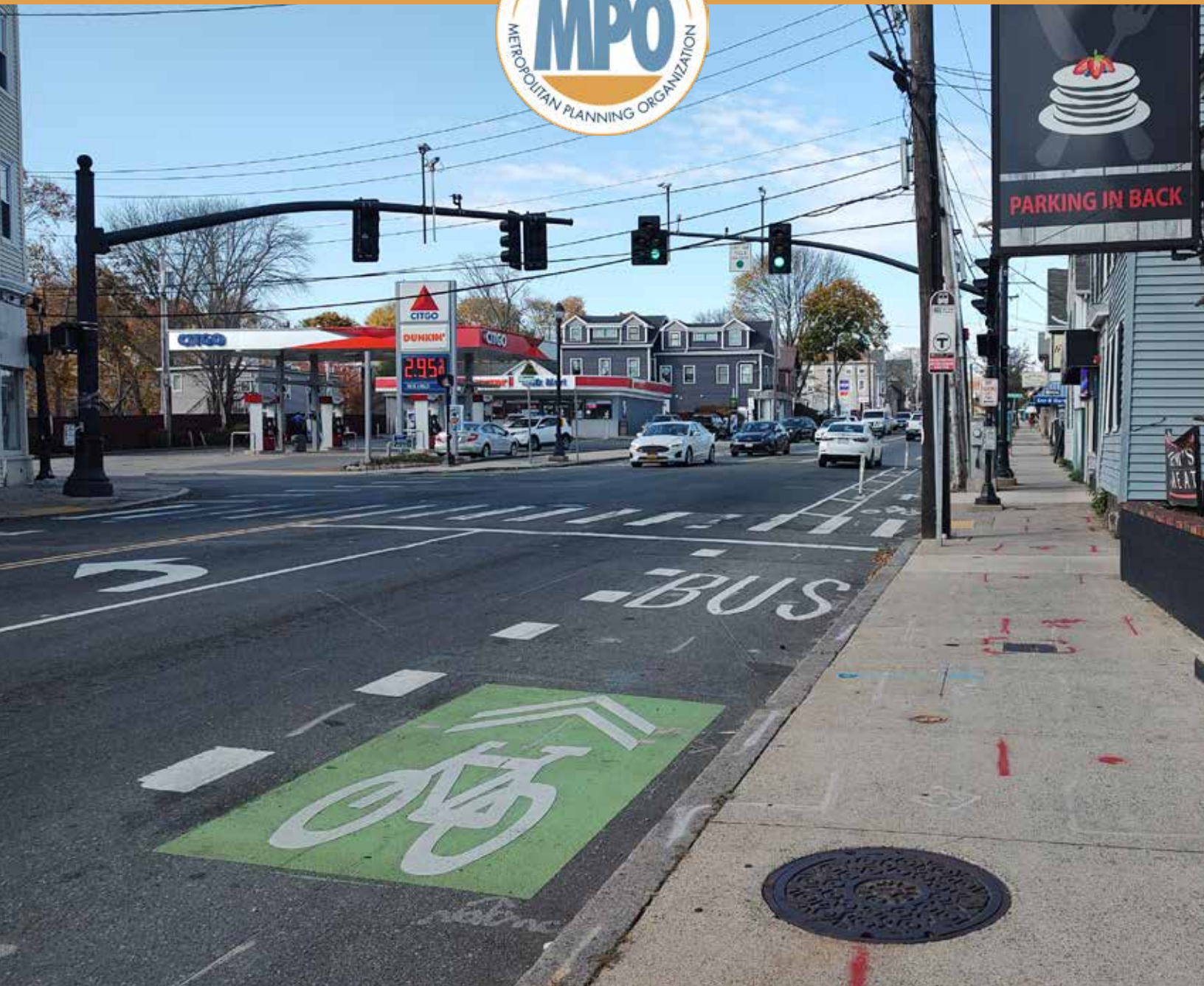


# Route 114 Corridor Study City of Salem

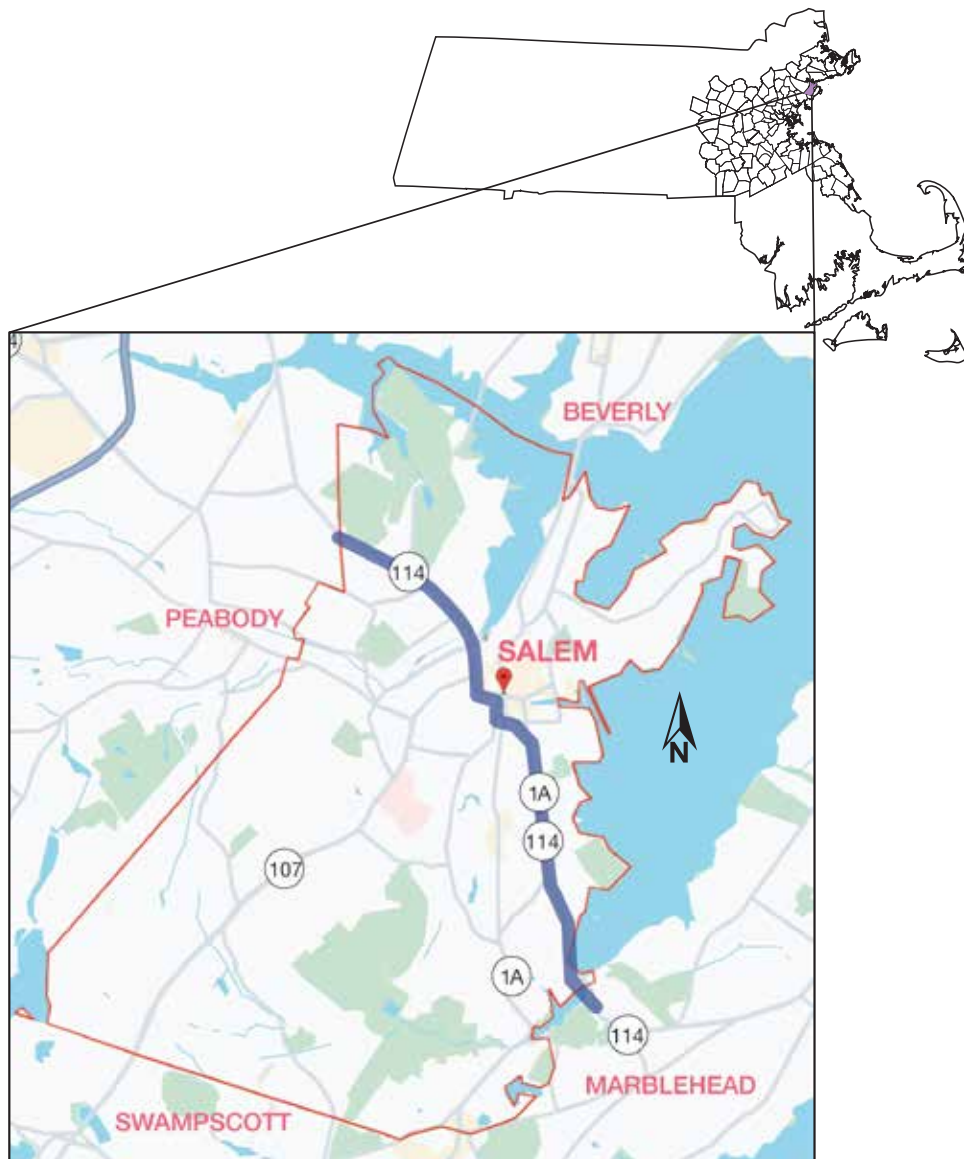


December 2025

# Route 114 Corridor Study City of Salem

December 2025





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# Abstract

The Boston Region Metropolitan Planning Organization's (MPO) corridor studies are conducted through the Multimodal Mobility Infrastructure Program. The program aims to support a safe, accessible, and multimodal regional transportation system by addressing issues of safety, congestion, and multimodal mobility and accessibility. Staff to the MPO prioritized Route 114 in the City of Salem for study after considering several factors, including the need to address poor safety conditions and the desire to enhance multimodal transportation in that location. This report outlines the existing conditions, assesses safety and operational issues, proposes improvements, and identifies funding programs for implementing projects. The potential improvements, if implemented, would enhance safety, multimodal transportation service, and traffic operations, thereby supporting the residents, local businesses, and schools along the corridor.

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# Executive Summary

## ES.1 BACKGROUND

This study was conducted through the Boston Region Metropolitan Planning Organization's (MPO) Multimodal Mobility Infrastructure Program (MMIP). The program aims to support a safe, accessible, and multimodal regional transportation system by addressing issues of safety, congestion, and multimodal mobility and accessibility. The program has three focus areas:

- Site-specific studies that are designed for communities to address transportation needs in corridors, intersections, and curbs
- Regional studies that explore ways to shift more people from driving to taking transit, walking, or biking
- Capacity-building studies that develop tools for communities to carry out small-scale studies, such as guides and best practices

The MPO has committed to funding corridor studies over the past decade, demonstrating its long-term dedication to improving safety and multimodal transportation. Many of the recommendations from the corridor studies have been implemented, as they provide municipalities, the Massachusetts Department of Transportation (MassDOT), and stakeholders with the necessary information to address deficiencies in the corridors before committing to the design and engineering of projects.

The MPO staff selected Route 114 in the City of Salem as the subject of a corridor study in the federal fiscal year 2025. When evaluating locations for study, the Route 114 corridor scored highly among several corridors due to the high incidence of crashes involving vehicles and vulnerable road users (such as pedestrians, bicyclists, and people using mobility devices), operational problems such as speeding and congestion, and transportation modes along the corridor that require infrastructure upgrades.

## ES.2 COMMUNITY ENGAGEMENT

Stakeholder participation was a crucial part of the study. MPO staff employed several methods to engage stakeholders, to gather local community perceptions regarding safety, operations, and infrastructure conditions, and to explore ideas for improvements. The engagement strategies included participatory mapping and a community survey that received 684 responses, gathering information about transportation concerns and ideas for improvement. Staff also attended several staff meetings at the City of Salem and three advisory committee meetings.

### **ES.3 EXISTING CONDITIONS AND NEEDS ASSESSMENT**

With the assistance of the City of Salem and MassDOT, MPO staff collected and assembled a wide range of data to assess existing conditions, launched a community survey to identify transportation concerns, and considered the results of safety analyses conducted through the MPO's and the City of Salem's Vision Zero programs. This process ensured that the recommendations were well-informed and that all relevant perspectives were considered.

Key concerns focus on safety and the high number of crashes involving vehicles and vulnerable road users that have occurred on the corridor, roadway segments where speeding has been an issue, poor infrastructure conditions, and infrastructure that is not compliant with the Americans with Disabilities Act (ADA). Other concerns include operational issues, such as congestion and queuing, and a lack of protection for users in bike lanes.

### **ES.4 RECOMMENDED IMPROVEMENTS**

MPO staff developed short-, mid-, and long-term improvements to address the needs in the corridor. The short-term improvements are generally low-cost and relatively uncomplicated to implement. They would require minimal design efforts and typically take fewer than three years to complete. The mid-term improvements are medium cost, requiring minimal design efforts, and would take about three to five years to implement. The long-term improvements are generally costly, requiring more design and engineering efforts, and would typically take more than five years to implement.

