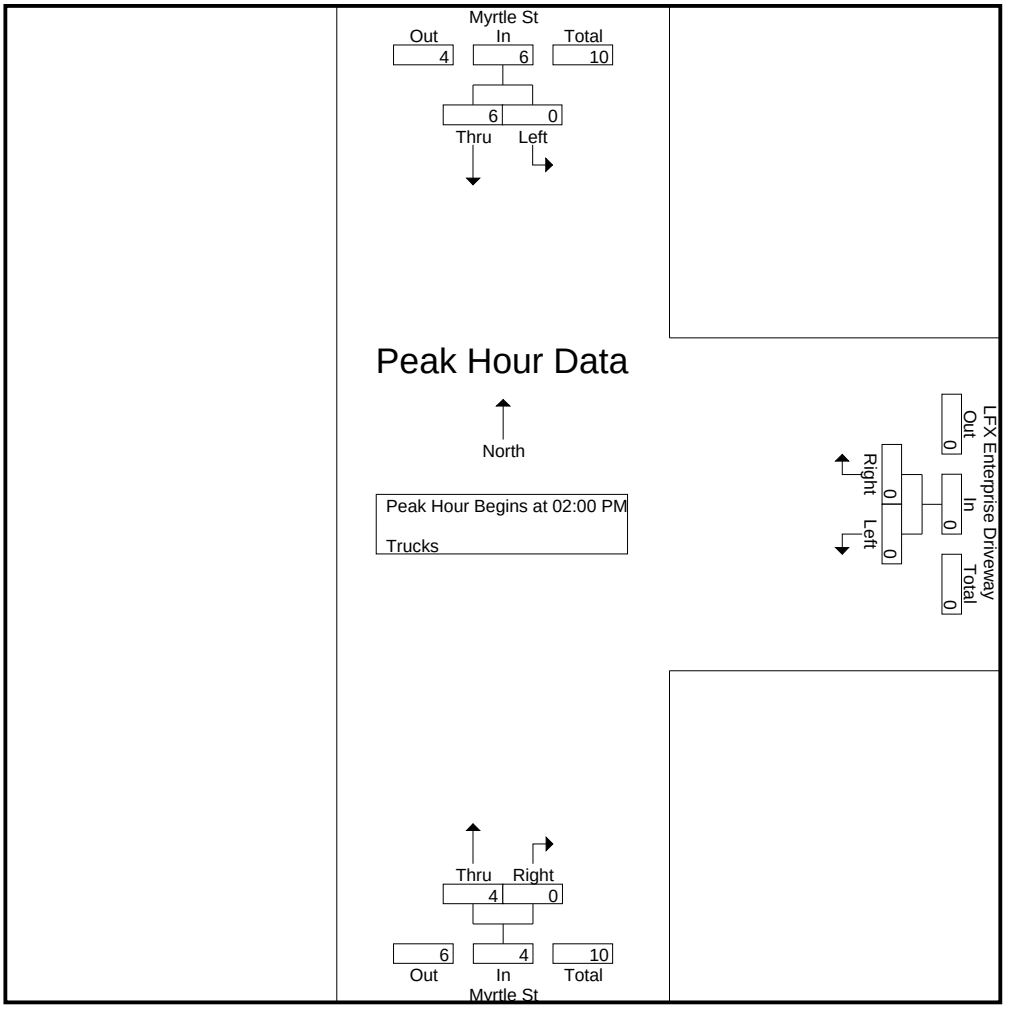
	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	0	**3**	**3**	0	0	0	**2**	0	**2**	**5**
02:15 PM	0	0	0	0	0	0	1	0	1	1
02:30 PM	0	2	2	0	0	0	1	0	1	3
02:45 PM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	6	6	0	0	0	4	0	4	10
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500	.500

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 8



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

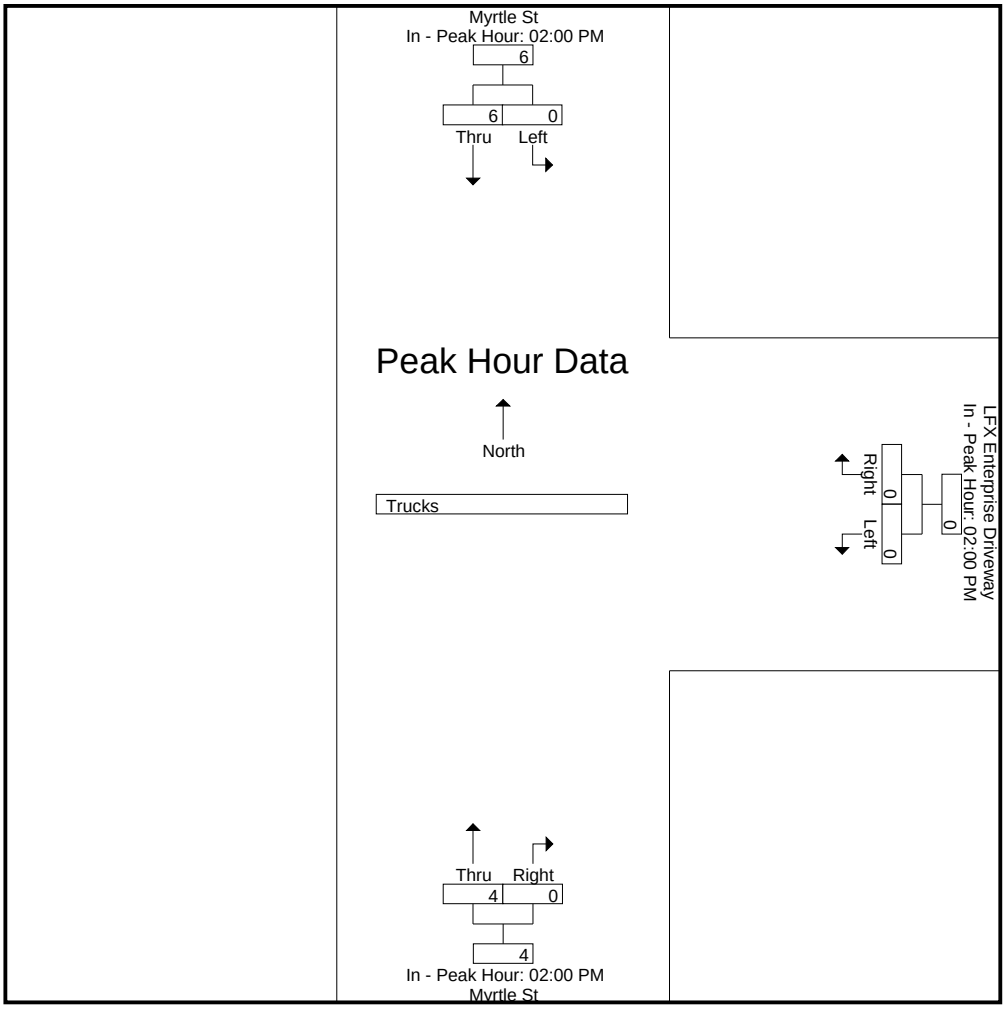
	02:00 PM			02:00 PM			02:00 PM		
+0 mins.	0	**3**	**3**	0	0	0	**2**	0	**2**
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	0	2	2	0	0	0	1	0	1
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	6	6	0	0	0	4	0	4
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.500	.000	.500

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 10

Groups Printed- Bikes Peds

	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South					
Start Time	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	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
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	0	0	0	0	0	0	0	0	2	2
Total	0	2	0	0	0	0	0	0	0	0	2	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	2	0	0	0	2	2
05:30 PM	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
Total	0	0	0	0	0	0	2	0	0	0	2	2
Grand Total	0	2	0	0	0	0	2	0	0	0	4	4
Apprch %	0	100		0	0		100	0				
Total %	0	50		0	0		50	0		0	100	

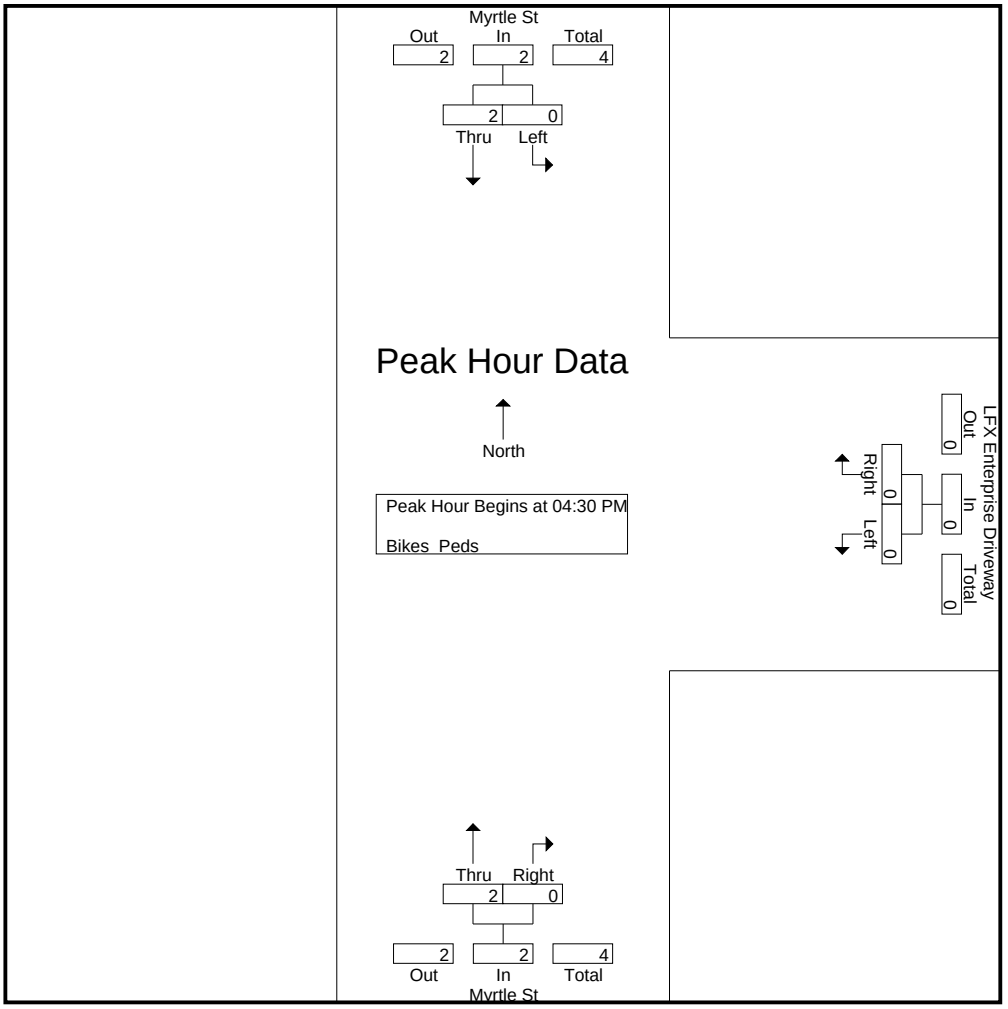
	Myrtle St From North			LFX Enterprise Driveway From East			Myrtle St From South			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	**2**	**2**	0	0	0	0	0	0	**2**
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	**2**	0	**2**	2
Total Volume	0	2	2	0	0	0	2	0	2	4
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250	.500

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 11



Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

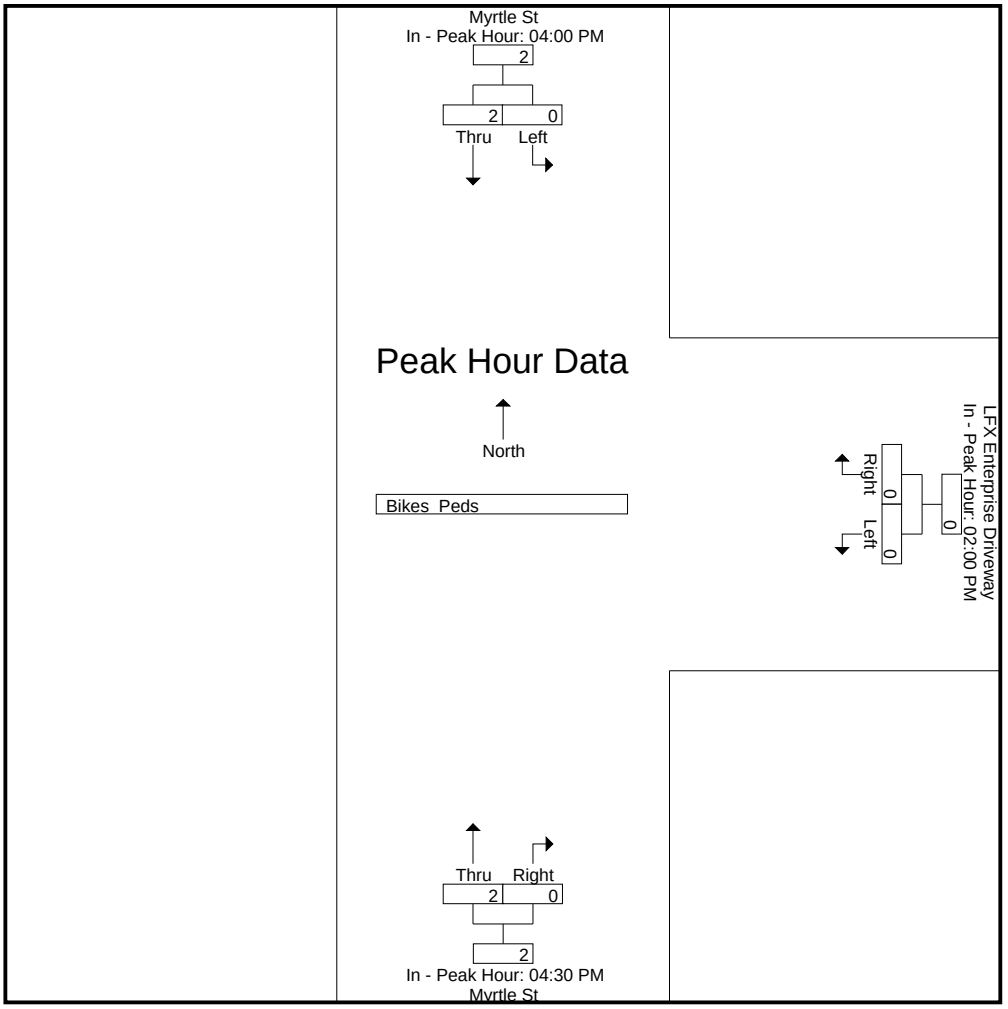
	04:00 PM			02:00 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	**2**	**2**	0	0	0	**2**	0	**2**
Total Volume	0	2	2	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250

Accurate Counts

978-664-2565

N/S Street : Myrtle Street
E/W Street : LFX Enterprise Driveway
City/State : Ashland, MA
Weather : Clear

File Name : 98370008
Site Code : 98370008
Start Date : 2/27/2024
Page No : 12



SEASONAL ADJUSTMENT DATA

Massachusetts Highway Department
Statewide Traffic Data Collection
2019 Weekday Seasonal Factors

Factor Group	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Axle Factor
R1	1.22	1.14	1.12	1.06	1.00	0.96	0.87	0.85	0.96	0.99	1.04	1.12	0.85
R2	0.95	0.96	0.98	0.97	0.97	0.93	0.97	0.94	0.96	0.90	0.92	0.93	0.96
R3	1.15	1.06	1.07	1.00	0.89	0.88	0.89	0.89	0.95	0.92	1.02	1.01	0.97
R4-R7	1.09	1.09	1.11	1.02	0.96	0.92	0.89	0.89	0.99	0.98	1.09	1.13	0.98
U1-Boston	1.03	1.01	0.98	0.94	0.94	0.92	0.95	0.93	0.94	0.94	0.97	1.04	0.96
U1-Essex	1.09	1.06	1.03	0.99	0.94	0.90	0.88	0.86	0.93	0.94	0.99	1.06	0.93
U1-Southeast	1.06	1.05	1.01	0.97	0.95	0.93	0.93	0.90	0.94	0.94	0.98	1.04	0.98
U1-West	1.19	1.14	1.09	0.95	0.92	0.89	0.89	0.86	0.91	0.95	0.97	1.07	0.84
U1-Worcester	1.02	1.04	0.97	0.94	0.93	0.91	0.95	0.91	0.93	0.92	0.95	1.10	0.88
U2	1.01	1.00	0.94	0.93	0.91	0.89	0.93	0.90	0.90	0.91	0.94	1.02	0.99
U3	1.06	1.03	0.98	0.94	0.93	0.91	0.95	0.91	0.92	0.93	0.97	1.00	0.98
U4-U7	1.01	1.00	0.95	0.92	0.88	0.86	0.92	0.91	0.92	0.94	0.99	1.04	0.99
Rec - East	1.04	1.16	1.12	0.98	0.92	0.88	0.77	0.81	0.94	1.02	1.08	1.12	0.99
Rec - West	1.30	1.23	1.32	1.18	0.95	0.82	0.70	0.69	0.97	0.96	1.16	1.15	0.98

Round off:
0-999 = 10
>1000 = 100

U = Urban
R = Rural

1 - Interstate
2 - Freeway and Expressway
3 - Other Principal Arterial
4 - Minor Arterial
5 - Major Collector
6 - Minor Collector
7 - Local Road and Street

Recreational - East Group - Cape Cod (all towns) including the town of Plymouth south of Route 3A (stations 7014,7079,7080,7090,7091,7092,7093,7094,7095,7096,7097,7108 and 7178), Martha's Vineyard and Nantucket.

Recreational - West Group - Continuous Stations 2 and 189 including stations 1066,1067,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1113,1114,1116,2196,2197 and 2198.

9/14/2021

PUBLIC TRANSPORTATION SCHEDULES

FRAMINGHAM / WORCESTER LINE

SPRING/SUMMER SCHEDULE

Effective May 20, 2024

Monday to Friday

Inbound to Boston

		AM													PM													
ZONE	STATION	TRAIN #	500	502	504	582	506	584	508	552	586	510	512	514	516	518	520	522	524	526	592	528	594	530	598	532	534	536	538
	Bikes Allowed		🚲										🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲
8	Worcester	♿	4:15	5:00	5:45	-	6:30	-	7:07	7:40	-	8:13	9:05	10:00	11:00	12:00	1:05	2:00	3:00	3:47	-	4:30	-	5:45	-	6:35	7:55	8:55	10:50
8	Grafton	♿	4:28	5:13	5:58	-	6:43	-	7:20	-	-	8:26	9:18	10:13	11:13	12:13	1:18	2:13	3:13	4:00	-	4:43	-	5:58	-	6:48	8:08	9:08	11:03
7	Westborough	♿	4:32	5:17	6:02	-	6:47	-	7:24	-	-	8:30	9:22	10:17	11:17	12:17	1:22	2:17	3:17	4:04	-	4:47	-	6:02	-	6:52	8:12	9:12	11:07
6	Southborough	♿	4:41	5:26	6:11	-	6:56	-	7:33	-	-	8:39	9:31	10:26	11:26	12:26	1:31	2:26	3:26	4:13	-	4:56	-	6:11	-	7:01	8:21	9:21	11:16
6	Ashland	♿	4:45	5:30	6:16	-	7:01	-	7:38	-	-	8:43	9:35	10:30	11:30	12:30	1:35	2:30	3:30	4:17	-	5:00	-	6:15	-	7:05	8:25	9:25	11:20
5	Framingham	♿	4:55	5:40	6:26	6:35	7:11	7:25	7:48	8:06	8:15	8:53	9:45	10:40	11:40	12:40	1:45	2:40	3:40	4:27	4:40	5:10	5:20	6:25	6:55	7:15	8:35	9:35	11:30
4	West Natick	♿	5:00	5:45	6:32	6:40	7:17	7:30	7:54	-	8:20	8:58	9:50	10:45	11:45	12:45	1:50	2:45	3:45	-	4:45	-	5:25	6:30	7:00	7:20	8:40	9:40	11:35
4	Natick Center		5:05	5:50	-	6:45	-	7:35	-	-	8:25	9:03	9:55	10:50	11:50	12:50	1:55	2:50	3:50	-	4:50	-	5:30	6:35	7:05	7:25	8:45	9:45	11:40
3	Wellesley Square		5:09	5:54	-	6:50	-	7:40	-	-	8:29	9:07	10:00	10:55	11:55	12:55	2:00	2:55	3:55	-	4:54	-	5:34	6:39	7:09	7:29	8:49	9:49	11:44
3	Wellesley Hills		5:13	5:58	-	6:54	-	7:44	-	-	8:33	9:11	10:03	10:58	11:58	12:58	2:03	2:58	3:58	-	4:57	-	5:37	6:42	7:12	7:32	8:52	9:52	11:47
3	Wellesley Farms		5:16	6:01	-	6:57	-	7:47	-	-	8:36	9:14	10:06	11:01	12:01	1:01	2:06	3:01	4:01	-	5:00	-	5:40	6:45	7:15	7:35	8:55	9:55	11:50
2	Auburndale		5:21	6:06	-	7:02	-	7:52	-	-	8:41	9:19	10:11	11:06	-	1:06	-	-	4:06	-	-	-	5:45	-	7:20	-	9:00	10:00	-
2	West Newton		5:24	6:09	-	7:05	-	7:55	-	-	8:44	9:22	10:14	11:09	-	1:09	-	-	4:09	-	-	-	5:48	-	7:23	-	9:03	10:03	-
1	Newtonville		5:27	6:13	-	7:09	-	7:59	-	-	8:48	9:26	10:17	11:12	-	1:12	-	-	4:12	-	-	-	5:51	-	7:26	-	9:06	10:06	-
1A	Boston Landing	♿	5:32	6:18	6:49	7:14	7:35	8:04	8:12	-	8:53	9:31	10:22	11:17	12:12	1:17	2:17	3:12	4:17	4:44	5:11	5:27	5:56	6:55	7:31	7:45	9:11	10:11	11:59
1A	Lansdowne	♿	5:37	6:23	6:54	7:19	7:40	8:09	8:17	8:30	8:58	9:36	10:27	11:22	12:17	1:22	2:22	3:17	4:22	4:49	5:16	5:32	6:01	7:00	7:36	7:50	9:16	10:16	12:04
1A	Back Bay	♿	L 5:44	L 6:30	L 7:04	L 7:27	L 7:50	L 8:17	L 8:27	L 8:39	L 9:05	L 9:43	L 10:37	L 11:32	L 12:27	L 1:32	L 2:32	L 3:27	L 4:33	L 5:01	L 5:23	L 5:44	L 6:07	L 7:07	L 7:42	L 7:57	L 9:25	L 10:25	L 12:12
1A	South Station	♿	5:50	6:36	7:10	7:33	7:56	8:23	8:33	8:45	9:11	9:49	10:43	11:38	12:33	1:38	2:38	3:33	4:39	5:07	5:29	5:50	6:13	7:13	7:48	8:03	9:30	10:30	12:18

Monday to Friday

Outbound from Boston

		AM												PM														
ZONE	STATION	TRAIN #	501	503	505	583	549	585	507	509	511	513	515	517	519	521	523	591	525	593	527	595	529	597	531	533	535	537	539	541
	Bikes Allowed		🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲									🚲	🚲	🚲	🚲
1A	South Station	♿	4:45	5:25	6:02	6:15	6:52	7:10	7:30	7:55	8:55	9:50	10:50	11:45	12:55	1:45	2:40	3:25	4:00	4:10	4:45	4:55	5:30	5:45	6:15	6:35	7:35	9:00	10:00	11:45
1A	Back Bay	♿	4:51	5:31	6:08	6:21	6:58	7:16	7:36	8:01	9:01	9:56	10:56	11:51	1:01	1:51	2:46	3:31	4:06	4:16	4:51	5:01	5:36	5:51	6:21	6:41	7:41	9:06	10:06	11:51
1A	Lansdowne	♿	4:56	5:36	6:13	6:26	7:03	7:21	7:41	8:06	9:06	10:01	11:01	11:56	1:06	1:56	2:51	3:36	4:11	4:21	4:56	5:06	5:41	5:56	6:26	6:46	7:46	9:11	10:11	11:56
1A	Boston Landing	♿	5:01	5:41	6:18	6:31	-	7:26	7:46	8:11	9:12	10:07	11:07	12:02	1:12	2:02	2:56	3:41	4:16	4:26	5:01	5:11	5:46	6:01	6:31	6:51	7:51	9:16	10:16	12:01
1	Newtonville		-	-	-	6:35	-	-	-	8:16	-	-	-	12:07	-	2:07	3:01	3:46	-	4:31	-	5:17	-	6:06	-	6:56	7:56	9:21	10:21	12:06
2	West Newton		-	-	-	6:38	-	-	-	8:19	-	-	-	12:10	-	2:10	3:04	3:50	-	4:35	-	5:21	-	6:10	-	7:00	7:59	9:24	10:24	12:09
2	Auburndale		-	-	-	6:41	-	-	-	8:22	-	-	-	12:13	-	2:13	3:07	3:53	-	4:38	-	5:24	-	6:13	-	7:03	8:02	9:27	10:27	12:12
3	Wellesley Farms		5:11	5:51	-	6:46	-	7:36	-	8:27	9:22	10:17	11:17	12:17	1:22	2:17	3:11	3:57	-	4:42	-	5:29	-	6:17	-	7:06	8:06	9:31	10:31	12:16
3	Wellesley Hills		5:13	5:53	-	6:48	-	7:38	-	8:29	9:24	10:19	11:19	12:19	1:24	2:19	3:13	4:00	-	4:45	-	5:32	-	6:20	-	7:08	8:08	9:33	10:33	12:18
3	Wellesley Square		5:16	5:56	6:31	6:51	-	7:41	-	8:32	9:27	10:22	11:22	12:22	1:27	2:22	3:16	4:03	-	4:48	-	5:36	-	6:23	-	7:11	8:11	9:36	10:36	12:21
4	Natick Center		5:20	6:00	-	6:55	-	7:45	-	8:37	9:32	10:27	11:27	12:27	1:32	2:27	3:20	4:07	-	4:52	-	5:41	-	6:27	-	7:15	8:15	9:40	10:40	12:25
4	West Natick	♿	5:25	6:05	-	7:00	-	7:50	-	8:42	9:37	10:32	11:32	12:32	1:37	2:32	3:25	4:12	4:33	4:57	5:18	5:46	6:03	6:32	6:48	7:20	8:20	9:45	10:45	12:30
5	Framingham	♿	5:30	6:10	6:43	7:07	7:26	7:57	8:07	8:47	9:42	10:37	11:37	12:37	1:42	2:37	3:30	4:19	4:38	5:04	5:23	5:54	6:08	6:40	6:53	7:25	8:25	9:50	10:50	12:35
6	Ashland	♿	5:36	6:16	6:49	-	-	-	8:13	8:53	9:48	10:43	11:43	12:43	1:48	2:43	3:36	-	4:44	-	5:29	-	6:14	-	6:59	7:31	8:31	9:56	10:56	12:41
6	Southborough	♿	5:41	6:21	6:54	-	-	-	8:18	8:58	9:53	10:48	11:48	12:48	1:53	2:48	3:41	-	4:49	-	5:34	-	6:19	-	7:04	7:36	8:36	10:01	11:01	12:46
7	Westborough	♿	5:50	6:30	7:03	-	-	-	8:27	9:07	10:02	10:57	11:57	12:57	2:02	2:57	3:50	-	4:58	-	5:43	-	6:28	-	7:13	7:45	8:45	10:10	11:10	12:55
8	Grafton	♿	5:55	6:35	7:08	-	-	-	8:32	9:12	10:07	11:02	12:02	1:02	2:07	3:02	3:55	-	5:04	-	5:49	-	6:34	-	7:19	7:50	8:50	10:15	11:15	1:00
8	Worcester	♿	6:11	6:52	7:25	-	7:58	-	8:49	9:31	10:26	11:21	12:21	1:21	2:26	3:21	4:14	-	5:24	-	6:10	-	6:55	-	7:39	8:10	9:09	10:34	11:34	1:19

Weekend

Inbound to Boston

		AM				PM					
	SATURDAY TRAIN #	1500	1502	1504	1506	1508	1510	1512	1514	1516	1518
	SUNDAY TRAIN #	2500	2502	2504	2506	2508	2510	2512	2514	2516	2518
ZONE	Bikes Allowed	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲
8	Worcester ♿	5:10	7:10	9:10	11:10	1:10	3:10	5:10	6:55	9:10	11:25
8	Grafton ♿	5:23	7:23	9:23	11:23	1:23	3:23	5:23	7:08	9:23	11:38
7	Westborough ♿	5:27	7:27	9:27	11:27	1:27	3:27	5:27	7:12	9:27	11:42
6	Southborough ♿	5:36	7:36	9:36	11:36	1:36	3:36	5:36	7:21	9:36	11:51
6	Ashland ♿	5:40	7:40	9:40	11:40	1:40	3:40	5:40	7:25	9:40	11:55
5	Framingham ♿	5:50	7:50	9:50	11:50	1:50	3:50	5:50	7:35	9:50	12:05
4	West Natick ♿	5:55	7:55	9:55	11:55	1:55	3:55	5:55	7:40	9:55	12:10
4	Natick Center	6:00	8:00	10:00	12:00	2:00	4:00	6:00	7:45	10:00	12:15
3	Wellesley Square	6:04	8:04	10:04	12:04	2:04	4:04	6:04	7:49	10:04	12:19
3	Wellesley Hills	6:07	8:07	10:07	12:07	2:07	4:07	6:07	7:52	10:07	12:22
3	Wellesley Farms	6:10	8:10	10:10	12:10	2:10	4:10	6:10	7:55	10:10	12:25
2	Auburndale	6:15	8:15	10:15	12:15	2:15	4:15	6:15	8:00	10:15	12:30
2	West Newton	6:18	8:18	10:18	12:18	2:18	4:18	6:18	8:03	10:18	12:33
1	Newtonville	6:21	8:21	10:21	12:21	2:21	4:21	6:21	8:06	10:21	12:36
1A	Boston Landing ♿	6:26	8:26	10:26	12:26	2:26	4:26	6:26	8:11	10:26	12:41
1A	Lansdowne ♿	6:31	8:31	10:31	12:31	2:31	4:31	6:31	8:16	10:31	12:46
1A	Back Bay ♿	L 6:40	L 8:40	L 10:40	L 12:40	L 2:40	L 4:40	L 6:40	L 8:25	L 10:40	L 12:55
1A	South Station ♿	6:45	8:45	10:45	12:45	2:45	4:45	6:45	8:30	10:45	1:00

Weekend

Outbound from Boston

		AM				PM					
	SATURDAY TRAIN #	1501	1503	1505	1507	1509	1511	1513	1515	1517	1519
	SUNDAY TRAIN #	2501	2503	2505	2507	2509	2511	2513	2515	2517	2519
ZONE	Bikes Allowed	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲
1A	South Station ♿	5:00	7:00	9:00	11:00	1:00	3:00	5:00	6:45	9:00	11:15
1A	Back Bay ♿	5:06	7:06	9:06	11:06	1:06	3:06	5:06	6:51	9:06	11:21
1A	Lansdowne ♿	5:11	7:11	9:11	11:11	1:11	3:11	5:11	6:56	9:11	11:26
1A	Boston Landing ♿	5:16	7:16	9:16	11:16	1:16	3:16	5:16	7:01	9:16	11:31
1	Newtonville	5:21	7:21	9:21	11:21	1:21	3:21	5:21	7:06	9:21	11:36
2	West Newton	5:24	7:24	9:24	11:24	1:24	3:24	5:24	7:09	9:24	11:39
2	Auburndale	5:27	7:27	9:27	11:27	1:27	3:27	5:27	7:12	9:27	11:42
3	Wellesley Farms	5:31	7:31	9:31	11:31	1:31	3:31	5:31	7:16	9:31	11:46
3	Wellesley Hills	5:33	7:33	9:33	11:33	1:33	3:33	5:33	7:18	9:33	11:48
3	Wellesley Square	5:36	7:36	9:36	11:36	1:36	3:36	5:36	7:21	9:36	11:51
4	Natick Center	5:40	7:40	9:40	11:40	1:40	3:40	5:40	7:25	9:40	11:55
4	West Natick ♿	5:45	7:45	9:45	11:45	1:45	3:45	5:45	7:30	9:45	12:00
5	Framingham ♿	5:50	7:50	9:50	11:50	1:50	3:50	5:50	7:35	9:50	12:05
6	Ashland ♿	5:56	7:56	9:56	11:56	1:56	3:56	5:56	7:41	9:56	12:11
6	Southborough ♿	6:01	8:01	10:01	12:01	2:01	4:01	6:01	7:46	10:01	12:16
7	Westborough ♿	6:10	8:10	10:10	12:10	2:10	4:10	6:10	7:55	10:10	12:25
8	Grafton ♿	6:15	8:15	10:15	12:15	2:15	4:15	6:15	8:00	10:15	12:30
8	Worcester ♿	6:35	8:35	10:35	12:35	2:35	4:35	6:35	8:20	10:35	12:49

Keep in Mind:

This schedule will be effective from May 20, 2024 and will replace the schedule of December 23, 2023.

HOLIDAY SERVICE:
On Monday, May 27th (Memorial Day), Thursday, July 4th (Independence Day) and Monday, September 2nd (Labor Day), all lines will operate on a weekend schedule.

On Wednesday, June 19th (Juneteenth), Friday, July 5th (Day after Independence Day), and Monday, October 14th (Columbus Day), all lines will operate on a regular weekday schedule.

For all holiday schedules, please check MBTA.com/holidays or call 617-222-3200.

Times in blue indicate an early departure (L stop): The train may leave ahead of schedule at these stops.

Bikes: Bicycles are allowed on trains with the bicycle symbol shown below the train number.

High level platform and bridge plate available. Visit **mbta.com/accessibility** for more information.

ROUTE 5: Ashland / Hopkinton

MetroWest Regional Transportation Authority

5 ROUTE 5 (Monday-Friday Service)

Fare Information

	Cash //	CatchCard
Adult:	$1.50 //	$1.25
Senior (65 years of age or older*):	$0.75 //	$0.70
Individuals with Disabilities:	$0.75 //	$0.70
Student with valid student ID:	$1.00 //	N/A
Children under 6 (with adult):	Free	
Active Duty men & women in uniform:	Free	

*To recieve the senior discount, a photo ID with birth date listed must be presented. MBTA Access Card, Medicare Card, or MWRTA TAP Pass are accepted as proof of elegibility.

Children under 12 years old may not ride unaccompanied.

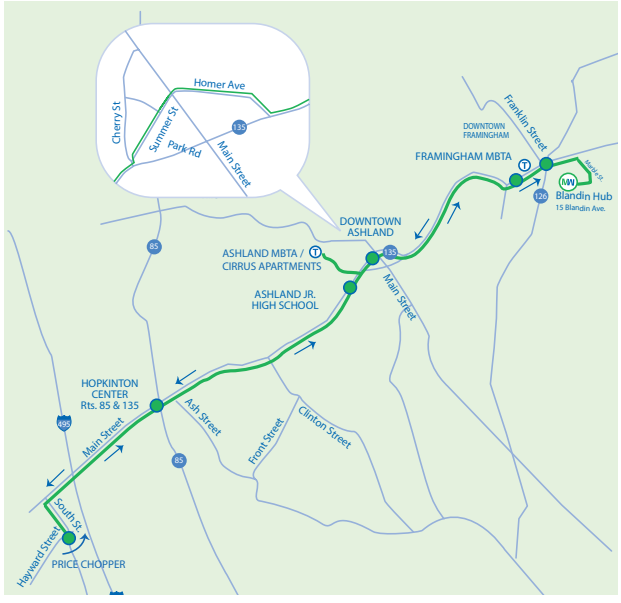
Transfers / Connections

Transfer slips are available on all MWRTA buses and are good for one transfer going in the same direction within the MWRTA bus system only. Transfers are not compatable with the MBTA system. One transfer per paid fare is issued upon request, and must be presented to the next driver within 90 minutes.

Riders can connect to the MBTA Commuter Rails in Downtown Framingham, West Natick, Natick Center, Ashland, and Southborough, as well as the MBTA Green Line at Woodland.

There is no service provided on the following holidays:
New Year's Day, Patriot's Day, Memorial Day,
Independence Day, Thanksgiving Day, Christmas Day.

Route 5 (Monday-Friday Service)



MWRTA Customer Service:
(508) 935-2222
Blandin Hub: 15 Blandin Ave.
Framingham, MA 01702

www.mwrta.com Follow Us: @mwrta

Download the MWRTA CATCH App on Apple & Google Play stores!

Scan QR code with your phone to go to the MWRTA website.

ROUTE 5 Weekday (Monday-Friday Service)

v 6.2023

		AM						PM					
OUTBOUND	Blandin Hub (15 Blandin Ave.)	5:30	6:45	8:00	9:20	10:37	11:55	1:15	2:22	3:30	4:45	6:08	7:14
	Framingham MBTA	5:34	6:49	8:05	9:25	10:42	12:00	1:20	2:26	3:35	4:50	6:13	7:18
	Homer Ave. / Main St.	5:39	6:56	8:16	9:32	10:49	12:07	1:26	2:32	3:43	4:58	6:20	7:24
	Ashland Junior High School	5:42	7:00	8:20	9:36	10:53	12:11	1:29	2:36	3:47	5:02	6:24	7:27
	Route 85 / Route 135	5:49	7:07	8:27	9:43	11:00	12:18	1:36	2:43	3:54	5:10	6:31	7:33
	Price Chopper	5:56	7:14	8:34	9:50	11:07	12:25	1:43	2:50	4:01	5:20	6:38	7:38
	South St. / Hayward St.	6:00	7:17	8:37	9:54	11:11	12:30	1:46	2:53	4:05	5:26	6:41	7:41
INBOUND	Hopkinton Center	6:05	7:23	8:43	10:00	11:17	12:36	1:52	2:59	4:12	5:33	6:47	7:46
	Ashland MBTA	6:15	7:33	8:53	10:10	11:27	12:46	2:02	3:09	4:22	5:43	6:57	7:54
	Cirrus Apartments*	6:17	7:34	8:54	10:12	11:29	12:48	2:03	3:11	4:24	5:44	6:58	7:55
	Homer Ave. / Main St.	6:21	7:38	8:58	10:16	11:33	12:52	2:07	3:15	4:28	5:48	7:02	7:59
	Framingham MBTA	6:28	7:45	9:04	10:22	11:40	12:58	2:13	3:21	4:36	5:58	7:07	8:05
	Blandin Hub (15 Blandin Ave.)	6:33	7:50	9:09	10:27	11:45	1:04	2:18	3:25	4:40	6:03	7:11	8:10

Scheduled Times

Scheduled times are only approximate; please wait for the MWRTA ten minutes in advance of scheduled times to assure not missing the bus.