The short-term improvements include implementing repairs to comply with ADA standards, enhancing intersection and crosswalk visibility, and improving signage and pavement markings. The mid-term improvements include adding retroreflective backplates to enhance the visibility of signals, upgrading signal equipment and features, and improving sidewalks. The long-term improvements include modernizing intersections and roadway segments to enhance safety and multimodal transportation, typically within a Complete Streets framework.

### **ES.5 CONCLUSION**

The recommendations developed in this study provide the City of Salem and stakeholders with an opportunity to review the potential improvements for addressing deficiencies before committing design and engineering funds to improvement projects in the corridor. The City of Salem could package recommendations included in this report into projects and then coordinate with the Boston Region MPO and MassDOT to identify funding sources for the



projects. If implemented, the suggested improvements would enhance traffic safety and operations for all users.



# Chapter 1—Introduction

## 1.1 STUDY ORIGIN

The Boston Region Metropolitan Planning Organization (MPO) has been conducting studies of roadway corridors identified through the Multimodal Mobility Infrastructure Program as needing improvements to address issues of safety, congestion, and multimodal mobility and accessibility. The studies aim to build consensus among stakeholders and engage them in planning for a safe, multimodal transportation system.

Study recommendations are sent to implementing agencies, which may fund projects through various federal, state, and local sources, either separately or in combination. Municipalities and the Massachusetts Department of Transportation (MassDOT) have been receptive to these studies, which offer an opportunity to review options for improving a specific corridor before allocating design and engineering funds. The study documentation can help project proponents complete MassDOT's project initiation forms, justify the need for improvements, and facilitate the design and engineering process.

Many MPO-studied corridors have advanced into projects, are currently under construction, or have already been implemented. The map in Figure 1 shows the communities where corridor studies have occurred.

## 1.2 REPORT ORGANIZATION

This report is organized into four chapters. Chapter 1 provides an overview of the Boston Region MPO's corridor studies, including the selection process for choosing locations to study, goals and objectives, and community engagement efforts. Chapter 2 outlines the characteristics of Route 114 and the context of the study area, describes the data collection and existing condition assessments that informed the study, and discusses the need for improvements to infrastructure and operations. Chapter 3 outlines short-, mid-, and long-term improvements aligned with the corridor's transportation needs, along with their safety and operational advantages. Chapter 4 explains the project development and implementation process, including how to incorporate potential improvements into projects and secure funding to implement them.

## 1.3 CORRIDOR SELECTION PROCESS

The approach to MPO corridor studies starts with defining a universe of corridors. The MPO staff reach out to municipalities, subregional committees, and other stakeholders to identify corridors of concern. Staff also review the MPO's Long-Range Transportation Planning (LRTP) Needs Assessment and the Congestion





 Location of MPO corridor study

Source: Central Transportation Planning Staff

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**Figure 1**  
**Corridor Study Locations**

*Route 114 Corridor Study*  
*City of Salem*

Management Process, and consult the MassDOT Impact Portal and other tools to pinpoint corridors of interest. Once the universe of corridors is defined, staff screen the study locations using established criteria, such as the Transportation Improvement Program (TIP) scoring process. Corridors are then prioritized based on safety conditions, congestion levels, multimodal importance, regional significance, transportation equity, geographical distribution, and potential for implementation of projects. A corridor is then selected for study, considering feedback from agencies, municipalities, and stakeholders. After selecting a study location, an advisory committee is formed to guide the study, consisting of representatives from the municipality, MassDOT, business chambers of commerce, major employers, and educational institutions.

Following the above selection process, Route 114 in Salem was chosen for study in federal fiscal year 2025. The study location was selected from a list of 43 arterial segments across 33 municipalities in the Boston Region MPO area. The City of Salem, MassDOT, and Salem State University (SSU) supported the study by gathering the necessary data for the analyses and reviewing the study documents.

## **1.4 GOALS AND OBJECTIVES**

The MPO committed to studying Route 114 in Salem to address safety and operational concerns. The high rate of crashes involving vehicles, pedestrians, and bicyclists, operational problems such as speeding, congestion, and poor infrastructure have been impacting users. Therefore, the goals and objectives of the study focused on improving conditions for users by increasing safety and upgrading infrastructure for walking, biking, driving, and transit.

## **1.5 COMMUNITY ENGAGEMENT**

Stakeholder participation is a crucial element of any MPO-sponsored study. An advisory committee comprising staff from the City of Salem, MassDOT, the Massachusetts Bay Transportation Authority (MBTA), the Saltonstall School, and SSU was formed to guide the project. MPO staff convened the advisory committee to launch the study. During the kickoff meeting, staff outlined the purpose and needs, scope of work, tasks, deliverables, and timeline. In subsequent meetings, staff presented the existing conditions and survey results, highlighted corridor needs and potential improvements, and collected feedback. Staff also launched an interactive mapping survey to assess public opinions on transportation issues and gather ideas for solutions. This report incorporates the advisory committee's feedback. Appendix A provides a list of advisory committee members and their review comments.



# Chapter 2—Existing Conditions

## 2.1 STUDY AREA

Salem is a well-established suburban community located 16 miles north of Boston with approximately 45,000 residents and a diverse business sector. Salem's multimodal transportation system offers public transit options connecting to nearby communities and Boston. Commuter rail service is available at the MBTA's Salem Station on the Newburyport/Rockport Line, and there are five local and express bus routes, as well as a seasonal ferry service to Boston. For transportation planning purposes, the City of Salem is a member of the Metropolitan Area Planning Council's North Shore Task Force.

Figure 2 illustrates the study area along with nearby communities and streets. The study corridor is a three-mile segment of Route 114, stretching from the Peabody city line to the Marblehead town line. This two-lane, two-way roadway widens to include turn lanes at signalized intersections and is open to all traffic, including trucks, serving both regional and local travelers. In the northern part, the roadway is called North Street and Summer Street; in the middle, Norman Street and Washington Street; and in the south, Lafayette Street. Figure 3 illustrates these segments.

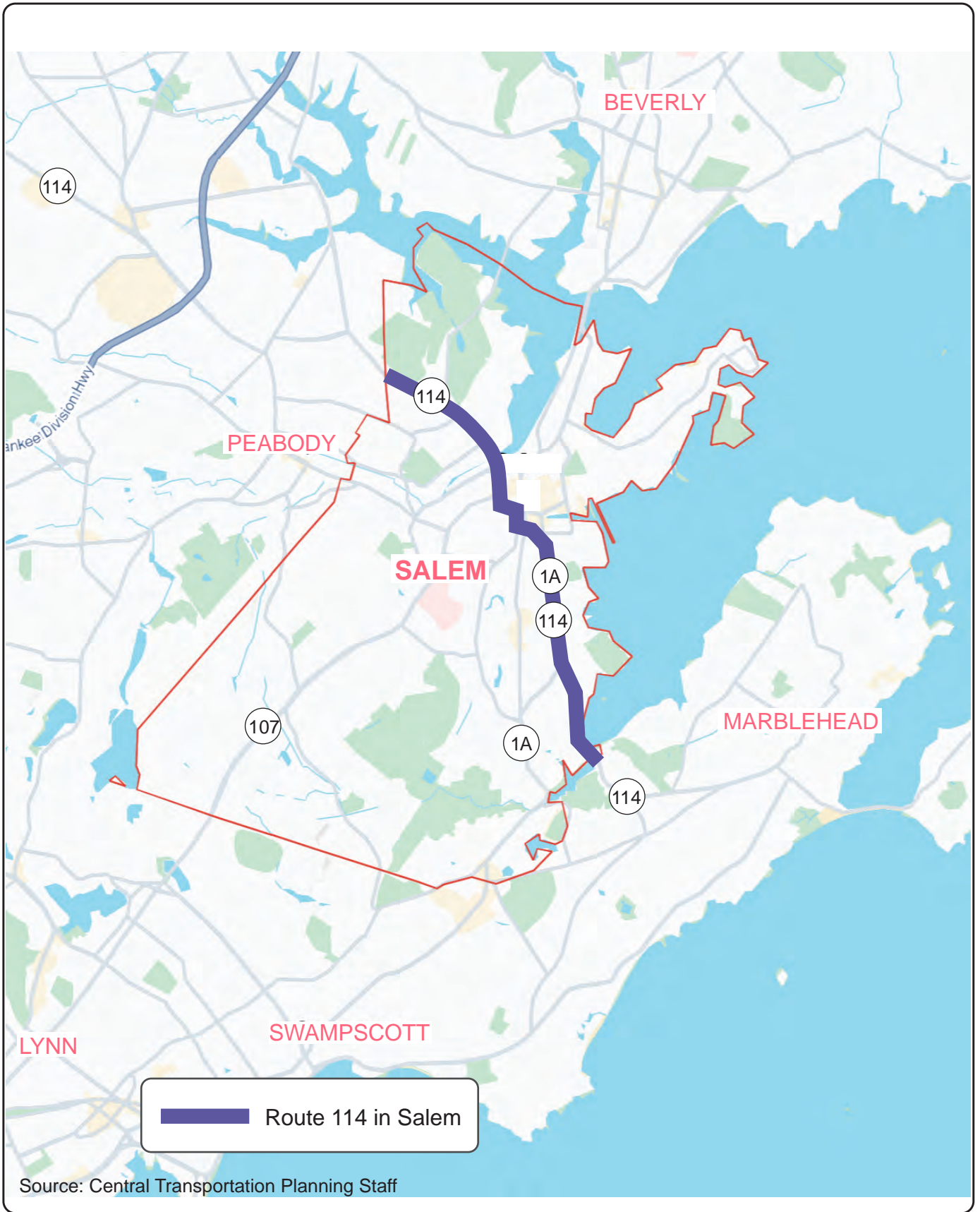
The character and context of the roadway change along these segments of the corridor, as it accommodates multiple modes of transportation (walking, biking, driving, and transit) and provides access to areas with diverse land uses (residential, educational, recreational, and commercial). It is bordered by dense residential and commercial development. Residents in the area include a significant low-income and minority population, including people with limited English proficiency. The roadway directly connects to SSU, Saltonstall School, Salem Station, and downtown Salem.

This section of Route 114 is primarily a city-owned principal arterial that is part of the National Highway System, thus highway projects on it are eligible for federal and state funding. The Massachusetts Department of Transportation (MassDOT) owns the section with the North Street Bridge overpass and the section of North Street that goes over the North River culvert.

## 2.2 NORTH STREET SEGMENT

The northern part of the corridor is surrounded by dense residential areas and a mix of commercial and recreational spaces near the downtown area. This segment has the highest traffic volume in the corridor. Approximately 28,000 vehicles travel the corridor daily between Federal and Mason Streets, making

direct connections to Route 107, the MBTA station, downtown, and Peabody. There are continuous sidewalks and bike lanes on both sides of the corridor.



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**Figure 2**  
**Study Area**

*Route 114 Corridor Study*  
*City of Salem*



**Figure 3**  
**Route 114 Segments**

This segment has four signalized intersections at School Street, Mason Street, Federal Street, and Essex Street. An emergency traffic signal has been installed at the fire station near Dearborn Street. All crosswalks across North Street are marked, and pedestrian-activated signals control those with traffic signals. Dedicated pedestrian signals are present at the crosswalks near the intersections of Liberty Hill Avenue and Oakland Street, and rectangular rapid flashing beacons (RRFBs) are installed for the crosswalks near the intersections of Dearborn Street and Cressy Avenue.

MBTA bus Route 435 operates along this segment.

### **2.3 NORMAN AND WASHINGTON STREETS SEGMENT**

The middle section of the corridor is surrounded by a mix of residential, commercial, and institutional buildings and developments in the downtown area. Approximately 15,000 vehicles travel daily on Norman Street, while approximately 30,000 vehicles use the busiest part of Washington Street, primarily due to its proximity to the MBTA station and downtown area.

Both sides of the roadway in this segment have continuous sidewalks and bike lanes, along with crosswalks marked and managed by pedestrian-activated signals, RRFBs, or pedestrian signs. There are two signalized intersections—at New Derby Street and Mill Street/Canal Street—and a mini roundabout at Norman and Summer Streets.

MBTA bus Routes 451 and 455 run along a portion of this segment.

### **2.4 LAFAYETTE STREET SEGMENT**

A mix of residential and educational buildings surround the southern part of the corridor. This segment carries approximately 14,000 to 18,000 vehicles daily. Sidewalks and bike lanes are on both sides of the roadway.

This segment has two signalized intersections, located at Dow Street and Loring Avenue, as well as two pedestrian signals, one at Leach Street and another at Ocean Avenue. All crosswalks across Lafayette Street are marked and controlled by pedestrian-activated signals, RRFBs, or pedestrian crossing signs.

MBTA bus Route 455 runs through part of this segment.

### **2.5 DATA COLLECTION**

A comprehensive data collection plan was developed, encompassing the gathering of data from existing databases maintained by the City of Salem,



MassDOT, MBTA, and the MPO for analysis. The data included relevant information about roadway users (people walking, biking, driving, and using transit), infrastructure conditions (sidewalks, crosswalks, traffic signals, streetlights, and parking), and operations (crashes, speeds, delays, and queues).

MassDOT collected data on traffic volumes, vehicle speeds, and the mix of vehicles, pedestrians, and bicyclists using the corridor. Daily traffic volumes were measured continuously at 24 sites over three consecutive days, from Tuesday, March 25 to Friday, March 28, 2025. Intersection turning movement counts (TMCs) were recorded at 16 intersections on Tuesday, March 25, 2025, including counts of pedestrians, bicycles, and trucks. The TMC counts were conducted during the weekday morning peak (6:00 AM to 9:00 AM) and afternoon peak (3:00 PM to 6:00 PM). The traffic and speed data are included in Appendix B.

### **2.5.1 Walking and Biking Volumes**

Figures 4 and 5 display pedestrian and bicycle volumes at selected intersections during peak travel times. Pedestrian volumes at the intersections ranged from 93 to 672, with the highest numbers near downtown on North Street, Washington Street, and Lafayette Street. Bicycle volumes during the same period ranged from 14 to 43, with the highest recorded on Washington Street. These volumes could be higher at other times of the year, as the counts were taken during a period of cold weather in March.

### **2.5.2 Vehicle Volumes**

Figure 6 displays the average daily traffic volumes on segments of Route 114 and on selected side streets. The average daily traffic on the corridor ranged from 14,000 to 28,000 vehicles per day. The highest traffic volumes were recorded on the four-lane stretch of North Street between Federal and Mason Streets. The lowest volumes were recorded on the segment near the town line of Marblehead. Figure 7 shows the turning-movement volumes at the 16 intersections during weekday morning and afternoon peak travel hours. The volumes of pedestrians observed at each intersection during the peak periods are also shown.

### **2.5.3 Bus and Commuter Rail Ridership**

Information from 2023 on transit ridership and operating service performance was obtained from the MBTA. The average number of weekday boardings at all bus stops in Salem for the five MBTA bus routes (Routes 435, 450, 451, 455, and 456) that run along portions of Route 114, is 1,242 riders. For the commuter rail, the average is 2,326 riders.



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**Figure 4**  
**Peak Period Pedestrian Volumes**  
(Weekday: 6:00 - 9:00 AM and 3:00 - 6:00 PM)

Route 114 Corridor Study  
City of Salem

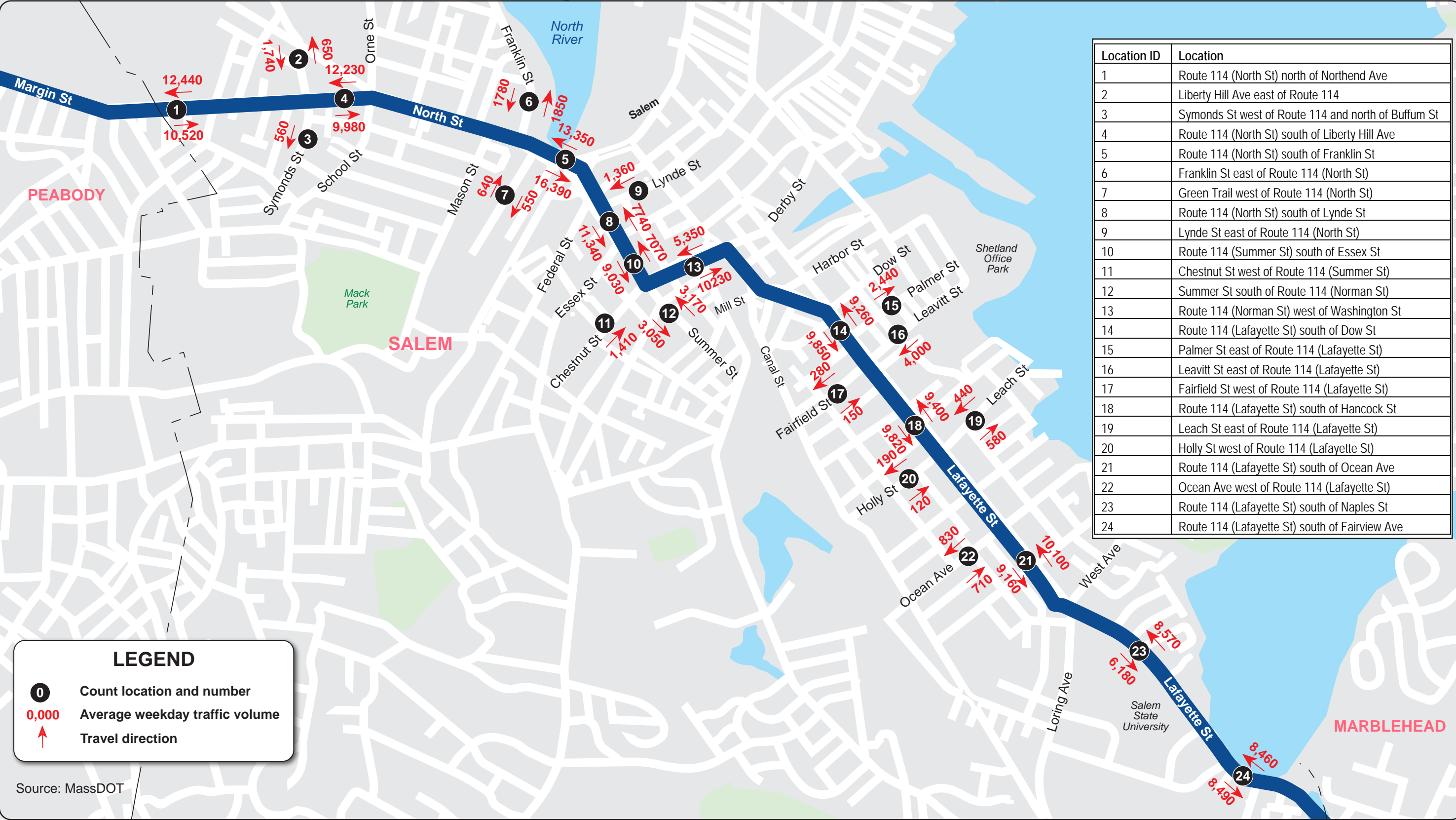


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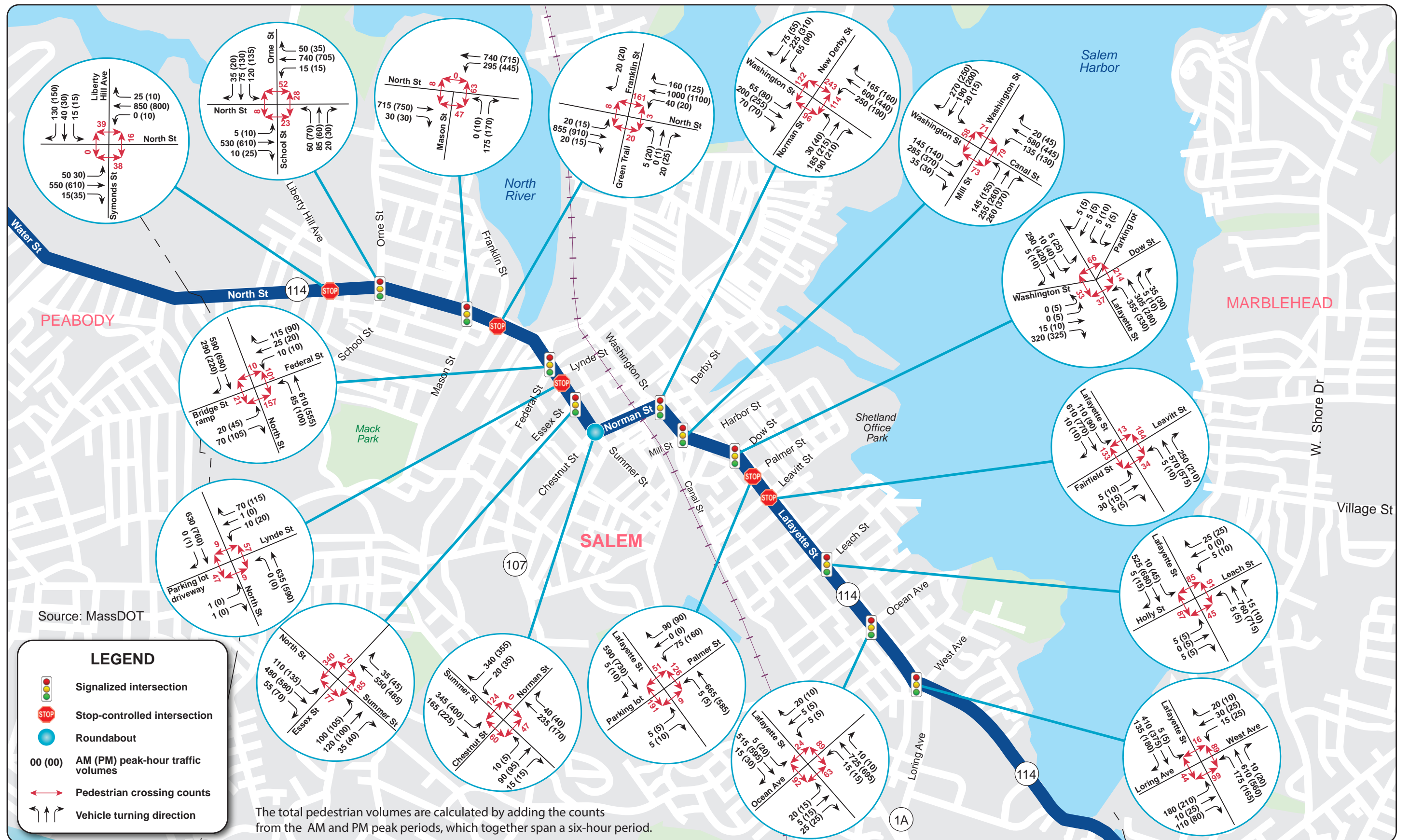
**Figure 5**  
**Peak Period Bicycle Volumes**  
(Weekday: 6:00 - 9:00 AM and 3:00 - 6:00 PM)

Route 114 Corridor Study  
City of Salem



**Figure 6**  
**Average Weekday Traffic Volumes**





**Figure 7**  
**Peak-Hour Turning Movement Volumes**

## **2.6 INFRASTRUCTURE CONDITIONS**

### **2.6.1 Crosswalks**

Pedestrians can safely cross Route 114 at several locations in the study area. Figure 8 displays the locations and types of crosswalks along the roadway. There are 30 marked crosswalks across Route 114, averaging one every 550 feet. Most of these locations are accessible and meet ADA standards, though some on Lafayette Street do not comply.