For up to the minute bus information call the MWRTA at (508) 935 - 2222 or visit www.mwrta.com for GPS tracking.

The MWRTA uses the Flag Down System which allows buses to stop anywhere along their routes to pick up passengers, where it is safe to do so. Passengers can hail MWRTA buses by waving.

Transfers

Route 5 passengers can make the following transfers: Routes 4N , 4S, 6, 10 and 11 at the Blandin Hub.

**Cirrus Apartments will be serviced from the MBTA Access Road*

Blandin Hub: 15 Blandin Ave. in Framingham

ROUTE 6 WEEKDAY

MetroWest Regional Transportation Authority

Fare Information

	Cash	CatchCard	Monthly Pass
Adult:	$1.50	$1.25	$20.00
Senior (65 years of age or older*):	$0.75	$0.70	$10.00
Individuals with Disabilities:	$0.75	$0.70	$10.00
Student with valid student ID:	$1.00	N/A	N/A
Children under 6 (with adult):	Free		
Active Duty men & women in uniform:	Free		

*To recieve the senior discount, a photo ID with birth date listed must be presented. MBTA Access Card, Medicare Card, or MWRTA TAP Pass are accepted as proof of elegibility.
Children under 12 years old may not ride unaccompanied.
Catch Cards can be obtained from drivers on the bus, or at the MWRTA Blandin Hub.

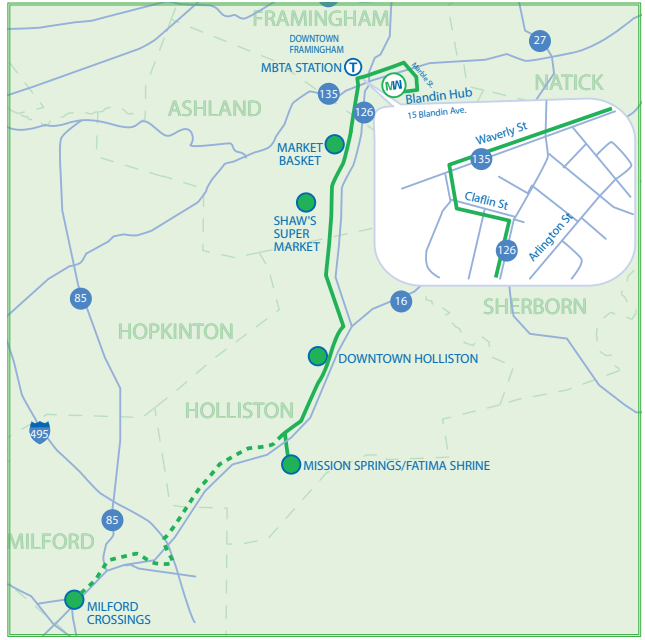
Transfers / Connections

Transfer slips are available on all MWRTA buses and are good for one transfer going in the same direction within the MWRTA bus system only. Transfers are not compatable with the MBTA system. One transfer per paid fare is issued upon request, and must be presented to the next driver within 90 minutes.

Riders can connect to the MBTA Commuter Rails in Downtown Framingham, West Natick, Natick Center, Ashland, and Southborough, as well as the MBTA Green Line at Woodland.

There is no service provided on the following holidays:

New Year's Day, Easter, Patriot's Day, Memorial Day, Independence Day, Thanksgiving Day, Christmas Day.



MWRTA Customer Service:

Ph: (508) 935-2222
Central Hub: 15 Blandin Ave.
Framingham, MA 01702
www.mwrta.com Follow us: @MWRTA

Download the MWRTA CATCH App on Apple & Google Play stores!

Scan QR code with your phone to go to the MWRTA website.

ROUTE 6 Weekday Service

v. 4.2024

		AM					PM							
OUTBOUND	Blandin Hub (15 Blandin Ave.)	5:50	7:14	8:30	9:40	10:52	12:04	1:10	2:00	3:30	4:48	6:08	7:12	~
	Framingham MBTA	5:56	7:18	8:34	9:43	10:55	12:08	1:14	2:04	3:34	4:53	6:12	7:17	~
	Winthrop / Hollis Sts.	5:58	7:20	8:36	9:45	10:57	12:10	1:16	2:06	3:36	4:55	6:14	7:19	~
	Market Basket Plaza at Big Lots	~	7:23	8:40	9:49	11:01	12:14	1:20	2:10	3:42	5:00	6:18	7:24	~
	Shaw's	~	7:26	8:44	9:53	11:05	12:17	1:24	2:15	3:47	5:05	6:22	7:28	~
	Washington St. at Cong. Church	6:08	7:33	8:50	9:59	11:11	12:24	1:30	2:22	3:53	5:12	6:28	7:34	~
	Milford Crossings	~	7:43	9:00	10:10	11:22	12:34	1:40	2:34	4:05	5:25	6:40	7:44	~
	School St./Spruce St.	6:25	~	~	~	~	~	~	~	~	~	~	~	~
INBOUND	Milford Crossings	6:35	7:55	9:05	10:15	11:27	12:36	1:42	2:50	4:08	5:30	6:44	7:47	9:55*
	Holliston Public Library	6:43	8:07	9:17	10:27	11:39	12:48	1:54	3:02	4:20	5:42	6:49	7:57	10:05
	Shaw's	~	8:13	9:23	10:33	11:45	12:54	2:00	3:08	4:28	5:50	6:54	8:03	10:11
	Market Basket Plaza at Big Lots	~	8:17	9:27	10:37	11:49	12:58	2:04	3:13	4:33	5:55	6:58	8:07	10:15
	Winthrop / Hollis Sts.	6:54	8:19	9:29	10:39	11:51	1:00	2:06	3:16	4:36	5:58	7:00	8:10	10:18
	Framingham MBTA	6:58	8:23	9:32	10:42	11:54	1:03	2:09	3:20	4:39	6:01	7:04	8:13	10:22
	Blandin Hub (15 Blandin Ave.)	7:04	8:28	9:35	10:46	11:58	1:07	2:15	3:25	4:43	6:05	7:07	8:18	10:27

Scheduled Times

Scheduled times are only approximate; please wait for the MWRTA ten minutes in advance of scheduled times to assure not missing the bus. For up to the minute bus information call MWRTA at (508) 935 -2222 or visit www.mwrta.com for GPS tracking.

The MWRTA uses the Flag Down System which allows buses to stop anywhere along their routes to pick up passengers, where it is safe to do so. Passengers can hail MWRTA buses by waving.

Transfers

Route 6 passengers can make the following transfers:

Route 14 at Milford Crossings (Stop & Shop)

Route 4S & 5 at the Framingham MBTA station
Routes 4N, 4S, 5, 10, and 11 at the Blandin Hub.

Passengers may request a pick up at Mission Springs by calling (508) 935-2222

* The last loop of the Route 14 will return to the Blandin Hub as the Route 6

VEHICLE TRAVEL SPEED DATA

Accurate Counts

978-664-2565

Location : Main Street
Location : South of Pleasant Street
City/State: Ashland, MA
Direction: NB,

Site Code: 98370001

2/27/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	2	4	6	0	3	0	1	0	0	0	0	0	16
1:00	0	0	0	0	2	1	0	1	0	0	0	0	0	0	4
2:00	0	0	1	0	2	2	3	0	0	1	0	0	0	0	9
3:00	0	0	0	0	4	0	1	2	0	0	0	0	0	0	7
4:00	0	0	0	4	2	0	6	2	0	1	0	0	0	0	15
5:00	0	0	2	8	27	20	27	12	5	1	3	0	0	1	106
6:00	0	0	9	13	56	74	60	28	7	5	7	4	2	1	266
7:00	0	0	23	38	120	141	91	36	14	10	8	2	6	4	493
8:00	0	0	23	51	132	155	94	20	20	11	10	13	3	3	535
9:00	0	0	38	51	73	64	42	14	6	7	9	2	2	0	308
10:00	0	0	15	25	57	69	69	24	12	6	10	5	3	3	298
11:00	0	0	22	35	61	70	60	27	15	8	9	8	5	3	323
12:00 PM	0	0	21	34	69	93	60	20	9	11	9	17	2	4	349
1:00	0	0	21	42	116	90	60	17	5	11	4	7	2	2	377
2:00	0	0	87	90	92	62	37	31	7	13	8	4	3	2	436
3:00	0	0	82	90	129	85	57	16	9	10	6	8	5	2	499
4:00	0	0	178	114	128	71	48	11	6	11	2	6	0	0	575
5:00	0	0	186	86	107	60	23	10	13	8	9	4	2	2	510
6:00	0	0	62	82	86	56	23	13	14	14	7	6	2	2	367
7:00	0	0	7	23	57	53	50	11	6	12	9	2	2	0	232
8:00	0	0	1	18	39	29	27	5	6	5	3	0	2	0	135
9:00	0	0	5	17	22	32	16	4	3	0	0	2	2	1	104
10:00	0	0	0	6	10	18	17	4	4	1	1	1	1	0	63
11:00	0	0	1	7	8	11	6	3	0	0	0	0	1	0	37
Total	0	0	786	838	1405	1256	880	311	162	146	114	91	45	30	6064

Percentile	15th	50th	85th	95th
Speed	8	15	20	29

Mean Speed (Average)	16.4
10 MPH Pace Speed	12-21
Number in Pace	3826
Percent in Pace	63.0%
Number > 15 MPH	3035
Percent > 15 MPH	50.0%

Accurate Counts

978-664-2565

Location : Main Street
Location : South of Pleasant Street
City/State: Ashland, MA
Direction: NB,

Site Code: 98370001

2/28/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	2	2	2	1	0	1	0	0	0	0	0	8
1:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
2:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4
3:00	0	0	0	0	2	1	1	0	0	0	0	0	0	0	4
4:00	0	0	0	0	5	5	1	2	0	0	0	1	0	0	14
5:00	0	0	3	4	23	28	20	4	6	2	2	1	2	0	95
6:00	0	0	4	13	68	67	44	13	5	2	7	3	0	0	226
7:00	0	0	32	63	154	112	44	12	1	1	2	1	0	0	422
8:00	0	0	21	74	169	160	84	18	9	1	3	1	1	2	543
9:00	0	0	15	47	131	97	38	10	4	2	2	0	1	1	348
10:00	0	0	21	35	74	88	48	5	4	5	4	0	1	0	285
11:00	0	0	13	30	92	96	49	8	4	11	5	3	5	1	317
12:00 PM	0	0	20	56	69	51	35	11	6	6	6	3	4	1	268
1:00	0	0	35	45	61	37	28	10	6	5	8	3	3	2	243
2:00	0	0	71	98	83	40	26	8	6	7	1	6	1	3	350
3:00	0	0	152	106	72	51	31	17	17	15	9	0	2	3	475
4:00	0	0	91	122	125	58	34	16	6	9	13	5	1	2	482
5:00	0	0	145	102	81	51	12	7	11	7	6	4	0	1	427
6:00	0	0	75	80	86	38	20	3	7	3	6	1	0	0	319
7:00	0	0	31	42	63	28	15	3	4	4	2	1	0	0	193
8:00	0	0	5	21	46	53	26	6	4	5	4	0	0	1	171
9:00	0	0	2	21	41	27	17	7	4	1	0	2	0	2	124
10:00	0	0	6	7	29	15	18	3	0	0	1	0	0	0	79
11:00	0	0	1	4	12	2	5	3	1	1	1	0	0	0	30
Total	0	0	743	974	1490	1109	597	166	106	87	82	35	21	19	5429
			Percentile	15th	50th	85th	95th								
			Speed	8	13	18	25								
			Mean Speed (Average)	15.2											
			10 MPH Pace Speed	9-18											
			Number in Pace	3753											
			Percent in Pace	71.0%											
			Number > 15 MPH	2222											
			Percent > 15 MPH	40.9%											
Grand Total	0	0	1529	1812	2895	2365	1477	477	268	233	196	126	66	49	11493
Stats			Percentile	15th	50th	85th	95th								
			Speed	8	14	19	28								
			Mean Speed (Average)	15.9											
			10 MPH Pace Speed	9-18											
			Number in Pace	7572											
			Percent in Pace	66.0%											
			Number > 15 MPH	5257											
			Percent > 15 MPH	45.7%											

Accurate Counts
978-664-2565

Location : Main Street
Location : South of Pleasant Street
City/State: Ashland, MA
Direction: SB,

Site Code: 98370001

2/27/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	0	0	0	4	4	1	2	0	0	0	0	11
1:00	0	0	0	0	0	2	1	4	2	0	0	0	0	0	9
2:00	0	0	0	2	1	1	1	1	0	0	1	0	0	0	7
3:00	0	0	0	0	0	1	2	1	3	2	1	0	0	0	10
4:00	0	0	3	3	2	9	9	16	4	1	1	0	0	0	48
5:00	0	0	2	5	9	7	20	20	20	16	6	0	0	0	105
6:00	0	0	5	9	40	46	63	71	42	15	5	4	0	0	300
7:00	0	0	37	48	73	76	112	84	46	20	9	1	0	0	506
8:00	0	0	57	47	72	86	116	65	34	10	8	0	1	0	496
9:00	0	0	19	14	53	61	68	43	19	12	1	0	0	0	290
10:00	0	0	19	17	36	43	80	53	27	12	4	1	1	0	293
11:00	0	0	9	14	59	44	91	54	32	10	2	0	1	0	316
12:00 PM	0	0	19	23	57	62	65	47	12	8	1	0	1	0	295
1:00	0	0	18	24	68	64	77	47	23	7	1	0	1	1	331
2:00	0	0	81	69	64	44	54	21	14	4	4	0	2	0	357
3:00	0	0	55	77	80	86	94	63	25	9	1	0	0	0	490
4:00	0	0	104	68	102	86	63	25	10	2	0	0	0	0	460
5:00	0	0	112	107	82	76	69	33	8	5	1	0	0	0	493
6:00	0	0	40	66	104	104	100	34	13	3	1	0	1	0	466
7:00	0	0	8	15	26	68	94	55	21	10	6	0	0	0	303
8:00	0	0	3	8	22	27	64	38	28	4	5	0	0	0	199
9:00	0	0	8	3	10	19	43	42	24	10	3	1	0	0	163
10:00	0	0	0	1	4	11	24	22	9	2	4	1	0	0	78
11:00	0	0	0	0	2	4	10	7	3	5	0	0	0	0	31
Total	0	0	599	620	966	1027	1324	850	420	169	65	8	8	1	6057
			Percentile	15th	50th	85th	95th								
			Speed	10	16	22	26								
		Mean Speed (Average)		17.7											
		10 MPH Pace Speed		13-22											
		Number in Pace		3609											
		Percent in Pace		60.0%											
		Number > 15 MPH		3872											
		Percent > 15 MPH		63.9%											

Accurate Counts
978-664-2565

Location : Main Street
Location : South of Pleasant Street
City/State: Ashland, MA
Direction: SB,

Site Code: 98370001

2/28/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	0	0	2	1	5	1	3	0	0	0	0	12
1:00	0	0	0	0	0	5	1	1	0	1	1	0	0	0	9
2:00	0	0	0	0	1	1	1	0	0	0	0	1	0	0	4
3:00	0	0	0	0	1	0	2	3	1	1	0	0	0	0	8
4:00	0	0	0	2	4	5	11	4	7	1	1	1	0	0	36
5:00	0	0	1	2	10	12	26	24	12	9	3	2	0	0	101
6:00	0	0	11	19	32	49	80	68	27	12	2	0	2	1	303
7:00	0	0	39	37	65	75	97	47	18	11	4	0	1	0	394
8:00	0	0	41	87	67	89	88	68	32	13	4	0	0	0	489
9:00	0	0	22	31	51	49	72	39	16	4	3	1	0	0	288
10:00	0	0	14	29	32	37	65	31	15	7	1	0	0	0	231
11:00	0	0	12	18	48	55	64	42	24	8	2	2	0	0	275
12:00 PM	0	0	24	34	62	50	72	32	13	9	1	2	0	0	299
1:00	0	0	19	41	61	68	82	45	15	4	1	0	0	0	336
2:00	0	0	32	46	80	71	85	33	11	2	1	0	0	0	361
3:00	0	0	94	70	90	65	71	22	8	2	0	0	0	0	422
4:00	0	0	71	100	107	81	69	28	17	5	4	0	0	0	482
5:00	0	0	98	82	126	94	71	20	3	0	1	0	0	0	495
6:00	0	0	40	40	96	97	91	35	5	3	0	0	0	0	407
7:00	0	0	33	52	69	81	65	20	8	1	2	0	0	0	331
8:00	0	0	0	9	43	37	73	48	13	6	3	0	0	0	232
9:00	0	0	0	8	20	32	50	41	19	8	3	0	0	0	181
10:00	0	0	0	4	4	13	19	22	7	8	2	0	0	0	79
11:00	0	0	0	1	9	6	14	16	4	2	1	0	0	1	54
Total	0	0	551	712	1078	1074	1270	694	276	120	40	9	3	2	5829
			Percentile	15th	50th	85th	95th								
			Speed	10	16	21	24								
			Mean Speed (Average)	17.0											
			10 MPH Pace Speed	12-21											
			Number in Pace	3601											
			Percent in Pace	63.0%											
			Number > 15 MPH	3488											
			Percent > 15 MPH	59.8%											
Grand Total	0	0	1150	1332	2044	2101	2594	1544	696	289	105	17	11	3	11886
Stats			Percentile	15th	50th	85th	95th								
			Speed	10	16	21	25								
			Mean Speed (Average)	17.4											
			10 MPH Pace Speed	13-22											
			Number in Pace	7234											
			Percent in Pace	61.0%											
			Number > 15 MPH	7360											
			Percent > 15 MPH	61.9%											

Accurate Counts
978-664-2565

Location : Main Street
Location : South of Pleasant Street
City/State: Ashland, MA
Direction: Combined

Site Code: 98370001

2/27/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	2	4	6	0	7	4	2	2	0	0	0	0	27
1:00	0	0	0	0	2	3	1	5	2	0	0	0	0	0	13
2:00	0	0	1	2	3	3	4	1	0	1	1	0	0	0	16
3:00	0	0	0	0	4	1	3	3	3	2	1	0	0	0	17
4:00	0	0	3	7	4	9	15	18	4	2	1	0	0	0	63
5:00	0	0	4	13	36	27	47	32	25	17	9	0	0	1	211
6:00	0	0	14	22	96	120	123	99	49	20	12	8	2	1	566
7:00	0	0	60	86	193	217	203	120	60	30	17	3	6	4	999
8:00	0	0	80	98	204	241	210	85	54	21	18	13	4	3	1031
9:00	0	0	57	65	126	125	110	57	25	19	10	2	2	0	598
10:00	0	0	34	42	93	112	149	77	39	18	14	6	4	3	591
11:00	0	0	31	49	120	114	151	81	47	18	11	8	6	3	639
12:00 PM	0	0	40	57	126	155	125	67	21	19	10	17	3	4	644
1:00	0	0	39	66	184	154	137	64	28	18	5	7	3	3	708
2:00	0	0	168	159	156	106	91	52	21	17	12	4	5	2	793
3:00	0	0	137	167	209	171	151	79	34	19	7	8	5	2	989
4:00	0	0	282	182	230	157	111	36	16	13	2	6	0	0	1035
5:00	0	0	298	193	189	136	92	43	21	13	10	4	2	2	1003
6:00	0	0	102	148	190	160	123	47	27	17	8	6	3	2	833
7:00	0	0	15	38	83	121	144	66	27	22	15	2	2	0	535
8:00	0	0	4	26	61	56	91	43	34	9	8	0	2	0	334
9:00	0	0	13	20	32	51	59	46	27	10	3	3	2	1	267
10:00	0	0	0	7	14	29	41	26	13	3	5	2	1	0	141
11:00	0	0	1	7	10	15	16	10	3	5	0	0	1	0	68
Total	0	0	1385	1458	2371	2283	2204	1161	582	315	179	99	53	31	12121

Percentile	15th	50th	85th	95th
Speed	9	15	21	27

Mean Speed (Average)	17.0
10 MPH Pace Speed	12-21
Number in Pace	7352
Percent in Pace	61.0%
Number > 15 MPH	6907
Percent > 15 MPH	57.0%

Accurate Counts
978-664-2565

Location : Main Street
Location : South of Pleasant Street
City/State: Ashland, MA
Direction: Combined

Site Code: 98370001

2/28/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	2	2	4	2	5	2	3	0	0	0	0	20
1:00	0	0	0	1	1	5	1	1	0	1	1	0	0	0	11
2:00	0	0	0	1	2	3	1	0	0	0	0	1	0	0	8
3:00	0	0	0	0	3	1	3	3	1	1	0	0	0	0	12
4:00	0	0	0	2	9	10	12	6	7	1	1	2	0	0	50
5:00	0	0	4	6	33	40	46	28	18	11	5	3	2	0	196
6:00	0	0	15	32	100	116	124	81	32	14	9	3	2	1	529
7:00	0	0	71	100	219	187	141	59	19	12	6	1	1	0	816
8:00	0	0	62	161	236	249	172	86	41	14	7	1	1	2	1032
9:00	0	0	37	78	182	146	110	49	20	6	5	1	1	1	636
10:00	0	0	35	64	106	125	113	36	19	12	5	0	1	0	516
11:00	0	0	25	48	140	151	113	50	28	19	7	5	5	1	592
12:00 PM	0	0	44	90	131	101	107	43	19	15	7	5	4	1	567
1:00	0	0	54	86	122	105	110	55	21	9	9	3	3	2	579
2:00	0	0	103	144	163	111	111	41	17	9	2	6	1	3	711
3:00	0	0	246	176	162	116	102	39	25	17	9	0	2	3	897
4:00	0	0	162	222	232	139	103	44	23	14	17	5	1	2	964
5:00	0	0	243	184	207	145	83	27	14	7	7	4	0	1	922
6:00	0	0	115	120	182	135	111	38	12	6	6	1	0	0	726
7:00	0	0	64	94	132	109	80	23	12	5	4	1	0	0	524
8:00	0	0	5	30	89	90	99	54	17	11	7	0	0	1	403
9:00	0	0	2	29	61	59	67	48	23	9	3	2	0	2	305
10:00	0	0	6	11	33	28	37	25	7	8	3	0	0	0	158
11:00	0	0	1	5	21	8	19	19	5	3	2	0	0	1	84
Total	0	0	1294	1686	2568	2183	1867	860	382	207	122	44	24	21	11258
			Percentile	15th	50th	85th	95th								
			Speed	9	15	20	24								
			Mean Speed (Average)	16.2											
			10 MPH Pace Speed	12-21											
			Number in Pace	7038											
			Percent in Pace	64.0%											
			Number > 15 MPH	5710											
			Percent > 15 MPH	50.7%											
Grand Total	0	0	2679	3144	4939	4466	4071	2021	964	522	301	143	77	52	23379
Stats			Percentile	15th	50th	85th	95th								
			Speed	9	15	21	26								
			Mean Speed (Average)	16.6											
			10 MPH Pace Speed	12-21											
			Number in Pace	14492											
			Percent in Pace	62.0%											
			Number > 15 MPH	12617											
			Percent > 15 MPH	54.0%											

Accurate Counts

978-664-2565

Location : Myrtle Street
Location : North of Water Street
City/State: Ashland, MA
Direction: SB,

Site Code: 98370002

2/27/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	0	0	1	0	2	3	3	1	0	1	0	11
1:00	0	0	0	0	0	0	0	1	3	3	0	1	0	1	9
2:00	0	0	0	0	0	0	0	1	2	1	0	0	0	0	4
3:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
4:00	0	0	0	0	0	0	2	4	1	0	2	0	0	0	9
5:00	0	0	0	0	0	4	2	8	10	10	1	1	0	0	36
6:00	0	0	0	0	2	3	5	14	43	21	14	3	1	1	107
7:00	0	0	0	0	0	1	14	28	73	68	21	5	2	0	212
8:00	0	0	0	0	2	6	14	42	88	40	31	4	2	0	229
9:00	0	0	1	4	54	62	32	3	2	1	1	0	0	0	160
10:00	0	0	0	2	38	32	30	13	0	0	0	0	0	0	115
11:00	0	0	1	6	26	42	27	16	28	16	15	3	0	1	181
12:00 PM	0	0	0	0	0	0	18	22	47	44	13	3	1	2	150
1:00	0	0	0	0	1	8	12	40	69	48	21	6	0	0	205
2:00	0	0	1	1	2	14	19	42	62	80	35	5	1	0	262
3:00	0	0	0	0	1	1	26	70	119	89	31	4	2	0	343
4:00	0	0	0	1	4	21	32	81	119	89	41	5	2	0	395
5:00	0	0	0	0	0	10	44	88	114	97	37	1	0	0	391
6:00	0	0	0	0	0	2	28	95	108	68	26	4	1	0	332
7:00	0	0	0	0	0	0	12	35	81	45	23	4	1	0	201
8:00	0	0	0	0	0	1	6	22	42	40	10	2	2	0	125
9:00	0	0	0	0	0	1	7	19	20	22	6	2	2	0	79
10:00	0	0	0	0	0	1	2	12	20	13	11	0	0	0	59
11:00	0	0	0	0	0	0	1	3	8	3	5	3	0	0	23
Total	0	0	3	14	130	210	333	661	1064	801	345	56	18	5	3640

Percentile	15th	50th	85th	95th
Speed	19	24	28	31

Mean Speed (Average)	25.3
10 MPH Pace Speed	22-31
Number in Pace	2649
Percent in Pace	73.0%
Number > 24 MPH	2289
Percent > 24 MPH	62.9%

Accurate Counts
978-664-2565

Location : Myrtle Street
Location : North of Water Street
City/State: Ashland, MA
Direction: SB,

Site Code: 98370002

2/28/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	0	0	0	0	3	3	0	0	0	1	0	7
1:00	0	0	0	0	0	0	3	1	1	0	0	0	0	0	5
2:00	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
3:00	0	0	0	0	0	0	2	0	0	0	0	0	1	0	3
4:00	0	0	0	0	0	0	0	0	3	4	2	0	0	0	9
5:00	0	0	0	0	0	1	6	11	13	3	2	1	0	1	38
6:00	0	0	0	0	0	1	8	22	33	25	11	2	2	1	105
7:00	0	0	0	0	2	2	17	46	73	32	10	6	1	0	189
8:00	0	0	0	0	0	0	14	62	66	44	23	3	0	0	212
9:00	0	0	0	0	2	8	9	38	57	33	9	3	1	1	161
10:00	0	0	0	0	1	3	10	29	43	36	10	4	4	0	140
11:00	0	0	0	0	0	3	9	26	43	38	21	3	2	0	145
12:00 PM	0	0	0	0	3	4	15	38	73	30	5	1	2	0	171
1:00	0	0	0	0	3	0	19	36	78	53	20	1	0	0	210
2:00	0	0	0	0	1	1	19	62	85	79	23	3	1	0	274
3:00	0	0	0	0	1	1	28	56	121	70	33	8	0	0	318
4:00	0	0	0	2	2	9	21	52	165	114	40	6	3	0	414
5:00	0	0	2	1	1	7	24	120	156	72	30	3	0	0	416
6:00	0	0	2	1	9	13	39	84	107	47	11	0	0	0	313
7:00	0	0	0	0	1	1	28	49	89	35	9	0	1	0	213
8:00	0	0	0	0	0	1	7	35	36	27	10	4	1	0	121
9:00	0	0	0	0	0	0	7	30	24	25	6	1	0	0	93
10:00	0	0	0	0	0	0	4	21	24	15	3	0	1	0	68
11:00	0	0	0	0	0	0	4	15	24	11	3	1	1	0	59
Total	0	0	4	4	26	55	293	836	1318	793	282	50	22	3	3686
			Percentile	15th	50th	85th	95th								
			Speed	21	24	28	30								
		Mean Speed (Average)		25.9											
		10 MPH Pace Speed		21-30											
		Number in Pace		2937											
		Percent in Pace		83.0%											
		Number > 24 MPH		2468											
		Percent > 24 MPH		67.0%											
Grand Total	0	0	7	18	156	265	626	1497	2382	1594	627	106	40	8	7326
Stats			Percentile	15th	50th	85th	95th								
			Speed	20	24	28	31								
		Mean Speed (Average)		25.6											
		10 MPH Pace Speed		22-31											
		Number in Pace		5645											
		Percent in Pace		78.0%											
		Number > 24 MPH		4757											
		Percent > 24 MPH		64.9%											

Accurate Counts
978-664-2565

Location : Myrtle Street
Location : North of Water Street
City/State: Ashland, MA
Direction: NB,

Site Code: 98370002

2/27/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	0	0	0	0	1	2	1	1	0	0	0	5
1:00	0	0	0	0	0	0	0	0	3	1	1	0	0	0	5
2:00	0	0	0	0	0	0	0	1	1	1	1	0	1	0	5
3:00	0	0	0	0	0	0	0	2	1	1	1	1	0	0	6
4:00	0	0	0	0	0	0	0	0	5	6	3	1	0	0	15
5:00	0	0	0	0	0	0	2	3	16	22	15	6	0	0	64
6:00	0	0	0	0	0	0	6	12	44	68	34	8	4	1	177
7:00	0	0	0	0	0	2	10	14	56	89	52	23	4	1	251
8:00	0	0	0	1	3	1	6	36	90	104	70	13	2	1	327
9:00	0	0	0	7	48	78	80	38	8	1	1	0	0	0	261
10:00	0	0	0	4	39	62	69	36	10	2	0	0	0	0	222
11:00	0	0	2	7	12	51	52	31	38	25	10	1	0	0	229
12:00 PM	0	0	0	1	1	4	9	26	65	60	18	4	1	0	189
1:00	0	0	0	0	1	2	7	27	55	43	31	4	3	2	175
2:00	0	0	0	1	2	2	9	22	73	58	22	9	6	1	205
3:00	0	0	0	2	3	5	14	40	74	66	29	4	2	4	243
4:00	0	0	0	0	2	4	19	36	86	91	35	9	2	3	287
5:00	0	0	0	0	0	0	8	42	97	64	31	6	0	2	250
6:00	0	0	0	0	0	2	12	33	64	37	17	7	2	2	176
7:00	0	0	0	0	0	1	3	20	44	34	12	1	1	0	116
8:00	0	0	0	0	0	1	4	10	28	24	10	2	0	0	79
9:00	0	0	0	0	0	0	4	6	21	15	10	3	0	0	59
10:00	0	0	0	0	0	0	3	3	6	9	3	0	0	0	24
11:00	0	0	0	0	0	0	1	5	3	2	3	3	0	0	17
Total	0	0	2	23	111	215	318	444	890	824	410	105	28	17	3387

Percentile	15th	50th	85th	95th
Speed	18	25	29	32

Mean Speed (Average)	25.9
10 MPH Pace Speed	22-31
Number in Pace	2305
Percent in Pace	68.0%
Number > 24 MPH	2274
Percent > 24 MPH	67.1%

Accurate Counts
978-664-2565

Location : Myrtle Street
Location : North of Water Street
City/State: Ashland, MA
Direction: NB,

Site Code: 98370002

2/28/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	0	0	0	0	2	2	0	0	0	0	0	4
1:00	0	0	0	0	0	0	0	1	1	0	1	0	0	0	3
2:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
3:00	0	0	0	0	0	0	0	1	4	3	0	0	0	0	8
4:00	0	0	0	0	0	0	1	1	2	9	3	0	0	0	16
5:00	0	0	0	0	0	0	0	3	13	23	7	3	0	0	49
6:00	0	0	0	0	0	0	4	15	53	63	24	5	0	0	164
7:00	0	0	0	0	0	3	6	29	82	64	30	6	3	0	223
8:00	0	0	0	0	2	3	11	37	115	97	51	12	3	0	331
9:00	0	0	0	0	0	1	6	24	85	75	30	7	2	2	232
10:00	0	0	0	0	0	0	8	23	75	63	11	3	0	2	185
11:00	0	0	0	1	1	3	18	33	61	59	30	3	0	1	210
12:00 PM	0	0	0	0	1	6	9	32	61	47	22	7	0	1	186
1:00	0	0	0	0	0	0	7	20	62	49	14	6	1	2	161
2:00	0	0	0	0	0	5	10	26	68	48	34	3	2	1	197
3:00	0	0	0	0	0	1	17	31	82	87	36	12	1	2	269
4:00	0	0	0	0	0	1	10	51	99	81	35	6	2	0	285
5:00	0	0	0	0	2	2	19	31	96	69	16	5	1	2	243
6:00	0	0	0	0	3	3	20	46	66	37	11	0	0	0	186
7:00	0	0	0	0	0	0	9	25	64	30	6	3	2	0	139
8:00	0	0	0	0	0	0	1	10	35	31	5	1	1	1	85
9:00	0	0	0	0	0	0	1	13	24	13	1	0	0	1	53
10:00	0	0	0	1	0	1	3	7	8	10	0	0	0	0	30
11:00	0	0	0	0	1	1	1	3	6	6	2	0	1	0	21
Total	0	0	0	2	10	30	161	464	1164	965	369	82	19	15	3281
			Percentile	15th	50th	85th	95th								
			Speed	22	26	29	31								
		Mean Speed (Average)		27.1											
		10 MPH Pace Speed		22-31											
		Number in Pace		2681											
		Percent in Pace		83.0%											
		Number > 24 MPH		2614											
		Percent > 24 MPH		79.7%											
Grand Total	0	0	2	25	121	245	479	908	2054	1789	779	187	47	32	6668
Stats			Percentile	15th	50th	85th	95th								
			Speed	20	25	29	31								
		Mean Speed (Average)		26.5											
		10 MPH Pace Speed		22-31											
		Number in Pace		5011											
		Percent in Pace		75.0%											
		Number > 24 MPH		4888											
		Percent > 24 MPH		73.3%											

Accurate Counts
978-664-2565

Location : Myrtle Street
Location : North of Water Street
City/State: Ashland, MA
Direction: Combined

Site Code: 98370002

2/27/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	0	0	1	0	3	5	4	2	0	1	0	16
1:00	0	0	0	0	0	0	0	1	6	4	1	1	0	1	14
2:00	0	0	0	0	0	0	0	2	3	2	1	0	1	0	9
3:00	0	0	0	0	0	0	0	2	3	1	1	1	0	0	8
4:00	0	0	0	0	0	0	2	4	6	6	5	1	0	0	24
5:00	0	0	0	0	0	4	4	11	26	32	16	7	0	0	100
6:00	0	0	0	0	2	3	11	26	87	89	48	11	5	2	284
7:00	0	0	0	0	0	3	24	42	129	157	73	28	6	1	463
8:00	0	0	0	1	5	7	20	78	178	144	101	17	4	1	556
9:00	0	0	1	11	102	140	112	41	10	2	2	0	0	0	421
10:00	0	0	0	6	77	94	99	49	10	2	0	0	0	0	337
11:00	0	0	3	13	38	93	79	47	66	41	25	4	0	1	410
12:00 PM	0	0	0	1	1	4	27	48	112	104	31	7	2	2	339
1:00	0	0	0	0	2	10	19	67	124	91	52	10	3	2	380
2:00	0	0	1	2	4	16	28	64	135	138	57	14	7	1	467
3:00	0	0	0	2	4	6	40	110	193	155	60	8	4	4	586
4:00	0	0	0	1	6	25	51	117	205	180	76	14	4	3	682
5:00	0	0	0	0	0	10	52	130	211	161	68	7	0	2	641
6:00	0	0	0	0	0	4	40	128	172	105	43	11	3	2	508
7:00	0	0	0	0	0	1	15	55	125	79	35	5	2	0	317
8:00	0	0	0	0	0	2	10	32	70	64	20	4	2	0	204
9:00	0	0	0	0	0	1	11	25	41	37	16	5	2	0	138
10:00	0	0	0	0	0	1	5	15	26	22	14	0	0	0	83
11:00	0	0	0	0	0	0	2	8	11	5	8	6	0	0	40
Total	0	0	5	37	241	425	651	1105	1954	1625	755	161	46	22	7027

Percentile	15th	50th	85th	95th
Speed	18	24	29	31

Mean Speed (Average)	25.6
10 MPH Pace Speed	22-31
Number in Pace	4954
Percent in Pace	70.0%
Number > 24 MPH	4563
Percent > 24 MPH	64.9%

Location : Myrtle Street
Location : North of Water Street
City/State: Ashland, MA
Direction: Combined

Site Code: 98370002

2/28/2024 Time	0 - 3 MPH	> 3 - 6 MPH	> 6 - 9 MPH	> 9 - 12 MPH	> 12 - 15 MPH	> 15 - 18 MPH	> 18 - 21 MPH	> 21 - 24 MPH	> 24 - 27 MPH	> 27 - 30 MPH	> 30 - 33 MPH	> 33 - 36 MPH	> 36 - 39 MPH	> 39 MPH	Total
12:00 AM	0	0	0	0	0	0	0	5	5	0	0	0	1	0	11
1:00	0	0	0	0	0	0	3	2	2	0	1	0	0	0	8
2:00	0	0	0	0	0	0	0	0	1	1	1	0	0	0	3
3:00	0	0	0	0	0	0	2	1	4	3	0	0	1	0	11
4:00	0	0	0	0	0	0	1	1	5	13	5	0	0	0	25
5:00	0	0	0	0	0	1	6	14	26	26	9	4	0	1	87
6:00	0	0	0	0	0	1	12	37	86	88	35	7	2	1	269
7:00	0	0	0	0	2	5	23	75	155	96	40	12	4	0	412
8:00	0	0	0	0	2	3	25	99	181	141	74	15	3	0	543
9:00	0	0	0	0	2	9	15	62	142	108	39	10	3	3	393
10:00	0	0	0	0	1	3	18	52	118	99	21	7	4	2	325
11:00	0	0	0	1	1	6	27	59	104	97	51	6	2	1	355
12:00 PM	0	0	0	0	4	10	24	70	134	77	27	8	2	1	357
1:00	0	0	0	0	3	0	26	56	140	102	34	7	1	2	371
2:00	0	0	0	0	1	6	29	88	153	127	57	6	3	1	471
3:00	0	0	0	0	1	2	45	87	203	157	69	20	1	2	587
4:00	0	0	0	2	2	10	31	103	264	195	75	12	5	0	699
5:00	0	0	2	1	3	9	43	151	252	141	46	8	1	2	659
6:00	0	0	2	1	12	16	59	130	173	84	22	0	0	0	499
7:00	0	0	0	0	1	1	37	74	153	65	15	3	3	0	352
8:00	0	0	0	0	0	1	8	45	71	58	15	5	2	1	206
9:00	0	0	0	0	0	0	8	43	48	38	7	1	0	1	146
10:00	0	0	0	1	0	1	7	28	32	25	3	0	1	0	98
11:00	0	0	0	0	1	1	5	18	30	17	5	1	2	0	80
Total	0	0	4	6	36	85	454	1300	2482	1758	651	132	41	18	6967
			Percentile	15th	50th	85th	95th								
			Speed	21	25	29	31								
		Mean Speed (Average)		26.4											
		10 MPH Pace Speed		22-31											
		Number in Pace		5616											
		Percent in Pace		83.0%											
		Number > 24 MPH		5082											
		Percent > 24 MPH		72.9%											
Grand Total	0	0	9	43	277	510	1105	2405	4436	3383	1406	293	87	40	13994
Stats			Percentile	15th	50th	85th	95th								
			Speed	20	24	29	31								
		Mean Speed (Average)		26.0											
		10 MPH Pace Speed		22-31											
		Number in Pace		10656											
		Percent in Pace		77.0%											
		Number > 24 MPH		9645											
		Percent > 24 MPH		68.9%											