The following signals and signage exist at the crossing locations:

- Twelve crosswalks have traffic or pedestrian signal controls.
- Five feature RRFB controls.
- Eight are equipped with pedestrian crossing signs.
- Five have crosswalk markings but no pedestrian crossing signs.

### **2.6.2 Sidewalks**

Figure 9 shows the locations and conditions of the sidewalks. More than 95 percent of the roadway has sidewalks on both sides, and most are in good or fair condition. They require repairs to meet the ADA standards.

The sections in poor condition are on Lafayette Street near the Marblehead town line. The poor sidewalk conditions create challenges for people walking and those using mobility devices.

### **2.6.3 Bike Lanes**

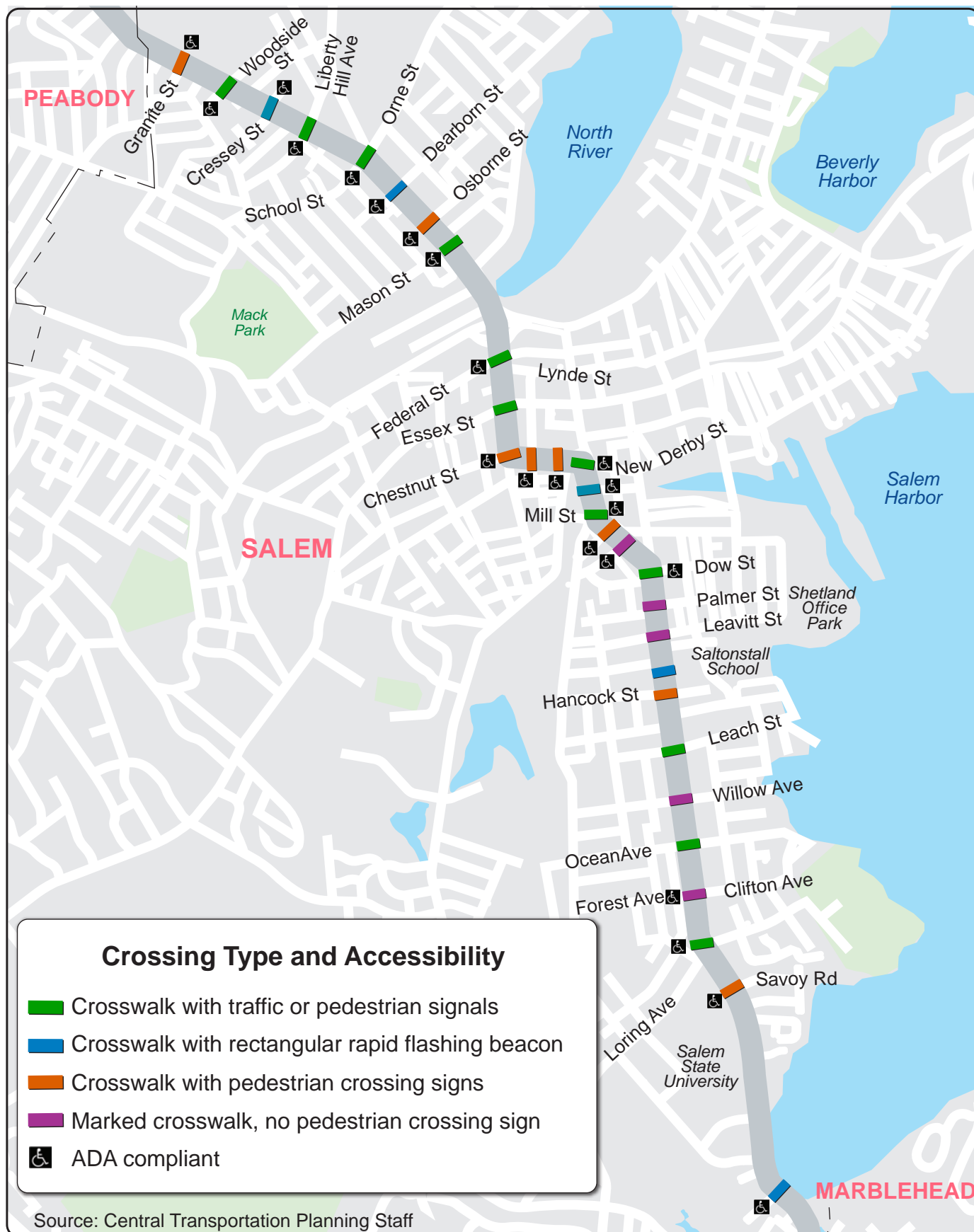
The corridor features bike lanes that are approximately five feet wide for approximately 90 percent of its length. Figure 10 shows the types of bike lanes in the corridor: parking-protected, buffered, unbuffered (unprotected), and shared-use. Approximately 60 percent of the bike lanes lack buffer protection, and there are several short segments where people biking share the roadway with vehicles. These conditions create high stress and safety concerns for people biking due to the high speeds and volumes of vehicles.

### **2.6.4 Bus Shelters and Benches**

Figure 11 displays the bus routes in Salem, along with the locations of the stops on Route 114. Analysis of 2023 ridership data showed that three bus stops on Route 114 are suitable for installing a shelter and a bench:

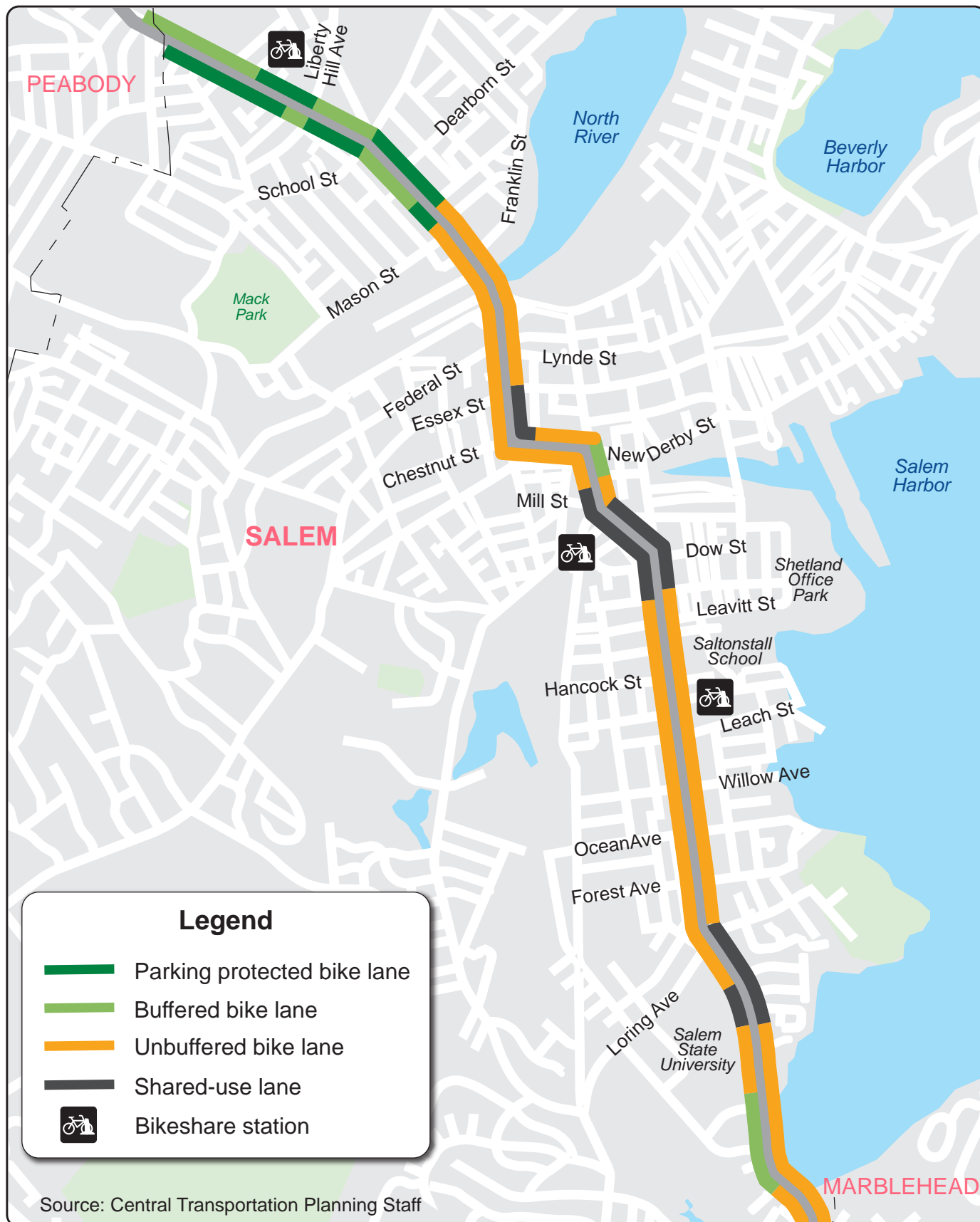
- Bus stop 4453, North Street opposite Lynde Street, has 87 boardings.
- Bus stop 6104, Lafayette at Harbor Street, has 66 boardings.
- Bus stop 6106, Lafayette at Cedar Street, has 59 boardings.

Two of the eligible stops already have shelters, and one has only a bench because it did not pass the site suitability test.

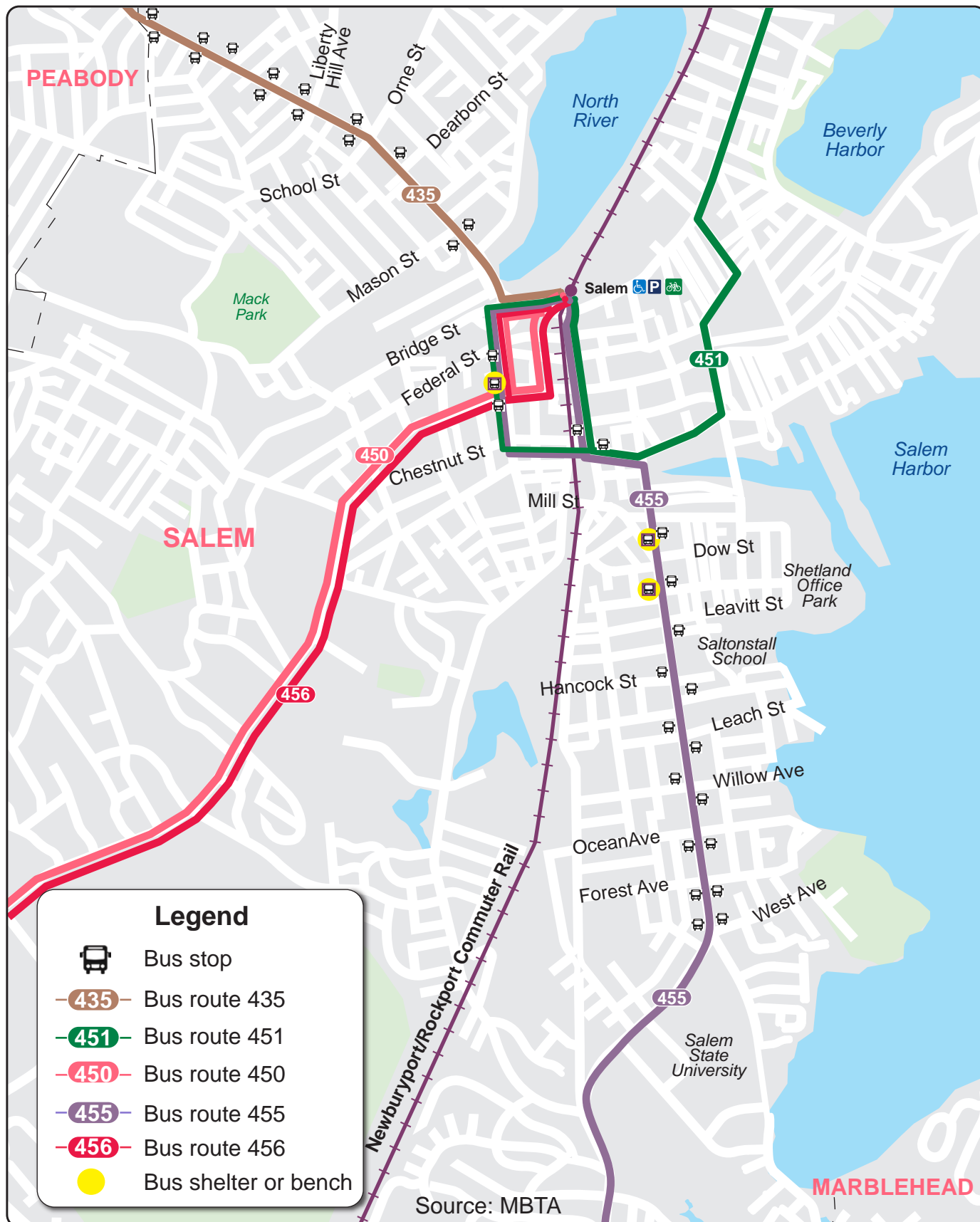








**Figure 10**  
**Route 114 Bike Infrastructure**



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**Figure 11**  
**MBTA Transit Map, Salem**

Route 114 Corridor Study  
City of Salem

### **2.6.5 Traffic Signals**

Most of the traffic signals on Route 114 are in good condition. However, several require upgrades, such as backplates, yellow retroreflective borders, larger lenses (12 inches), and accessible features to enhance safety and visibility. Traffic signal equipment at these intersections is outdated and needs to be upgraded:

- North Street at Federal Street
- North Street at Essex Street
- Lafayette Street at Leach Street
- Lafayette Street at Ocean Avenue

A comprehensive assessment of the traffic signals on Route 114 is necessary to determine if they can adapt and respond dynamically to changing conditions and be interconnected to coordinate multiple signals.

### **2.6.6 Streetlights**

There are two types of streetlights in the corridor: those mounted on utility poles and standalone lights. Examples are shown in Figure 12. The streetlights are in good condition, spaced approximately 90 to 120 feet apart, and mounted at heights from 20 to 30 feet. However, nearly 30 percent of the crashes in the corridor happen in dark conditions, during nighttime, dusk, or dawn.



Mounted on Utility Pole



Standalone

Source: Google



## **2.7 OPERATIONAL CONDITIONS**

### **2.7.1 Historical Crash Summaries**

Crash data from January 2019 through September 2024 was analyzed for trends. The analysis, which is summarized in Table 1, shows the following:

- Crashes resulting in injuries accounted for nearly 23 percent of the crashes.
- Crashes at intersections accounted for approximately 66 percent of the crashes.
- Rear-end (36 percent) and angle (34 percent) crashes were the most common types, together representing 70 percent of the crashes.
- Crashes that occurred during nighttime, dusk, and dawn accounted for nearly 30 percent of the crashes. These crashes occurred in places where the roadway had lighting and places that were unlit.
- Pedestrians and bicyclists were involved in 7.5 percent of crashes.



**Table 1**  
**Corridor Crash Summaries (2019–24)**

<b>Crash Variable</b>	<b>Number of Crashes</b>	<b>Percent</b>
<b>Total number of crashes</b>	933	100
<b>Severity</b>	--	--
Property damage only	675	72
Nonfatal injury	217	23
Fatality	0	0
Not reported/unknown	41	5
<b>Crash Type</b>	--	--
Single vehicle	57	6
Rear-end	338	36
Angle	320	34
Head-on	84	9
Sideswipe, same direction	105	11
Sideswipe, opposite direction	18	2
Not reported/unknown	11	2
<b>Ambient Light Conditions</b>	--	--
Daylight	662	71
Dark—lighted roadway	228	24
Dark—roadway not lighted	8	1
Dark—unknown	2	0
Dawn	7	1
Dusk	25	3
Unknown/other	1	0
<b>Involved pedestrian(s)</b>	46	5
<b>Involved bicyclist(s)</b>	23	2.5
<b>Wet or icy pavement conditions</b>	148	16
<b>Dark conditions (lighted or not lighted)</b>	236	29

Source: Central Transportation Planning Staff.

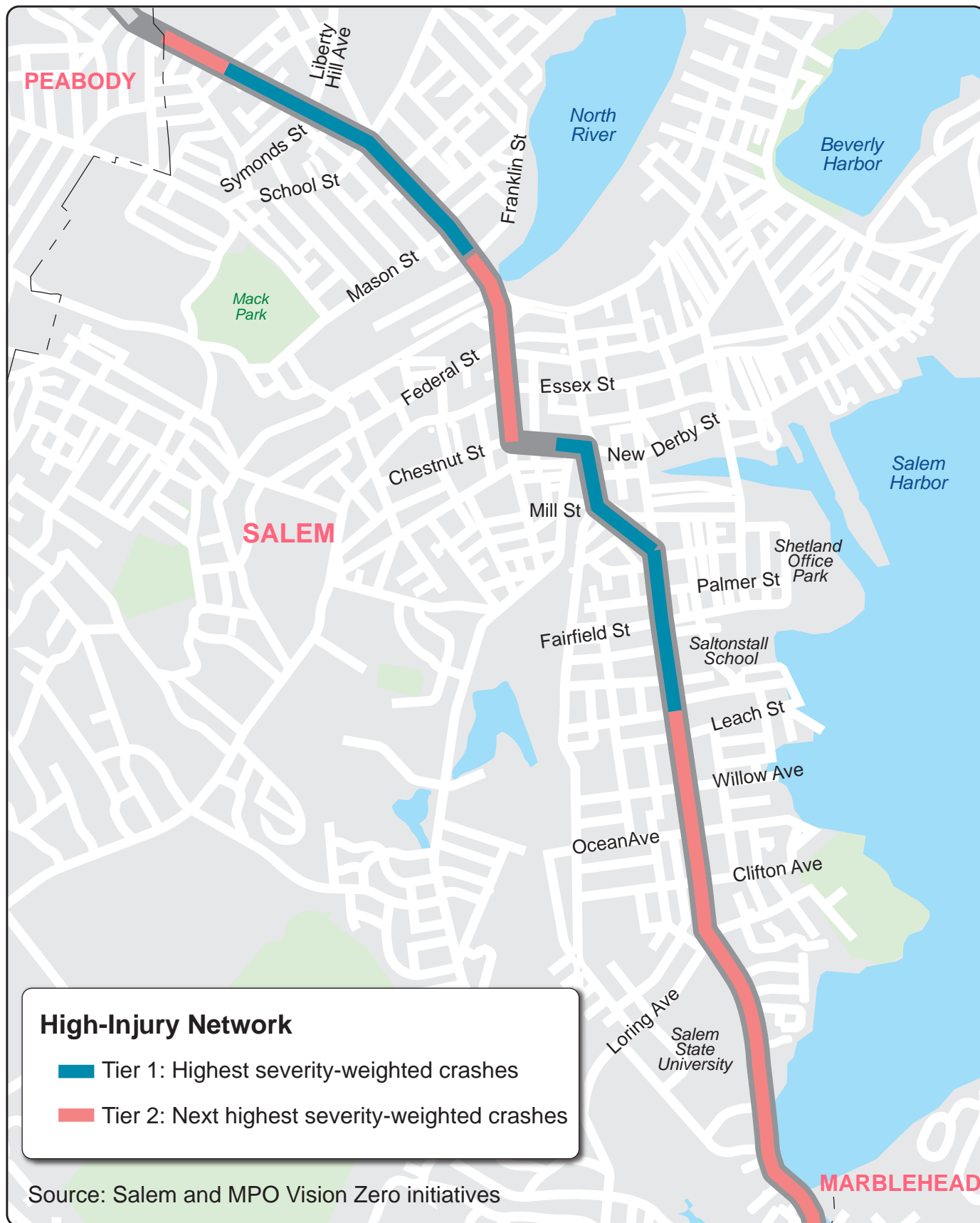
## 2.7.2 High-Injury Network (HIN)

The Route 114 safety assessment references Salem and MPO Vision Zero initiatives. Route 114 is part of Salem's high-injury network (HIN), making it a key corridor for safety improvements. The HIN highlights corridors with fatal and serious injury crashes, as shown in Figure 13.

### **2.7.3 Intersection Crash Risk**

Figure 14 shows the key intersections along the corridor where crashes and the risk of crashes is highest. These locations were identified by using both a crash-based and risk-based analysis. The reactive crash-based method focuses on historical crash severity-weighted frequency as a leading safety indicator. In contrast, the proactive risk-based method considers roadway and community features as primary factors that contribute to increased risk of injury. Both methods are essential for developing effective and proactive safety strategies.







### **2.7.4 Vulnerable Road User (VRU) Crash Risk**

Figure 15 shows the locations along the corridor where crashes and the risk of crashes is highest for vulnerable road users (such as pedestrians, bicyclists, and people using mobility devices). These locations also were identified by using both a crash-based and risk-based analysis. Shown are sites where actual crashes occurred involving pedestrians and bicyclists, and areas of high risk for these users.

### **2.7.5 Collision Diagrams**

MPO staff prepared collision diagrams for most of the roadway segments, including major intersections, using crash data from 2019 to 2024. These diagrams enable the identification of patterns and factors contributing to crashes, as well as the identification of effective safety strategies. The diagrams and reference tables presenting the characteristics of the crashes are included in Appendix C.