MASSDOT CRASH DATA

Main Street at Raymond Marchetti Street

Crash Number	Crash Date	Day	Crash Severity	Crash Time	Crash Year	Driver Contributing Circumstances (All Drivers)	First Harmful Event	Light Conditions	Manner of Collision	Road Surface Condition	Roadway Junction Type	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Street Number	Roadway
4402373	06/13/2017	Tue	Property damage only (none injured)	7:16 AM	2017	D1: (Unknown) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	T-intersection	V1: W / V2: E	Clear		MYRTLE ST / RAYMOND MARCHETTI ST
4403028	07/11/2017	Tue	Property damage only (none injured)	4:44 PM	2017	D1: (No improper driving) / D2: (Followed too closely)	Collision with motor vehicle in traffic	Daylight	Rear-end	Dry	T-intersection	V1: W / V2: E	Clear		MYRTLE STREET / RAYMOND MARCHETTI STREET
4807051	08/14/2019	Wed	Property damage only (none injured)	12:44 PM	2019	D1: (Unknown) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Rear-end	Dry	T-intersection	V1: N / V2: S	Clear		RAYMOND MARCHETTI ST / MYRTLE ST

Myrtle Street and Main Street at Water Street and 10-50 Main Street Driveway

Crash Number	Crash Date	Day	Crash Severity	Crash Time	Crash Year	Driver Contributing Circumstances (All Drivers)	First Harmful Event	Light Conditions	Manner of Collision	Road Surface Condition	Roadway Junction Type	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Street Number	Roadway
4612129	06/28/2018	Thu	Property damage only (none injured)	4:11 PM	2018	D1: (No improper driving) / D2: (No improper driving) / D3: (Inattention)	Collision with motor vehicle in traffic	Daylight	Rear-end	Wet	Not at junction	V2: W / V1: W / V3: W	Cloudy	1	MAIN STREET
4632239	11/15/2018	Thu	Property damage only (none injured)	8:37 PM	2018	D1: (Unknown) / D2: (Unknown)	Collision with motor vehicle in traffic	Dark - lighted roadway	Angle	Snow	Not at junction	V1: S / V2: S	Snow	2	MYRTLE ST

Main Street at LFX Enterprise Driveway

Crash Number	Crash Date	Day	Crash Severity	Crash Time	Crash Year	Driver Contributing Circumstances (All Drivers)	First Harmful Event	Light Conditions	Manner of Collision	Road Surface Condition	Roadway Junction Type	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Street Number	Roadway
4612128	06/20/2018	Wed	Property damage only (none injured)	8:44 PM	2018	D1: (Unknown)	Collision with curb	Dark - lighted roadway	Single vehicle crash	Dry	Not at junction	V1: N	Clear/Other	21	MAIN STREET
4937481	02/08/2021	Mon	Property damage only (none injured)	6:05 PM	2021	D1: (No improper driving) / D2: (Failure to keep in proper lane or running off road),(Operating vehicle in	Collision with motor vehicle in traffic	Dark - lighted roadway	Rear-end	Dry	T-intersection	V1: N / V2: N	Severe crosswinds	21	MAIN ST
5036439	11/02/2021	Tue	Property damage only (none injured)	6:56 PM	2021	D1: (Inattention)	Collision with unknown fixed object	Dark - lighted roadway	Single vehicle crash	Dry	Driveway	V1: N	Clear	10	MAIN ST
5065400	08/26/2021	Thu	Property damage only (none injured)	10:49 PM	2021	D1: (Driving too fast for conditions)	Collision with curb	Dark - lighted roadway	Single vehicle crash	Sand, mud, dirt, oil, gravel	Not at junction	V1: E	Clear/Other	21	MAIN ST

Main Street at Pleasant Street

Crash Number	Crash Date	Day	Crash Severity	Crash Time	Crash Year	Driver Contributing Circumstances (All Drivers)	First Harmful Event	Light Conditions	Manner of Collision	Road Surface Condition	Roadway Junction Type	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Street Number	Roadway
4355232	03/09/2017	Thu	Property damage only (none injured)	7:07 PM	2017	D1: (No improper driving) / D2: (Other improper action)	Collision with motor vehicle in traffic	Daylight	Rear-end	Dry	T-intersection	V1: S / V2: S	Clear		MAIN ST / PLEASANT ST
4373747	05/04/2017	Thu	Property damage only (none injured)	2:29 PM	2017	D1: (Unknown) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Sideswipe, same direction	Dry	Traffic circle	V1: W / V2: W	Clear/Other		PLEASANT ST / MAIN ST
4767990	06/17/2019	Mon	Property damage only (none injured)	8:35 AM	2019	D1: (No improper driving) / D2: (Inattention),(Distracted)	Collision with motor vehicle in traffic	Daylight	Rear-end	Dry	T-intersection	V1: E / V2: E	Clear		CHERRY ST / PLEASANT ST
4768029	10/20/2019	Sun	Non-fatal injury	4:13 PM	2019	D1: (Physical impairment)	Collision with curb	Daylight	Single vehicle crash	Dry	T-intersection	V1: E	Clear		MAIN ST / PLEASANT ST
4803771	10/09/2019	Wed	Property damage only (none injured)	5:24 AM	2019	D1: (Inattention) / D2: (No improper driving)	Collision with motor vehicle in traffic	Dark - lighted roadway	Front to Rear	Wet	Not at junction	V1: N / V2: S	Clear	50	MAIN ST
4807201	01/03/2020	Fri	Property damage only (none injured)	5:35 PM	2020	D1: (No improper driving) / D2: (Failed to yield right of way)	Collision with motor vehicle in traffic	Other	Angle	Wet	Not at junction	V1: N / V2: E	Clear	50	MAIN ST
4980609	03/30/2021	Tue	Unknown	12:31 PM	2021	D1: (Illness)	Collision with unknown fixed object	Daylight	Single vehicle crash	Dry	Four-way intersection	V1: E	Clear		PLEASANT ST / CHERRY ST
5065300	09/23/2021	Thu	Property damage only (none injured)	5:44 PM	2021	D1: (Unknown) / D2: (Failed to yield right of way)	Collision with motor vehicle in traffic	Daylight	Single vehicle crash	Dry	Four-way intersection	V1: N / V2: S	Cloudy	50	MAIN ST

Main Street at CrossFit Driveway

Crash Number	Crash Date	Day	Crash Severity	Crash Time	Crash Year	Driver Contributing Circumstances (All Drivers)	First Harmful Event	Light Conditions	Manner of Collision	Road Surface Condition	Roadway Junction Type	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Street Number	Roadway
4542735	04/22/2018	Sun	Property damage only (none injured)	12:14 PM	2018	D1: (No improper driving) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	Not at junction	V1: N / V2: E	Clear/Other	73	MAIN ST

Main Street at Front Street

Crash Number	Crash Date	Day	Crash Severity	Crash Time	Crash Year	Driver Contributing Circumstances (All Drivers)	First Harmful Event	Light Conditions	Manner of Collision	Road Surface Condition	Roadway Junction Type	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Street Number	Roadway
4355241	03/22/2017	Wed	Property damage only (none injured)	12:11 PM	2017	D1: (Unknown) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	T-intersection	V1: W / V2: S	Clear/Other	137	MAIN ST
4373830	05/04/2017	Thu	Property damage only (none injured)	1:54 PM	2017	D1: (Failed to yield right of way) / D2: (Failure to keep in proper lane or running off road)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	Not at junction	V1: E / V2: W	Clear/Other	12	FRONT ST
4402374	06/13/2017	Tue	Property damage only (none injured)	2:51 PM	2017	D1: (No improper driving)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	T-intersection	V1: N	Clear		MAIN ST / FRONT ST
4402593	05/05/2017	Fri	Property damage only (none injured)	2:54 PM	2017	D1: (No improper driving) / D2: (Failed to yield right of way)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	Not at junction	V1: W / V2: N	Clear	12	FRONT ST
4402599	06/07/2017	Wed	Property damage only (none injured)	8:12 AM	2017	D1: (No improper driving) / D2: (Made an improper turn)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	Not at junction	V1: W / V2: N	Cloudy	12	FRONT ST
4612135	07/26/2018	Thu	Property damage only (none injured)	9:56 PM	2018	D1: (No improper driving) / D2: (Unknown) / D3: (No improper driving)	Collision with motor vehicle in traffic	Dark - lighted roadway	Sideswipe, same direction	Wet	T-intersection	V1: S / V2: S / V3: S	Clear	117	MAIN ST
4612145	03/19/2018	Mon	Property damage only (none injured)	1:30 PM	2018	D1: (No improper driving)	Collision with curb	Daylight	Single vehicle crash	Dry	T-intersection	V1: N	Clear	137	MAIN STREET
4804217	12/20/2019	Fri	Property damage only (none injured)	6:09 PM	2019	D1: (No improper driving) / D2: (Unknown)	Collision with motor vehicle in traffic	Dark - lighted roadway	Sideswipe, same direction	Dry	T-intersection	V1: S / V2: E	Clear		MAIN ST / FRONT ST
4892867	08/11/2020	Tue	Property damage only (none injured)	7:08 AM	2020	D1: (Visibility obstructed) / D2: (No improper driving)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	T-intersection	V1: E / V2: S	Clear		MAIN ST / FRONT ST
5005687	08/02/2021	Mon	Property damage only (none injured)	3:41 PM	2021	D1: (Failure to keep in proper lane or running off road) / D2: (No improper driving)	Collision with motor vehicle in traffic	Daylight	Sideswipe, same direction	Dry	T-intersection	V1: N / V2: N	Clear	137	MAIN ST
5005690	08/07/2021	Sat	Property damage only (none injured)	3:47 PM	2021	D1: (Distracted) / D2: (No improper driving)	Collision with motor vehicle in traffic	Daylight	Rear-end	Dry	T-intersection	V1: S / V2: S	Clear	137	MAIN ST
5065378	09/06/2021	Mon	Property damage only (none injured)	4:10 PM	2021	D1: (Made an improper turn) / D2: (No improper driving)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	Driveway	V1: N / V2: N	Clear	12	FRONT ST

Main Street at Homer Avenue and Summer Street

Crash Number	Crash Date	Day	Crash Severity	Crash Time	Crash Year	Driver Contributing Circumstances (All Drivers)	First Harmful Event	Light Conditions	Manner of Collision	Road Surface Condition	Roadway Junction Type	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Street Number	Roadway
4338494	03/10/2017	Fri	Property damage only (none injured)	10:58 AM	2017	D1: (Unknown) / D2: (Failed to yield right of way)	Collision with motor vehicle in traffic	Daylight	Angle	Wet	Four-way intersection	V1: E / V2: E	Cloudy		SUMMER STREET / MAIN STREET / HOMER AVENUE
4373834	05/24/2017	Wed	Property damage only (none injured)	3:09 PM	2017	D1: (Unknown) / D2: (No improper driving)	Collision with motor vehicle in traffic	Daylight	Rear-end	Dry	Four-way intersection	V1: N / V2: N	Clear		SUMMER STREET / MAIN STREET / HOMER AVENUE
4489702	01/23/2018	Tue	Property damage only (none injured)	8:31 AM	2018	D1: (No improper driving) / D2: (Failed to yield right of way)	Collision with motor vehicle in traffic	Daylight	Angle	Wet	Four-way intersection	V1: W / V2: E	Rain		MAIN ST / HOMER AVE
4495446	01/28/2018	Sun	Property damage only (none injured)	6:21 PM	2018	D1: (No improper driving) / D2: (Distracted)	Collision with motor vehicle in traffic	Dark - lighted roadway	Rear-end	Dry	Four-way intersection	V1: S / V2: S	Cloudy	179	MAIN ST
4542707	05/11/2018	Fri	Non-fatal injury	12:24 PM	2018	D1: (Inattention),(Failed to yield right of way)	Collision with pedestrian	Daylight	Single vehicle crash	Dry	Four-way intersection	V1: W	Clear/Other		HOMER AVE / MAIN ST
4572675	05/24/2018	Thu	Non-fatal injury	4:40 PM	2018	D1: (Unknown) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	Four-way intersection	V1: W / V2: N	Clear		MAIN ST / HOMER AVE
4611821	05/29/2018	Tue	Property damage only (none injured)	12:51 PM	2018	D1: (Unknown) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Angle	Dry	Four-way intersection	V1: W / V2: W	Clear	197	MAIN ST
4680752	01/11/2019	Fri	Property damage only (none injured)	7:25 PM	2019	D1: (No improper driving) / D2: (No improper driving)	Collision with motor vehicle in traffic	Dark - lighted roadway	Sideswipe, same direction	Dry	Four-way intersection	V1: E / V2: N	Clear		HOMER AVE / MAIN ST
4767823	09/05/2019	Thu	Property damage only (none injured)	8:43 PM	2019	D1: (No improper driving)	Collision with work zone maintenance equipment	Dark - lighted roadway	Single vehicle crash	Dry	Not at junction	V2: Not Reported / V1: S	Clear	197	MAIN STREET
4892870	08/18/2020	Tue	Property damage only (none injured)	4:20 PM	2020	D1: (No improper driving) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Rear-end	Dry	Not at junction	V1: E / V2: E	Clear/Unknown	205	MAIN ST
4937480	02/08/2021	Mon	Property damage only (none injured)	6:41 AM	2021	D1: (No improper driving) / D2: (Inattention)	Collision with motor vehicle in traffic	Dawn	Rear-end	Dry	Four-way intersection	V2: N / V1: N	Clear		HOMER AVE / MAIN ST
4980637	05/21/2021	Fri	Property damage only (none injured)	11:18 PM	2021	D1: (Over-correcting/over-steering),(Other improper action)	Collision with curb	Dark - lighted roadway	Single vehicle crash	Dry	Four-way intersection	V1: S	Clear		MAIN ST / SUMMER ST

MASSDOT CRASH RATE WORKSHEETS AND HIGH CRASH LOCATION MAP

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Ashland COUNT DATE : 2/27/2024

DISTRICT : 3 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Myrtle St.

MINOR STREET(S) : Raymond Marchetti St.

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (PM) :	39	252	435			**726**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **8,067**

TOTAL # OF CRASHES : 3

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.60**

CRASH RATE CALCULATION : **0.20**

RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Below Statewide and District Crash Rates

Project Title & Date: Proposed Mixed-Use Development

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Ashland COUNT DATE : 2/27/2024

DISTRICT : 3 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Main Street

MINOR STREET(S) : Myrtle Street

Water Street

INTERSECTION DIAGRAM
(Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (pM) :	19	16	273	433		**741**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **8,233**

TOTAL # OF CRASHES : 2

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.40**

CRASH RATE CALCULATION : **0.13**

RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Below Statewide and District Crash Rates

Project Title & Date: Proposed Mixed-Use Development

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Ashland COUNT DATE : 2/27/2024

DISTRICT : 3 UNSIGNALIZED : X SIGNALIZED :

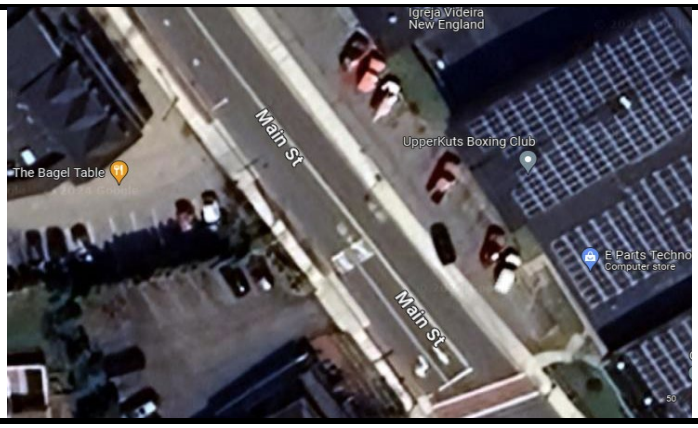
~ INTERSECTION DATA ~

MAJOR STREET : Main St.

MINOR STREET(S) : LFX Enterprise Dwy.

INTERSECTION DIAGRAM
(Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (PM) :	16	270	439			**725**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **8,056**

TOTAL # OF CRASHES : 4

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.80**

CRASH RATE CALCULATION : **0.27**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : Below Statewide and District Crash Rates

Project Title & Date: Proposed Mixed-Use Development

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Ashland COUNT DATE : 2/27/2024

DISTRICT : 3 UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Main St.

MINOR STREET(S) : Pleasant St.

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	SB			
PEAK HOURLY VOLUMES (PM) :	543	720	444			**1,707**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **18,967**

TOTAL # OF CRASHES : 8 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **1.60**

CRASH RATE CALCULATION : **0.23** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Below Statewide and District Crash Rates

Project Title & Date: Proposed Mixed-Use Development

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Ashland COUNT DATE : 2/27/2024

DISTRICT : 3 UNSIGNALIZED : X SIGNALIZED :

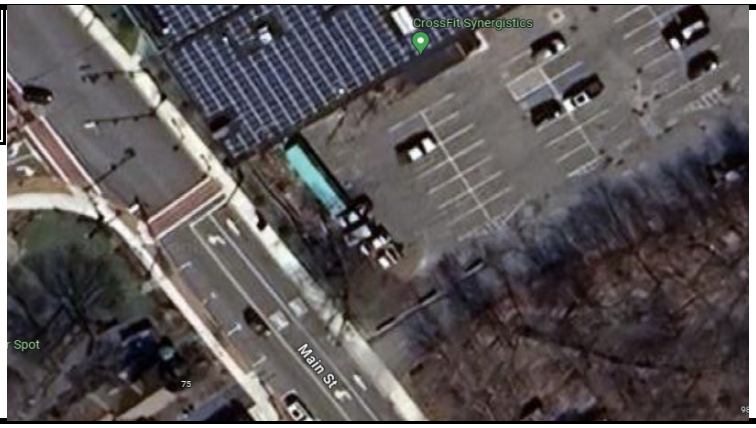
~ INTERSECTION DATA ~

MAJOR STREET : Main St.

MINOR STREET(S) : CrossFit Synergistics Dwy.

INTERSECTION DIAGRAM
(Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (PM) :	11	728	759			**1,498**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **16,644**

TOTAL # OF CRASHES : 1 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.20**

CRASH RATE CALCULATION : **0.03** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Below Statewide and District Crash Rates

Project Title & Date: Proposed Mixed-Use Development

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Ashland COUNT DATE : 2/27/2024

DISTRICT : 3 UNSIGNALIZED : SIGNALIZED : X

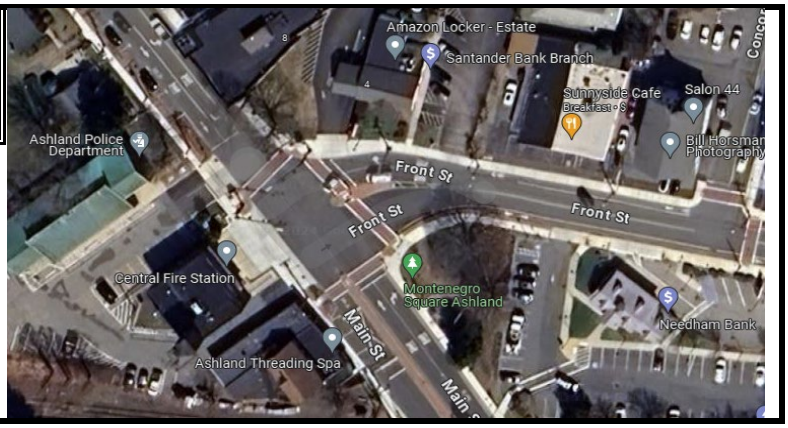
~ INTERSECTION DATA ~

MAJOR STREET : Main St.

MINOR STREET(S) : Front St.

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (PM) :	340	549	762			**1,651**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **18,344**

TOTAL # OF CRASHES : 12

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **2.40**

CRASH RATE CALCULATION : **0.36**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : Below Statewide and District Crash Rates

Project Title & Date: Proposed Mixed-Use Development

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Ashland COUNT DATE : 2/27/2024

DISTRICT : 3 UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

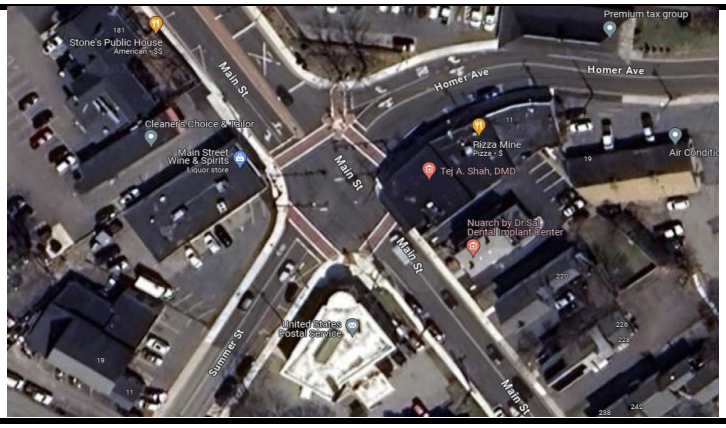
MAJOR STREET : Main St.

MINOR STREET(S) : Summer St.

Homer Ave.

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	124	124	400	703		**1,351**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **15,011**

TOTAL # OF CRASHES : 12

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **2.40**

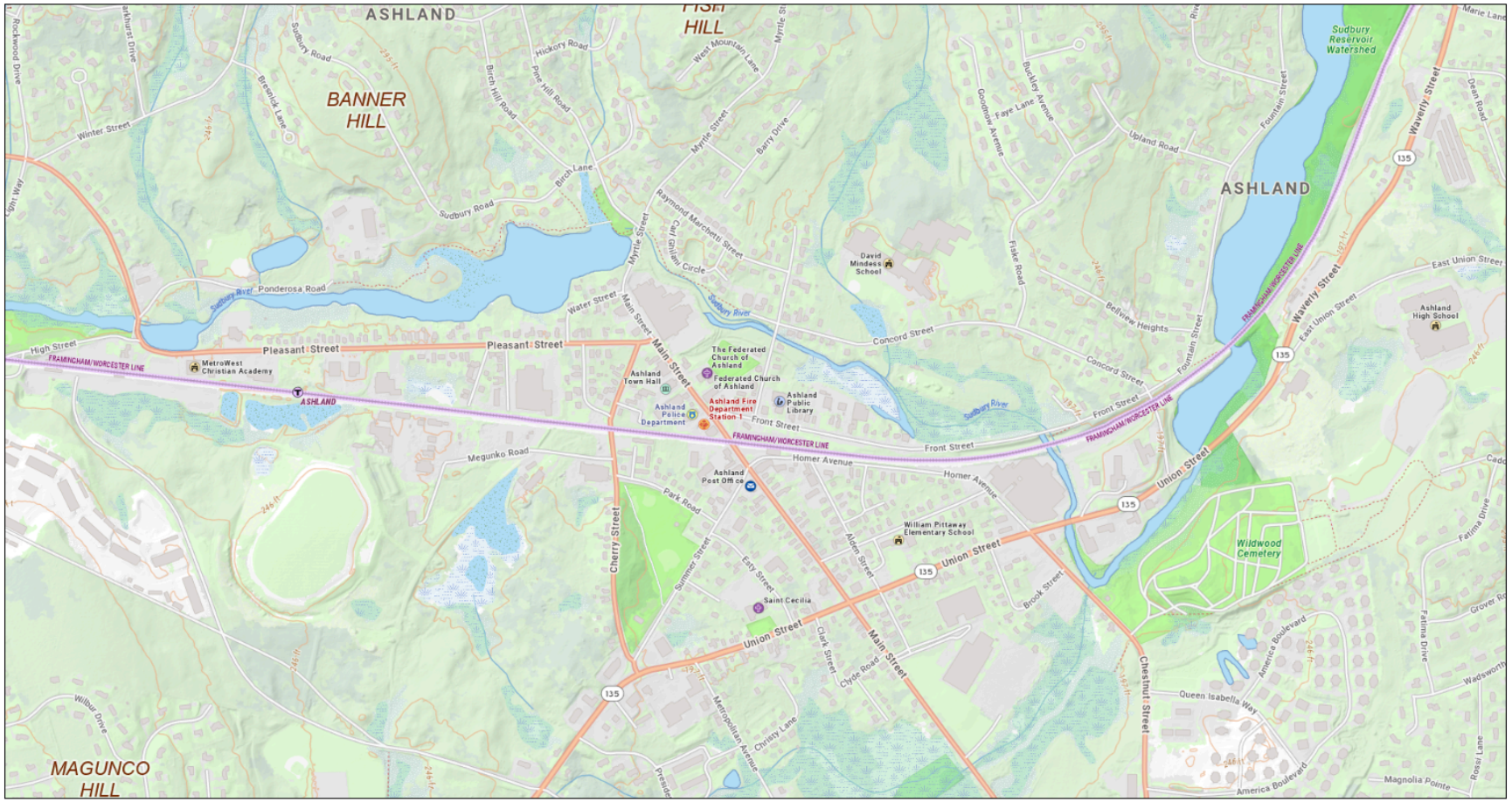
CRASH RATE CALCULATION : **0.44**

RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Below Statewide and District Crash Rates

Project Title & Date: Proposed Mixed-Use Development

HSIP Mapping - Ashland, MA



July 31, 2024

1:11,185

0 0.1 0.2 0.4 mi

0 0.15 0.3 0.6 km

MassGIS

GENERAL BACKGROUND TRAFFIC GROWTH

General Background Traffic Growth - Daily Traffic Volumes

CITY/TOWN	ROUTE/STREET	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Annual Growth
Southborough	Boston Road	at Valley Road	14,900	14,810	15,350	16,363	16,683	17,200	16,228	17,234	17,527	16,420	16,354	**1.02%**
Framingham	Fountain Street	at Winter Street	11,022	9,900	10,089	9,986	11,828	12,195	12,475	13,248	13,473	13,513	10,443	**0.00%**
Framingham	Union Avenue	at Mount Wayte Avenue	17,973	15,500	15,797	15,273	17,009	17,536	17,939	14,980	15,235	15,281	15,220	**-1.33%**
Ashland	Chestnut Street	at Union Street	6,157	6,700	6,832	6,836	6,723	6,931	7,090	7,158	7,280	7,302	6,956	**1.28%**
Framingham	Waverly Street	at Route 126 (Concord Street)	15,578	14,400			15,267	16,107	16,284	14,393	14,551	14,755	15,007	**-1.20%**
Southborough	Massachusetts Turnpike	at Cordaville									100,312	100,999	102,416	**1.04%**
														0.14%

BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

PRINCIPALS
Robert J. Michaud, P.E.
Daniel J. Mills, P.E., PTOE

M E M O R A N D U M

DATE: December 12, 2023

TO: Mr. Richard A. Salvo, P.E.
Engineering Alliance
194 Central Street
Saugus, MA 01906

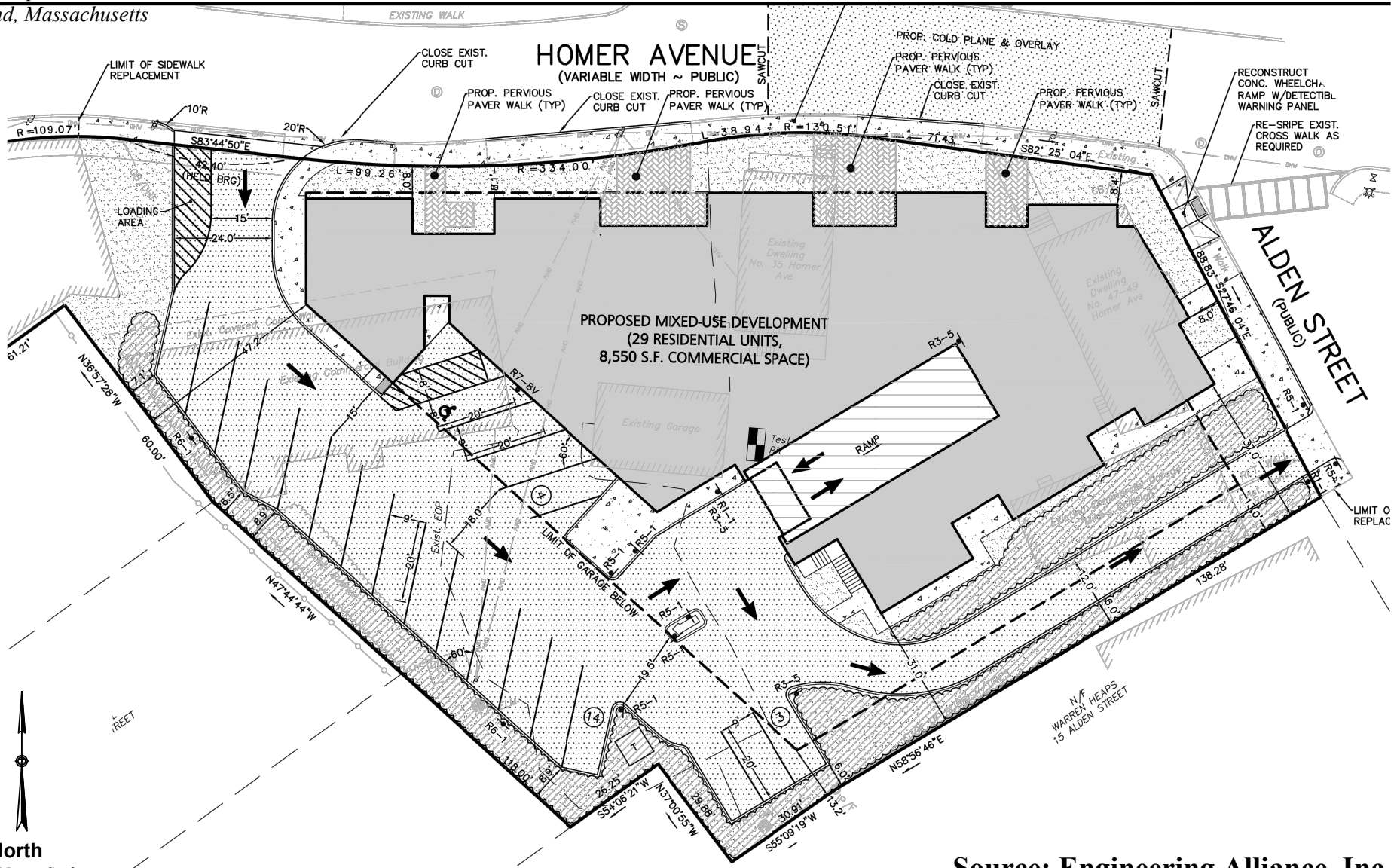
FROM: Robert J. Michaud, P.E. – Managing Principal
Daniel A. Dumais, P.E. – Senior Project Manager

RE: **Proposed Mixed-Use Development**
Homer Avenue, Ashland, MA

MDM Transportation Consultants, Inc. (MDM) has conducted a trip generation assessment for proposed redevelopment of property at 9-49 Homer Avenue in Ashland, Massachusetts. This memorandum summarizes the traffic generation characteristics of existing and proposed site uses based on application of industry standard trip rates and methodology to estimate relative peak hour and daily trip increases associated with the mixed-use redevelopment.

Project Description

The project Site is an approximate 1-acre tract of land located along Homer Avenue in Ashland, Massachusetts. The Site is currently occupied by two residential homes, a commercial autobody repair garage, approximately 2,800± square feet of retail space, and a 4,000± square foot barber/hair salon. The proposed redevelopment of the site will retain the barber/hair salon use but will replace the other existing uses with a mixed-use development comprising 29 residential units and 8,550± square feet of retail/commercial space. Access is proposed to include a curb cut on Homer Avenue designated as a one-way enter-only driveway and a curb cut along Alden Street designated as a one-way exit-only driveway. Parking to support the proposed building is anticipated to include a mix of surface and garage parking. A preliminary site plan sketch for the project prepared by Engineering Alliance, Inc. is shown in **Figure 1**.



Source: Engineering Alliance, Inc.

Figure 1

Preliminary Site Plan

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Date: December 2023
Dwg No. 1332 MR01.dwg

Existing Site Generated Traffic

The trip generation estimates for the existing uses on the Site are provided for the weekday morning and weekday evening periods, which correspond to the critical analysis periods for the proposed uses and adjacent street traffic flow. The traffic generated by the existing developments were estimated based on trip rates published in the Institute of Transportation Engineers (ITE) *Trip Generation*[1] for Land Use Codes (LUC) 210 – Single Family Detached Housing; LUC 822 (Strip Retail Plaza); LUC 918 (Hair Salon); and LUC 942 (Automobile Care Center) as summarized in **Table 1**. Trip generation calculations are provided in the **Attachments**.

TABLE 1
TRIP-GENERATION SUMMARY – ITE BASIS - EXISTING

Peak Hour/Direction	Residential Homes (2 Units)[1]	Commercial Strip Mall (2.8ksf)[2]	Barber/Hair Salon (3.975ksf)[3]	Auto Repair Garage (1.255ksf)[4]	TOTAL
Weekday Morning Peak Hour:					
Entering	0	4	3	2	9
Exiting	1	3	2	1	7
Total	1	7	5	3	16
Weekday Evening Peak Hour:					
Entering	1	9	1	2	13
Exiting	1	9	5	2	17
Total	2	18	6	4	30
Weekday Daily (24-Hour):	18	152	n/a	28	198+Barber

Source: ITE *Trip Generation*, 11th Edition; 2021 with no reduction for alternative transportation modes.
[1]Based on ITE Trip Generation 11th Edition trip rates for LUC 210 – Single-Family Detached Housing applied to 2 units.
[2]Based on ITE Trip Generation 11th Edition trip rates for LUC 822 – Strip Retail Plaza (<40ksf) applied to 2,800 square feet.
[3]Based on ITE Trip Generation 11th Edition trip rates for LUC 918 – Hair Salon applied to 3,975 square feet. Daily trip generation for Hair Salons are not provided by ITE, however this use does not represent a new proposed use for the site.
[4]Based on ITE Trip Generation 11th Edition trip rates for LUC 942 – Automobile Care Center applied to 1,255 square feet.

As summarized in **Table 1**, the existing site trip activity is estimated to generate approximately 16 vehicle trips (9 entering and 7 exiting) during the weekday morning peak hour, 30 vehicle trips (13 entering and 17 exiting) during the weekday evening peak hour, and approximately 200 vehicle trips on a weekday (exclusive of barber shop to remain), with 50 percent entering and 50 percent exiting.

[1] *Trip Generation*, *11th Edition*, Institute of Transportation Engineers, Washington, DC (2021).

Projected Traffic Volumes

The trip generation estimates for the proposed redevelopment of the Site are provided for the weekday morning and weekday evening periods, which correspond to the critical analysis periods for the proposed uses and adjacent street traffic flow. For planning purposes, the total traffic generated by the project including the existing barber shop to remain plus trips estimated for new uses using trip rates published in ITE *Trip Generation*[2] for LUC 221 (Multifamily Housing, Mid-Rise) and LUC 822 (Strip Retail Plaza <40 ksf). **Table 2** presents a summary of the site trip generation for the proposed uses on the Site. To remain conservative no trip credits (reduction) were taken for alternative transportation modes or telecommuting. Trip generation calculations are provided in the **Attachments.**

TABLE 2
TRIP-GENERATION SUMMARY – ITE BASIS (PROPOSED REDEVELOPMENT)

Peak Hour/Direction	Residential Apartments (29 Units)[1]	Commercial Strip Mall (8.55ksf)[2]	Barber/Hair Salon (3.975ksf)[3]	TOTAL
Weekday Morning Peak Hour:				
Entering	3	12	3	18
Exiting	8	8	2	18
Total	11	20	5	36
Weekday Evening Peak Hour:				
Entering	7	28	1	36
Exiting	4	28	5	37
Total	11	56	6	73
Weekday Daily (24-Hour):	132	466	n/a	598+Barber

Source: ITE *Trip Generation*, 11th Edition; 2021 with no reduction for alternative transportation modes.
[1]Based on ITE Trip Generation 11th Edition trip rates for LUC 221 – Multifamily Housing (Mid-Rise) applied to 29 units.
[2]Based on ITE Trip Generation 11th Edition trip rates for LUC 822 – Strip Retail Plaza (<40ksf) applied to 8,550 square feet.
[3]As found in Table 1.

As summarized in **Table 2**, the proposed development is estimated to generate approximately 36 vehicle trips (18 entering and 18 exiting) during the weekday morning peak hour, 73 vehicle trips (36 entering and 37 exiting) during the weekday evening peak hour, and approximately 600 vehicle trips on a weekday (exclusive of barber shop to remain) with 50 percent entering and exiting.