The following findings are consistent with the summaries in collision diagrams:

- There is a high frequency of angle crashes within the intersections and rear-end crashes on the approaches to the intersections. The likely causes are distracted and impaired driving, speeding, inadequate signal timing, and vehicles following too closely.
- There is a high frequency of nighttime crashes. Possible causes are poor visibility or lighting.
- Crashes involving vulnerable road users are likely caused by restricted sight distance at the intersections due to parking, inadequate signal phasing, and inadequate protections for these users.

### **2.7.6 Speed Studies**

MassDOT conducted speed studies at four locations along Route 114, and the findings are summarized in Figure 16. The sections of Route 114 with speeding issues are North Street, west of Federal Street, and Lafayette Street, south of Loring Avenue. In these areas, the 85th percentile speeds are 7 to 10 miles per hour (mph) above the speed limit. The speed data are included in Appendix B.

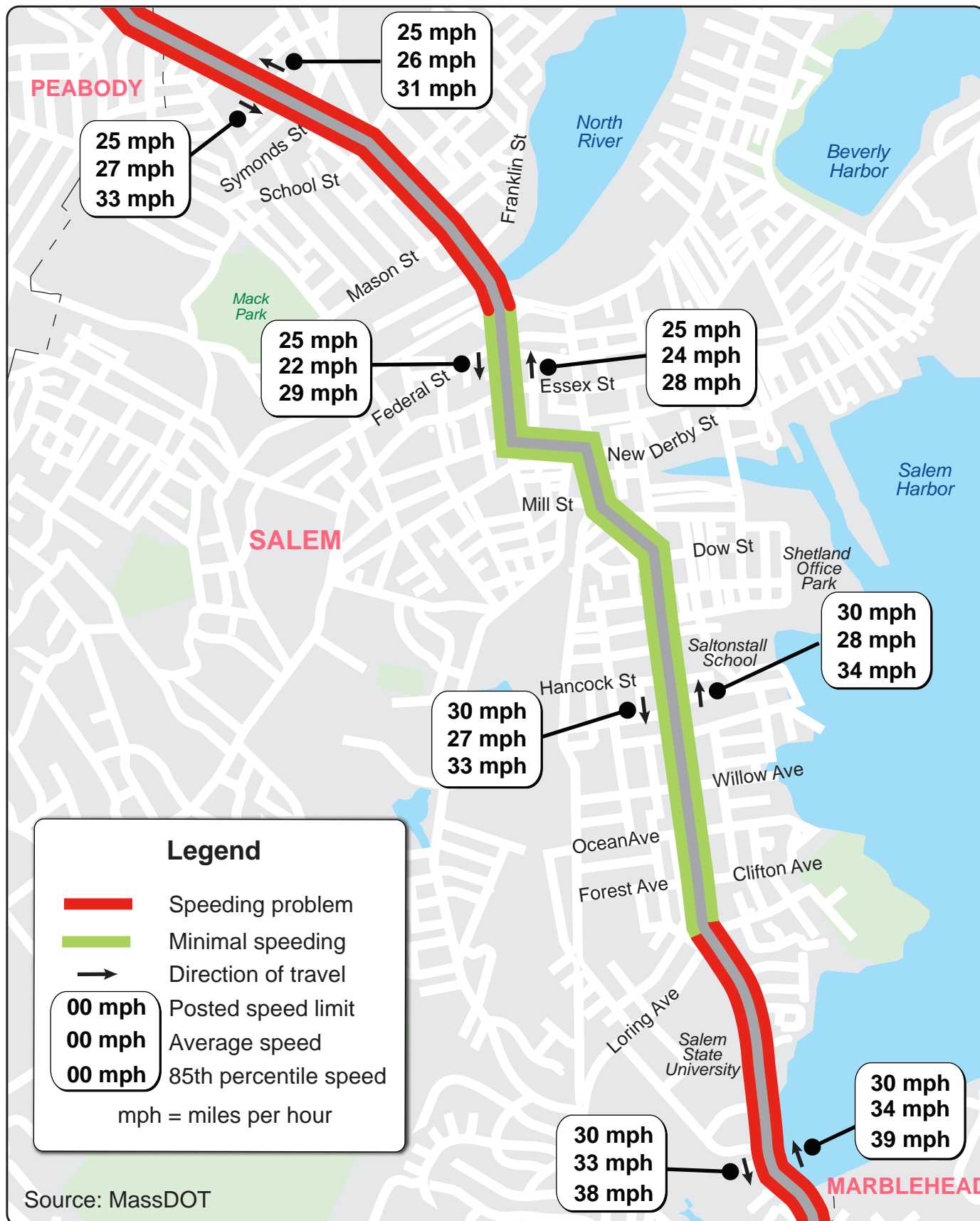


BOSTON  
REGION  
MPO



**Figure 15**  
**Vulnerable Road User Crash Risk**

Route 114 Corridor Study  
City of Salem



**Figure 16**  
**Speeding on Route 114**

## 2.7.7 Congestion, Delays, and Queues

MPO staff conducted traffic-operations analyses using Synchro 12 to assess traffic conditions at signalized and unsignalized intersections.<sup>1</sup> Table 2 presents the delays and levels of service (LOS) for signalized and unsignalized intersections. LOS A represents the best operating conditions (little to no delay). In contrast, LOS F represents the worst operating conditions (long delay). LOS E represents operating conditions at capacity (the limit of acceptable delay). The intersection LOS analyses are included in Appendix D.

**Table 2**  
**Intersection Level of Service Criteria**

Level of Service	Signalized Intersection Control Delay (seconds per vehicle)	Unsignalized Intersection Control Delay (seconds per vehicle)
A	<10	<10
B	10–20	10–15
C	20–35	15–25
D	35–55	25–35
E	55–80	35–50
F	>80	>50

Source: Transportation Research Board, Highway Capacity Manual, Seventh Edition, 2022.

Figures 17 and 18 show the LOS and delays at the signalized and unsignalized intersections during weekday morning and afternoon peak hours. Eight signalized intersections were found to operate under congested conditions with LOS E or F, resulting in queuing at multiple locations during peak travel hours. Several unsignalized intersections also were found to experience significant delays on side streets during peak travel periods. Traffic on the side streets at these intersections also were operating at LOS E or F, with queuing on their approaches.

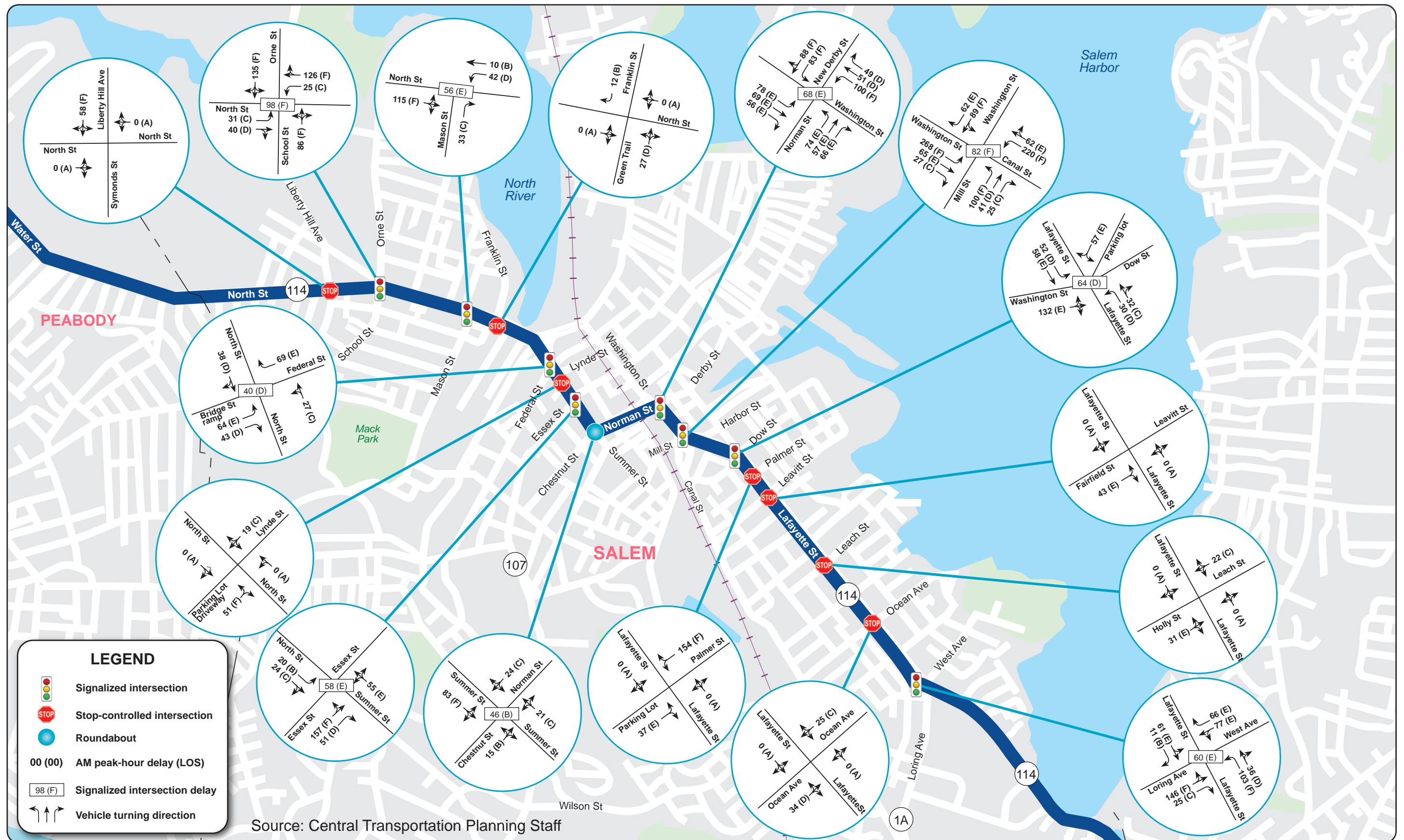
## 2.8 TRANSIT SERVICE

Figure 11 shows the MBTA service in or near the study area, including commuter rail and five bus routes. Commuter rail service to Boston runs every 30 minutes on weekdays and every 60 minutes on weekends. All five bus routes serving Salem start at the commuter rail station. The MBTA's Bus Network Redesign plan, approved in 2022 for implementation over five years, proposes the following changes:

<sup>1</sup> CUBIC Transportation Systems, 9233 Balboa Avenue, San Diego, CA 92123.