[2]*Ibid 1*

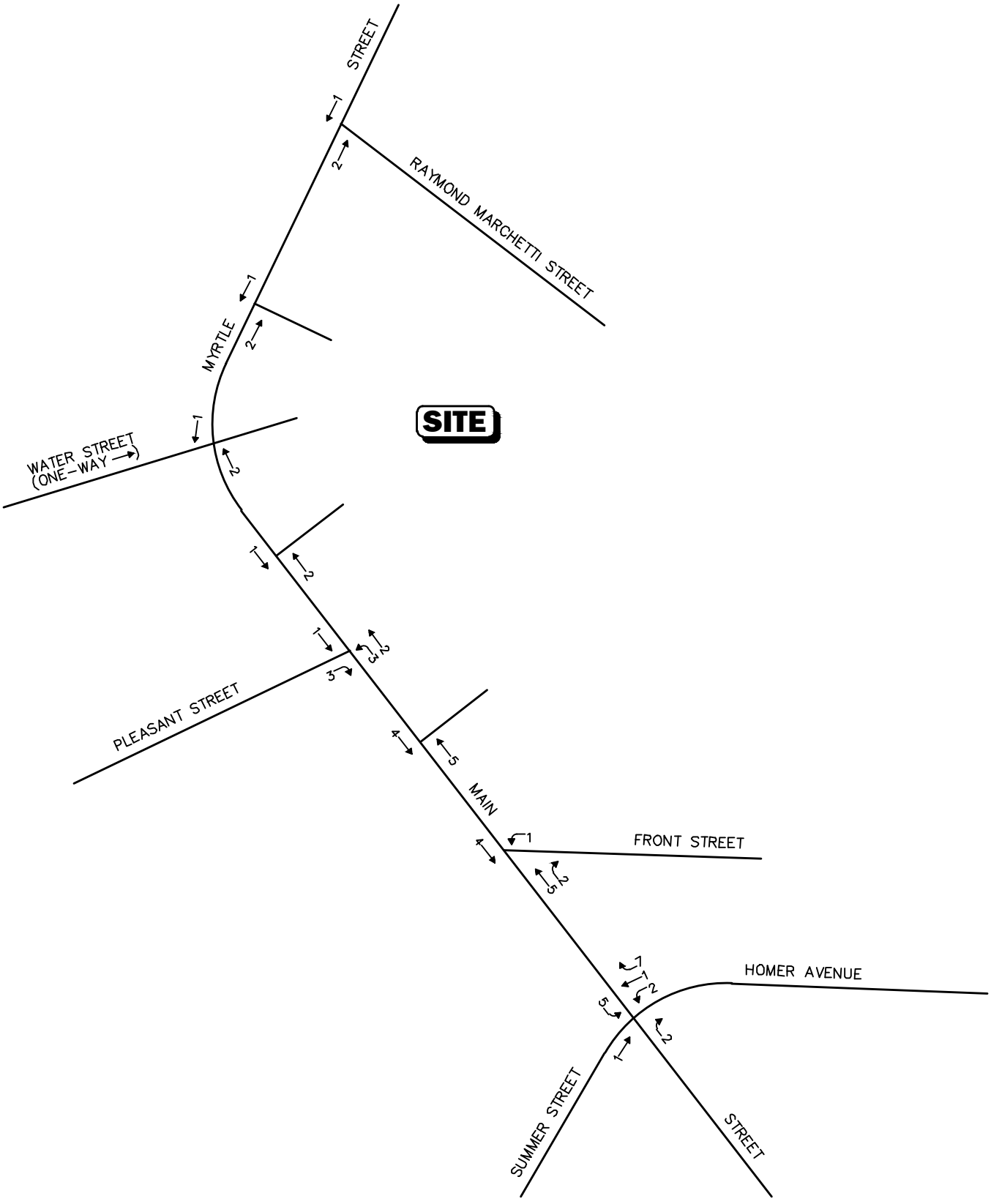
A comparison of the existing and proposed estimated trip activity for the Site during the weekday morning peak hour, weekday evening peak hour, and over the course of a typical weekday 24-hour period are summarized in **Table 3**.

TABLE 3
TRIP-GENERATION COMPARISON – ITE BASIS – EXISTING VS. PROPOSED

Peak Hour/Direction	Existing Total[1]	Proposed Total[2]	Difference (Δ)
Weekday Morning Peak Hour:			
Entering	9	18	+9
Exiting	7	18	+11
Total	16	36	+20
Weekday Evening Peak Hour:			
Entering	13	36	+23
Exiting	17	37	+20
Total	30	73	+43
Weekday Daily (24-Hour):	198+Barber	598+Barber	+400

[1]From Table 1.
[2]From Table 2.

As shown in **Table 3**, the project at full buildout will result in between 20 and 43 additional vehicles during weekday peak hours and a net increase of 400 vehicle-trips on a weekday.

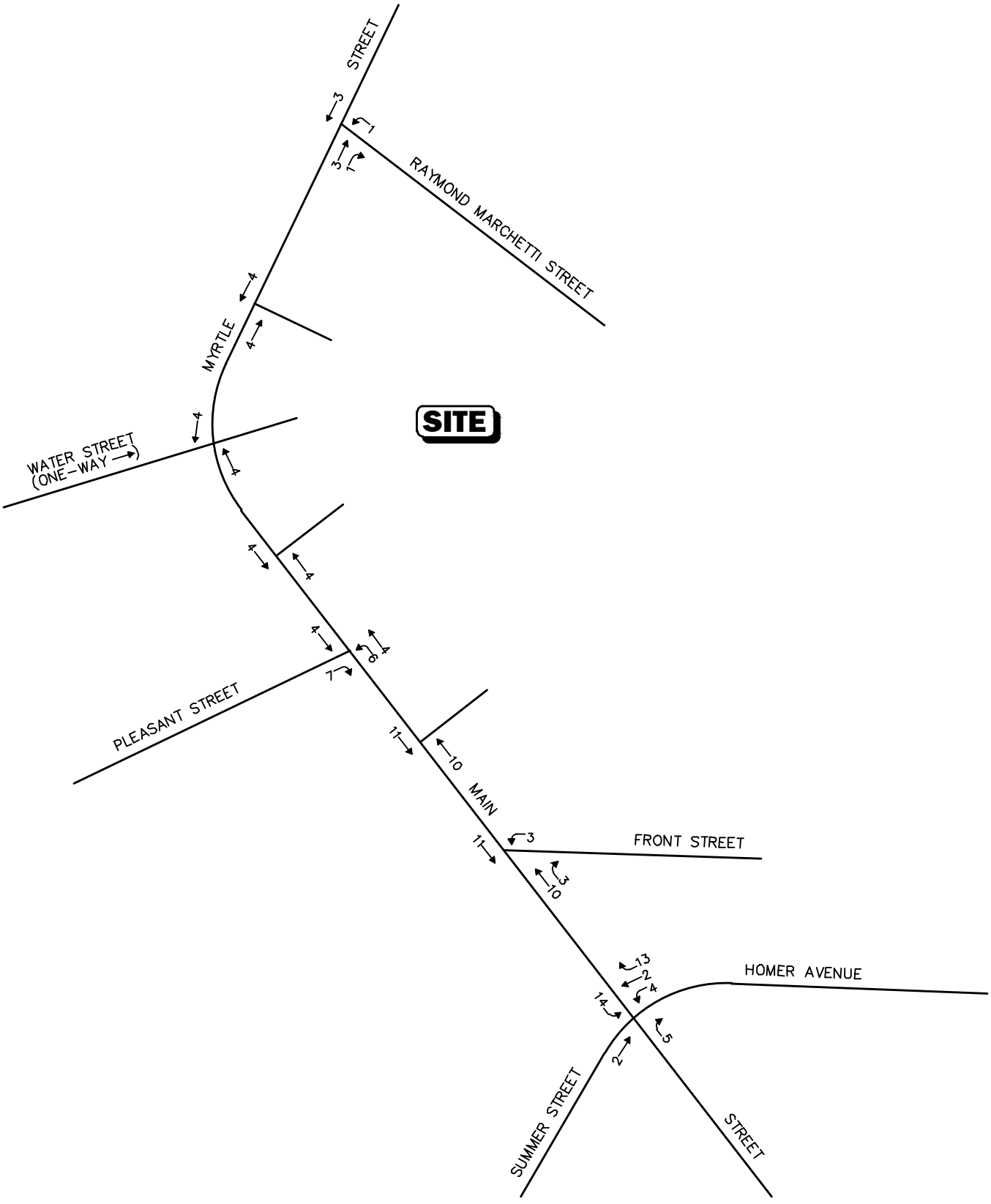


Not To Scale

Figure A-1

Proposed Mixed-Use Development
9-49 Homer Avenue
Weekday Morning
Peak-Hour Traffic Volumes

Vanasse & Associates inc



Not To Scale

Figure A-2

Proposed Mixed-Use Development
9-49 Homer Avenue
Weekday Evening
Peak-Hour Traffic Volumes

Vanasse & Associates inc

CENSUS TRACT DATA

COMMUTING CHARACTERISTICS BY SEX

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

Label	Census Tract 3851, Middlesex County, Massachusetts					
	Total		Male		Female	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Workers 16 years and over	4,223	±257	2,299	±227	1,924	±219
MEANS OF TRANSPORTATION TO WORK						
Car, truck, or van	86.1%	±3.5	88.0%	±4.0	83.8%	±6.3
Drove alone	83.7%	±3.5	86.2%	±4.3	80.7%	±6.3
Carpooled	2.4%	±1.5	1.8%	±1.7	3.1%	±3.1
In 2-person carpool	2.4%	±1.5	1.8%	±1.7	3.1%	±3.1
In 3-person carpool	0.0%	±0.8	0.0%	±1.5	0.0%	±1.7
In 4-or-more person carpool	0.0%	±0.8	0.0%	±1.5	0.0%	±1.7
Workers per car, truck, or van	1.01	±0.01	1.01	±0.01	1.02	±0.02
Public transportation (excluding taxicab)	8.2%	±2.8	6.9%	±3.4	9.8%	±4.8
Walked	1.3%	±1.3	0.7%	±1.0	2.1%	±2.4
Bicycle	0.0%	±0.8	0.0%	±1.5	0.0%	±1.7
Taxicab, motorcycle, or other means	0.3%	±0.5	0.6%	±0.9	0.0%	±1.7
Worked from home	4.0%	±2.2	3.8%	±2.8	4.3%	±3.6
PLACE OF WORK						
Worked in state of residence	98.4%	±1.6	99.1%	±1.5	97.6%	±2.8
Worked in county of residence	65.5%	±5.6	67.1%	±7.8	63.6%	±8.3
Worked outside county of residence	32.9%	±5.5	32.0%	±7.7	34.0%	±8.3
Worked outside state of residence	1.6%	±1.6	0.9%	±1.5	2.4%	±3.1
Living in a place	0.0%	±0.8	0.0%	±1.5	0.0%	±1.7
Worked in place of residence	0.0%	±0.8	0.0%	±1.5	0.0%	±1.7
Worked outside place of residence	0.0%	±0.8	0.0%	±1.5	0.0%	±1.7
Not living in a place	100.0%	±0.8	100.0%	±1.5	100.0%	±1.7
Living in 12 selected states	100.0%	±0.8	100.0%	±1.5	100.0%	±1.7
Worked in minor civil division of residence	11.7%	±4.3	7.3%	±3.7	17.0%	±7.3
Worked outside minor civil division of residence	88.3%	±4.3	92.7%	±3.7	83.0%	±7.3
Not living in 12 selected states	0.0%	±0.8	0.0%	±1.5	0.0%	±1.7
Workers 16 years and over who did not work from home	4,052	±253	2,211	±219	1,841	±219
TIME OF DEPARTURE TO GO TO WORK						

TRIP-GENERATION CALCULATIONS

Table A1
TRIP-GENERATION SUMMARY – INTERNAL TRIPS

	Vehicle Trips										
	Residential Component			Restaurant Component			Retail Component			**Project Total**	
Time Period/Direction	(A) Proposed Multifamily Residential Development (250 Units)[a]	(B) Internal Trips	(C=A-B) Net Trips	(D) Proposed Restaurant Space (7,783 sf)[b]	(E) Internal Trips	(F=D-E) Net Trips	(G) Proposed Retail Space (7,783 sf)[c]	(H) Internal Trips	(I=G-H) Net Trips	**(J=B+E+H) Total Internal Trips**	**(K=C+F+I) Total Net Trips**
Average Weekday Daily:											
Entering	568	63	505	417	42	375	212	21	191	**126**	**1,071**
Exiting	568	63	505	417	42	375	212	21	191	**126**	**1,071**
Total	1,136	126	1,010	834	84	750	424	42	382	**252**	**2,142**
Weekday Morning Peak-Hour:											
Entering	23	0	23	41	1	40	11	0	11	**1**	**74**
Exiting	75	1	74	33	0	33	7	0	7	**1**	**114**
Total	98	1	97	74	1	73	18	0	18	**2**	**188**
Weekday Evening Peak-Hour:											
Entering	60	15	45	43	4	39	33	4	29	**23**	**113**
Exiting	38	8	30	27	8	19	32	7	25	**23**	**74**
Total	98	23	75	70	12	58	65	11	54	**46**	**187**

[a]Based on ITE LUC 221, Multifamily Housing (Mid-Rise), (250 Units).

[b]Based on ITE LUC 822, Strip Retail Plaza (<40k), (7,783 sf).

[c]Based on ITE LUC 932, High-Turnover (Sit-Down) Restaurant, (7,783 sf)

Table A2
TRIP-GENERATION SUMMARY – PASS-BY TRIPS

	Vehicle Trips							
	Restaurant Component			Retail Component			**Project Total**	
Time Period/Direction	(A) Net Trips[a]	(B) Pass-By Trips[b]	(C = A - B) New Trips	(D) Net Trips[a]	(E) Pass-By Trips[c]	(F = D - E) New Trips	**(G = B + E) Total Pass-By Trips**	**(H = C + F) Total New Trips**
Average Weekday Daily:								
Entering	375	161	214	191	59	132	**220**	**346**
Exiting	375	161	214	191	59	132	**220**	**346**
Total	750	322	428	382	118	264	**440**	**692**
Weekday Morning Peak-Hour:								
Entering	40	15	25	11	0	11	**29**	**36**
Exiting	33	15	18	7	0	7	**22**	**25**
Total	73	30	43	18	0	18	**51**	**61**
Weekday Evening Peak-Hour:								
Entering	39	12	27	29	11	18	**23**	**45**
Exiting	19	12	7	25	11	14	**23**	**21**
Total	58	24	34	54	22	32	**46**	**66**

[a]From Table A1.

[b]Pass-by trip rates were obtained from ITE LUC 932, *High-Turnover (Sit-Down) Restaurant*, and were applied as follows: average weekday daily, weekday morning and weekday evening peak-hours = 43 percent.

[c]Pass-by trip rates were obtained from ITE LUC 821, *Shopping Plaza (40-150k)*, and were applied as follows: average weekday daily, weekday morning peak-hour = 31 percent; and weekday evening peak-hour = 40 percent.

Table A3
TRIP GENERATION TABLE – PERSON TRIPS

Time Period/Direction	Vehicle Trips (A) Proposed Multifamily Residential Development (250 Units)[a]	Person Trips (B = A * 1.01) Total Person Trips[b]	(C) Automobile Trips (90%)	(D) Transit Trips (8%)	(E) Pedestrian/ Bicycle Trips (2%)	**Project Total (F = C ÷ 1.01) Total Automobile Trips[c]**
Average Weekday Daily:						
Entering	505	510	459	41	10	455
Exiting	505	510	459	41	10	455
Total	1,010	1,020	918	82	20	910
Weekday Morning Peak-Hour:						
Entering	23	23	21	2	0	21
Exiting	74	75	67	6	2	66
Total	97	98	88	8	2	87
Weekday Evening Peak-Hour:						
Entering	45	45	41	4	1	40
Exiting	30	30	27	2	0	27
Total	75	75	68	6	1	67

[a]Based on ITE LUC 221, *Multifamily Housing (Mid-Rise)*.

[b]ITE vehicle trips x 1.01 persons per vehicle.

[c]Automobile person trips divided by 1.01.

Graph Look Up

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
221

LAND USE GROUP:
(200-299) Residential

LAND USE :
221 - Multifamily Housing (Mid-Rise)

LAND USE SUBCATEGORY:
Not Close to Rail Transit

SETTING/LOCATION:
General Urban/Suburban

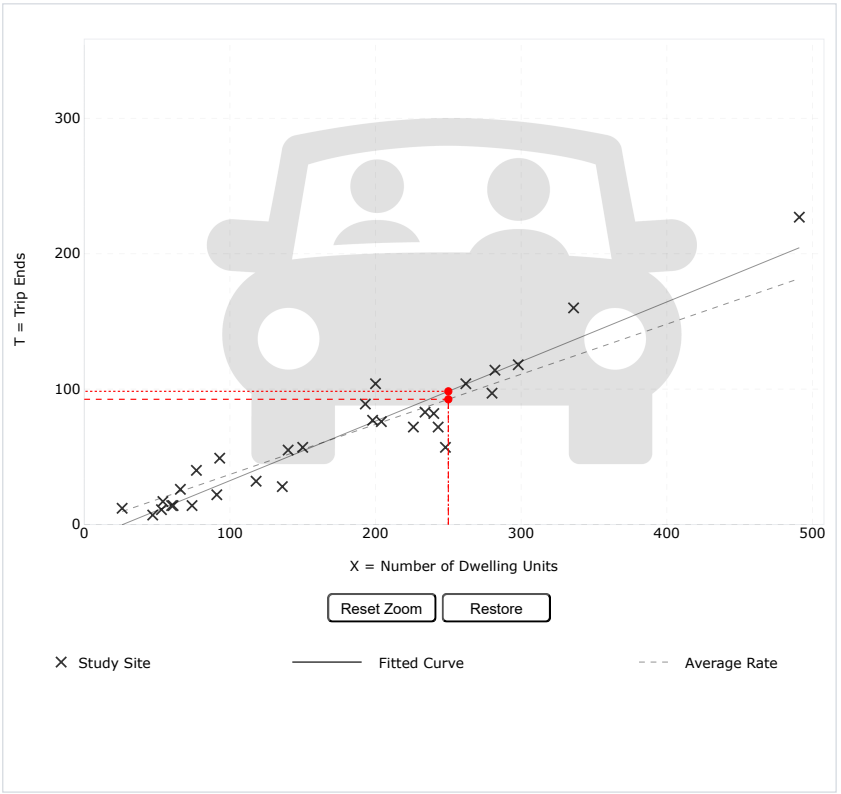
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
250 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (221) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
30

Avg. Num. of Dwelling Units:
173

Average Rate:
0.37

Range of Rates:
0.15 - 0.53

Standard Deviation:
0.09

Fitted Curve Equation:
T = 0.44(X) - 11.61

R^2:
0.91

Directional Distribution:
23% entering, 77% exiting

Calculated Trip Ends:
Average Rate: 93 (Total), 21 (Entry), 72 (Exit)
Fitted Curve: 98 (Total), 23 (Entry), 75 (Exit)

Graph Look Up

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
221

LAND USE GROUP:
(200-299) Residential

LAND USE :
221 - Multifamily Housing (Mid-Rise)

LAND USE SUBCATEGORY:
Not Close to Rail Transit

SETTING/LOCATION:
General Urban/Suburban

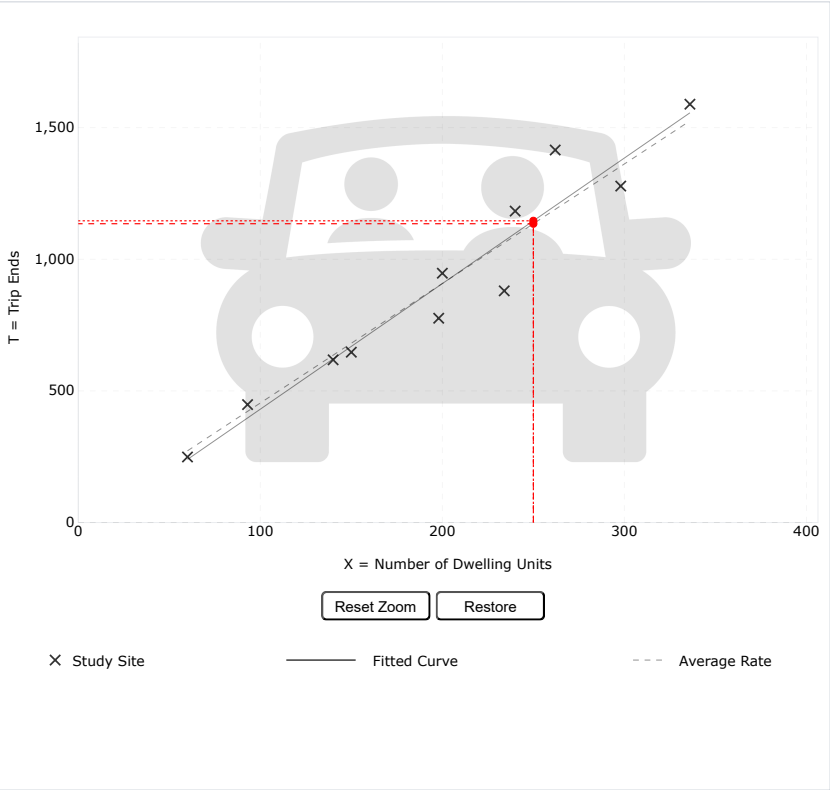
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
250 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (221) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
11

Avg. Num. of Dwelling Units:
201

Average Rate:
4.54

Range of Rates:
3.76 - 5.40

Standard Deviation:
0.51

Fitted Curve Equation:
T = 4.77(X) - 46.46

R^2:
0.93

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 1135 (Total), 568 (Entry), 567 (Exit)
Fitted Curve: 1146 (Total), 573 (Entry), 573 (Exit)

Graph Look Up

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
221

LAND USE GROUP:
(200-299) Residential

LAND USE :
221 - Multifamily Housing (Mid-Rise)

LAND USE SUBCATEGORY:
Not Close to Rail Transit

SETTING/LOCATION:
General Urban/Suburban

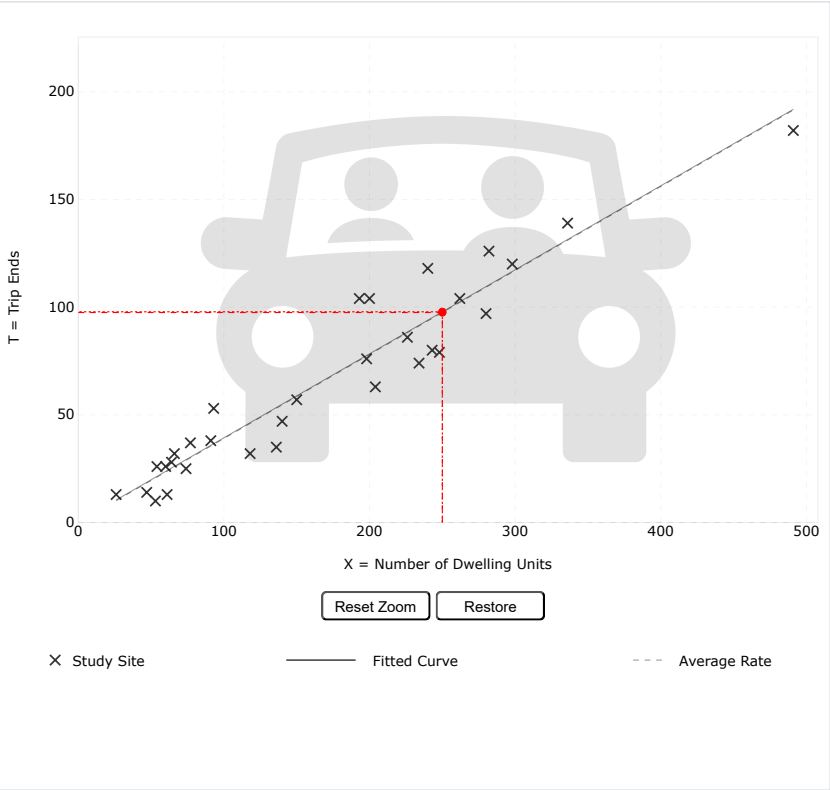
INDEPENDENT VARIABLE (IV):
Dwelling Units

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
250 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (221) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
31

Avg. Num. of Dwelling Units:
169

Average Rate:
0.39

Range of Rates:
0.19 - 0.57

Standard Deviation:
0.08

Fitted Curve Equation:
T = 0.39(X) + 0.34

R^2:
0.91

Directional Distribution:
61% entering, 39% exiting

Calculated Trip Ends:
Average Rate: 98 (Total), 59 (Entry), 39 (Exit)
Fitted Curve: 98 (Total), 60 (Entry), 38 (Exit)

Graph Look Up

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
822

LAND USE GROUP:
(800-899) Retail

LAND USE :
822 - Strip Retail Plaza (<40k)

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GLA

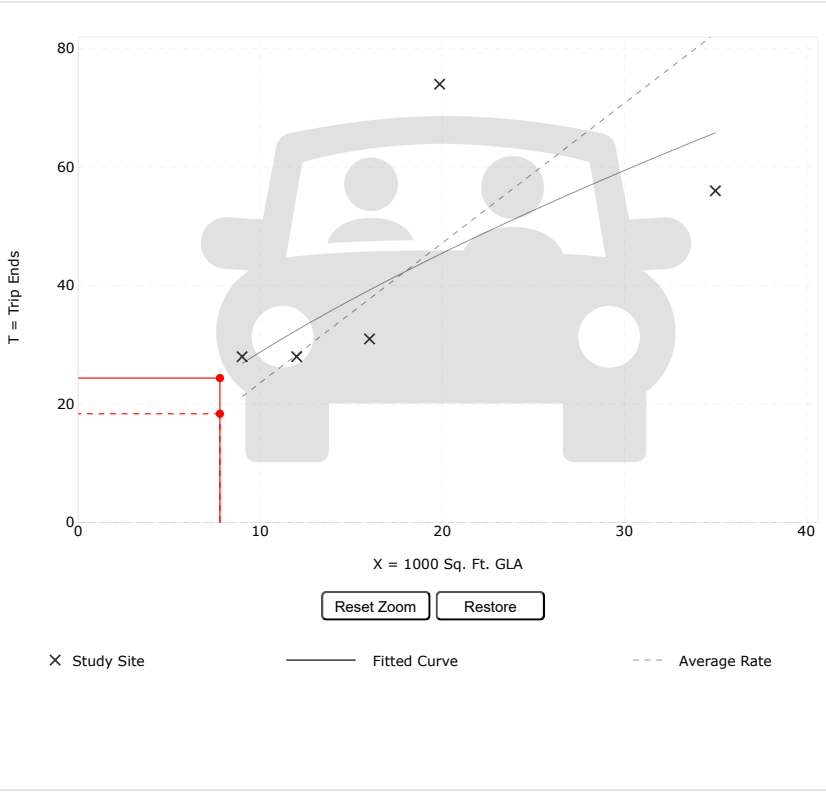
TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
7.78 Calculate

Data Plot and Equation

Caution – Small Sample Size



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Strip Retail Plaza (<40k) (822) Click for Description and Data Plots

Independent Variable:
1000 Sq. Ft. GLA

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
5

Avg. 1000 Sq. Ft. GLA:
18

Average Rate:
2.36

Range of Rates:
1.60 - 3.73

Standard Deviation:
0.94

Fitted Curve Equation:
Ln(T) = 0.66 Ln(X) + 1.84

R^2:
0.57

Directional Distribution:
60% entering, 40% exiting

Calculated Trip Ends:
Average Rate: 18 (Total), 11 (Entry), 7 (Exit)
Fitted Curve: 24 (Total), 15 (Entry), 9 (Exit)

Graph Look Up

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
822

LAND USE GROUP:
(800-899) Retail

LAND USE :
822 - Strip Retail Plaza (<40k)

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GLA

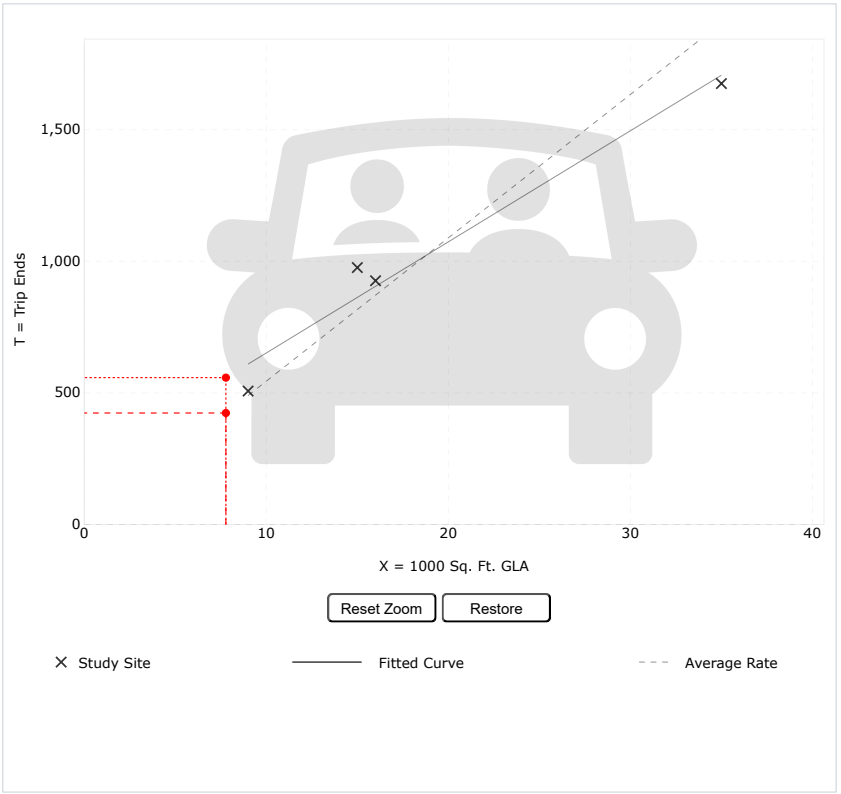
TIME PERIOD:
Weekday

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
7.78 Calculate

Data Plot and Equation

Caution – Small Sample Size



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Strip Retail Plaza (<40k) (822) Click for Description and Data Plots

Independent Variable:
1000 Sq. Ft. GLA

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
4

Avg. 1000 Sq. Ft. GLA:
19

Average Rate:
54.45

Range of Rates:
47.86 - 65.07

Standard Deviation:
7.81

Fitted Curve Equation:
T = 42.20(X) + 229.68

R^2:
0.96

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 424 (Total), 212 (Entry), 212 (Exit)
Fitted Curve: 558 (Total), 279 (Entry), 279 (Exit)

Graph Look Up

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
822

LAND USE GROUP:
(800-899) Retail

LAND USE :
822 - Strip Retail Plaza (<40k)

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

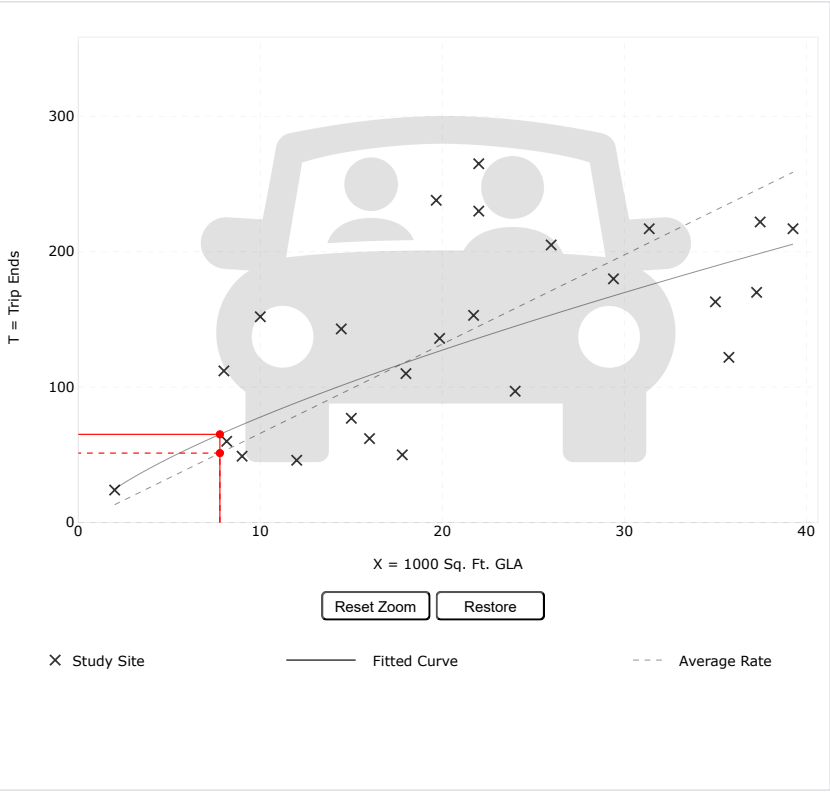
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GLA

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
7.78 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Strip Retail Plaza (<40k) (822) Click for Description and Data Plots

Independent Variable:
1000 Sq. Ft. GLA

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
25

Avg. 1000 Sq. Ft. GLA:
21

Average Rate:
6.59

Range of Rates:
2.81 - 15.20

Standard Deviation:
2.94

Fitted Curve Equation:
Ln(T) = 0.71 Ln(X) + 2.72

R^2:
0.56

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 51 (Total), 26 (Entry), 25 (Exit)
Fitted Curve: 65 (Total), 33 (Entry), 32 (Exit)

Graph Look Up

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
932

LAND USE GROUP:
(900-999) Services

LAND USE :
932 - High-Turnover (Sit-Down) Restaurant

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

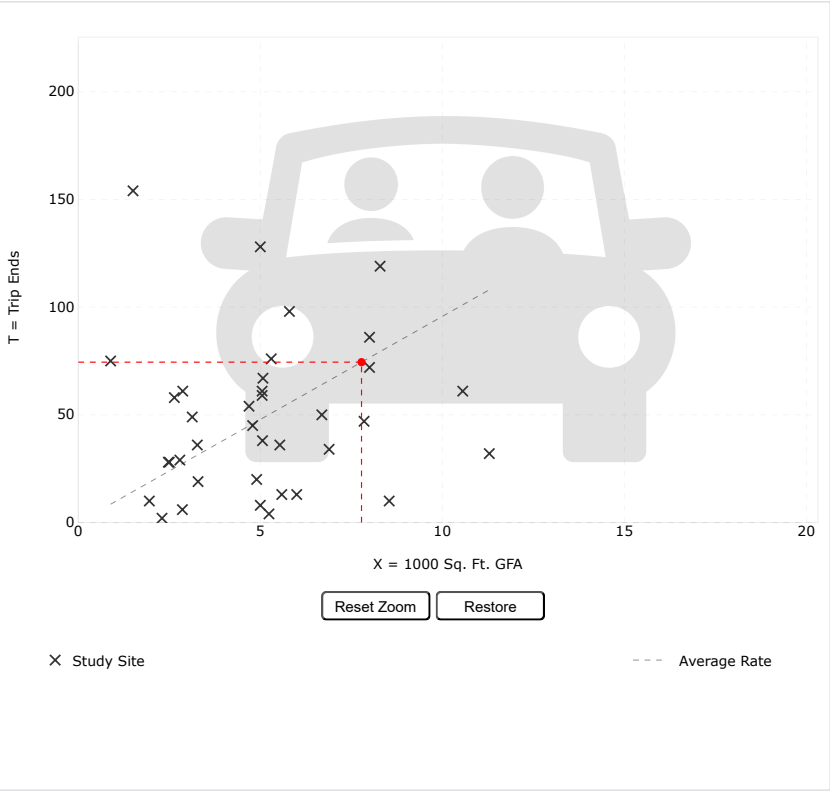
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
7.78 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
High-Turnover (Sit-Down) Restaurant (932) Click for Description and Data Plots

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
37

Avg. 1000 Sq. Ft. GFA:
5

Average Rate:
9.57

Range of Rates:
0.76 - 102.39

Standard Deviation:
11.61

Fitted Curve Equation:
Not Given

R^2:
****

Directional Distribution:
55% entering, 45% exiting

Calculated Trip Ends:
Average Rate: 74 (Total), 41 (Entry), 33 (Exit)

Graph Look Up

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
932

LAND USE GROUP:
(900-999) Services

LAND USE :
932 - High-Turnover (Sit-Down) Restaurant

LAND USE SUBCATEGORY: 932 - High-Turnover (Sit-Down) Restaurant
All Sites

SETTING/LOCATION:
General Urban/Suburban

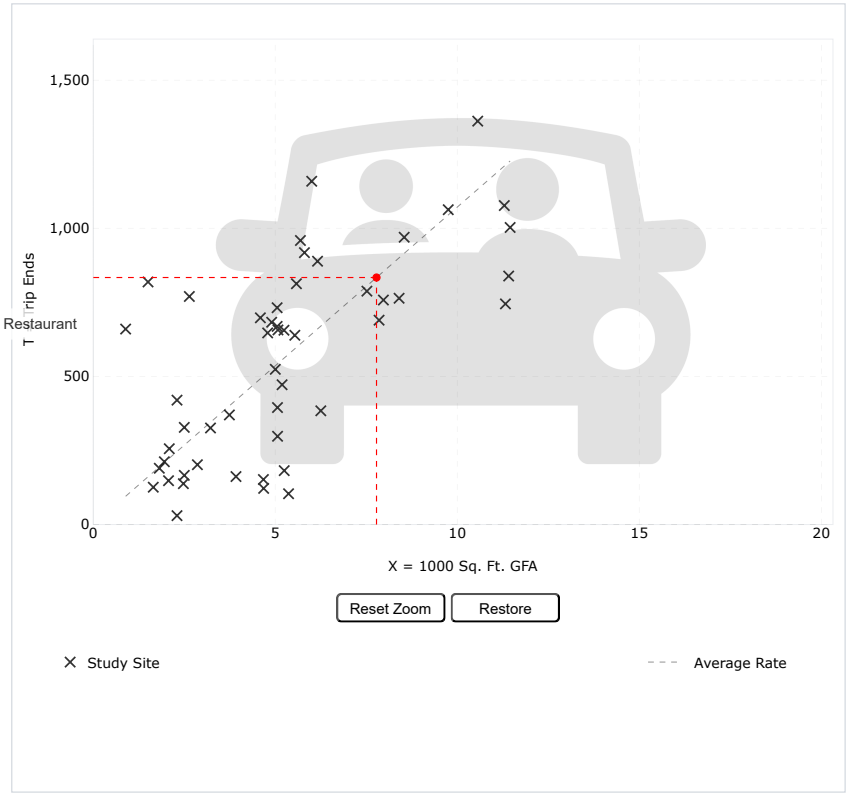
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
7.78 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
High-Turnover (Sit-Down) Restaurant (932) Click for Description and Data Plots

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
50

Avg. 1000 Sq. Ft. GFA:
5

Average Rate:
107.20

Range of Rates:
13.04 - 742.41

Standard Deviation:
66.72

Fitted Curve Equation:
Not Given

R^2:
****

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 834 (Total), 417 (Entry), 417 (Exit)

Graph Look Up

Query Filter

DATA SOURCE:
Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:
932

LAND USE GROUP:
(900-999) Services

LAND USE :
932 - High-Turnover (Sit-Down) Restaurant

LAND USE SUBCATEGORY:
All Sites

SETTING/LOCATION:
General Urban/Suburban

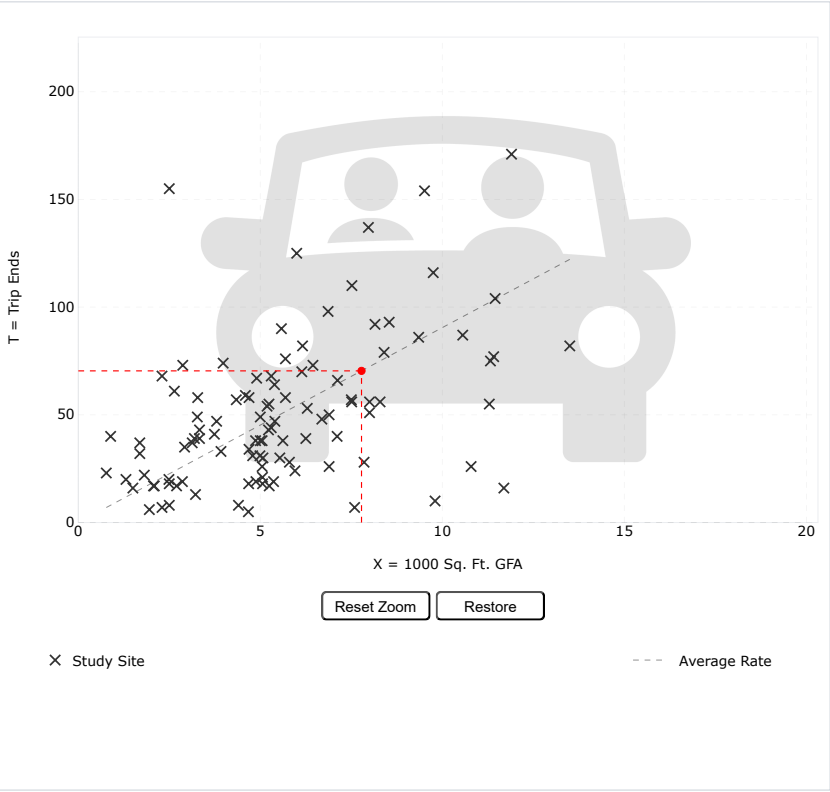
INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:
7.78 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
High-Turnover (Sit-Down) Restaurant (932) Click for Description and Data Plots

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
104

Avg. 1000 Sq. Ft. GFA:
6

Average Rate:
9.05

Range of Rates:
0.92 - 62.00

Standard Deviation:
6.18

Fitted Curve Equation:
Not Given

R^2:
****

Directional Distribution:
61% entering, 39% exiting

Calculated Trip Ends:
Average Rate: 70 (Total), 43 (Entry), 27 (Exit)

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	10-50 Main St.	**Organization:**	VAI
Project Location:	Ashland, MA	**Performed By:**	ZAB
Scenario Description:		**Date:**	7/25/2024
Analysis Year:	2024	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822/932	15,565 sf		92	52	40
Restaurant				0		
Cinema/Entertainment				0		
Residential	221		250	98	23	75
Hotel				0		
All Other Land Uses[2]				0		
				190	75	115

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	190	75	115
Internal Capture Percentage	1%	1%	1%
External Vehicle-Trips[5]	188	74	114
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	2%	0%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	1%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	10-50 Main St.
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	52	52	1.00	40	40
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	23	23	1.00	75	75
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	12		5	0	6	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	15	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		17	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	4		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	9	0	0		0
Hotel	0	2	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	51	52	51	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	23	23	23	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	40	40	40	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	74	75	74	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	10-50 Main St.	**Organization:**	VAI
Project Location:	Ashland, MA	**Performed By:**	ZAB
Scenario Description:		**Date:**	7/25/2024
Analysis Year:	2024	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822/932	15,565 sf		135	76	59
Restaurant				0		
Cinema/Entertainment				0		
Residential	221		250	98	60	38
Hotel				0		
All Other Land Uses[2]				0		
				233	136	97

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	15	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	8	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	233	136	97
Internal Capture Percentage	20%	17%	24%
External Vehicle-Trips[5]	187	113	74
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	11%	25%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	25%	21%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	10-50 Main St.
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	76	76	1.00	59	59
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	60	60	1.00	38	38
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		17	2	15	3
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	16	8	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		6	0	0	2	0
Retail	0		0	0	28	0
Restaurant	0	38		0	10	0
Cinema/Entertainment	0	3	0		2	0
Residential	0	8	0	0		0
Hotel	0	2	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	8	68	76	68	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	15	45	60	45	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	15	44	59	44	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	8	30	38	30	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Proposed Mixed-Use Development - Ashland, MA

Analyst: ZAB
Date: 7/25/2024

Job No. 9837
Time Period: Weekday Daily

Land Use A	**Residential**		
ITE LUC	221		
Size	250	Units	
	Total	Internal	External
Enter	568	69	499
Exit	568	57	511
Total	1136	126	1010

A to B

% Demand	Trips	Balanced
38%	215.84	57
% Demand	Trips	
9%	56.61	

B to A

% Demand	Trips	Balanced
33%	187.44	69
% Demand	Trips	
11%	69.19	

A to C

% Demand	Trips	Balanced
11%	62.48	0
% Demand	Trips	
33%	0	

C to A

% Demand	Trips	Balanced
9%	51.12	0
% Demand	Trips	
38%	0	

B to C

% Demand	Trips	Balanced
11%	69.19	0
% Demand	Trips	
33%	0	

Land Use B	**Retail**		
ITE LUC	822/932		
Size	15.57	ksf	
		Internal	External
Enter	629	57	572
Exit	629	69	560
Total	1258	126	1132

C to B

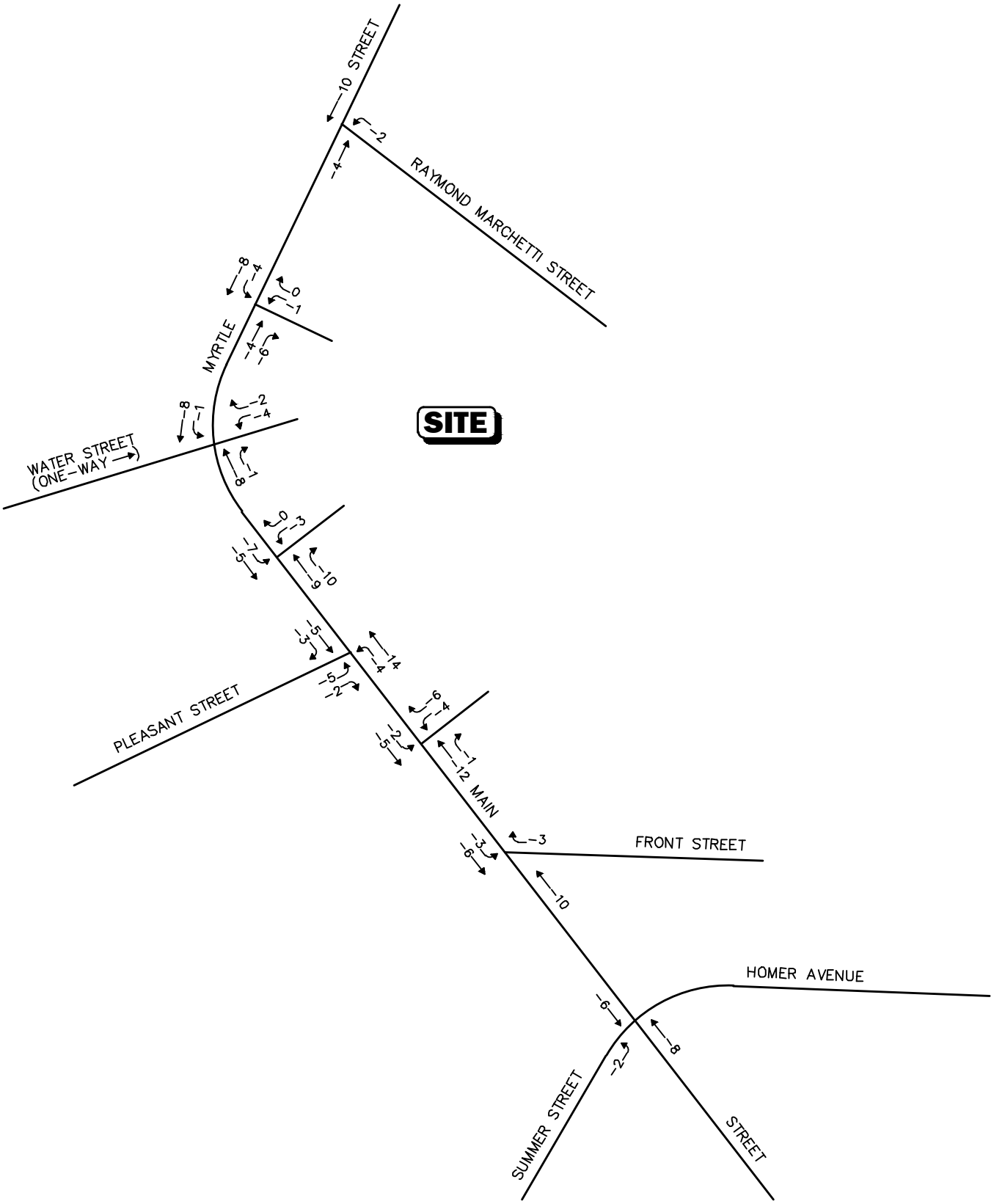
% Demand	Trips	Balanced
38%	0	0
% Demand	Trips	
9%	56.61	

Land Use C			
ITE LUC			
Size			
	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	
Enter	499	572	0	1071	
Exit	511	560	0	1071	
Total	1010	1132	0	2142	Internal Capture Rate
Single-Use Trip Gen Est.	1136	1258	0	2394	11%

* from ITE Trip Generation Handbook, 9th Edition, 2012.

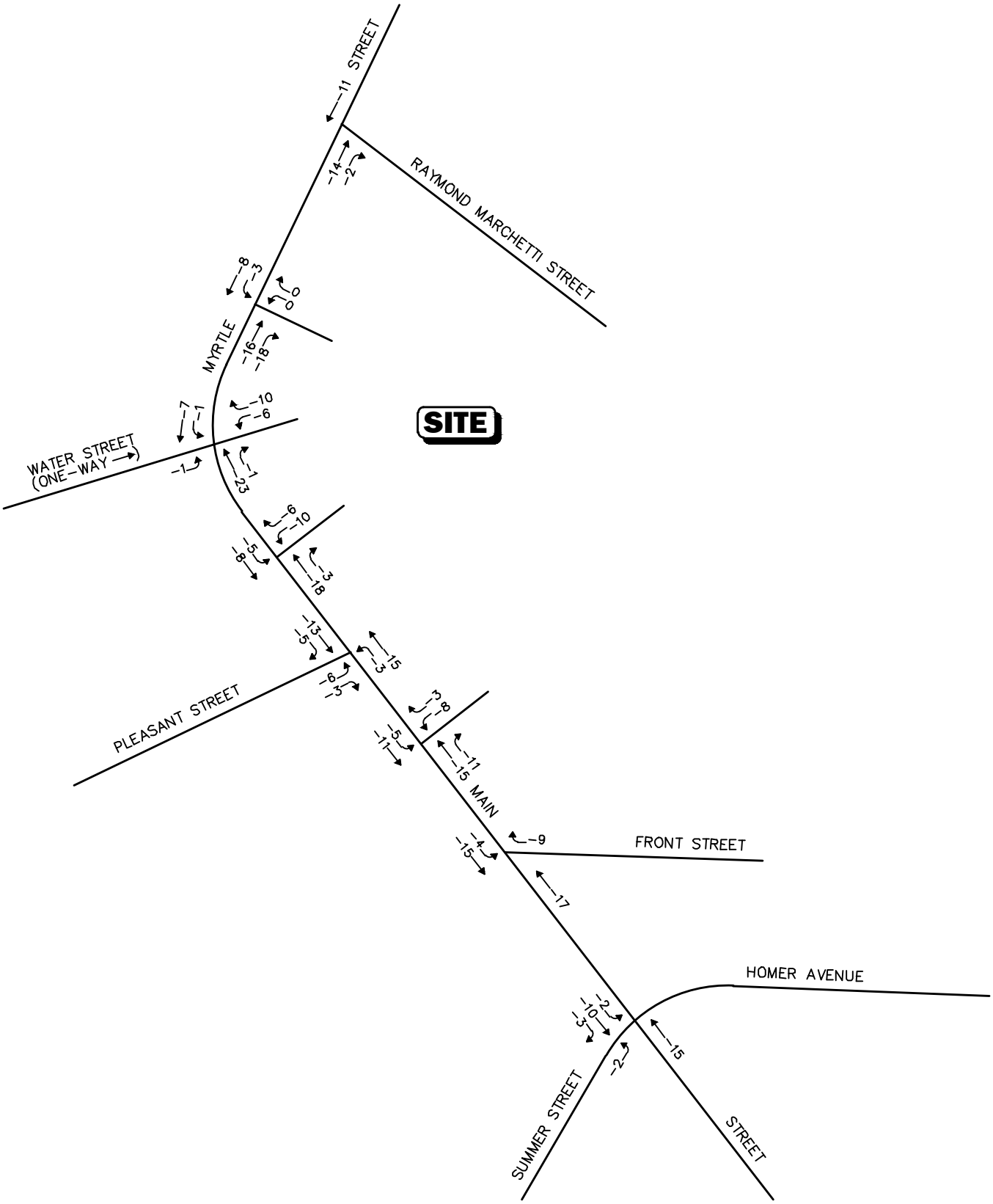


Not To Scale

Figure A-3

Weekday Morning
Existing Use Traffic Reductions

Vanasse & Associates inc



Not To Scale

Figure A-4

Weekday Evening
Existing Use Traffic Reductions

Vanasse & Associates inc

CAPACITY ANALYSIS WORKSHEETS

2024 Existing
2031 No-Build
2031 Build
2031 Build (Mitigated)

2024 Existing

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	26	297	40	17	204
Future Vol, veh/h	36	26	297	40	17	204
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	81	81	85	85
Heavy Vehicles, %	3	8	0	5	0	1
Mvmt Flow	42	30	367	49	20	240

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	671	391	0	0	416	0
Stage 1	391	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.43	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	420	644	-	-	1154	-
Stage 1	681	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	412	644	-	-	1154	-
Mov Cap-2 Maneuver	412	-	-	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	750	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	13.71	0	0.63
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	485	138	-
HCM Lane V/C Ratio	-	-	0.149	0.017	-
HCM Control Delay (s/veh)	-	-	13.7	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	341	6	4	241
Future Vol, veh/h	1	0	341	6	4	241
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	75	75	88	88
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	4	0	455	8	5	274

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	742	459	0	0	463	0
Stage 1	459	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	386	607	-	-	1109	-
Stage 1	641	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	384	607	-	-	1109	-
Mov Cap-2 Maneuver	384	-	-	-	-	-
Stage 1	641	-	-	-	-	-
Stage 2	766	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	14.46	0	0.13
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	384	29	-
HCM Lane V/C Ratio	-	-	0.01	0.004	-
HCM Control Delay (s/veh)	-	-	14.5	8.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	2	12	4	0	2	0	309	1	1	241	0
Future Vol, veh/h	36	2	12	4	0	2	0	309	1	1	241	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	50	50	50	76	76	76	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	43	2	14	8	0	4	0	407	1	1	274	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	683	684	274	685	683	407	-	0	0	408	0	0
Stage 1	276	276	-	407	407	-	-	-	-	-	-	-
Stage 2	407	408	-	277	276	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	-	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	366	374	770	365	374	648	0	-	-	1162	-	0
Stage 1	735	685	-	625	601	-	0	-	-	-	-	0
Stage 2	625	600	-	733	685	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	363	373	770	356	374	648	-	-	-	1162	-	-
Mov Cap-2 Maneuver	363	373	-	356	374	-	-	-	-	-	-	-
Stage 1	734	685	-	625	601	-	-	-	-	-	-	-
Stage 2	621	600	-	716	685	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	15.09	13.86	0	0.03
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	417	419	7	-
HCM Lane V/C Ratio	-	-	0.145	0.029	0.001	-
HCM Control Delay (s/veh)	-	-	15.1	13.9	8.1	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	0	-

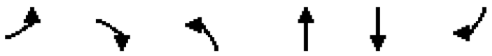
Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	0	310	10	7	250
Future Vol, veh/h	3	0	310	10	7	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	71	71	93	93
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	12	0	437	14	8	269

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	728	444	0	0	451	0
Stage 1	444	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	394	618	-	-	1120	-
Stage 1	651	-	-	-	-	-
Stage 2	769	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	391	618	-	-	1120	-
Mov Cap-2 Maneuver	391	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	763	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	14.51	0	0.22
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	391	49	-
HCM Lane V/C Ratio	-	-	0.031	0.007	-
HCM Control Delay (s/veh)	-	-	14.5	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

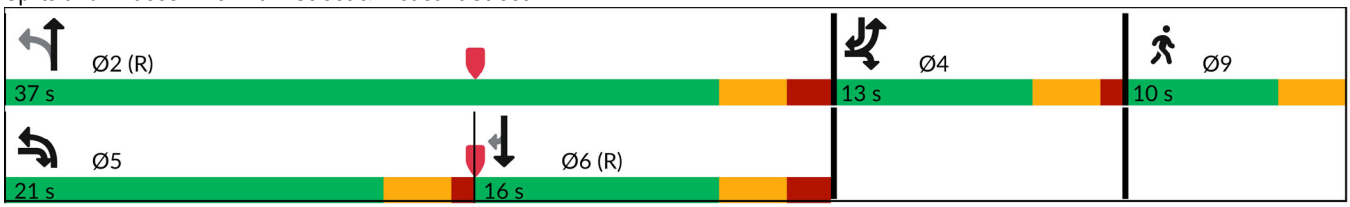


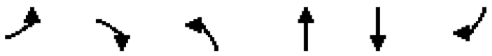
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	107	550	481	213	154	99	
Future Volume (vph)	107	550	481	213	154	99	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850				0.850	
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1728	1568	1770	1818	1756	1478	
Flt Permitted	0.950		0.545				
Satd. Flow (perm)	1728	1568	1015	1818	1756	1478	
Satd. Flow (RTOR)		604				106	
Adj. Flow (vph)	118	604	534	237	166	106	
Lane Group Flow (vph)	118	604	534	237	166	106	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	4	4 5	5	2	6	4	9
Permitted Phases			2			6	
Detector Phase	4	4 5	5	2	6	4	
Switch Phase							
Minimum Initial (s)	4.0		6.0	5.0	6.0	4.0	5.0
Minimum Split (s)	8.0		10.0	10.0	11.0	8.0	10.0
Total Split (s)	13.0		21.0	37.0	16.0	13.0	10.0
Total Split (%)	21.7%		35.0%	61.7%	26.7%	21.7%	17%
Maximum Green (s)	9.0		17.0	32.0	11.0	9.0	7.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	2.0	2.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0	-1.0	-1.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
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		None	C-Min	C-Min	None	None
Walk Time (s)							6.0
Flash Don't Walk (s)							1.0
Pedestrian Calls (#/hr)							2
v/c Ratio	0.50	0.60	0.60	0.19	0.24	0.11	
Control Delay (s/veh)	31.7	3.4	6.2	2.6	16.5	2.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	31.7	3.4	6.2	2.6	16.5	2.8	
Queue Length 50th (ft)	40	0	13	6	39	0	
Queue Length 95th (ft)	83	25	183	41	104	23	
Internal Link Dist (ft)	549			58	64		
Turn Bay Length (ft)		70	60			70	
Base Capacity (vph)	259	1047	922	1268	696	947	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.46	0.58	0.58	0.19	0.24	0.11	

Intersection Summary
Cycle Length: 60

Actuated Cycle Length: 60
Offset: 17 (28%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: Main Street & Pleasant Street





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	107	550	481	213	154	99
Future Volume (vph)	107	550	481	213	154	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1728	1568	1770	1818	1756	1478
Flt Permitted	0.95	1.00	0.55	1.00	1.00	1.00
Satd. Flow (perm)	1728	1568	1015	1818	1756	1478
Peak-hour factor, PHF	0.91	0.91	0.90	0.90	0.93	0.93
Adj. Flow (vph)	118	604	534	237	166	106
RTOR Reduction (vph)	0	381	0	0	0	56
Lane Group Flow (vph)	118	223	534	237	166	50
Heavy Vehicles (%)	1%	3%	2%	1%	1%	2%
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	4 5	5	2	6	4
Permitted Phases			2			6
Actuated Green, G (s)	8.1	22.2	38.5	38.5	20.4	28.5
Effective Green, g (s)	8.1	22.2	38.5	39.5	21.4	28.5
Actuated g/C Ratio	0.13	0.37	0.64	0.66	0.36	0.48
Clearance Time (s)	4.0		4.0	5.0	5.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	233	580	828	1196	626	702
v/s Ratio Prot	c0.07	0.14	c0.15	0.13	0.09	0.01
v/s Ratio Perm			c0.26			0.02
v/c Ratio	0.51	0.39	0.64	0.20	0.27	0.07
Uniform Delay, d1	24.1	13.9	5.8	4.0	13.7	8.6
Progression Factor	1.00	1.00	0.65	0.54	1.00	1.00
Incremental Delay, d2	1.7	0.4	1.5	0.3	1.0	0.0
Delay (s)	25.8	14.3	5.3	2.5	14.7	8.6
Level of Service	C	B	A	A	B	A
Approach Delay (s/veh)	16.2			4.4	12.4	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	6	688	1	2	702
Future Vol, veh/h	4	6	688	1	2	702
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	91	91	87	87
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	8	12	756	1	2	807

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1568	757	0	0	757	0
Stage 1	757	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	123	411	-	-	863	-
Stage 1	467	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	123	411	-	-	863	-
Mov Cap-2 Maneuver	123	-	-	-	-	-
Stage 1	467	-	-	-	-	-
Stage 2	438	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	23.74	0	0.03
HCM LOS	C		

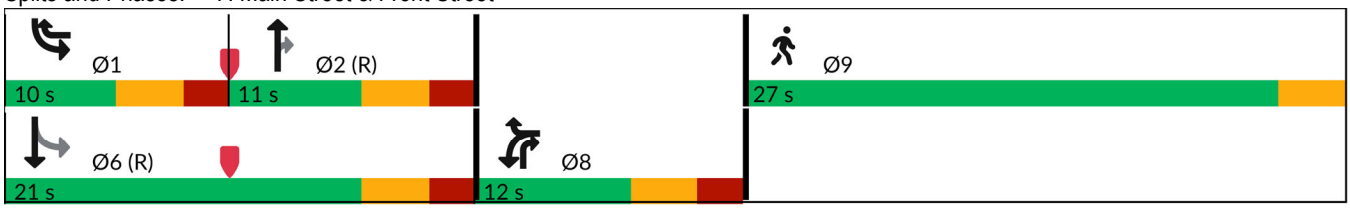
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	212	5	-
HCM Lane V/C Ratio	-	-	0.094	0.003	-
HCM Control Delay (s/veh)	-	-	23.7	9.2	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø9
Lane Configurations							
Traffic Volume (vph)	64	181	508	110	255	451	
Future Volume (vph)	64	181	508	110	255	451	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1711	1583	1818	1531	1787	1818	
Flt Permitted	0.950				0.306		
Satd. Flow (perm)	1711	1583	1818	1531	576	1818	
Satd. Flow (RTOR)		232		107			
Adj. Flow (vph)	82	232	577	125	280	496	
Lane Group Flow (vph)	82	232	577	125	280	496	
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA	
Protected Phases	8	8 1	2	8	1	6	9
Permitted Phases				2	6		
Detector Phase	8	8 1	2	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0		10.0	10.0	10.0	10.0	27.0
Total Split (s)	12.0		11.0	12.0	10.0	21.0	27.0
Total Split (%)	20.0%		18.3%	20.0%	16.7%	35.0%	45%
Maximum Green (s)	7.0		6.0	7.0	5.0	16.0	24.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	None	None	C-Min	None
Walk Time (s)							7.0
Flash Don't Walk (s)							17.0
Pedestrian Calls (#/hr)							0
v/c Ratio	0.37	0.38	0.56	0.10	0.51	0.37	
Control Delay (s/veh)	29.1	4.9	11.8	0.9	5.7	3.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	29.1	4.9	11.8	0.9	5.7	3.6	
Queue Length 50th (ft)	28	0	108	0	18	35	
Queue Length 95th (ft)	54	27	m241	m7	37	67	
Internal Link Dist (ft)	1068		403			431	
Turn Bay Length (ft)		55		115	110		
Base Capacity (vph)	228	592	1039	1205	546	1342	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.36	0.39	0.56	0.10	0.51	0.37	

Intersection Summary
Cycle Length: 60

Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

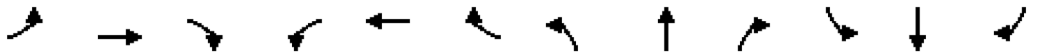
Splits and Phases: 7: Main Street & Front Street



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	64	181	508	110	255	451
Future Volume (vph)	64	181	508	110	255	451
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	12	11
Total Lost time (s)	4.0	5.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1711	1583	1818	1531	1787	1818
Flt Permitted	0.95	1.00	1.00	1.00	0.31	1.00
Satd. Flow (perm)	1711	1583	1818	1531	575	1818
Peak-hour factor, PHF	0.78	0.78	0.88	0.88	0.91	0.91
Adj. Flow (vph)	82	232	577	125	280	496
RTOR Reduction (vph)	0	167	0	32	0	0
Lane Group Flow (vph)	82	65	577	93	280	496
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	8 1	2	8	1	6
Permitted Phases				2	6	
Actuated Green, G (s)	6.7	16.7	33.3	40.0	43.3	43.3
Effective Green, g (s)	7.7	16.7	34.3	42.0	44.3	44.3
Actuated g/C Ratio	0.13	0.28	0.57	0.70	0.74	0.74
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	219	440	1039	1173	545	1342
v/s Ratio Prot	c0.05	0.04	c0.32	0.01	c0.05	0.27
v/s Ratio Perm				0.05	0.33	
v/c Ratio	0.37	0.15	0.56	0.08	0.51	0.37
Uniform Delay, d1	23.9	16.3	8.1	2.9	4.3	2.8
Progression Factor	1.00	1.00	1.15	1.26	1.03	0.97
Incremental Delay, d2	1.1	0.2	1.9	0.0	0.7	0.7
Delay (s)	25.0	16.4	11.1	3.6	5.2	3.4
Level of Service	C	B	B	A	A	A
Approach Delay (s/veh)	18.7		9.8			4.1
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	33	33	2	16	84	8	405	4	78	359	78
Future Volume (vph)	129	33	33	2	16	84	8	405	4	78	359	78
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		0.977				0.850		0.999				0.850
Flt Protected		0.968			0.994			0.999			0.991	
Satd. Flow (prot)	0	1703	0	0	1826	1546	0	1860	0	0	1852	1652
Flt Permitted		0.787			0.963			0.992			0.869	
Satd. Flow (perm)	0	1385	0	0	1769	1546	0	1847	0	0	1624	1652
Satd. Flow (RTOR)		14				200		1				127
Adj. Flow (vph)	155	40	40	3	21	109	8	418	4	82	378	82
Lane Group Flow (vph)	0	235	0	0	24	109	0	430	0	0	460	82
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	10.0	10.0		3.0	10.0	10.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	15.0	15.0		7.0	15.0	15.0
Total Split (s)	13.0	13.0		13.0	13.0	13.0	16.0	16.0		7.0	23.0	23.0
Total Split (%)	21.7%	21.7%		21.7%	21.7%	21.7%	26.7%	26.7%		11.7%	38.3%	38.3%
Maximum Green (s)	8.0	8.0		8.0	8.0	8.0	11.0	11.0		3.0	18.0	18.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		-1.0			-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Min	C-Min		None	C-Min	C-Min
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.07			0.09	0.27		0.36			0.44	0.07
Control Delay (s/veh)		110.8			23.0	2.2		8.7			9.4	1.1
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)		110.8			23.0	2.2		8.7			9.4	1.1
Queue Length 50th (ft)		~93			8	0		43			22	0
Queue Length 95th (ft)		#191			21	0		217			#292	5
Internal Link Dist (ft)		399			672			569			403	
Turn Bay Length (ft)						65						65
Base Capacity (vph)		219			265	401		1188			1044	1107
Starvation Cap Reductn		0			0	0		0			0	0
Spillback Cap Reductn		0			0	0		0			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		1.07			0.09	0.27		0.36			0.44	0.07

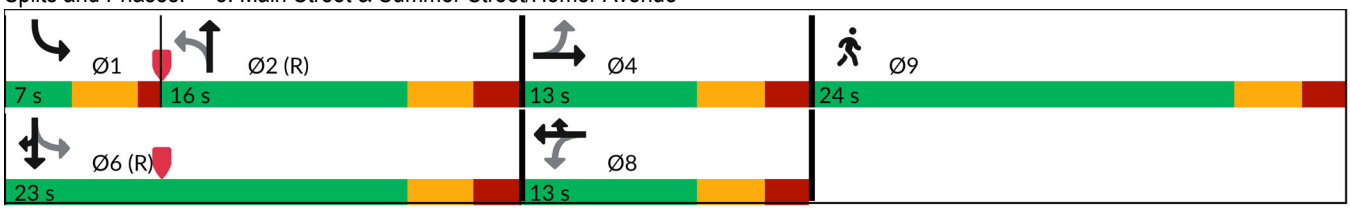
Intersection Summary
Cycle Length: 60

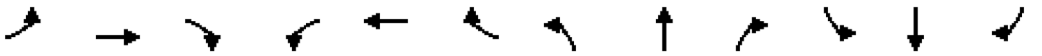
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.0
Total Split (s)	24.0
Total Split (%)	40%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	10.0
Pedestrian Calls (#/hr)	1
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Actuated Cycle Length: 60
Offset: 58 (97%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Main Street & Summer Street/Homer Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	33	33	2	16	84	8	405	4	78	359	78
Future Volume (vph)	129	33	33	2	16	84	8	405	4	78	359	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	11	12	12	12	12	12	13
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	1.00
Frt		0.98			1.00	0.85		1.00			1.00	0.85
Flt Protected		0.97			0.99	1.00		1.00			0.99	1.00
Satd. Flow (prot)		1703			1825	1546		1860			1853	1652
Flt Permitted		0.79			0.96	1.00		0.99			0.87	1.00
Satd. Flow (perm)		1384			1769	1546		1847			1624	1652
Peak-hour factor, PHF	0.83	0.83	0.83	0.77	0.77	0.77	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	155	40	40	3	21	109	8	418	4	82	378	82
RTOR Reduction (vph)	0	12	0	0	0	93	0	0	0	0	0	35
Lane Group Flow (vph)	0	223	0	0	24	16	0	430	0	0	460	47
Heavy Vehicles (%)	3%	0%	0%	0%	0%	1%	0%	2%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.0			8.0	8.0		33.6			33.6	33.6
Effective Green, g (s)		9.0			9.0	9.0		34.6			34.6	34.6
Actuated g/C Ratio		0.15			0.15	0.15		0.58			0.58	0.58
Clearance Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)		207			265	231		1065			936	952
v/s Ratio Prot						0.01						0.03
v/s Ratio Perm		c0.16			0.01			0.23			c0.28	
v/c Ratio		1.08			0.09	0.07		0.40			0.49	0.05
Uniform Delay, d1		25.5			22.0	21.9		7.0			7.5	5.5
Progression Factor		1.00			1.00	1.00		1.00			0.75	0.69
Incremental Delay, d2		84.8			0.1	0.1		1.1			0.4	0.1
Delay (s)		110.3			22.1	22.0		8.1			6.0	3.9
Level of Service		F			C	C		A			A	A
Approach Delay (s/veh)		110.3			22.1			8.1			5.7	
Approach LOS		F			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	18	228	24	31	404
Future Vol, veh/h	21	18	228	24	31	404
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	97	97	96	96
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	26	22	235	25	32	421

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	733	247	0	0	260	0
Stage 1	247	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	391	796	-	-	1316	-
Stage 1	798	-	-	-	-	-
Stage 2	623	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	378	796	-	-	1316	-
Mov Cap-2 Maneuver	378	-	-	-	-	-
Stage 1	798	-	-	-	-	-
Stage 2	603	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	12.98	0	0.56
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	499	128	-
HCM Lane V/C Ratio	-	-	0.096	0.025	-
HCM Control Delay (s/veh)	-	-	13	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	282	18	3	433
Future Vol, veh/h	0	0	282	18	3	433
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	0	0	297	19	3	456

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	768	306	0	0	316	0
Stage 1	306	-	-	-	-	-
Stage 2	462	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	372	738	-	-	1256	-
Stage 1	751	-	-	-	-	-
Stage 2	638	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	371	738	-	-	1256	-
Mov Cap-2 Maneuver	371	-	-	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	636	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0.05
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	12	-
HCM Lane V/C Ratio	-	-	-	0.003	-
HCM Control Delay (s/veh)	-	-	0	7.9	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	1	6	0	10	0	272	1	1	432	0
Future Vol, veh/h	18	0	1	6	0	10	0	272	1	1	432	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	57	57	57	98	98	98	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	26	0	1	11	0	18	0	278	1	1	455	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	734	735	455	735	735	278	-	0	0	279	0	0
Stage 1	457	457	-	278	278	-	-	-	-	-	-	-
Stage 2	278	279	-	457	457	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	-	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	338	349	610	338	349	766	0	-	-	1296	-	0
Stage 1	587	571	-	733	684	-	0	-	-	-	-	0
Stage 2	733	684	-	587	571	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	330	349	610	337	349	766	-	-	-	1296	-	-
Mov Cap-2 Maneuver	330	349	-	337	349	-	-	-	-	-	-	-
Stage 1	587	570	-	733	684	-	-	-	-	-	-	-
Stage 2	716	684	-	585	570	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	16.6	12.35	0	0.02
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	338	518	4	-
HCM Lane V/C Ratio	-	-	0.083	0.054	0.001	-
HCM Control Delay (s/veh)	-	-	16.6	12.3	7.8	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2	0	-

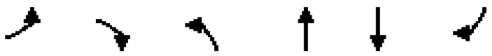
Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	6	267	3	5	434
Future Vol, veh/h	10	6	267	3	5	434
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	98	98	94	94
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	15	9	272	3	5	462

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	746	274	0	0	276	0
Stage 1	274	-	-	-	-	-
Stage 2	472	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	384	770	-	-	1299	-
Stage 1	777	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	382	770	-	-	1299	-
Mov Cap-2 Maneuver	382	-	-	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	13.06	0	0.09
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	471	21	-
HCM Lane V/C Ratio	-	-	0.051	0.004	-
HCM Control Delay (s/veh)	-	-	13.1	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

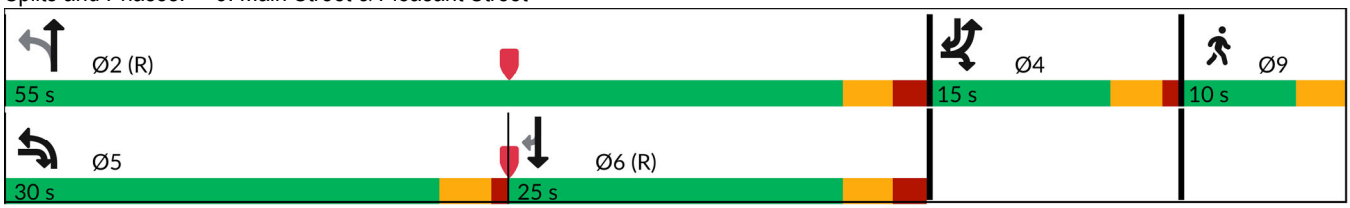


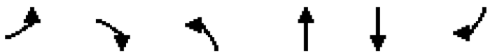
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	88	455	538	182	304	140	
Future Volume (vph)	88	455	538	182	304	140	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850				0.850	
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1711	1583	1770	1837	1773	1507	
Flt Permitted	0.950		0.409				
Satd. Flow (perm)	1711	1583	762	1837	1773	1507	
Satd. Flow (RTOR)		439				143	
Adj. Flow (vph)	93	479	578	196	330	152	
Lane Group Flow (vph)	93	479	578	196	330	152	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	4	4 5	5	2	6	4	9
Permitted Phases			2			6	
Detector Phase	4	4 5	5	2	6	4	
Switch Phase							
Minimum Initial (s)	4.0		6.0	5.0	6.0	4.0	1.0
Minimum Split (s)	8.0		10.0	10.0	11.0	8.0	10.0
Total Split (s)	15.0		30.0	55.0	25.0	15.0	10.0
Total Split (%)	18.8%		37.5%	68.8%	31.3%	18.8%	13%
Maximum Green (s)	11.0		26.0	50.0	20.0	11.0	7.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	2.0	2.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0	-1.0	-1.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
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		None	C-Min	C-Min	None	None
Walk Time (s)							6.0
Flash Don't Walk (s)							1.0
Pedestrian Calls (#/hr)							4
v/c Ratio	0.47	0.53	0.70	0.14	0.40	0.15	
Control Delay (s/veh)	40.4	3.8	14.6	1.9	20.1	2.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	40.4	3.8	14.6	1.9	20.1	2.9	
Queue Length 50th (ft)	43	11	29	9	107	2	
Queue Length 95th (ft)	87	39	271	23	#249	33	
Internal Link Dist (ft)	549			58	64		
Turn Bay Length (ft)		70	60			70	
Base Capacity (vph)	235	976	905	1393	820	1029	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.40	0.49	0.64	0.14	0.40	0.15	

Intersection Summary
Cycle Length: 80

Actuated Cycle Length: 80
Offset: 17 (21%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Main Street & Pleasant Street