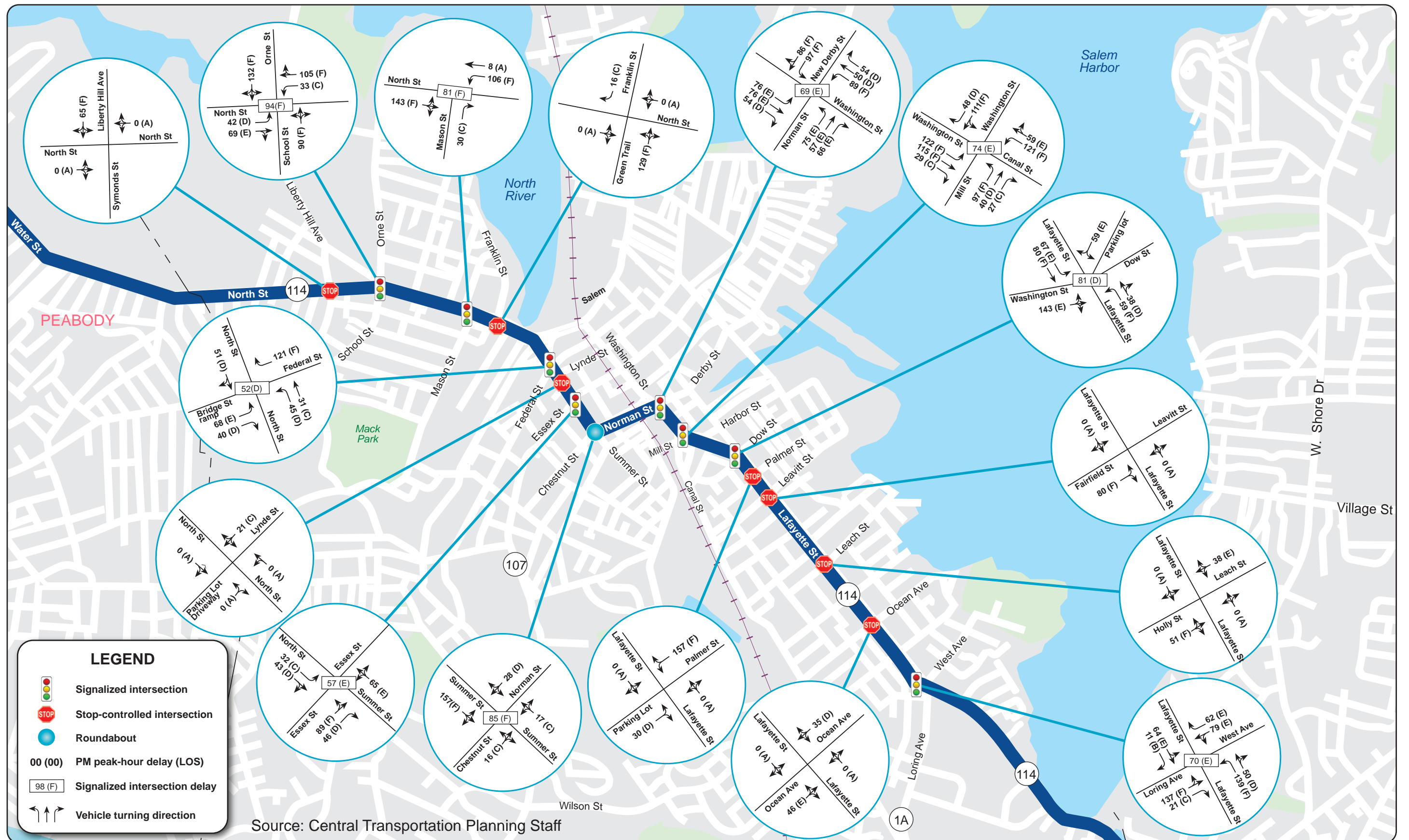
- Operate bus Route 450 via Bridge Street to Washington to Essex Street instead of via North Street.
- Operate bus Route 451 along Route 107, which would remove bus Route 451 from Route 114.
- Operate bus Route 455 in both directions along Washington Street, which would remove bus Route 455 from Summer Street and Norman Street. The remaining part of the route to Loring Avenue would stay the same.
- Eliminate bus Route 456, which duplicates bus Route 450.





**Figure 17**  
**2025 Weekday AM Peak Hour Delays and Level of Service**





**Figure 18**  
**2025 Weekday PM Peak Hour Delays and Level of Service**

## 2.9 TRAFFIC SIGNAL WARRANTS ANALYSIS

Justifying the need for a traffic control signal at an unsignalized intersection involves analyzing factors related to current traffic flow and safety conditions, as well as the potential for improvement. The Manual on Uniform Traffic Control Devices (MUTCD) lists nine traffic signal warrants that support installing a signal. Table 3 displays these nine warrants and the analysis results for intersections with significant side street delays. Installing signals may be justified at some of these locations, and this should be investigated further. Detailed traffic signal warrant analysis worksheets are included in Appendix D.

**Table 3**  
**Results of the Traffic Signal Warrant Analysis**

<b>Warrant</b>	<b>Liberty Hill Avenue</b>	<b>Franklin Street</b>	<b>Lynde Street</b>	<b>Norman Street Circle</b>	<b>Palmer Street</b>
Warrant 1, Eight-Hour Vehicular Volume	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied
Warrant 2, Four-Hour Vehicular Volume	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied
Warrant 3, Peak Hour	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied
Warrant 4, Pedestrian Volume	Not satisfied	Not satisfied	Not satisfied	Not satisfied	Not satisfied
Warrant 5, School Crossing	Not satisfied	Not satisfied	Not satisfied	Not satisfied	Not satisfied
Warrant 6, Coordinated Signal System	Satisfied	Not satisfied	Not satisfied	Not satisfied	Not satisfied
Warrant 7, Crash Experience	Not satisfied	Not satisfied	Not satisfied	Not satisfied	Not satisfied
Warrant 8, Roadway Network	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied
Warrant 9, Intersection Near a Grade Crossing	Not satisfied	Not satisfied	Not satisfied	Not satisfied	Not satisfied

Source: Central Transportation Planning Staff.

## 2.10 COMMUNITY SURVEY

Staff created an interactive mapping survey to gather the community's opinions on transportation issues related to walking, biking, transit, driving, parking, and other concerns along the corridor, as well as potential solutions. The survey questionnaire, responses, and specific comments are included in Appendix E. Respondents had the option to participate in the survey in English, Spanish, Portuguese, and Haitian Kreyol. The survey was shared with the City of Salem for promotion on city websites and social media platforms and for distribution to residents and stakeholders. The survey was launched in mid-June and closed on July 30, 2025, after gathering 684 responses.

The following information was gleaned from the survey:

- Most respondents (more than 90 percent) travel daily or several times a week in the corridor, providing them with familiar experiences regarding transportation issues along the corridor.
- Most respondents (72 percent) expressed concerns about driving, while nearly 28 percent commented on walking, biking, or transit, indicating thoughtful consideration of feedback from the underrepresented vulnerable road users.
- Nearly 75 percent of respondents were residents of Salem, while 25 percent either travel through, work in, or commute to Salem, demonstrating a strong local presence.
- Drivers mainly reported concerns about traffic congestion, long waits at intersections, or difficulty turning into or out of side streets.
- Those walking, biking, taking transit, or using assistive mobility devices were primarily concerned about inattentive or aggressive drivers, high vehicle speeds, or the lack of bike lanes or surfaces meeting ADA standards.

## 2.11 NEEDS ASSESSMENT

The corridor, in its current state, has deficiencies that impact user safety, mobility, quality of life, and access to businesses and other sites for residents. The challenges, which relate to the corridor's role in providing safe and efficient multimodal transportation, emphasize the urgent need to improve safety and operations, promote multimodal transportation, and upgrade the infrastructure, including the following:

- Safety enhancements at intersections to improve visibility for vulnerable road users
- Safety improvements along the corridor to slow down vehicle speeds
- Safety upgrades to bike lanes to protect bicyclists
- Infrastructure improvements to enhance pedestrian safety, such as high-quality sidewalks and safe crossing points
- Infrastructure maintenance, including resurfacing roads
- Infrastructure upgrades to boost operations and efficiency, such as advanced traffic signal equipment and technology
- Intersection redesigns to improve safety and operations for users
- Traffic signal modernization to retime and optimize traffic signal systems to reduce congestion, pedestrian wait times, and red light running

# Chapter 3—Proposed Improvements

## 3.1 PROJECTS AND STUDIES

Recently completed, ongoing, and planned projects for the corridor include the following:

- City of Salem, Pedestrian and Bicycle Improvements, North Street Protected Bike Lanes (completed)
- MassDOT Project #605332 Bridge Replacement, North Street over North River (in design)
- MassDOT Project #612990 Reconstruction of Bridge Street (Route 107), from Flint Street to Commuter Rail Station Entrance/Exit (in design)
- City of Salem, Pedestrian and Bicycle Improvements, Lafayette Street Protected Bike Lanes (in design)
- City of Salem, Shared Streets grant awarded to the City on Lafayette Street from Loring Avenue to Harborview Terrace.

## 3.2 POTENTIAL IMPROVEMENTS

The corridor was divided into three segments based on context: North Street, Norman and Washington Streets, and Lafayette Street. For each segment, staff developed recommendations for improvements for both the segment and specific intersections along it. The improvements were categorized by time frame and cost. The time frames are defined as follows: short-term improvements are typically expected to be completed within three years, mid-term improvements within three to five years, and long-term improvements in more than five years. In terms of cost, low-cost improvements are those under \$10,000, medium-cost improvements are between \$10,000 and \$50,000, and high-cost improvements exceed \$50,000.

Most short-term improvements usually do not require design and engineering efforts. These improvements include installing new signs, upgrading old signs, marking pavement, painting high-visibility crosswalks, and upgrading curb ramps to ADA standards. Some mid-term improvements may require some design and engineering efforts. These improvements include protecting existing bike lanes, installing rectangular rapid flashing beacons (RRFBs) and pedestrian signals, and repairing substandard sidewalks. The long-term improvements require significant design and engineering efforts, as well as larger funding sources. They include safety, multimodal, and operational improvements, such as intersection and roadway reconstruction in a Complete Streets framework.

Tables 4 through 6 present the proposed improvements, including the time and cost categories and jurisdictional responsibilities. Figures 19 through 21 illustrate

graphically some of the improvements in the segment. Figure 22 gives examples of successful strategies to enhance safety for vulnerable road users.