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	88	455	538	182	304	140
Future Volume (vph)	88	455	538	182	304	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1711	1583	1770	1837	1773	1507
Flt Permitted	0.95	1.00	0.41	1.00	1.00	1.00
Satd. Flow (perm)	1711	1583	762	1837	1773	1507
Peak-hour factor, PHF	0.95	0.95	0.93	0.93	0.92	0.92
Adj. Flow (vph)	93	479	578	196	330	152
RTOR Reduction (vph)	0	280	0	0	0	66
Lane Group Flow (vph)	93	199	578	196	330	86
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	4 5	5	2	6	4
Permitted Phases			2			6
Actuated Green, G (s)	9.3	29.0	57.3	57.3	33.6	42.9
Effective Green, g (s)	9.3	29.0	57.3	58.3	34.6	42.9
Actuated g/C Ratio	0.12	0.36	0.72	0.73	0.43	0.54
Clearance Time (s)	4.0		4.0	5.0	5.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	573	794	1338	766	808
v/s Ratio Prot	c0.05	0.13	c0.18	0.11	0.19	0.01
v/s Ratio Perm			c0.34			0.04
v/c Ratio	0.47	0.35	0.73	0.15	0.43	0.11
Uniform Delay, d1	33.0	18.6	6.2	3.3	15.8	9.1
Progression Factor	1.00	1.00	2.13	0.49	1.00	1.00
Incremental Delay, d2	1.8	0.4	3.0	0.2	1.8	0.1
Delay (s)	34.8	19.0	16.3	1.8	17.6	9.2
Level of Service	C	B	B	A	B	A
Approach Delay (s/veh)	21.5			12.6	14.9	
Approach LOS	C			B	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	3	717	11	5	754
Future Vol, veh/h	8	3	717	11	5	754
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	34	34	96	96	94	94
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	24	9	747	11	5	802

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1565	753	0	0	758	0
Stage 1	753	-	-	-	-	-
Stage 2	813	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	124	413	-	-	862	-
Stage 1	469	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	122	413	-	-	862	-
Mov Cap-2 Maneuver	122	-	-	-	-	-
Stage 1	469	-	-	-	-	-
Stage 2	435	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	35.08	0	0.06
HCM LOS	E		

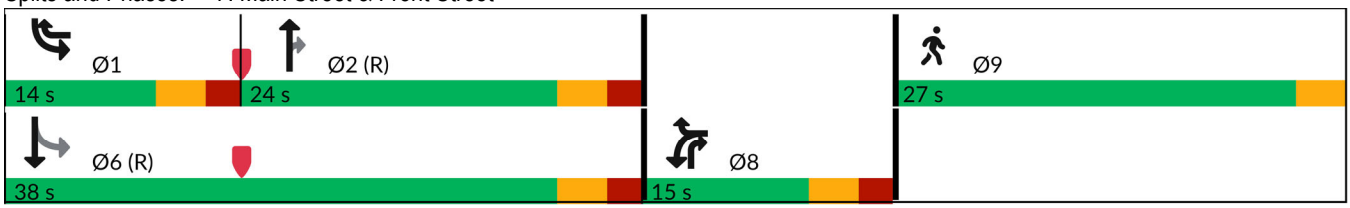
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	152	12	-
HCM Lane V/C Ratio	-	-	0.213	0.006	-
HCM Control Delay (s/veh)	-	-	35.1	9.2	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø9
Lane Configurations							
Traffic Volume (vph)	96	244	484	65	155	607	
Future Volume (vph)	96	244	484	65	155	607	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1745	1615	1818	1561	1787	1818	
Flt Permitted	0.950				0.303		
Satd. Flow (perm)	1745	1615	1818	1561	570	1818	
Satd. Flow (RTOR)		268		60			
Adj. Flow (vph)	105	268	532	71	163	639	
Lane Group Flow (vph)	105	268	532	71	163	639	
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA	
Protected Phases	8	8 1	2	8	1	6	9
Permitted Phases				2	6		
Detector Phase	8	8 1	2	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0		10.0	10.0	10.0	10.0	27.0
Total Split (s)	15.0		24.0	15.0	14.0	38.0	27.0
Total Split (%)	18.8%		30.0%	18.8%	17.5%	47.5%	34%
Maximum Green (s)	10.0		19.0	10.0	9.0	33.0	24.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	None	None	C-Min	None
Walk Time (s)							7.0
Flash Don't Walk (s)							17.0
Pedestrian Calls (#/hr)							2
v/c Ratio	0.49	0.44	0.53	0.06	0.31	0.50	
Control Delay (s/veh)	40.3	4.6	17.3	1.7	10.1	13.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	40.3	4.6	17.3	1.7	10.1	13.4	
Queue Length 50th (ft)	49	0	98	0	29	157	
Queue Length 95th (ft)	97	27	#492	7	118	#476	
Internal Link Dist (ft)	1068		403			431	
Turn Bay Length (ft)		55		115	110		
Base Capacity (vph)	239	621	1003	1170	555	1287	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.44	0.43	0.53	0.06	0.29	0.50	

Intersection Summary
Cycle Length: 80

Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

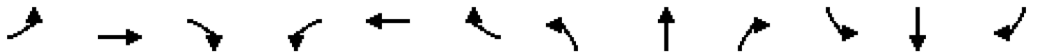
Splits and Phases: 7: Main Street & Front Street



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	96	244	484	65	155	607
Future Volume (vph)	96	244	484	65	155	607
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	12	11
Total Lost time (s)	4.0	5.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1745	1615	1818	1561	1787	1818
Flt Permitted	0.95	1.00	1.00	1.00	0.30	1.00
Satd. Flow (perm)	1745	1615	1818	1561	570	1818
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.95	0.95
Adj. Flow (vph)	105	268	532	71	163	639
RTOR Reduction (vph)	0	213	0	21	0	0
Lane Group Flow (vph)	105	55	532	50	163	639
Heavy Vehicles (%)	0%	0%	1%	0%	1%	1%
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	8 1	2	8	1	6
Permitted Phases				2	6	
Actuated Green, G (s)	8.9	16.4	40.8	49.7	53.3	53.3
Effective Green, g (s)	9.9	16.4	41.8	51.7	54.3	54.3
Actuated g/C Ratio	0.12	0.21	0.52	0.65	0.68	0.68
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	215	331	949	1086	516	1233
v/s Ratio Prot	c0.06	0.03	c0.29	0.01	0.03	c0.35
v/s Ratio Perm				0.03	0.18	
v/c Ratio	0.49	0.17	0.56	0.05	0.32	0.52
Uniform Delay, d1	32.7	26.2	12.9	5.2	6.5	6.4
Progression Factor	1.00	1.00	0.83	0.46	1.29	1.35
Incremental Delay, d2	1.7	0.2	2.3	0.0	0.3	1.4
Delay (s)	34.4	26.4	13.0	2.4	8.8	10.0
Level of Service	C	C	B	A	A	B
Approach Delay (s/veh)	28.7		11.8			9.8
Approach LOS	C		B			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	23	29	2	26	96	8	381	11	100	443	160
Future Volume (vph)	72	23	29	2	26	96	8	381	11	100	443	160
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.968				0.850		0.996				0.850
Flt Protected		0.972			0.997			0.999			0.991	
Satd. Flow (prot)	0	1715	0	0	1831	1561	0	1855	0	0	1849	1652
Flt Permitted		0.802			0.983			0.989			0.850	
Satd. Flow (perm)	0	1415	0	0	1805	1561	0	1837	0	0	1586	1652
Satd. Flow (RTOR)		17				150		2				95
Adj. Flow (vph)	79	25	32	2	31	113	9	410	12	108	476	172
Lane Group Flow (vph)	0	136	0	0	33	113	0	431	0	0	584	172
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	10.0	10.0		3.0	10.0	10.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	15.0	15.0		7.0	15.0	15.0
Total Split (s)	20.0	20.0		20.0	20.0	20.0	26.0	26.0		10.0	36.0	36.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%	25.0%	32.5%	32.5%		12.5%	45.0%	45.0%
Maximum Green (s)	15.0	15.0		15.0	15.0	15.0	21.0	21.0		6.0	31.0	31.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		-1.0			-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Min	C-Min		None	C-Min	C-Min
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.57			0.11	0.30		0.34			0.54	0.15
Control Delay (s/veh)		36.0			28.3	4.6		8.8			10.7	4.4
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)		36.0			28.3	4.6		8.8			10.7	4.4
Queue Length 50th (ft)		55			14	0		59			94	0
Queue Length 95th (ft)		107			35	19		243			#435	31
Internal Link Dist (ft)		399			672			569			403	
Turn Bay Length (ft)						65						65
Base Capacity (vph)		296			361	432		1259			1086	1162
Starvation Cap Reductn		0			0	0		0			0	0
Spillback Cap Reductn		0			0	0		0			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		0.46			0.09	0.26		0.34			0.54	0.15

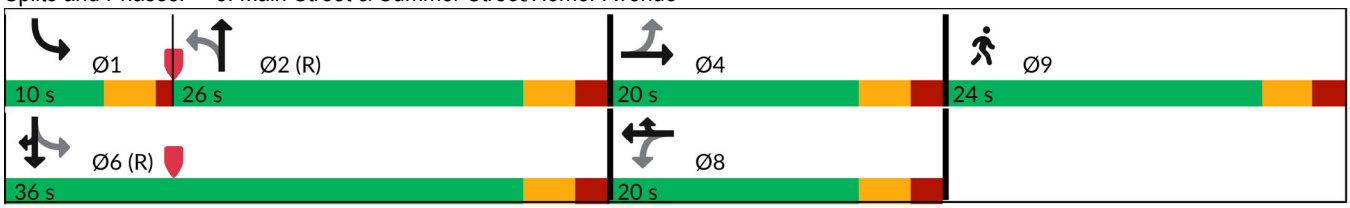
Intersection Summary
Cycle Length: 80

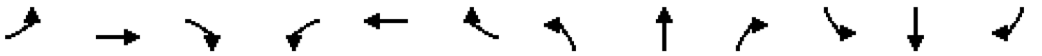
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.0
Total Split (s)	24.0
Total Split (%)	30%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	10.0
Pedestrian Calls (#/hr)	3
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Main Street & Summer Street/Homer Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	23	29	2	26	96	8	381	11	100	443	160
Future Volume (vph)	72	23	29	2	26	96	8	381	11	100	443	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	11	12	12	12	12	12	13
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	1.00
Frt		0.97			1.00	0.85		1.00			1.00	0.85
Flt Protected		0.97			1.00	1.00		1.00			0.99	1.00
Satd. Flow (prot)		1716			1831	1561		1856			1849	1652
Flt Permitted		0.80			0.98	1.00		0.99			0.85	1.00
Satd. Flow (perm)		1416			1805	1561		1837			1586	1652
Peak-hour factor, PHF	0.91	0.91	0.91	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	79	25	32	2	31	113	9	410	12	108	476	172
RTOR Reduction (vph)	0	14	0	0	0	95	0	1	0	0	0	35
Lane Group Flow (vph)	0	122	0	0	33	18	0	430	0	0	584	137
Heavy Vehicles (%)	0%	4%	0%	0%	0%	0%	0%	2%	0%	1%	2%	1%
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.8			11.8	11.8		49.8			49.8	49.8
Effective Green, g (s)		12.8			12.8	12.8		50.8			50.8	50.8
Actuated g/C Ratio		0.16			0.16	0.16		0.64			0.64	0.64
Clearance Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)		226			288	249		1166			1007	1049
v/s Ratio Prot						0.01						0.08
v/s Ratio Perm		c0.09			0.02			0.23			c0.37	
v/c Ratio		0.54			0.11	0.07		0.37			0.58	0.13
Uniform Delay, d1		30.9			28.8	28.6		7.0			8.4	5.8
Progression Factor		1.00			1.00	1.00		1.00			0.78	0.99
Incremental Delay, d2		2.5			0.2	0.1		0.9			0.7	0.2
Delay (s)		33.3			28.9	28.7		7.9			7.3	6.0
Level of Service		C			C	C		A			A	A
Approach Delay (s/veh)		33.3			28.7			7.9			7.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

2031 No-Build

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	39	28	320	43	18	220
Future Vol, veh/h	39	28	320	43	18	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	81	81	85	85
Heavy Vehicles, %	3	8	0	5	0	1
Mvmt Flow	45	33	395	53	21	259

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	723	422	0	0	448	0
Stage 1	422	-	-	-	-	-
Stage 2	301	-	-	-	-	-
Critical Hdwy	6.43	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	392	619	-	-	1123	-
Stage 1	660	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	383	619	-	-	1123	-
Mov Cap-2 Maneuver	383	-	-	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	732	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	14.52	0	0.63
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	456	136	-
HCM Lane V/C Ratio	-	-	0.171	0.019	-
HCM Control Delay (s/veh)	-	-	14.5	8.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	368	6	4	259
Future Vol, veh/h	1	0	368	6	4	259
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	75	75	88	88
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	4	0	491	8	5	294

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	798	495	0	0	499	0
Stage 1	495	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	358	579	-	-	1076	-
Stage 1	617	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	356	579	-	-	1076	-
Mov Cap-2 Maneuver	356	-	-	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	750	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.23	0	0.13
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	356	27	-
HCM Lane V/C Ratio	-	-	0.011	0.004	-
HCM Control Delay (s/veh)	-	-	15.2	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	2	13	4	0	2	0	333	1	1	259	0
Future Vol, veh/h	39	2	13	4	0	2	0	333	1	1	259	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	50	50	50	76	76	76	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	47	2	16	8	0	4	0	438	1	1	294	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	735	736	294	737	735	439	-	0	0	439	0	0
Stage 1	297	297	-	439	439	-	-	-	-	-	-	-
Stage 2	438	439	-	298	297	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	-	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	338	349	750	337	349	622	0	-	-	1131	-	0
Stage 1	716	672	-	601	582	-	0	-	-	-	-	0
Stage 2	601	581	-	715	672	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	335	348	750	327	349	622	-	-	-	1131	-	-
Mov Cap-2 Maneuver	335	348	-	327	349	-	-	-	-	-	-	-
Stage 1	715	671	-	601	582	-	-	-	-	-	-	-
Stage 2	597	581	-	697	671	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	16.16	14.56	0	0.03
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	387	389	7	-
HCM Lane V/C Ratio	-	-	0.168	0.031	0.001	-
HCM Control Delay (s/veh)	-	-	16.2	14.6	8.2	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	0	-

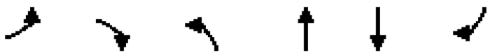
Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	0	334	10	7	269
Future Vol, veh/h	3	0	334	10	7	269
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	71	71	93	93
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	12	0	470	14	8	289

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	782	477	0	0	485	0
Stage 1	477	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	366	592	-	-	1089	-
Stage 1	628	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	363	592	-	-	1089	-
Mov Cap-2 Maneuver	363	-	-	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	747	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.26	0	0.21
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	363	46	-
HCM Lane V/C Ratio	-	-	0.033	0.007	-
HCM Control Delay (s/veh)	-	-	15.3	8.3	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

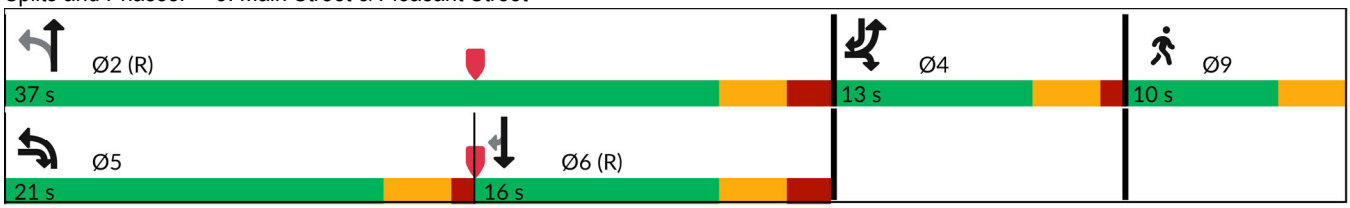


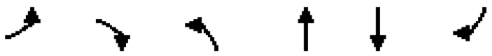
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	115	593	519	229	166	106	
Future Volume (vph)	115	593	519	229	166	106	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850				0.850	
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1728	1568	1770	1818	1756	1478	
Flt Permitted	0.950		0.523				
Satd. Flow (perm)	1728	1568	974	1818	1756	1478	
Satd. Flow (RTOR)		635				114	
Adj. Flow (vph)	126	652	577	254	178	114	
Lane Group Flow (vph)	126	652	577	254	178	114	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	4	4 5	5	2	6	4	9
Permitted Phases			2			6	
Detector Phase	4	4 5	5	2	6	4	
Switch Phase							
Minimum Initial (s)	4.0		6.0	5.0	6.0	4.0	5.0
Minimum Split (s)	8.0		10.0	10.0	11.0	8.0	10.0
Total Split (s)	13.0		21.0	37.0	16.0	13.0	10.0
Total Split (%)	21.7%		35.0%	61.7%	26.7%	21.7%	17%
Maximum Green (s)	9.0		17.0	32.0	11.0	9.0	7.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	2.0	2.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0	-1.0	-1.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
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		None	C-Min	C-Min	None	None
Walk Time (s)							6.0
Flash Don't Walk (s)							1.0
Pedestrian Calls (#/hr)							2
v/c Ratio	0.53	0.62	0.65	0.20	0.27	0.13	
Control Delay (s/veh)	32.7	3.7	7.6	2.5	17.3	2.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	32.7	3.7	7.6	2.5	17.3	2.8	
Queue Length 50th (ft)	42	3	15	6	44	0	
Queue Length 95th (ft)	88	28	#253	43	111	24	
Internal Link Dist (ft)	549			58	64		
Turn Bay Length (ft)		70	60			70	
Base Capacity (vph)	259	1064	904	1266	657	920	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.49	0.61	0.64	0.20	0.27	0.12	

Intersection Summary
Cycle Length: 60

Actuated Cycle Length: 60
Offset: 17 (28%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Main Street & Pleasant Street





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	115	593	519	229	166	106
Future Volume (vph)	115	593	519	229	166	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1728	1568	1770	1818	1756	1478
Flt Permitted	0.95	1.00	0.52	1.00	1.00	1.00
Satd. Flow (perm)	1728	1568	974	1818	1756	1478
Peak-hour factor, PHF	0.91	0.91	0.90	0.90	0.93	0.93
Adj. Flow (vph)	126	652	577	254	178	114
RTOR Reduction (vph)	0	386	0	0	0	62
Lane Group Flow (vph)	126	266	577	254	178	52
Heavy Vehicles (%)	1%	3%	2%	1%	1%	2%
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	4 5	5	2	6	4
Permitted Phases			2			6
Actuated Green, G (s)	8.2	23.5	38.4	38.4	19.1	27.3
Effective Green, g (s)	8.2	23.5	38.4	39.4	20.1	27.3
Actuated g/C Ratio	0.14	0.39	0.64	0.66	0.34	0.46
Clearance Time (s)	4.0		4.0	5.0	5.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	236	614	826	1193	588	672
v/s Ratio Prot	c0.07	0.17	c0.18	0.14	0.10	0.01
v/s Ratio Perm			c0.27			0.02
v/c Ratio	0.53	0.43	0.70	0.21	0.30	0.08
Uniform Delay, d1	24.1	13.4	6.1	4.1	14.8	9.2
Progression Factor	1.00	1.00	0.61	0.52	1.00	1.00
Incremental Delay, d2	2.3	0.5	2.2	0.3	1.3	0.0
Delay (s)	26.4	13.9	5.9	2.5	16.1	9.3
Level of Service	C	B	A	A	B	A
Approach Delay (s/veh)	15.9			4.9	13.4	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	6	742	1	2	757
Future Vol, veh/h	4	6	742	1	2	757
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	91	91	87	87
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	8	12	815	1	2	870

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1691	816	0	0	816	0
Stage 1	816	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	104	380	-	-	820	-
Stage 1	438	-	-	-	-	-
Stage 2	411	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	103	380	-	-	820	-
Mov Cap-2 Maneuver	103	-	-	-	-	-
Stage 1	438	-	-	-	-	-
Stage 2	409	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	27.03	0	0.02
HCM LOS	D		

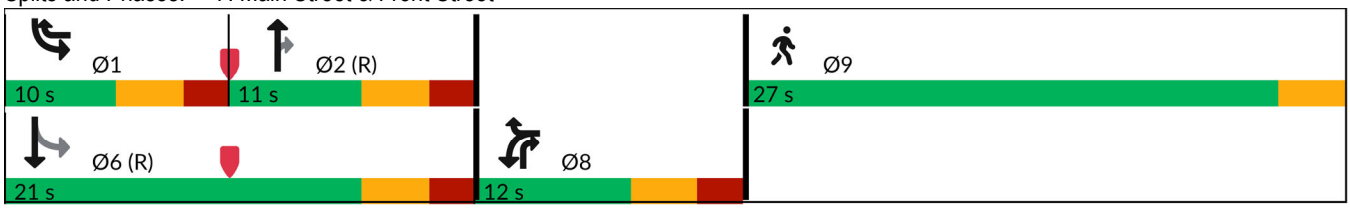
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	183	5	-
HCM Lane V/C Ratio	-	-	0.109	0.003	-
HCM Control Delay (s/veh)	-	-	27	9.4	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø9
Lane Configurations							
Traffic Volume (vph)	70	194	549	120	273	488	
Future Volume (vph)	70	194	549	120	273	488	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1711	1583	1818	1531	1787	1818	
Flt Permitted	0.950				0.276		
Satd. Flow (perm)	1711	1583	1818	1531	519	1818	
Satd. Flow (RTOR)		249		107			
Adj. Flow (vph)	90	249	624	136	300	536	
Lane Group Flow (vph)	90	249	624	136	300	536	
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA	
Protected Phases	8	8 1	2	8	1	6	9
Permitted Phases				2	6		
Detector Phase	8	8 1	2	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0		10.0	10.0	10.0	10.0	27.0
Total Split (s)	12.0		11.0	12.0	10.0	21.0	27.0
Total Split (%)	20.0%		18.3%	20.0%	16.7%	35.0%	45%
Maximum Green (s)	7.0		6.0	7.0	5.0	16.0	24.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	None	None	C-Min	None
Walk Time (s)							7.0
Flash Don't Walk (s)							17.0
Pedestrian Calls (#/hr)							0
v/c Ratio	0.41	0.40	0.60	0.11	0.59	0.40	
Control Delay (s/veh)	30.0	5.0	12.5	1.0	7.5	3.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	30.0	5.0	12.5	1.0	7.5	3.7	
Queue Length 50th (ft)	30	0	122	0	19	39	
Queue Length 95th (ft)	58	28	m258	m0	46	74	
Internal Link Dist (ft)	1068		403			431	
Turn Bay Length (ft)		55		115	110		
Base Capacity (vph)	228	604	1039	1205	510	1342	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.39	0.41	0.60	0.11	0.59	0.40	

Intersection Summary
Cycle Length: 60

Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

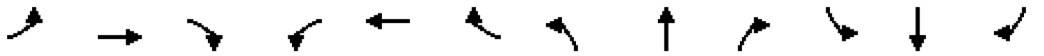
Splits and Phases: 7: Main Street & Front Street



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	70	194	549	120	273	488
Future Volume (vph)	70	194	549	120	273	488
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	12	11
Total Lost time (s)	4.0	5.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1711	1583	1818	1531	1787	1818
Flt Permitted	0.95	1.00	1.00	1.00	0.28	1.00
Satd. Flow (perm)	1711	1583	1818	1531	519	1818
Peak-hour factor, PHF	0.78	0.78	0.88	0.88	0.91	0.91
Adj. Flow (vph)	90	249	624	136	300	536
RTOR Reduction (vph)	0	180	0	32	0	0
Lane Group Flow (vph)	90	69	624	104	300	536
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	8 1	2	8	1	6
Permitted Phases				2	6	
Actuated Green, G (s)	6.7	16.7	33.3	40.0	43.3	43.3
Effective Green, g (s)	7.7	16.7	34.3	42.0	44.3	44.3
Actuated g/C Ratio	0.13	0.28	0.57	0.70	0.74	0.74
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	219	440	1039	1173	509	1342
v/s Ratio Prot	c0.05	0.04	0.34	0.01	c0.06	0.29
v/s Ratio Perm				0.06	c0.38	
v/c Ratio	0.41	0.16	0.60	0.09	0.59	0.40
Uniform Delay, d1	24.1	16.3	8.4	2.9	4.9	2.9
Progression Factor	1.00	1.00	1.14	1.30	1.22	0.93
Incremental Delay, d2	1.3	0.2	2.2	0.0	1.5	0.8
Delay (s)	25.3	16.5	11.8	3.8	7.5	3.5
Level of Service	C	B	B	A	A	A
Approach Delay (s/veh)	18.8		10.4			4.9
Approach LOS	B		B			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	36	35	4	18	97	9	434	6	89	385	84
Future Volume (vph)	138	36	35	4	18	97	9	434	6	89	385	84
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		0.977				0.850		0.998				0.850
Flt Protected		0.968			0.991			0.999			0.991	
Satd. Flow (prot)	0	1703	0	0	1820	1546	0	1858	0	0	1853	1652
Flt Permitted		0.784			0.945			0.991			0.850	
Satd. Flow (perm)	0	1379	0	0	1736	1546	0	1843	0	0	1589	1652
Satd. Flow (RTOR)		14				200		1				127
Adj. Flow (vph)	166	43	42	5	23	126	9	447	6	94	405	88
Lane Group Flow (vph)	0	251	0	0	28	126	0	462	0	0	499	88
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	10.0	10.0		3.0	10.0	10.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	15.0	15.0		7.0	15.0	15.0
Total Split (s)	13.0	13.0		13.0	13.0	13.0	16.0	16.0		7.0	23.0	23.0
Total Split (%)	21.7%	21.7%		21.7%	21.7%	21.7%	26.7%	26.7%		11.7%	38.3%	38.3%
Maximum Green (s)	8.0	8.0		8.0	8.0	8.0	11.0	11.0		3.0	18.0	18.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		-1.0			-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Min	C-Min		None	C-Min	C-Min
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.15			0.11	0.31		0.39			0.49	0.08
Control Delay (s/veh)		136.1			23.3	3.4		9.4			10.7	1.1
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)		136.1			23.3	3.4		9.4			10.7	1.1
Queue Length 50th (ft)		~106			9	0		47			24	0
Queue Length 95th (ft)		#207			24	2		#247			#335	7
Internal Link Dist (ft)		399			672			569			403	
Turn Bay Length (ft)						65						65
Base Capacity (vph)		218			260	401		1186			1022	1107
Starvation Cap Reductn		0			0	0		0			0	0
Spillback Cap Reductn		0			0	0		0			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		1.15			0.11	0.31		0.39			0.49	0.08

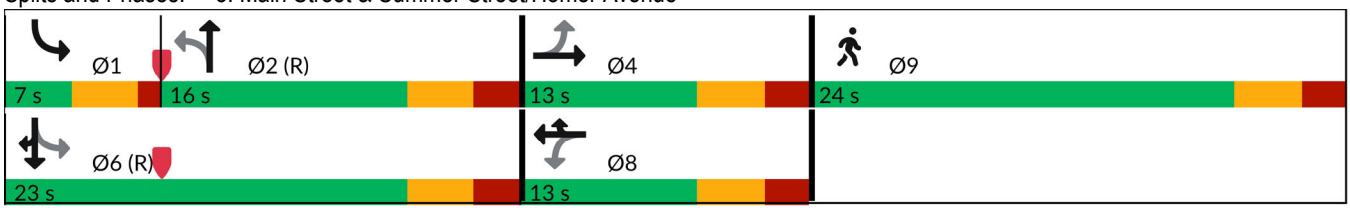
Intersection Summary
Cycle Length: 60

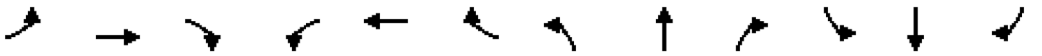
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.0
Total Split (s)	24.0
Total Split (%)	40%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	10.0
Pedestrian Calls (#/hr)	1
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Actuated Cycle Length: 60
Offset: 58 (97%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Main Street & Summer Street/Homer Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	36	35	4	18	97	9	434	6	89	385	84
Future Volume (vph)	138	36	35	4	18	97	9	434	6	89	385	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	11	12	12	12	12	12	13
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	1.00
Frt		0.98			1.00	0.85		1.00			1.00	0.85
Flt Protected		0.97			0.99	1.00		1.00			0.99	1.00
Satd. Flow (prot)		1704			1820	1546		1859			1852	1652
Flt Permitted		0.78			0.95	1.00		0.99			0.85	1.00
Satd. Flow (perm)		1380			1736	1546		1844			1589	1652
Peak-hour factor, PHF	0.83	0.83	0.83	0.77	0.77	0.77	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	166	43	42	5	23	126	9	447	6	94	405	88
RTOR Reduction (vph)	0	12	0	0	0	107	0	0	0	0	0	37
Lane Group Flow (vph)	0	239	0	0	28	19	0	462	0	0	499	51
Heavy Vehicles (%)	3%	0%	0%	0%	0%	1%	0%	2%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.0			8.0	8.0		33.6			33.6	33.6
Effective Green, g (s)		9.0			9.0	9.0		34.6			34.6	34.6
Actuated g/C Ratio		0.15			0.15	0.15		0.58			0.58	0.58
Clearance Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)		207			260	231		1063			916	952
v/s Ratio Prot						0.01						0.03
v/s Ratio Perm		c0.17			0.02			0.25			c0.31	
v/c Ratio		1.16			0.11	0.08		0.43			0.54	0.05
Uniform Delay, d1		25.5			22.0	21.9		7.2			7.8	5.5
Progression Factor		1.00			1.00	1.00		1.00			0.76	0.63
Incremental Delay, d2		110.6			0.2	0.2		1.3			0.6	0.1
Delay (s)		136.1			22.2	22.1		8.5			6.5	3.6
Level of Service		F			C	C		A			A	A
Approach Delay (s/veh)		136.1			22.1			8.5			6.1	
Approach LOS		F			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	31.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	19	247	27	33	436
Future Vol, veh/h	24	19	247	27	33	436
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	97	97	96	96
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	30	23	255	28	34	454

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	791	269	0	0	282	0
Stage 1	269	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	361	775	-	-	1292	-
Stage 1	781	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	348	775	-	-	1292	-
Mov Cap-2 Maneuver	348	-	-	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	13.84	0	0.55
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	460	127	-
HCM Lane V/C Ratio	-	-	0.115	0.027	-
HCM Control Delay (s/veh)	-	-	13.8	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	306	18	3	468
Future Vol, veh/h	0	0	306	18	3	468
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	0	0	322	19	3	493

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	831	332	0	0	341	0
Stage 1	332	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	342	715	-	-	1229	-
Stage 1	732	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	341	715	-	-	1229	-
Mov Cap-2 Maneuver	341	-	-	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	612	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0.05
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	11	-
HCM Lane V/C Ratio	-	-	-	0.003	-
HCM Control Delay (s/veh)	-	-	0	7.9	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	0	1	6	0	10	0	295	1	1	467	0
Future Vol, veh/h	19	0	1	6	0	10	0	295	1	1	467	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	57	57	57	98	98	98	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	28	0	1	11	0	18	0	301	1	1	492	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	795	796	492	795	795	302	-	0	0	302	0	0
Stage 1	494	494	-	302	302	-	-	-	-	-	-	-
Stage 2	301	302	-	494	494	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	-	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	308	322	581	308	322	743	0	-	-	1270	-	0
Stage 1	561	550	-	712	668	-	0	-	-	-	-	0
Stage 2	712	668	-	561	550	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	300	322	581	307	322	743	-	-	-	1270	-	-
Mov Cap-2 Maneuver	300	322	-	307	322	-	-	-	-	-	-	-
Stage 1	560	549	-	712	668	-	-	-	-	-	-	-
Stage 2	696	668	-	559	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	17.93	12.89	0	0.02
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	308	484	4	-
HCM Lane V/C Ratio	-	-	0.096	0.058	0.001	-
HCM Control Delay (s/veh)	-	-	17.9	12.9	7.8	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2	0	-

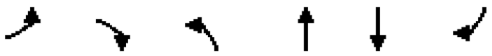
Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	6	290	3	5	469
Future Vol, veh/h	10	6	290	3	5	469
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	98	98	94	94
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	15	9	296	3	5	499

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	807	297	0	0	299	0
Stage 1	297	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	354	747	-	-	1274	-
Stage 1	758	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	351	747	-	-	1274	-
Mov Cap-2 Maneuver	351	-	-	-	-	-
Stage 1	758	-	-	-	-	-
Stage 2	604	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	13.68	0	0.08
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	439	19	-
HCM Lane V/C Ratio	-	-	0.054	0.004	-
HCM Control Delay (s/veh)	-	-	13.7	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

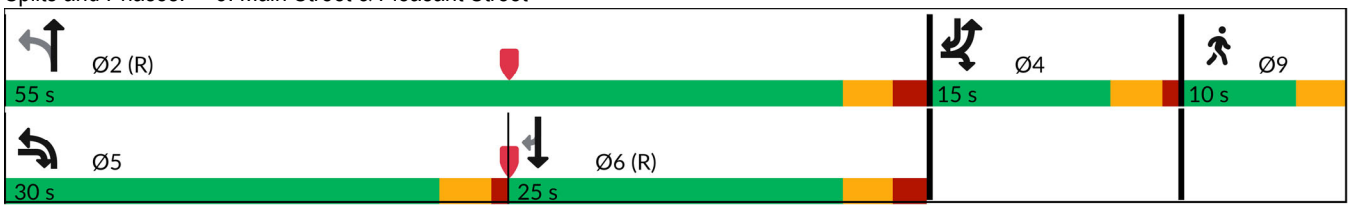


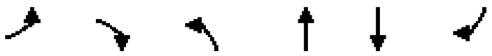
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	94	495	584	199	329	150	
Future Volume (vph)	94	495	584	199	329	150	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850				0.850	
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1711	1583	1770	1837	1773	1507	
Flt Permitted	0.950		0.353				
Satd. Flow (perm)	1711	1583	658	1837	1773	1507	
Satd. Flow (RTOR)		418				142	
Adj. Flow (vph)	99	521	628	214	358	163	
Lane Group Flow (vph)	99	521	628	214	358	163	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	4	4 5	5	2	6	4	9
Permitted Phases			2			6	
Detector Phase	4	4 5	5	2	6	4	
Switch Phase							
Minimum Initial (s)	4.0		6.0	5.0	6.0	4.0	1.0
Minimum Split (s)	8.0		10.0	10.0	11.0	8.0	10.0
Total Split (s)	15.0		30.0	55.0	25.0	15.0	10.0
Total Split (%)	18.8%		37.5%	68.8%	31.3%	18.8%	13%
Maximum Green (s)	11.0		26.0	50.0	20.0	11.0	7.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	2.0	2.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0	-1.0	-1.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
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		None	C-Min	C-Min	None	None
Walk Time (s)							6.0
Flash Don't Walk (s)							1.0
Pedestrian Calls (#/hr)							4
v/c Ratio	0.49	0.56	0.77	0.15	0.48	0.17	
Control Delay (s/veh)	41.1	4.7	18.5	1.8	23.2	3.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	41.1	4.7	18.5	1.8	23.2	3.3	
Queue Length 50th (ft)	46	25	26	7	134	4	
Queue Length 95th (ft)	92	54	#351	24	#293	38	
Internal Link Dist (ft)	549			58	64		
Turn Bay Length (ft)		70	60			70	
Base Capacity (vph)	235	965	859	1390	744	971	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.42	0.54	0.73	0.15	0.48	0.17	

Intersection Summary
Cycle Length: 80

Actuated Cycle Length: 80
Offset: 17 (21%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Main Street & Pleasant Street





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	94	495	584	199	329	150
Future Volume (vph)	94	495	584	199	329	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1711	1583	1770	1837	1773	1507
Flt Permitted	0.95	1.00	0.35	1.00	1.00	1.00
Satd. Flow (perm)	1711	1583	658	1837	1773	1507
Peak-hour factor, PHF	0.95	0.95	0.93	0.93	0.92	0.92
Adj. Flow (vph)	99	521	628	214	358	163
RTOR Reduction (vph)	0	249	0	0	0	72
Lane Group Flow (vph)	99	272	628	214	358	91
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	4 5	5	2	6	4
Permitted Phases			2			6
Actuated Green, G (s)	9.4	32.4	57.2	57.2	30.2	39.6
Effective Green, g (s)	9.4	32.4	57.2	58.2	31.2	39.6
Actuated g/C Ratio	0.12	0.41	0.72	0.73	0.39	0.50
Clearance Time (s)	4.0		4.0	5.0	5.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	201	641	790	1336	691	745
v/s Ratio Prot	c0.06	0.17	c0.23	0.12	0.20	0.01
v/s Ratio Perm			c0.34			0.05
v/c Ratio	0.49	0.42	0.79	0.16	0.52	0.12
Uniform Delay, d1	33.1	17.1	7.4	3.4	18.7	10.9
Progression Factor	1.00	1.00	1.98	0.45	1.00	1.00
Incremental Delay, d2	1.9	0.5	4.8	0.2	2.8	0.1
Delay (s)	35.0	17.6	19.6	1.7	21.4	10.9
Level of Service	C	B	B	A	C	B
Approach Delay (s/veh)	20.3			15.0	18.1	
Approach LOS	C			B	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	3	780	11	5	819
Future Vol, veh/h	8	3	780	11	5	819
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	34	34	96	96	94	94
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	24	9	813	11	5	871

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1700	818	0	0	824	0
Stage 1	818	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	102	379	-	-	815	-
Stage 1	437	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	101	379	-	-	815	-
Mov Cap-2 Maneuver	101	-	-	-	-	-
Stage 1	437	-	-	-	-	-
Stage 2	403	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	43.03	0	0.06
HCM LOS	E		

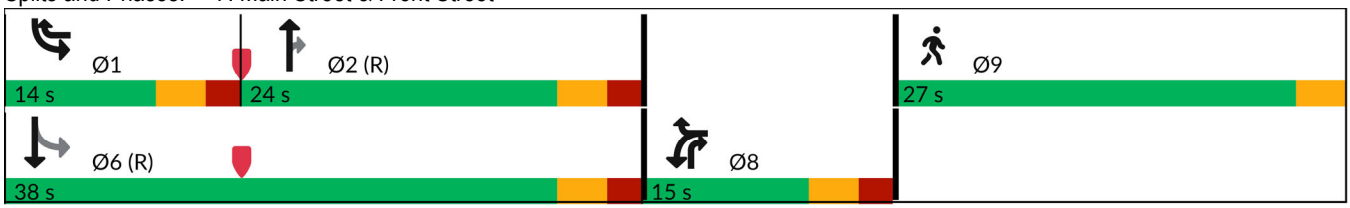
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	126	11	-
HCM Lane V/C Ratio	-	-	0.256	0.007	-
HCM Control Delay (s/veh)	-	-	43	9.4	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø9
Lane Configurations							
Traffic Volume (vph)	106	262	529	73	166	661	
Future Volume (vph)	106	262	529	73	166	661	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1745	1615	1818	1561	1787	1818	
Flt Permitted	0.950				0.265		
Satd. Flow (perm)	1745	1615	1818	1561	499	1818	
Satd. Flow (RTOR)		288		62			
Adj. Flow (vph)	116	288	581	80	175	696	
Lane Group Flow (vph)	116	288	581	80	175	696	
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA	
Protected Phases	8	8 1	2	8	1	6	9
Permitted Phases				2	6		
Detector Phase	8	8 1	2	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0		10.0	10.0	10.0	10.0	27.0
Total Split (s)	15.0		24.0	15.0	14.0	38.0	27.0
Total Split (%)	18.8%		30.0%	18.8%	17.5%	47.5%	34%
Maximum Green (s)	10.0		19.0	10.0	9.0	33.0	24.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	None	None	C-Min	None
Walk Time (s)							7.0
Flash Don't Walk (s)							17.0
Pedestrian Calls (#/hr)							2
v/c Ratio	0.53	0.46	0.58	0.07	0.36	0.54	
Control Delay (s/veh)	41.7	4.5	18.9	2.2	10.4	14.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	41.7	4.5	18.9	2.2	10.4	14.3	
Queue Length 50th (ft)	54	0	109	0	39	215	
Queue Length 95th (ft)	106	28	#554	m10	125	#544	
Internal Link Dist (ft)	1068		403			431	
Turn Bay Length (ft)		55		115	110		
Base Capacity (vph)	239	636	996	1164	513	1284	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.49	0.45	0.58	0.07	0.34	0.54	

Intersection Summary
Cycle Length: 80

Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

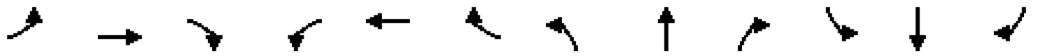
Splits and Phases: 7: Main Street & Front Street



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	106	262	529	73	166	661
Future Volume (vph)	106	262	529	73	166	661
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	12	11
Total Lost time (s)	4.0	5.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1745	1615	1818	1561	1787	1818
Flt Permitted	0.95	1.00	1.00	1.00	0.26	1.00
Satd. Flow (perm)	1745	1615	1818	1561	498	1818
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.95	0.95
Adj. Flow (vph)	116	288	581	80	175	696
RTOR Reduction (vph)	0	228	0	22	0	0
Lane Group Flow (vph)	116	60	581	58	175	696
Heavy Vehicles (%)	0%	0%	1%	0%	1%	1%
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	8 1	2	8	1	6
Permitted Phases				2	6	
Actuated Green, G (s)	9.1	16.8	40.4	49.5	53.1	53.1
Effective Green, g (s)	10.1	16.8	41.4	51.5	54.1	54.1
Actuated g/C Ratio	0.13	0.21	0.52	0.64	0.68	0.68
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	220	339	940	1082	476	1229
v/s Ratio Prot	c0.07	0.04	c0.32	0.01	0.04	c0.38
v/s Ratio Perm				0.03	0.21	
v/c Ratio	0.53	0.18	0.62	0.05	0.37	0.57
Uniform Delay, d1	32.7	25.9	13.7	5.3	7.3	6.8
Progression Factor	1.00	1.00	0.88	0.57	1.27	1.37
Incremental Delay, d2	2.3	0.3	2.9	0.0	0.4	1.7
Delay (s)	35.0	26.2	14.9	3.0	9.7	11.0
Level of Service	C	C	B	A	A	B
Approach Delay (s/veh)	28.7		13.5			10.7
Approach LOS	C		B			B

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	27	31	6	30	116	9	409	17	121	475	171
Future Volume (vph)	77	27	31	6	30	116	9	409	17	121	475	171
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		0.969				0.850		0.995				0.850
Flt Protected		0.972			0.992			0.999			0.990	
Satd. Flow (prot)	0	1716	0	0	1822	1561	0	1854	0	0	1848	1652
Flt Permitted		0.800			0.956			0.987			0.828	
Satd. Flow (perm)	0	1412	0	0	1756	1561	0	1831	0	0	1545	1652
Satd. Flow (RTOR)		17				150		2				95
Adj. Flow (vph)	85	30	34	7	35	136	10	440	18	130	511	184
Lane Group Flow (vph)	0	149	0	0	42	136	0	468	0	0	641	184
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	10.0	10.0		3.0	10.0	10.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	15.0	15.0		7.0	15.0	15.0
Total Split (s)	20.0	20.0		20.0	20.0	20.0	26.0	26.0		10.0	36.0	36.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%	25.0%	32.5%	32.5%		12.5%	45.0%	45.0%
Maximum Green (s)	15.0	15.0		15.0	15.0	15.0	21.0	21.0		6.0	31.0	31.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		-1.0			-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Min	C-Min		None	C-Min	C-Min
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.60			0.14	0.36		0.38			0.61	0.16
Control Delay (s/veh)		37.4			28.4	7.1		9.3			12.6	4.5
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)		37.4			28.4	7.1		9.3			12.6	4.5
Queue Length 50th (ft)		61			18	0		69			75	0
Queue Length 95th (ft)		117			41	32		270			#511	39
Internal Link Dist (ft)		399			672			569			403	
Turn Bay Length (ft)						65						65
Base Capacity (vph)		296			351	432		1245			1050	1153
Starvation Cap Reductn		0			0	0		0			0	0
Spillback Cap Reductn		0			0	0		0			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		0.50			0.12	0.31		0.38			0.61	0.16

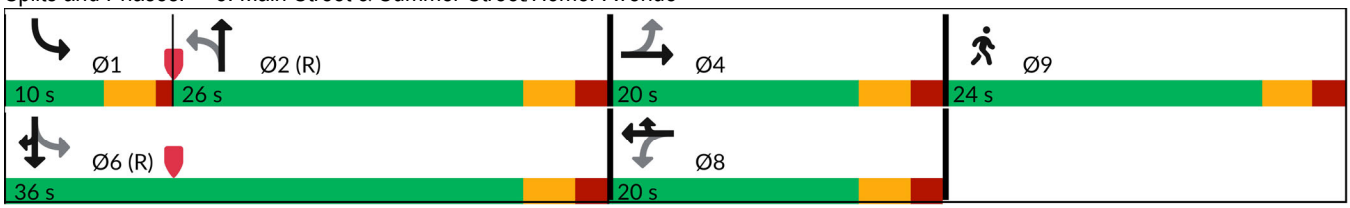
Intersection Summary
Cycle Length: 80

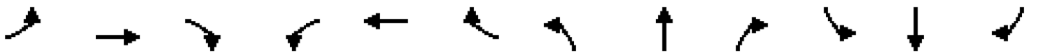
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.0
Total Split (s)	24.0
Total Split (%)	30%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	10.0
Pedestrian Calls (#/hr)	3
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Main Street & Summer Street/Homer Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	27	31	6	30	116	9	409	17	121	475	171
Future Volume (vph)	77	27	31	6	30	116	9	409	17	121	475	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	11	12	12	12	12	12	13
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	1.00
Frt		0.97			1.00	0.85		0.99			1.00	0.85
Flt Protected		0.97			0.99	1.00		1.00			0.99	1.00
Satd. Flow (prot)		1717			1821	1561		1853			1848	1652
Flt Permitted		0.80			0.96	1.00		0.99			0.83	1.00
Satd. Flow (perm)		1413			1756	1561		1832			1545	1652
Peak-hour factor, PHF	0.91	0.91	0.91	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	85	30	34	7	35	136	10	440	18	130	511	184
RTOR Reduction (vph)	0	14	0	0	0	114	0	1	0	0	0	35
Lane Group Flow (vph)	0	135	0	0	42	22	0	467	0	0	641	149
Heavy Vehicles (%)	0%	4%	0%	0%	0%	0%	0%	2%	0%	1%	2%	1%
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.2			12.2	12.2		49.4			49.4	49.4
Effective Green, g (s)		13.2			13.2	13.2		50.4			50.4	50.4
Actuated g/C Ratio		0.16			0.16	0.16		0.63			0.63	0.63
Clearance Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)		233			289	257		1154			973	1040
v/s Ratio Prot						0.01						0.09
v/s Ratio Perm		c0.10			0.02			0.26			c0.41	
v/c Ratio		0.58			0.15	0.09		0.40			0.66	0.14
Uniform Delay, d1		30.8			28.6	28.3		7.4			9.4	6.0
Progression Factor		1.00			1.00	1.00		1.00			0.80	0.97
Incremental Delay, d2		3.5			0.2	0.1		1.1			1.4	0.2
Delay (s)		34.3			28.8	28.4		8.4			8.9	6.1
Level of Service		C			C	C		A			A	A
Approach Delay (s/veh)		34.3			28.5			8.4			8.2	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

2031 Build

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	37	28	353	43	18	227
Future Vol, veh/h	37	28	353	43	18	227
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	81	81	85	85
Heavy Vehicles, %	3	8	0	5	0	1
Mvmt Flow	43	33	436	53	21	267

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	772	462	0	0	489	0
Stage 1	462	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Critical Hdwy	6.43	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	367	587	-	-	1085	-
Stage 1	632	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	358	587	-	-	1085	-
Mov Cap-2 Maneuver	358	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	725	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.14	0	0.62
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	430	132	-
HCM Lane V/C Ratio	-	-	0.176	0.02	-
HCM Control Delay (s/veh)	-	-	15.1	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	6.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	40	361	32	20	249
Future Vol, veh/h	28	40	361	32	20	249
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	75	75	88	88
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	112	160	481	43	23	283

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	831	503	0	0	524	0
Stage 1	503	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	342	573	-	-	1053	-
Stage 1	612	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	333	573	-	-	1053	-
Mov Cap-2 Maneuver	333	-	-	-	-	-
Stage 1	612	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	25.31	0	0.63
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	442	134	-
HCM Lane V/C Ratio	-	-	0.615	0.022	-
HCM Control Delay (s/veh)	-	-	25.3	8.5	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	4	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	39	13	0	354	277	0
Future Vol, veh/h	39	13	0	354	277	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	76	76	88	88
Heavy Vehicles, %	0	0	0	0	3	0
Mvmt Flow	47	16	0	466	315	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	781	315	-	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	366	730	0	-	-	0
Stage 1	745	-	0	-	-	0
Stage 2	636	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	366	730	-	-	-	-
Mov Cap-2 Maneuver	366	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	636	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	419	-
HCM Lane V/C Ratio	-	0.15	-
HCM Control Delay (s/veh)	-	15.1	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.5	-

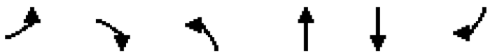
Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	352	0	0	290
Future Vol, veh/h	1	2	352	0	0	290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	383	0	0	315

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	698	383	0	0	383	0
Stage 1	383	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	407	665	-	-	1176	-
Stage 1	689	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	407	665	-	-	1176	-
Mov Cap-2 Maneuver	407	-	-	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	549	1176	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s/veh)	-	-	11.6	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

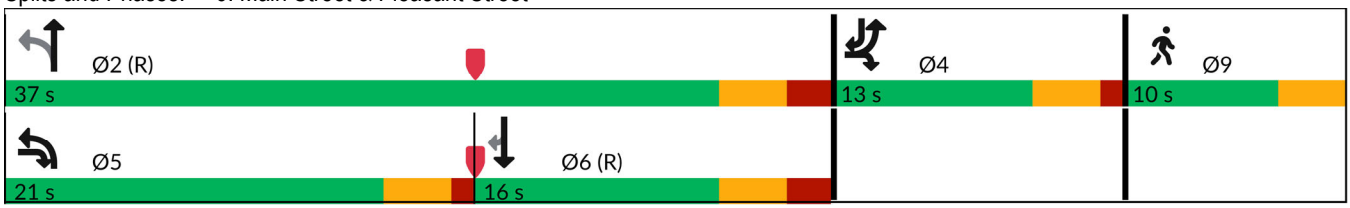


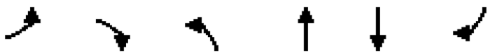
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	120	594	522	233	178	113	
Future Volume (vph)	120	594	522	233	178	113	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850				0.850	
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1728	1568	1770	1818	1756	1478	
Flt Permitted	0.950		0.503				
Satd. Flow (perm)	1728	1568	937	1818	1756	1478	
Satd. Flow (RTOR)		617				122	
Adj. Flow (vph)	132	653	580	259	191	122	
Lane Group Flow (vph)	132	653	580	259	191	122	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	4	4 5	5	2	6	4	9
Permitted Phases			2			6	
Detector Phase	4	4 5	5	2	6	4	
Switch Phase							
Minimum Initial (s)	4.0		6.0	5.0	6.0	4.0	5.0
Minimum Split (s)	8.0		10.0	10.0	11.0	8.0	10.0
Total Split (s)	13.0		21.0	37.0	16.0	13.0	10.0
Total Split (%)	21.7%		35.0%	61.7%	26.7%	21.7%	17%
Maximum Green (s)	9.0		17.0	32.0	11.0	9.0	7.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	2.0	2.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0	-1.0	-1.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
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		None	C-Min	C-Min	None	None
Walk Time (s)							6.0
Flash Don't Walk (s)							1.0
Pedestrian Calls (#/hr)							2
v/c Ratio	0.55	0.62	0.67	0.21	0.30	0.14	
Control Delay (s/veh)	32.9	3.9	8.1	2.6	17.7	2.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	32.9	3.9	8.1	2.6	17.7	2.7	
Queue Length 50th (ft)	45	6	15	7	48	0	
Queue Length 95th (ft)	91	31	#271	44	119	25	
Internal Link Dist (ft)	549			58	64		
Turn Bay Length (ft)		70	60			70	
Base Capacity (vph)	259	1067	885	1260	646	915	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.51	0.61	0.66	0.21	0.30	0.13	

Intersection Summary
Cycle Length: 60

Actuated Cycle Length: 60
Offset: 17 (28%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Main Street & Pleasant Street





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	120	594	522	233	178	113
Future Volume (vph)	120	594	522	233	178	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1728	1568	1770	1818	1756	1478
Flt Permitted	0.95	1.00	0.50	1.00	1.00	1.00
Satd. Flow (perm)	1728	1568	937	1818	1756	1478
Peak-hour factor, PHF	0.91	0.91	0.90	0.90	0.93	0.93
Adj. Flow (vph)	132	653	580	259	191	122
RTOR Reduction (vph)	0	371	0	0	0	67
Lane Group Flow (vph)	132	282	580	259	191	55
Heavy Vehicles (%)	1%	3%	2%	1%	1%	2%
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	4 5	5	2	6	4
Permitted Phases			2			6
Actuated Green, G (s)	8.4	23.9	38.2	38.2	18.7	27.1
Effective Green, g (s)	8.4	23.9	38.2	39.2	19.7	27.1
Actuated g/C Ratio	0.14	0.40	0.64	0.65	0.33	0.45
Clearance Time (s)	4.0		4.0	5.0	5.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	241	624	811	1187	576	667
v/s Ratio Prot	c0.08	0.18	c0.18	0.14	0.11	0.01
v/s Ratio Perm			c0.27			0.03
v/c Ratio	0.55	0.45	0.72	0.22	0.33	0.08
Uniform Delay, d1	24.0	13.2	6.3	4.2	15.2	9.4
Progression Factor	1.00	1.00	0.61	0.52	1.00	1.00
Incremental Delay, d2	2.5	0.5	2.6	0.4	1.5	0.1
Delay (s)	26.6	13.8	6.4	2.5	16.7	9.4
Level of Service	C	B	A	A	B	A
Approach Delay (s/veh)	15.9			5.2	13.9	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

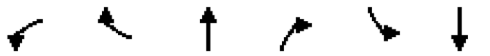
Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	14	741	16	3	769
Future Vol, veh/h	21	14	741	16	3	769
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	91	91	87	87
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	42	28	814	18	3	884

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1714	823	0	0	832	0
Stage 1	823	-	-	-	-	-
Stage 2	891	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	100	376	-	-	809	-
Stage 1	435	-	-	-	-	-
Stage 2	404	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	100	376	-	-	809	-
Mov Cap-2 Maneuver	100	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	401	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	53.37	0	0.04
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	141	7	-
HCM Lane V/C Ratio	-	-	0.496	0.004	-
HCM Control Delay (s/veh)	-	-	53.4	9.5	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	2.3	0	-

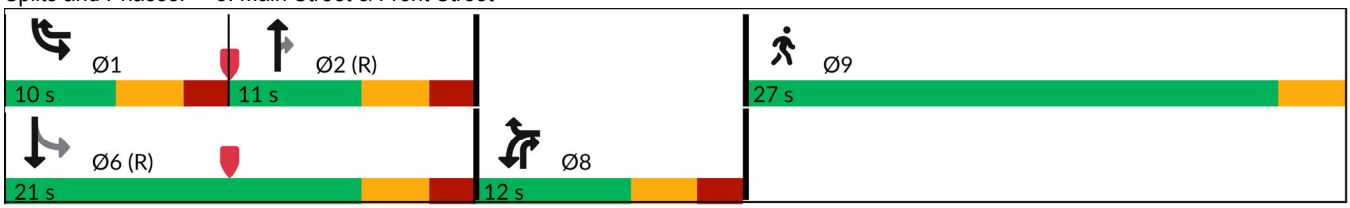


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø9
Lane Configurations							
Traffic Volume (vph)	70	199	558	120	283	507	
Future Volume (vph)	70	199	558	120	283	507	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1711	1583	1818	1531	1787	1818	
Flt Permitted	0.950				0.269		
Satd. Flow (perm)	1711	1583	1818	1531	506	1818	
Satd. Flow (RTOR)		255		105			
Adj. Flow (vph)	90	255	634	136	311	557	
Lane Group Flow (vph)	90	255	634	136	311	557	
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA	
Protected Phases	8	8 1	2	8	1	6	9
Permitted Phases				2	6		
Detector Phase	8	8 1	2	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0		10.0	10.0	10.0	10.0	27.0
Total Split (s)	12.0		11.0	12.0	10.0	21.0	27.0
Total Split (%)	20.0%		18.3%	20.0%	16.7%	35.0%	45%
Maximum Green (s)	7.0		6.0	7.0	5.0	16.0	24.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	None	None	C-Min	None
Walk Time (s)							7.0
Flash Don't Walk (s)							17.0
Pedestrian Calls (#/hr)							0
v/c Ratio	0.41	0.41	0.61	0.11	0.62	0.42	
Control Delay (s/veh)	30.0	5.0	12.7	1.0	8.6	3.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	30.0	5.0	12.7	1.0	8.6	3.7	
Queue Length 50th (ft)	30	0	124	0	20	41	
Queue Length 95th (ft)	58	28	m262	m0	55	78	
Internal Link Dist (ft)	1068		403			431	
Turn Bay Length (ft)		55		115	110		
Base Capacity (vph)	228	609	1039	1205	501	1342	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.39	0.42	0.61	0.11	0.62	0.42	

Intersection Summary
Cycle Length: 60

Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

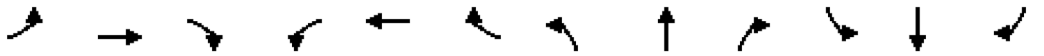
Splits and Phases: 8: Main Street & Front Street



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	70	199	558	120	283	507
Future Volume (vph)	70	199	558	120	283	507
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	12	11
Total Lost time (s)	4.0	5.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1711	1583	1818	1531	1787	1818
Flt Permitted	0.95	1.00	1.00	1.00	0.27	1.00
Satd. Flow (perm)	1711	1583	1818	1531	507	1818
Peak-hour factor, PHF	0.78	0.78	0.88	0.88	0.91	0.91
Adj. Flow (vph)	90	255	634	136	311	557
RTOR Reduction (vph)	0	184	0	32	0	0
Lane Group Flow (vph)	90	71	634	105	311	557
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	8 1	2	8	1	6
Permitted Phases				2	6	
Actuated Green, G (s)	6.7	16.7	33.3	40.0	43.3	43.3
Effective Green, g (s)	7.7	16.7	34.3	42.0	44.3	44.3
Actuated g/C Ratio	0.13	0.28	0.57	0.70	0.74	0.74
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	219	440	1039	1173	502	1342
v/s Ratio Prot	c0.05	0.04	0.35	0.01	c0.06	0.31
v/s Ratio Perm				0.06	c0.40	
v/c Ratio	0.41	0.16	0.61	0.09	0.62	0.42
Uniform Delay, d1	24.1	16.4	8.5	2.9	5.2	3.0
Progression Factor	1.00	1.00	1.14	1.30	1.34	0.90
Incremental Delay, d2	1.3	0.2	2.3	0.0	2.0	0.8
Delay (s)	25.3	16.5	11.9	3.8	8.9	3.5
Level of Service	C	B	B	A	A	A
Approach Delay (s/veh)	18.8		10.5			5.5
Approach LOS	B		B			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	36	35	4	18	100	9	437	6	91	398	88
Future Volume (vph)	141	36	35	4	18	100	9	437	6	91	398	88
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		0.978				0.850		0.998				0.850
Flt Protected		0.968			0.991			0.999			0.991	
Satd. Flow (prot)	0	1705	0	0	1820	1546	0	1858	0	0	1853	1652
Flt Permitted		0.782			0.946			0.991			0.850	
Satd. Flow (perm)	0	1377	0	0	1737	1546	0	1843	0	0	1589	1652
Satd. Flow (RTOR)		14				200		1				127
Adj. Flow (vph)	170	43	42	5	23	130	9	451	6	96	419	93
Lane Group Flow (vph)	0	255	0	0	28	130	0	466	0	0	515	93
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	10.0	10.0		3.0	10.0	10.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	15.0	15.0		7.0	15.0	15.0
Total Split (s)	13.0	13.0		13.0	13.0	13.0	16.0	16.0		7.0	23.0	23.0
Total Split (%)	21.7%	21.7%		21.7%	21.7%	21.7%	26.7%	26.7%		11.7%	38.3%	38.3%
Maximum Green (s)	8.0	8.0		8.0	8.0	8.0	11.0	11.0		3.0	18.0	18.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		-1.0			-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Min	C-Min		None	C-Min	C-Min
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.17			0.11	0.32		0.39			0.50	0.08
Control Delay (s/veh)		142.5			23.3	3.6		9.5			10.9	1.2
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)		142.5			23.3	3.6		9.5			10.9	1.2
Queue Length 50th (ft)		~110			9	0		48			25	0
Queue Length 95th (ft)		#210			24	4		#253			#350	7
Internal Link Dist (ft)		399			672			569			403	
Turn Bay Length (ft)						65						65
Base Capacity (vph)		218			260	401		1186			1022	1107
Starvation Cap Reductn		0			0	0		0			0	0
Spillback Cap Reductn		0			0	0		0			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		1.17			0.11	0.32		0.39			0.50	0.08

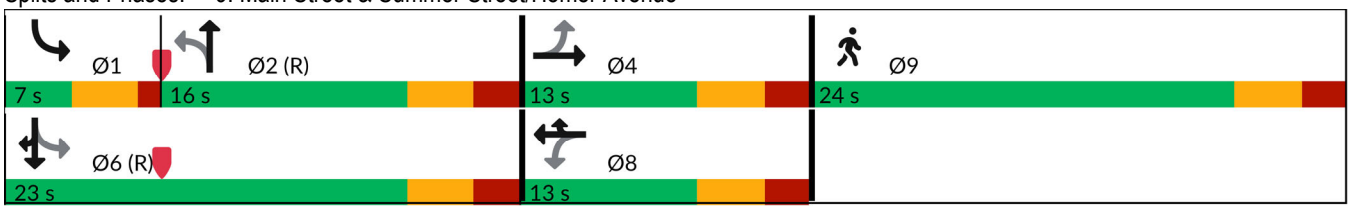
Intersection Summary
Cycle Length: 60

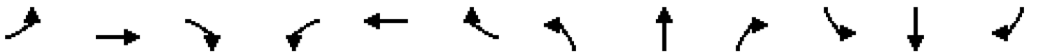
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.0
Total Split (s)	24.0
Total Split (%)	40%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	10.0
Pedestrian Calls (#/hr)	1
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Actuated Cycle Length: 60
Offset: 58 (97%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Main Street & Summer Street/Homer Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	36	35	4	18	100	9	437	6	91	398	88
Future Volume (vph)	141	36	35	4	18	100	9	437	6	91	398	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	11	12	12	12	12	12	13
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	1.00
Frt		0.98			1.00	0.85		1.00			1.00	0.85
Flt Protected		0.97			0.99	1.00		1.00			0.99	1.00
Satd. Flow (prot)		1704			1820	1546		1859			1852	1652
Flt Permitted		0.78			0.95	1.00		0.99			0.85	1.00
Satd. Flow (perm)		1378			1738	1546		1844			1588	1652
Peak-hour factor, PHF	0.83	0.83	0.83	0.77	0.77	0.77	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	170	43	42	5	23	130	9	451	6	96	419	93
RTOR Reduction (vph)	0	12	0	0	0	111	0	0	0	0	0	39
Lane Group Flow (vph)	0	243	0	0	28	20	0	466	0	0	515	54
Heavy Vehicles (%)	3%	0%	0%	0%	0%	1%	0%	2%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.0			8.0	8.0		33.6			33.6	33.6
Effective Green, g (s)		9.0			9.0	9.0		34.6			34.6	34.6
Actuated g/C Ratio		0.15			0.15	0.15		0.58			0.58	0.58
Clearance Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)		206			260	231		1063			915	952
v/s Ratio Prot						0.01						0.03
v/s Ratio Perm		c0.18			0.02			0.25			c0.32	
v/c Ratio		1.18			0.11	0.08		0.44			0.56	0.06
Uniform Delay, d1		25.5			22.0	22.0		7.2			8.0	5.6
Progression Factor		1.00			1.00	1.00		1.00			0.75	0.57
Incremental Delay, d2		119.8			0.2	0.2		1.3			0.7	0.1
Delay (s)		145.3			22.2	22.1		8.5			6.7	3.3
Level of Service		F			C	C		A			A	A
Approach Delay (s/veh)		145.3			22.1			8.5			6.2	
Approach LOS		F			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	19	250	26	33	452
Future Vol, veh/h	25	19	250	26	33	452
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	97	97	96	96
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	31	23	258	27	34	471

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	811	271	0	0	285	0
Stage 1	271	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	352	772	-	-	1289	-
Stage 1	779	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	339	772	-	-	1289	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	567	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	14.15	0	0.54
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	447	122	-
HCM Lane V/C Ratio	-	-	0.121	0.027	-
HCM Control Delay (s/veh)	-	-	14.2	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	33	275	45	30	458
Future Vol, veh/h	21	33	275	45	30	458
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	84	132	289	47	32	482

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	858	313	0	0	337	0
Stage 1	313	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	330	732	-	-	1234	-
Stage 1	746	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	318	732	-	-	1234	-
Mov Cap-2 Maneuver	318	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	18.19	0	0.49
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	486	111	-
HCM Lane V/C Ratio	-	-	0.444	0.026	-
HCM Control Delay (s/veh)	-	-	18.2	8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.2	0.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	1	0	302	479	0
Future Vol, veh/h	18	1	0	302	479	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	98	98	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	26	1	0	308	504	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	812	504	-	0	-	0
Stage 1	504	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	351	572	0	-	-	0
Stage 1	611	-	0	-	-	0
Stage 2	750	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	351	572	-	-	-	-
Mov Cap-2 Maneuver	351	-	-	-	-	-
Stage 1	611	-	-	-	-	-
Stage 2	750	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	15.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	358	-
HCM Lane V/C Ratio	-	0.078	-
HCM Control Delay (s/veh)	-	15.9	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.3	-

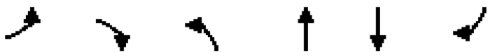
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	301	0	0	480
Future Vol, veh/h	0	1	301	0	0	480
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	327	0	0	522

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	849	327	0	0	327	0
Stage 1	327	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	331	714	-	-	1232	-
Stage 1	731	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	331	714	-	-	1232	-
Mov Cap-2 Maneuver	331	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	596	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.05	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	714	1232	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s/veh)	-	-	10	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

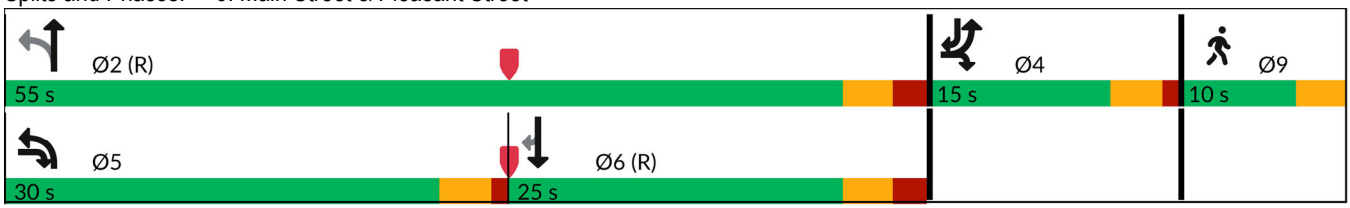


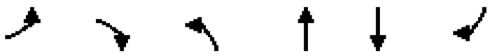
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	101	498	584	201	327	152	
Future Volume (vph)	101	498	584	201	327	152	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850				0.850	
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1711	1583	1770	1837	1773	1507	
Flt Permitted	0.950		0.355				
Satd. Flow (perm)	1711	1583	661	1837	1773	1507	
Satd. Flow (RTOR)		420				145	
Adj. Flow (vph)	106	524	628	216	355	165	
Lane Group Flow (vph)	106	524	628	216	355	165	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	4	4 5	5	2	6	4	9
Permitted Phases			2			6	
Detector Phase	4	4 5	5	2	6	4	
Switch Phase							
Minimum Initial (s)	4.0		6.0	5.0	6.0	4.0	1.0
Minimum Split (s)	8.0		10.0	10.0	11.0	8.0	10.0
Total Split (s)	15.0		30.0	55.0	25.0	15.0	10.0
Total Split (%)	18.8%		37.5%	68.8%	31.3%	18.8%	13%
Maximum Green (s)	11.0		26.0	50.0	20.0	11.0	7.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	2.0	2.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0	-1.0	-1.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
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		None	C-Min	C-Min	None	None
Walk Time (s)							6.0
Flash Don't Walk (s)							1.0
Pedestrian Calls (#/hr)							4
v/c Ratio	0.52	0.56	0.77	0.16	0.48	0.17	
Control Delay (s/veh)	42.0	4.7	18.7	1.8	23.1	3.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	42.0	4.7	18.7	1.8	23.1	3.3	
Queue Length 50th (ft)	49	26	29	8	133	4	
Queue Length 95th (ft)	98	54	#349	24	#290	38	
Internal Link Dist (ft)	549			58	64		
Turn Bay Length (ft)		70	60			70	
Base Capacity (vph)	235	978	859	1387	744	972	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.45	0.54	0.73	0.16	0.48	0.17	

Intersection Summary
Cycle Length: 80

Actuated Cycle Length: 80
Offset: 17 (21%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Main Street & Pleasant Street





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	101	498	584	201	327	152
Future Volume (vph)	101	498	584	201	327	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1711	1583	1770	1837	1773	1507
Flt Permitted	0.95	1.00	0.36	1.00	1.00	1.00
Satd. Flow (perm)	1711	1583	662	1837	1773	1507
Peak-hour factor, PHF	0.95	0.95	0.93	0.93	0.92	0.92
Adj. Flow (vph)	106	524	628	216	355	165
RTOR Reduction (vph)	0	249	0	0	0	73
Lane Group Flow (vph)	106	275	628	216	355	92
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	4 5	5	2	6	4
Permitted Phases			2			6
Actuated Green, G (s)	9.6	32.5	57.0	57.0	30.1	39.7
Effective Green, g (s)	9.6	32.5	57.0	58.0	31.1	39.7
Actuated g/C Ratio	0.12	0.41	0.71	0.73	0.39	0.50
Clearance Time (s)	4.0		4.0	5.0	5.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	205	643	788	1331	689	747
v/s Ratio Prot	c0.06	0.17	c0.23	0.12	0.20	0.01
v/s Ratio Perm			c0.34			0.05
v/c Ratio	0.52	0.43	0.80	0.16	0.52	0.12
Uniform Delay, d1	33.0	17.1	7.5	3.4	18.7	10.8
Progression Factor	1.00	1.00	2.01	0.45	1.00	1.00
Incremental Delay, d2	2.2	0.5	4.9	0.2	2.7	0.1
Delay (s)	35.2	17.5	19.9	1.8	21.4	10.9
Level of Service	D	B	B	A	C	B
Approach Delay (s/veh)	20.5			15.2	18.1	
Approach LOS	C			B	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	6	779	24	7	818
Future Vol, veh/h	10	6	779	24	7	818
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	34	34	96	96	94	94
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	29	18	811	25	7	870

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1709	824	0	0	836	0
Stage 1	824	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	101	376	-	-	806	-
Stage 1	434	-	-	-	-	-
Stage 2	407	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	99	376	-	-	806	-
Mov Cap-2 Maneuver	99	-	-	-	-	-
Stage 1	434	-	-	-	-	-
Stage 2	399	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	44.39	0	0.08
HCM LOS	E		

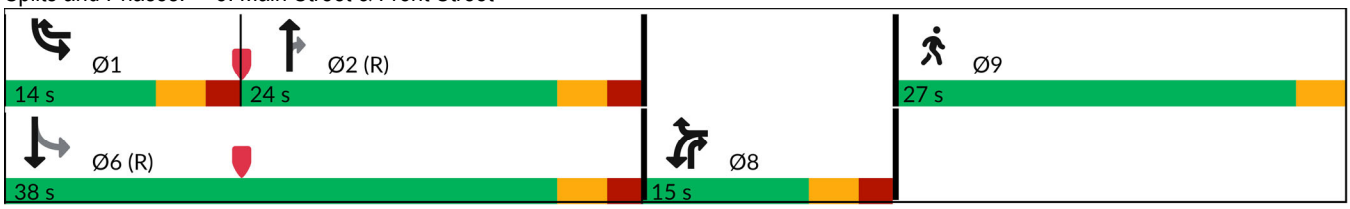
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	137	15	-
HCM Lane V/C Ratio	-	-	0.343	0.009	-
HCM Control Delay (s/veh)	-	-	44.4	9.5	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø9
Lane Configurations							
Traffic Volume (vph)	106	265	538	73	168	660	
Future Volume (vph)	106	265	538	73	168	660	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1745	1615	1818	1561	1787	1818	
Flt Permitted	0.950				0.258		
Satd. Flow (perm)	1745	1615	1818	1561	485	1818	
Satd. Flow (RTOR)		291		61			
Adj. Flow (vph)	116	291	591	80	177	695	
Lane Group Flow (vph)	116	291	591	80	177	695	
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA	
Protected Phases	8	8 1	2	8	1	6	9
Permitted Phases				2	6		
Detector Phase	8	8 1	2	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0		10.0	10.0	10.0	10.0	27.0
Total Split (s)	15.0		24.0	15.0	14.0	38.0	27.0
Total Split (%)	18.8%		30.0%	18.8%	17.5%	47.5%	34%
Maximum Green (s)	10.0		19.0	10.0	9.0	33.0	24.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	None	None	C-Min	None
Walk Time (s)							7.0
Flash Don't Walk (s)							17.0
Pedestrian Calls (#/hr)							2
v/c Ratio	0.53	0.46	0.59	0.07	0.37	0.54	
Control Delay (s/veh)	41.7	4.6	19.2	2.3	10.5	14.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	41.7	4.6	19.2	2.3	10.5	14.3	
Queue Length 50th (ft)	54	0	112	0	39	213	
Queue Length 95th (ft)	106	28	#565	m11	125	#544	
Internal Link Dist (ft)	1068		403			431	
Turn Bay Length (ft)		55		115	110		
Base Capacity (vph)	239	638	996	1164	505	1284	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.49	0.46	0.59	0.07	0.35	0.54	

Intersection Summary
Cycle Length: 80

Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

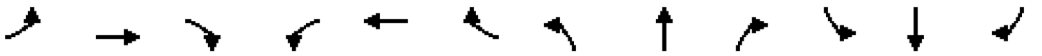
Splits and Phases: 8: Main Street & Front Street



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	106	265	538	73	168	660
Future Volume (vph)	106	265	538	73	168	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	12	11
Total Lost time (s)	4.0	5.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1745	1615	1818	1561	1787	1818
Flt Permitted	0.95	1.00	1.00	1.00	0.26	1.00
Satd. Flow (perm)	1745	1615	1818	1561	485	1818
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.95	0.95
Adj. Flow (vph)	116	291	591	80	177	695
RTOR Reduction (vph)	0	230	0	22	0	0
Lane Group Flow (vph)	116	61	591	58	177	695
Heavy Vehicles (%)	0%	0%	1%	0%	1%	1%
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	8 1	2	8	1	6
Permitted Phases				2	6	
Actuated Green, G (s)	9.1	16.8	40.4	49.5	53.1	53.1
Effective Green, g (s)	10.1	16.8	41.4	51.5	54.1	54.1
Actuated g/C Ratio	0.13	0.21	0.52	0.64	0.68	0.68
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	220	339	940	1082	469	1229
v/s Ratio Prot	c0.07	0.04	c0.32	0.01	0.04	c0.38
v/s Ratio Perm				0.03	0.21	
v/c Ratio	0.53	0.18	0.63	0.05	0.38	0.57
Uniform Delay, d1	32.7	25.9	13.8	5.3	7.5	6.8
Progression Factor	1.00	1.00	0.89	0.62	1.27	1.36
Incremental Delay, d2	2.3	0.3	3.0	0.0	0.5	1.7
Delay (s)	35.0	26.2	15.2	3.3	9.9	10.9
Level of Service	C	C	B	A	A	B
Approach Delay (s/veh)	28.7		13.8			10.7
Approach LOS	C		B			B

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	27	31	6	30	119	9	411	17	121	474	171
Future Volume (vph)	81	27	31	6	30	119	9	411	17	121	474	171
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		0.970				0.850		0.995				0.850
Flt Protected		0.972			0.992			0.999			0.990	
Satd. Flow (prot)	0	1718	0	0	1822	1561	0	1854	0	0	1848	1652
Flt Permitted		0.797			0.957			0.987			0.827	
Satd. Flow (perm)	0	1409	0	0	1758	1561	0	1831	0	0	1544	1652
Satd. Flow (RTOR)		16				150		2				95
Adj. Flow (vph)	89	30	34	7	35	140	10	442	18	130	510	184
Lane Group Flow (vph)	0	153	0	0	42	140	0	470	0	0	640	184
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	10.0	10.0		3.0	10.0	10.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	15.0	15.0		7.0	15.0	15.0
Total Split (s)	20.0	20.0		20.0	20.0	20.0	26.0	26.0		10.0	36.0	36.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%	25.0%	32.5%	32.5%		12.5%	45.0%	45.0%
Maximum Green (s)	15.0	15.0		15.0	15.0	15.0	21.0	21.0		6.0	31.0	31.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		-1.0			-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Min	C-Min		None	C-Min	C-Min
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.62			0.14	0.36		0.38			0.61	0.16
Control Delay (s/veh)		38.3			28.3	7.4		9.4			12.7	4.6
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)		38.3			28.3	7.4		9.4			12.7	4.6
Queue Length 50th (ft)		63			18	0		70			76	0
Queue Length 95th (ft)		120			41	34		271			#509	39
Internal Link Dist (ft)		399			672			569			403	
Turn Bay Length (ft)						65						65
Base Capacity (vph)		294			351	432		1242			1047	1150
Starvation Cap Reductn		0			0	0		0			0	0
Spillback Cap Reductn		0			0	0		0			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		0.52			0.12	0.32		0.38			0.61	0.16

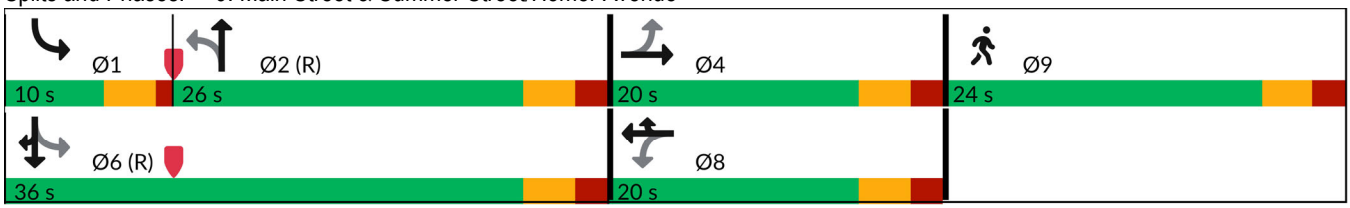
Intersection Summary
Cycle Length: 80

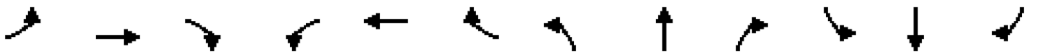
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.0
Total Split (s)	24.0
Total Split (%)	30%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	10.0
Pedestrian Calls (#/hr)	3
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Main Street & Summer Street/Homer Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	27	31	6	30	119	9	411	17	121	474	171
Future Volume (vph)	81	27	31	6	30	119	9	411	17	121	474	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	11	12	12	12	12	12	13
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	1.00
Frt		0.97			1.00	0.85		0.99			1.00	0.85
Flt Protected		0.97			0.99	1.00		1.00			0.99	1.00
Satd. Flow (prot)		1718			1821	1561		1853			1848	1652
Flt Permitted		0.80			0.96	1.00		0.99			0.83	1.00
Satd. Flow (perm)		1408			1757	1561		1832			1544	1652
Peak-hour factor, PHF	0.91	0.91	0.91	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	89	30	34	7	35	140	10	442	18	130	510	184
RTOR Reduction (vph)	0	13	0	0	0	117	0	1	0	0	0	35
Lane Group Flow (vph)	0	140	0	0	42	23	0	469	0	0	640	149
Heavy Vehicles (%)	0%	4%	0%	0%	0%	0%	0%	2%	0%	1%	2%	1%
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.3			12.3	12.3		49.3			49.3	49.3
Effective Green, g (s)		13.3			13.3	13.3		50.3			50.3	50.3
Actuated g/C Ratio		0.17			0.17	0.17		0.63			0.63	0.63
Clearance Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)		234			292	259		1151			970	1038
v/s Ratio Prot						0.01						0.09
v/s Ratio Perm		c0.10			0.02			0.26			c0.41	
v/c Ratio		0.60			0.14	0.09		0.41			0.66	0.14
Uniform Delay, d1		30.9			28.5	28.2		7.4			9.4	6.1
Progression Factor		1.00			1.00	1.00		1.00			0.80	0.97
Incremental Delay, d2		4.1			0.2	0.2		1.1			1.4	0.2
Delay (s)		34.9			28.7	28.4		8.5			8.9	6.1
Level of Service		C			C	C		A			A	A
Approach Delay (s/veh)		34.9			28.5			8.5			8.3	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

2031 Build (Mitigated)

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	37	28	353	43	18	227
Future Vol, veh/h	37	28	353	43	18	227
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	81	81	85	85
Heavy Vehicles, %	3	8	0	5	0	1
Mvmt Flow	43	33	436	53	21	267

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	772	462	0	0	489	0
Stage 1	462	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Critical Hdwy	6.43	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	367	587	-	-	1085	-
Stage 1	632	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	358	587	-	-	1085	-
Mov Cap-2 Maneuver	358	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	725	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.14	0	0.62
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	430	132	-
HCM Lane V/C Ratio	-	-	0.176	0.02	-
HCM Control Delay (s/veh)	-	-	15.1	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	6.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	40	361	32	20	249
Future Vol, veh/h	28	40	361	32	20	249
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	75	75	88	88
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	112	160	481	43	23	283

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	831	503	0	0	524	0
Stage 1	503	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	342	573	-	-	1053	-
Stage 1	612	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	333	573	-	-	1053	-
Mov Cap-2 Maneuver	333	-	-	-	-	-
Stage 1	612	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	25.31	0	0.63
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	442	134	-
HCM Lane V/C Ratio	-	-	0.615	0.022	-
HCM Control Delay (s/veh)	-	-	25.3	8.5	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	4	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	39	13	0	354	277	0
Future Vol, veh/h	39	13	0	354	277	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	76	76	88	88
Heavy Vehicles, %	0	0	0	0	3	0
Mvmt Flow	47	16	0	466	315	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	781	315	-	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	366	730	0	-	-	0
Stage 1	745	-	0	-	-	0
Stage 2	636	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	366	730	-	-	-	-
Mov Cap-2 Maneuver	366	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	636	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	419	-
HCM Lane V/C Ratio	-	0.15	-
HCM Control Delay (s/veh)	-	15.1	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.5	-

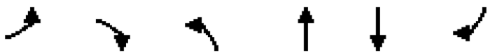
Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	352	0	0	290
Future Vol, veh/h	1	2	352	0	0	290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	383	0	0	315

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	698	383	0	0	383	0
Stage 1	383	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	407	665	-	-	1176	-
Stage 1	689	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	407	665	-	-	1176	-
Mov Cap-2 Maneuver	407	-	-	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	549	1176	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s/veh)	-	-	11.6	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

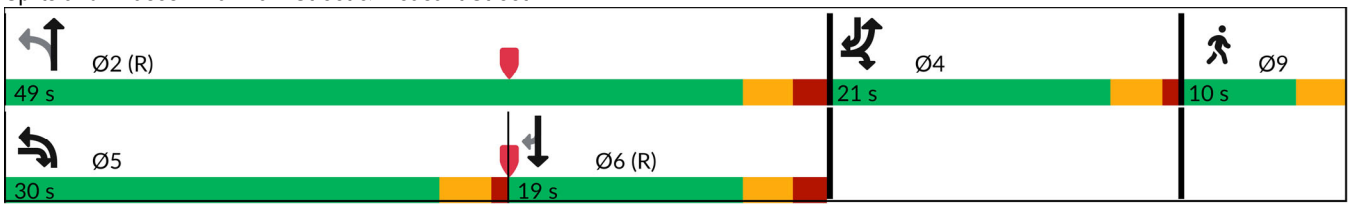


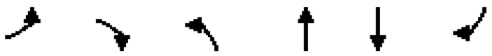
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	120	594	522	233	178	113	
Future Volume (vph)	120	594	522	233	178	113	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850				0.850	
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1728	1568	1770	1818	1756	1478	
Flt Permitted	0.950		0.533				
Satd. Flow (perm)	1728	1568	993	1818	1756	1478	
Satd. Flow (RTOR)		557				122	
Adj. Flow (vph)	132	653	580	259	191	122	
Lane Group Flow (vph)	132	653	580	259	191	122	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	4	4 5	5	2	6	4	9
Permitted Phases			2			6	
Detector Phase	4	4 5	5	2	6	4	
Switch Phase							
Minimum Initial (s)	4.0		6.0	5.0	6.0	4.0	5.0
Minimum Split (s)	8.0		10.0	10.0	11.0	8.0	10.0
Total Split (s)	21.0		30.0	49.0	19.0	21.0	10.0
Total Split (%)	26.3%		37.5%	61.3%	23.8%	26.3%	13%
Maximum Green (s)	17.0		26.0	44.0	14.0	17.0	7.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	2.0	2.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0	-1.0	-1.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
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		None	C-Min	C-Min	None	None
Walk Time (s)							6.0
Flash Don't Walk (s)							1.0
Pedestrian Calls (#/hr)							2
v/c Ratio	0.49	0.65	0.64	0.20	0.25	0.12	
Control Delay (s/veh)	36.0	4.9	7.2	3.0	20.8	2.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	36.0	4.9	7.2	3.0	20.8	2.7	
Queue Length 50th (ft)	61	27	25	10	56	0	
Queue Length 95th (ft)	107	41	256	57	154	28	
Internal Link Dist (ft)	549			58	64		
Turn Bay Length (ft)		70	60			70	
Base Capacity (vph)	367	1076	965	1306	750	1056	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.36	0.61	0.60	0.20	0.25	0.12	

Intersection Summary
Cycle Length: 80

Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 6: Main Street & Pleasant Street





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	120	594	522	233	178	113
Future Volume (vph)	120	594	522	233	178	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1728	1568	1770	1818	1756	1478
Flt Permitted	0.95	1.00	0.53	1.00	1.00	1.00
Satd. Flow (perm)	1728	1568	992	1818	1756	1478
Peak-hour factor, PHF	0.91	0.91	0.90	0.90	0.93	0.93
Adj. Flow (vph)	132	653	580	259	191	122
RTOR Reduction (vph)	0	336	0	0	0	56
Lane Group Flow (vph)	132	317	580	259	191	66
Heavy Vehicles (%)	1%	3%	2%	1%	1%	2%
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	4 5	5	2	6	4
Permitted Phases			2			6
Actuated Green, G (s)	12.5	31.8	54.1	54.1	30.8	43.3
Effective Green, g (s)	12.5	31.8	54.1	55.1	31.8	43.3
Actuated g/C Ratio	0.16	0.40	0.68	0.69	0.40	0.54
Clearance Time (s)	4.0		4.0	5.0	5.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	270	623	858	1252	698	799
v/s Ratio Prot	0.08	c0.20	c0.16	0.14	0.11	0.01
v/s Ratio Perm			c0.29			0.03
v/c Ratio	0.49	0.51	0.68	0.21	0.27	0.08
Uniform Delay, d1	30.8	18.2	6.6	4.5	16.3	8.8
Progression Factor	1.00	1.00	0.61	0.52	1.00	1.00
Incremental Delay, d2	1.4	0.7	1.9	0.3	1.0	0.0
Delay (s)	32.2	18.9	6.0	2.7	17.3	8.9
Level of Service	C	B	A	A	B	A
Approach Delay (s/veh)	21.1			4.9	14.0	
Approach LOS	C			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	14	741	16	3	769
Future Vol, veh/h	21	14	741	16	3	769
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	91	91	87	87
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	42	28	814	18	3	884

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1714	823	0	0	832	0
Stage 1	823	-	-	-	-	-
Stage 2	891	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	100	376	-	-	809	-
Stage 1	435	-	-	-	-	-
Stage 2	404	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	100	376	-	-	809	-
Mov Cap-2 Maneuver	100	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	401	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	53.37	0	0.04
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	141	7	-
HCM Lane V/C Ratio	-	-	0.496	0.004	-
HCM Control Delay (s/veh)	-	-	53.4	9.5	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	2.3	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø9
Lane Configurations							
Traffic Volume (vph)	70	199	558	120	283	507	
Future Volume (vph)	70	199	558	120	283	507	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1711	1583	1818	1531	1787	1818	
Flt Permitted	0.950				0.315		
Satd. Flow (perm)	1711	1583	1818	1531	593	1818	
Satd. Flow (RTOR)		255		101			
Adj. Flow (vph)	90	255	634	136	311	557	
Lane Group Flow (vph)	90	255	634	136	311	557	
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA	
Protected Phases	8	8 1	2	8	1	6	9
Permitted Phases				2	6		
Detector Phase	8	8 1	2	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0		10.0	10.0	10.0	10.0	27.0
Total Split (s)	11.0		30.0	11.0	12.0	42.0	27.0
Total Split (%)	13.8%		37.5%	13.8%	15.0%	52.5%	34%
Maximum Green (s)	6.0		25.0	6.0	7.0	37.0	24.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	None	None	C-Min	None
Walk Time (s)							7.0
Flash Don't Walk (s)							17.0
Pedestrian Calls (#/hr)							0
v/c Ratio	0.60	0.46	0.53	0.11	0.52	0.38	
Control Delay (s/veh)	53.8	6.7	10.0	0.4	4.9	2.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	53.8	6.7	10.0	0.4	4.9	2.8	
Queue Length 50th (ft)	44	0	192	1	24	43	
Queue Length 95th (ft)	#79	33	m33	m0	29	54	
Internal Link Dist (ft)	1068		403			431	
Turn Bay Length (ft)		55		115	110		
Base Capacity (vph)	149	553	1204	1245	601	1477	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.60	0.46	0.53	0.11	0.52	0.38	

Intersection Summary
Cycle Length: 80

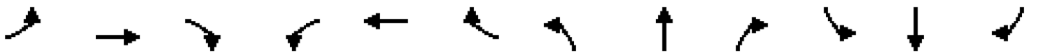
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Main Street & Front Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	70	199	558	120	283	507
Future Volume (vph)	70	199	558	120	283	507
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	12	11
Total Lost time (s)	4.0	5.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1711	1583	1818	1531	1787	1818
Flt Permitted	0.95	1.00	1.00	1.00	0.31	1.00
Satd. Flow (perm)	1711	1583	1818	1531	592	1818
Peak-hour factor, PHF	0.78	0.78	0.88	0.88	0.91	0.91
Adj. Flow (vph)	90	255	634	136	311	557
RTOR Reduction (vph)	0	198	0	25	0	0
Lane Group Flow (vph)	90	57	634	111	311	557
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	8 1	2	8	1	6
Permitted Phases				2	6	
Actuated Green, G (s)	6.0	18.0	52.0	58.0	64.0	64.0
Effective Green, g (s)	7.0	18.0	53.0	60.0	65.0	65.0
Actuated g/C Ratio	0.09	0.23	0.66	0.75	0.81	0.81
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	149	356	1204	1224	600	1477
v/s Ratio Prot	c0.05	0.04	0.35	0.01	c0.05	0.31
v/s Ratio Perm				0.06	c0.37	
v/c Ratio	0.60	0.16	0.53	0.09	0.52	0.38
Uniform Delay, d1	35.2	24.9	7.0	2.7	3.9	2.0
Progression Factor	1.00	1.00	1.16	0.30	1.16	1.02
Incremental Delay, d2	6.7	0.2	1.5	0.0	0.7	0.7
Delay (s)	41.9	25.1	9.6	0.8	5.2	2.7
Level of Service	D	C	A	A	A	A
Approach Delay (s/veh)	29.5		8.1			3.6
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	36	35	4	18	100	9	437	6	91	398	88
Future Volume (vph)	141	36	35	4	18	100	9	437	6	91	398	88
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		0.978				0.850		0.998				0.850
Flt Protected		0.968			0.991			0.999			0.991	
Satd. Flow (prot)	0	1705	0	0	1820	1546	0	1858	0	0	1853	1652
Flt Permitted		0.782			0.954			0.991			0.846	
Satd. Flow (perm)	0	1377	0	0	1752	1546	0	1843	0	0	1582	1652
Satd. Flow (RTOR)		11				150		1				95
Adj. Flow (vph)	170	43	42	5	23	130	9	451	6	96	419	93
Lane Group Flow (vph)	0	255	0	0	28	130	0	466	0	0	515	93
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	10.0	10.0		3.0	10.0	10.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	15.0	15.0		7.0	15.0	15.0
Total Split (s)	22.0	22.0		22.0	22.0	22.0	29.0	29.0		7.0	36.0	36.0
Total Split (%)	27.5%	27.5%		27.5%	27.5%	27.5%	36.3%	36.3%		8.8%	45.0%	45.0%
Maximum Green (s)	17.0	17.0		17.0	17.0	17.0	24.0	24.0		3.0	31.0	31.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		-1.0			-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Min	C-Min		None	C-Min	C-Min
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.84			0.07	0.29		0.40			0.52	0.09
Control Delay (s/veh)		53.8			25.2	5.4		11.1			11.3	2.4
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)		53.8			25.2	5.4		11.1			11.3	2.4
Queue Length 50th (ft)		116			11	0		86			81	0
Queue Length 95th (ft)		#206			27	19		282			#377	m12
Internal Link Dist (ft)		399			672			569			403	
Turn Bay Length (ft)						65						65
Base Capacity (vph)		318			394	464		1162			997	1076
Starvation Cap Reductn		0			0	0		0			0	0
Spillback Cap Reductn		0			0	0		0			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		0.80			0.07	0.28		0.40			0.52	0.09

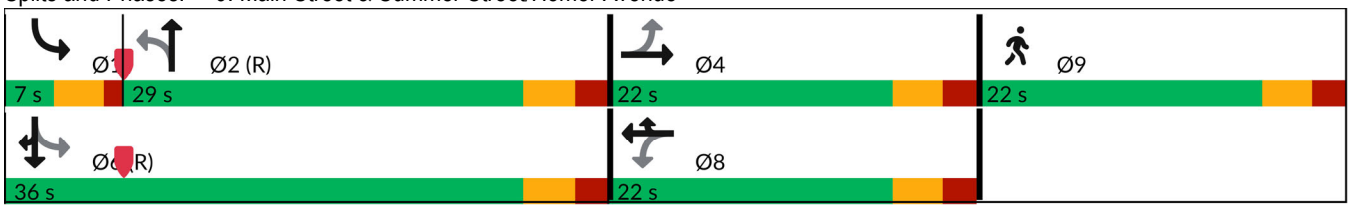
Intersection Summary
Cycle Length: 80

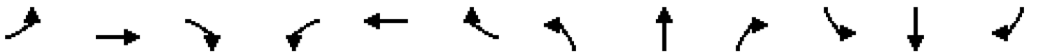
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	28%
Maximum Green (s)	17.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	10.0
Pedestrian Calls (#/hr)	1
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Actuated Cycle Length: 80
Offset: 42 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Main Street & Summer Street/Homer Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	36	35	4	18	100	9	437	6	91	398	88
Future Volume (vph)	141	36	35	4	18	100	9	437	6	91	398	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	11	12	12	12	12	12	13
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	1.00
Frt		0.98			1.00	0.85		1.00			1.00	0.85
Flt Protected		0.97			0.99	1.00		1.00			0.99	1.00
Satd. Flow (prot)		1704			1820	1546		1859			1852	1652
Flt Permitted		0.78			0.95	1.00		0.99			0.85	1.00
Satd. Flow (perm)		1378			1752	1546		1843			1582	1652
Peak-hour factor, PHF	0.83	0.83	0.83	0.77	0.77	0.77	0.97	0.97	0.97	0.95	0.95	0.95
Adj. Flow (vph)	170	43	42	5	23	130	9	451	6	96	419	93
RTOR Reduction (vph)	0	9	0	0	0	102	0	0	0	0	0	39
Lane Group Flow (vph)	0	246	0	0	28	28	0	466	0	0	515	54
Heavy Vehicles (%)	3%	0%	0%	0%	0%	1%	0%	2%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.2			16.2	16.2		45.4			45.4	45.4
Effective Green, g (s)		17.2			17.2	17.2		46.4			46.4	46.4
Actuated g/C Ratio		0.22			0.22	0.22		0.58			0.58	0.58
Clearance Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)		296			376	332		1068			917	958
v/s Ratio Prot						0.02						0.03
v/s Ratio Perm		c0.18			0.02			0.25			c0.33	
v/c Ratio		0.83			0.07	0.08		0.44			0.56	0.06
Uniform Delay, d1		30.0			25.1	25.1		9.4			10.5	7.3
Progression Factor		1.00			1.00	1.00		1.00			0.76	0.75
Incremental Delay, d2		17.8			0.1	0.1		1.3			0.7	0.1
Delay (s)		47.8			25.1	25.2		10.7			8.7	5.6
Level of Service		D			C	C		B			A	A
Approach Delay (s/veh)		47.8			25.2			10.7			8.2	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	19	250	26	33	452
Future Vol, veh/h	25	19	250	26	33	452
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	97	97	96	96
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	31	23	258	27	34	471

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	811	271	0	0	285	0
Stage 1	271	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	352	772	-	-	1289	-
Stage 1	779	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	339	772	-	-	1289	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	567	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	14.15	0	0.54
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	447	122	-
HCM Lane V/C Ratio	-	-	0.121	0.027	-
HCM Control Delay (s/veh)	-	-	14.2	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	33	275	45	30	458
Future Vol, veh/h	21	33	275	45	30	458
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	84	132	289	47	32	482

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	858	313	0	0	337	0
Stage 1	313	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	330	732	-	-	1234	-
Stage 1	746	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	318	732	-	-	1234	-
Mov Cap-2 Maneuver	318	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	18.19	0	0.49
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	486	111	-
HCM Lane V/C Ratio	-	-	0.444	0.026	-
HCM Control Delay (s/veh)	-	-	18.2	8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.2	0.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	1	0	302	479	0
Future Vol, veh/h	18	1	0	302	479	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	68	68	98	98	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	26	1	0	308	504	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	812	504	-	0	-	0
Stage 1	504	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	351	572	0	-	-	0
Stage 1	611	-	0	-	-	0
Stage 2	750	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	351	572	-	-	-	-
Mov Cap-2 Maneuver	351	-	-	-	-	-
Stage 1	611	-	-	-	-	-
Stage 2	750	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	15.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	358	-
HCM Lane V/C Ratio	-	0.078	-
HCM Control Delay (s/veh)	-	15.9	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.3	-

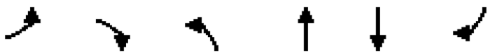
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	301	0	0	480
Future Vol, veh/h	0	1	301	0	0	480
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	327	0	0	522

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	849	327	0	0	327	0
Stage 1	327	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	331	714	-	-	1232	-
Stage 1	731	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	331	714	-	-	1232	-
Mov Cap-2 Maneuver	331	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	596	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.05	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	714	1232	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s/veh)	-	-	10	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

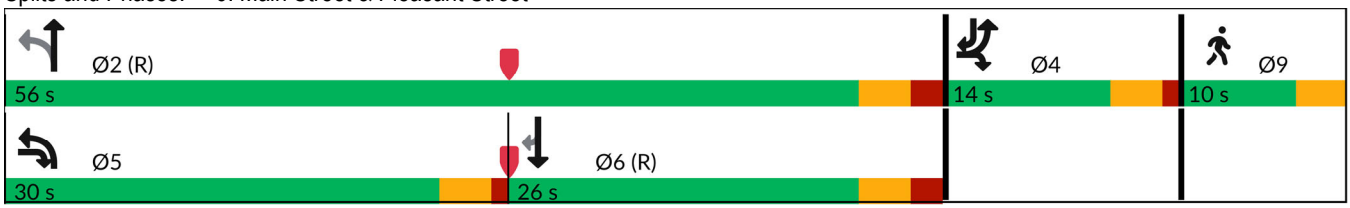


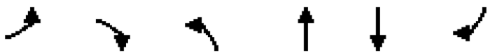
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	101	498	584	201	327	152	
Future Volume (vph)	101	498	584	201	327	152	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850				0.850	
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1711	1583	1770	1837	1773	1507	
Flt Permitted	0.950		0.367				
Satd. Flow (perm)	1711	1583	684	1837	1773	1507	
Satd. Flow (RTOR)		424				145	
Adj. Flow (vph)	106	524	628	216	355	165	
Lane Group Flow (vph)	106	524	628	216	355	165	
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	4	4 5	5	2	6	4	9
Permitted Phases			2			6	
Detector Phase	4	4 5	5	2	6	4	
Switch Phase							
Minimum Initial (s)	4.0		6.0	5.0	6.0	4.0	1.0
Minimum Split (s)	8.0		10.0	10.0	11.0	8.0	10.0
Total Split (s)	14.0		30.0	56.0	26.0	14.0	10.0
Total Split (%)	17.5%		37.5%	70.0%	32.5%	17.5%	13%
Maximum Green (s)	10.0		26.0	51.0	21.0	10.0	7.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	2.0	2.0	1.0	0.0
Lost Time Adjust (s)	0.0		0.0	-1.0	-1.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
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		None	C-Min	C-Min	None	None
Walk Time (s)							6.0
Flash Don't Walk (s)							1.0
Pedestrian Calls (#/hr)							4
v/c Ratio	0.55	0.57	0.76	0.15	0.46	0.17	
Control Delay (s/veh)	44.8	4.9	11.0	2.3	21.8	3.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	44.8	4.9	11.0	2.3	21.8	3.3	
Queue Length 50th (ft)	50	25	186	30	130	4	
Queue Length 95th (ft)	100	55	#72	18	#278	38	
Internal Link Dist (ft)	549			58	64		
Turn Bay Length (ft)		70	60			70	
Base Capacity (vph)	213	968	875	1401	770	974	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.50	0.54	0.72	0.15	0.46	0.17	

Intersection Summary
Cycle Length: 80

Actuated Cycle Length: 80
Offset: 44 (55%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Main Street & Pleasant Street





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	101	498	584	201	327	152
Future Volume (vph)	101	498	584	201	327	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	10	10
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1711	1583	1770	1837	1773	1507
Flt Permitted	0.95	1.00	0.37	1.00	1.00	1.00
Satd. Flow (perm)	1711	1583	683	1837	1773	1507
Peak-hour factor, PHF	0.95	0.95	0.93	0.93	0.92	0.92
Adj. Flow (vph)	106	524	628	216	355	165
RTOR Reduction (vph)	0	258	0	0	0	72
Lane Group Flow (vph)	106	266	628	216	355	93
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%
Turn Type	Prot	pt+ov	pm+pt	NA	NA	pm+ov
Protected Phases	4	4 5	5	2	6	4
Permitted Phases			2			6
Actuated Green, G (s)	9.0	31.3	57.6	57.6	31.3	40.3
Effective Green, g (s)	9.0	31.3	57.6	58.6	32.3	40.3
Actuated g/C Ratio	0.11	0.39	0.72	0.73	0.40	0.50
Clearance Time (s)	4.0		4.0	5.0	5.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	192	619	794	1345	715	759
v/s Ratio Prot	c0.06	0.17	c0.22	0.12	0.20	0.01
v/s Ratio Perm			c0.35			0.05
v/c Ratio	0.55	0.43	0.79	0.16	0.50	0.12
Uniform Delay, d1	33.6	17.8	7.1	3.2	17.8	10.5
Progression Factor	1.00	1.00	0.81	0.62	1.00	1.00
Incremental Delay, d2	3.4	0.5	4.7	0.2	2.5	0.1
Delay (s)	37.0	18.3	10.5	2.2	20.2	10.6
Level of Service	D	B	B	A	C	B
Approach Delay (s/veh)	21.4			8.4	17.2	
Approach LOS	C			A	B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

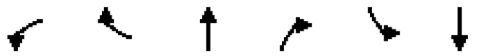
Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	6	779	24	7	818
Future Vol, veh/h	10	6	779	24	7	818
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	34	34	96	96	94	94
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	29	18	811	25	7	870

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1709	824	0	0	836	0
Stage 1	824	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	101	376	-	-	806	-
Stage 1	434	-	-	-	-	-
Stage 2	407	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	99	376	-	-	806	-
Mov Cap-2 Maneuver	99	-	-	-	-	-
Stage 1	434	-	-	-	-	-
Stage 2	399	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	44.39	0	0.08
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	137	15	-
HCM Lane V/C Ratio	-	-	0.343	0.009	-
HCM Control Delay (s/veh)	-	-	44.4	9.5	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0	-

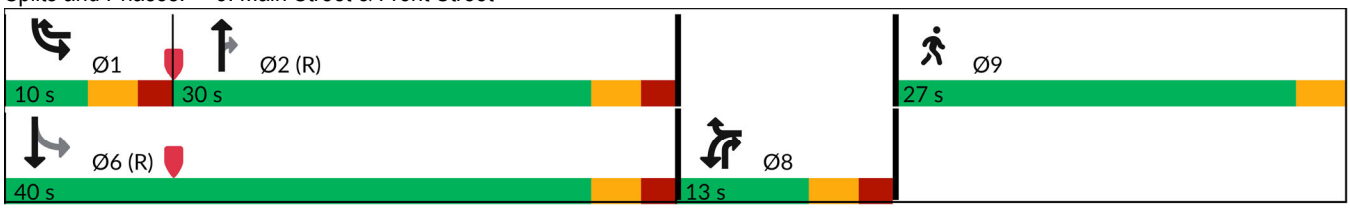


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø9
Lane Configurations							
Traffic Volume (vph)	106	265	538	73	168	660	
Future Volume (vph)	106	265	538	73	168	660	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850		0.850			
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1745	1615	1818	1561	1787	1818	
Flt Permitted	0.950				0.291		
Satd. Flow (perm)	1745	1615	1818	1561	547	1818	
Satd. Flow (RTOR)		291		67			
Adj. Flow (vph)	116	291	591	80	177	695	
Lane Group Flow (vph)	116	291	591	80	177	695	
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA	
Protected Phases	8	8 1	2	8	1	6	9
Permitted Phases				2	6		
Detector Phase	8	8 1	2	8	1	6	
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0		10.0	10.0	10.0	10.0	27.0
Total Split (s)	13.0		30.0	13.0	10.0	40.0	27.0
Total Split (%)	16.3%		37.5%	16.3%	12.5%	50.0%	34%
Maximum Green (s)	8.0		25.0	8.0	5.0	35.0	24.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0	
Lead/Lag			Lag		Lead		
Lead-Lag Optimize?			Yes		Yes		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	None	None	C-Min	None
Walk Time (s)							7.0
Flash Don't Walk (s)							17.0
Pedestrian Calls (#/hr)							2
v/c Ratio	0.61	0.51	0.54	0.07	0.36	0.53	
Control Delay (s/veh)	48.8	5.9	15.3	1.8	6.9	9.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	48.8	5.9	15.3	1.8	6.9	9.5	
Queue Length 50th (ft)	56	0	110	0	9	42	
Queue Length 95th (ft)	#120	31	#490	m11	77	#524	
Internal Link Dist (ft)	1068		403			431	
Turn Bay Length (ft)		55		115	110		
Base Capacity (vph)	196	555	1088	1203	488	1315	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.59	0.52	0.54	0.07	0.36	0.53	

Intersection Summary
Cycle Length: 80

Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

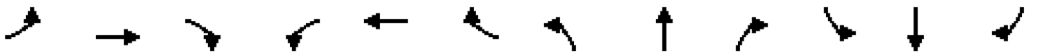
Splits and Phases: 8: Main Street & Front Street



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	106	265	538	73	168	660
Future Volume (vph)	106	265	538	73	168	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	12	11
Total Lost time (s)	4.0	5.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1745	1615	1818	1561	1787	1818
Flt Permitted	0.95	1.00	1.00	1.00	0.29	1.00
Satd. Flow (perm)	1745	1615	1818	1561	547	1818
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.95	0.95
Adj. Flow (vph)	116	291	591	80	177	695
RTOR Reduction (vph)	0	245	0	22	0	0
Lane Group Flow (vph)	116	46	591	58	177	695
Heavy Vehicles (%)	0%	0%	1%	0%	1%	1%
Turn Type	Prot	pt+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	8 1	2	8	1	6
Permitted Phases				2	6	
Actuated Green, G (s)	7.7	12.7	44.5	52.2	54.5	54.5
Effective Green, g (s)	8.7	12.7	45.5	54.2	55.5	55.5
Actuated g/C Ratio	0.11	0.16	0.57	0.68	0.69	0.69
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	189	256	1033	1135	472	1261
v/s Ratio Prot	c0.07	0.03	0.32	0.01	0.03	c0.38
v/s Ratio Perm				0.03	0.23	
v/c Ratio	0.61	0.18	0.57	0.05	0.38	0.55
Uniform Delay, d1	34.0	29.1	11.0	4.3	6.4	6.1
Progression Factor	1.00	1.00	0.91	0.62	0.79	0.88
Incremental Delay, d2	5.8	0.3	2.2	0.0	0.4	1.5
Delay (s)	39.8	29.5	12.2	2.7	5.5	6.9
Level of Service	D	C	B	A	A	A
Approach Delay (s/veh)	32.4		11.0			6.6
Approach LOS	C		B			A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	27	31	6	30	119	9	411	17	121	474	171
Future Volume (vph)	81	27	31	6	30	119	9	411	17	121	474	171
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		0.970				0.850		0.995				0.850
Flt Protected		0.972			0.992			0.999			0.990	
Satd. Flow (prot)	0	1718	0	0	1822	1561	0	1854	0	0	1848	1652
Flt Permitted		0.797			0.957			0.987			0.827	
Satd. Flow (perm)	0	1409	0	0	1758	1561	0	1831	0	0	1544	1652
Satd. Flow (RTOR)		16				150		2				95
Adj. Flow (vph)	89	30	34	7	35	140	10	442	18	130	510	184
Lane Group Flow (vph)	0	153	0	0	42	140	0	470	0	0	640	184
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	10.0	10.0		3.0	10.0	10.0
Minimum Split (s)	13.0	13.0		13.0	13.0	13.0	15.0	15.0		7.0	15.0	15.0
Total Split (s)	20.0	20.0		20.0	20.0	20.0	26.0	26.0		10.0	36.0	36.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%	25.0%	32.5%	32.5%		12.5%	45.0%	45.0%
Maximum Green (s)	15.0	15.0		15.0	15.0	15.0	21.0	21.0		6.0	31.0	31.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		1.0	2.0	2.0
Lost Time Adjust (s)		-1.0			-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	C-Min	C-Min		None	C-Min	C-Min
Walk Time (s)												
Flash Don't Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.62			0.14	0.36		0.38			0.61	0.16
Control Delay (s/veh)		38.3			28.3	7.4		9.4			11.9	3.7
Queue Delay		0.0			0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)		38.3			28.3	7.4		9.4			11.9	3.7
Queue Length 50th (ft)		63			18	0		70			73	0
Queue Length 95th (ft)		120			41	34		271			#511	27
Internal Link Dist (ft)		399			672			569			403	
Turn Bay Length (ft)						65						65
Base Capacity (vph)		294			351	432		1242			1047	1150
Starvation Cap Reductn		0			0	0		0			0	0
Spillback Cap Reductn		0			0	0		0			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		0.52			0.12	0.32		0.38			0.61	0.16

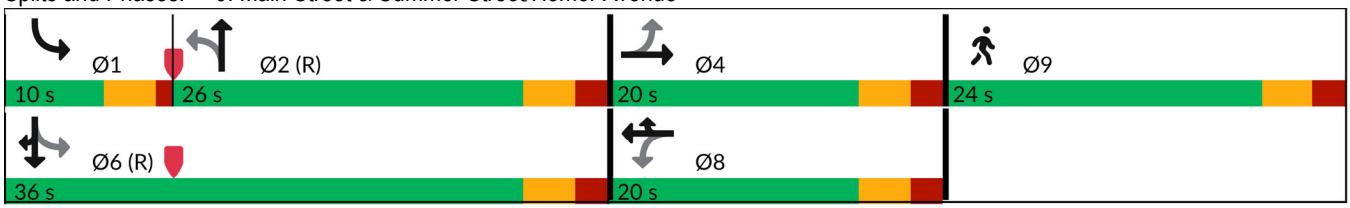
Intersection Summary
Cycle Length: 80

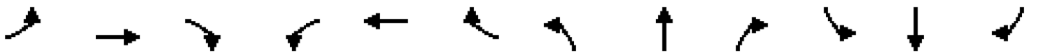
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.0
Total Split (s)	24.0
Total Split (%)	30%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	10.0
Pedestrian Calls (#/hr)	3
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Actuated Cycle Length: 80
Offset: 8 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Main Street & Summer Street/Homer Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	27	31	6	30	119	9	411	17	121	474	171
Future Volume (vph)	81	27	31	6	30	119	9	411	17	121	474	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	11	12	12	12	12	12	13
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor		1.00			1.00	1.00		1.00			1.00	1.00
Frt		0.97			1.00	0.85		0.99			1.00	0.85
Flt Protected		0.97			0.99	1.00		1.00			0.99	1.00
Satd. Flow (prot)		1718			1821	1561		1853			1848	1652
Flt Permitted		0.80			0.96	1.00		0.99			0.83	1.00
Satd. Flow (perm)		1408			1757	1561		1832			1544	1652
Peak-hour factor, PHF	0.91	0.91	0.91	0.85	0.85	0.85	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	89	30	34	7	35	140	10	442	18	130	510	184
RTOR Reduction (vph)	0	13	0	0	0	117	0	1	0	0	0	35
Lane Group Flow (vph)	0	140	0	0	42	23	0	469	0	0	640	149
Heavy Vehicles (%)	0%	4%	0%	0%	0%	0%	0%	2%	0%	1%	2%	1%
Turn Type	Perm	NA		Perm	NA	Prot	Perm	NA		pm+pt	NA	Prot
Protected Phases		4			8	8		2		1	6	6
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.3			12.3	12.3		49.3			49.3	49.3
Effective Green, g (s)		13.3			13.3	13.3		50.3			50.3	50.3
Actuated g/C Ratio		0.17			0.17	0.17		0.63			0.63	0.63
Clearance Time (s)		5.0			5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)		234			292	259		1151			970	1038
v/s Ratio Prot						0.01						0.09
v/s Ratio Perm		c0.10			0.02			0.26			c0.41	
v/c Ratio		0.60			0.14	0.09		0.41			0.66	0.14
Uniform Delay, d1		30.9			28.5	28.2		7.4			9.4	6.1
Progression Factor		1.00			1.00	1.00		1.00			0.71	0.78
Incremental Delay, d2		4.1			0.2	0.2		1.1			1.4	0.2
Delay (s)		34.9			28.7	28.4		8.5			8.1	5.0
Level of Service		C			C	C		A			A	A
Approach Delay (s/veh)		34.9			28.5			8.5			7.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group