**Table 4**  
**Potential Improvements on North Street**

Issue/ Concern	Safety Category	Suggested Improvement	Time Frame	Cost	Responsibility
<b>1—North Street Segment</b>					
The segment is part of a high-injury network, and several intersections along the segment are primary angle crash sites.	Traffic Signal Operations and Visibility	Consider enhancing safety through traffic calming, signal optimization, lighting, and intersection improvements, such as making the recent traffic-calming and speed management improvements on North Street permanent.	Long	High	City of Salem
Drivers fail to yield to pedestrians crossing streets.	Pedestrian and Bicycle Accommodation	Evaluate and implement leading pedestrian intervals for the signalized intersections with concurrent pedestrian and vehicle phases.	Short	Medium	City of Salem
Drivers fail to yield to pedestrians crossing streets.	Pedestrian and Bicycle Accommodation	Consider installing rectangular rapid flashing beacons at the uncontrolled marked crosswalks on North Street.	Short	Medium	City of Salem
Pedestrians have to wait too long for the Walk signal.	Pedestrian and Bicycle Accommodation	Optimize signal timings, including pedestrian timing and clearance intervals, to minimize pedestrian delay and prevent illegal crossings.	Short	Low	City of Salem
Crashes are more likely to occur in dark conditions.	Intersection Visibility	Evaluate and improve street and pedestrian-scale lighting to reduce crashes in dark and low-light conditions.	Short	Low	City of Salem
Crashes are more likely to occur in dark conditions.	Traffic Signal Operations and Visibility	Consider installing backplates with retroreflective borders on all signal heads to improve signal visibility.	Short	Medium	City of Salem
Drivers tend to speed on North Street.	Roadway Features	Install speed limit signs and speed feedback signs at regular intervals to inform drivers of speed limits.	Short	Low	City of Salem
Drivers tend to speed on North Street.	Roadway Features	Consider making the recent traffic-calming and speed management improvements on North Street permanent.	Long	High	City of Salem
Drivers run red lights, risking pedestrian safety.	Traffic Signal Operations and Visibility	Assess clearance intervals and update them to current standards as needed to enhance safety and operational efficiency.	Short	Low	City of Salem
Drivers encounter congestion, delays, and long queues in the segment.	Traffic Signal Operations and Visibility	Upgrade the signal equipment to incorporate technologies that can adapt and respond dynamically to changing conditions.	Long	High	City of Salem
Drivers encounter congestion, delays, and long queues in the segment.	Traffic Signal Operations and Visibility	Optimize signal timings and phasing, and coordinate signals within a 1,500-foot distance to enhance traffic flow.	Short	Medium	City of Salem
Bike lanes between Franklin Street and Essex Street have gaps and lack protection.	Pedestrian and Bicycle Accommodation	Assess the feasibility of installing flex posts or curbing to prevent drivers from encroaching on or raising the bike lanes and integrating them with the sidewalks.	Middle	Medium	City of Salem
<b>2—Liberty Hill Avenue at North Street</b>					
Intersection is a primary angle crash site.	Traffic Operations and Visibility	Consider installing a traffic signal to improve safety.	Long	High	City of Salem
Crashes occur more often in dark conditions.	Intersection Visibility	Evaluate and improve street and pedestrian-level lighting.	Short	Low	City of Salem
Drivers have to wait too long to turn out of Liberty Hill Avenue.	Pavement Markings and Signage	Consider installing pavement markings and signage to improve traffic operations.	Short	Low	City of Salem
Drivers have to wait too long to turn out of Liberty Hill Avenue.	Traffic Signal Operations and Visibility	Consider installing a traffic signal to reduce delays.	Long	High	City of Salem
<b>3—School Street/Orne Street at North Street</b>					
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Consider implementing leading pedestrian intervals (LPI) during concurrent vehicle and pedestrian phases.	Short	Medium	City of Salem
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Evaluate and update No Right Turn on Red signage placement to ensure it is MUTCD compliant.	Short	Low	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Optimize signal timings and phasing and coordinate signals within 1,500 feet of each other to enhance traffic flow. Coordinate signals at School Street and Mason Street as a subsystem.	Short	Medium	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Consider implementing a protected or permissive phase for eastbound and westbound left turns on North Street during peak hours.	Short	Medium	City of Salem



Issue/ Concern	Safety Category	Suggested Improvement	Time Frame	Cost	Responsibility
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Upgrade the signal equipment to incorporate technologies that can adapt and respond dynamically to changing conditions.	Long	High	City of Salem
Drivers run red lights, risking pedestrian safety.	Traffic Signal Operations and Visibility	Evaluate clearance intervals and update them to meet current safety and operational standards.	Short	Low	City of Salem
<b>4—Mason Street at North Street</b>					
Vulnerable road users face high risks at intersections, especially where the crosswalk is missing on the west side of North Street.	Pedestrian and Bike Accommodation	Consider adding a crosswalk on the west side of North Street.	Short	Low	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Optimize signal timings and phasing and coordinate signals within 1,500 feet of each other to enhance traffic flow. Coordinate signals at Mason Street and School Street as a subsystem.	Short	Medium	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Upgrade the signal equipment to integrate technologies that can adapt and respond dynamically to changing conditions, thereby optimizing flow and reducing congestion.	Long	High	City of Salem
Drivers are using the Citgo driveways to turn left onto North Street, which is not permitted on Mason Street, creating safety concerns.	Traffic Signal Operations and Visibility	Consider adding signs to reinforce the prohibition or enforcement to prevent such maneuvers.	Short	Low	City of Salem
Drivers are using the Citgo driveways to turn left onto North Street, which is not permitted on Mason Street, creating safety concerns.	Traffic Signal Operations and Visibility	Assess the feasibility of allowing left turns on Mason Street.	Short	Low	City of Salem
Drivers run red lights, risking pedestrian safety.	Traffic Signal Operations and Visibility	Review clearance intervals and revise them to current standards as necessary to enhance safety and operational efficiency.	Short	Low	City of Salem
<b>5—Franklin Street at North Street</b>					
There is no crosswalk on North Street at the intersection.	Pedestrian and Bike Accommodation	Consider adding a crosswalk with pedestrian-activated signals on North Street.	Middle	High	City of Salem
Drivers exiting the Speedway gas station are involved in many crashes.	Intersection Geometry and Operations	Assess the feasibility of signaling the intersection to enable left turns and pedestrian crossing.	Long	High	City of Salem
Drivers have to wait too long to turn out of Franklin Street.	Traffic Signal Operations and Safety	Assess the feasibility of signaling the intersection to enable left turns and pedestrian crossing.	Long	High	City of Salem
<b>6—On-ramp at North Street Bridge over Route 107</b>					
Drivers tend to speed on the ramp.	Pavement Markings and Signage	Install speed limit signs, speed feedback signs, and pavement markings to raise awareness.	Short	Low	MassDOT and City of Salem
Crashes occur more often in dark conditions.	Intersection Visibility	Evaluate and improve street and pedestrian-scale lighting to reduce crashes in dark and low-light conditions.	Short	Low	MassDOT and City of Salem
Drivers treat the ramp like a highway on-ramp and fail to yield to pedestrians.	Pedestrian and Bike Accommodation	Consider installing a rectangular rapid flashing beacon at the crosswalk on the on-ramp to enhance pedestrian safety.	Short	Medium	MassDOT and City of Salem
Drivers treat the ramp like a highway on-ramp and fail to yield to pedestrians.	Pedestrian and Bike Accommodation	Alternatively, consider replacing the yield sign with a stop sign and adding pedestrian crossing signs.	Short	Low	MassDOT and City of Salem
<b>7—Federal Street/Ramp at North Street</b>					
Drivers often do not yield to pedestrians crossing the street.	Pedestrian and Bike Accommodation	Evaluate and update No Right Turn on Red signage placement to ensure it is MUTCD compliant and improve pedestrian safety.	Short	Low	MassDOT and City of Salem
Drivers often do not yield to pedestrians crossing the street.	Pedestrian and Bike Accommodation	Assess the feasibility of eliminating the eastbound right-turn slip lane from the ramp onto southbound North Street due to low volumes on the on-ramp. Will shorten a proposed crosswalk on the west side of North Street described below.	Short	Medium	MassDOT and City of Salem
Drivers often do not yield to pedestrians crossing the street.	Pedestrian and Bike Accommodation	Consider installing a crosswalk on the west side (southbound) of North Street across the ramp to improve pedestrian safety.	Short	Medium	MassDOT and City of Salem
Pedestrians are trying to access the MBTA station.	Pedestrian and Bike Accommodation	Install wayfinding signs to direct pedestrians and bicyclists on safe routes to the MBTA station.	Short	Low	MassDOT and City of Salem
Drivers run red lights and yield signs, risking pedestrian safety.	Traffic Signal Operations and Visibility	Assess clearance intervals and revise them to meet current standards and operational requirements.	Short	Low	MassDOT and City of Salem
Drivers are not given advance notice of lane assignments and often become confused, resulting in them ending up in the wrong lane.	Pavement Markings and Signage	Consider installing signs and pavement markings in advance to guide drivers into the correct lanes on North Street between Federal Street and Essex Street.	Short	Low	MassDOT and City of Salem

Issue/ Concern	Safety Category	Suggested Improvement	Time Frame	Cost	Responsibility
Drivers face congestion, delays, and long queues, and pedestrians have to wait too long for the Walk signal.	Traffic Signal Operations and Visibility	Optimize signal timings and phasing and coordinate signals within 1,500 feet of each other to enhance traffic flow. Coordinate signals at Federal Street and Essex Street as a subsystem.	Short	Medium	MassDOT and City of Salem
Signal equipment is outdated.	Traffic Signal Operations and Visibility	Upgrade the signal equipment to incorporate technologies that can adapt and respond dynamically to changing conditions, thereby optimizing flow and reducing congestion	Long	High	MassDOT and City of Salem
8—Lynde Street at North Street					
Drivers turning left out of Lynde Street are often involved in crashes.	Traffic Signal Operations and Visibility	Consider prohibiting left turns from Lynde Street (and allowing right turns only).	Short	Low	City of Salem
Drivers turning left out of Lynde Street are often involved in crashes.	Traffic Signal Operations and Visibility	Assess the practicality of reversing traffic flow on Lynde Street.	Middle	Medium	City of Salem
Drivers turning left out of Lynde Street are often involved in crashes.	Intersection Geometry and Operations	Evaluate the feasibility of reconstructing the intersection to improve safety.	Long	High	City of Salem
Drivers have to wait too long to turn out of Lynde Street.	Traffic Signal Operations and Visibility	Evaluate the feasibility of installing a signal at the intersection to decrease delays on Lynde Street.	Long	High	City of Salem
9—Essex Street at North Street					
Vulnerable road users are at high risk, as drivers often fail to yield to pedestrians.	Pedestrian and Bicycle Accommodation	Remove the right-turn slip lane from Essex Street to Summer Street to enhance pedestrian safety.	Short	Medium	City of Salem
Crashes often occur under dark conditions.	Intersection Visibility	Evaluate and enhance street and pedestrian-scale lighting to reduce crashes during dark and low-light conditions.	Short	Low	City of Salem
Sidewalks are narrow and need improvement.	Pedestrian and Bicycle Accommodation	Assess and improve sidewalks.	Middle	Medium	City of Salem
Drivers run red lights, risking pedestrian safety.	Traffic Signal Operations and Visibility	Assess clearance intervals and update them to current standards as necessary to enhance safety and operational efficiency.	Short	Low	City of Salem
Drivers encounter congestion, delays, and long queues, and pedestrians have to wait too long for the Walk signal.	Traffic Signal Operations and Visibility	Optimize signal timings and phasing and coordinate signals within 1,500 feet of each other to enhance traffic flow. Coordinate signals at Federal Street and Essex Street as a subsystem.	Short	Medium	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Upgrade the signal equipment to incorporate technologies that can adapt and respond dynamically to changing conditions, thereby optimizing flow and reducing congestion.	Long	High	City of Salem
Drivers often become confused about lane assignments on the southbound approach to North Street and end up in the wrong lane.	Pavement Markings and Signage	Consider installing signs and pavement markings in advance to guide drivers into the correct lanes.	Short	Low	City of Salem
10—Chestnut Street/Norman Street at Summer Street					
Drivers often do not yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Consider adding a rectangular rapid flashing beacon to the crosswalks to increase driver yield rates.	Short	Medium	City of Salem
The roundabout is malfunctioning during the peak travel period, resulting in congestion, delays, and lengthy queues for drivers.	Intersection Geometry	Evaluate the feasibility of replacing the roundabout with a traffic signal or two-way stop sign control to enhance safety and traffic flow.	Long	High`	City of Salem

MUTCD = Manual on Uniform Traffic Control Devices.



**Table 5**  
**Potential Improvements on Norman and Washington Streets**

Issue/ Concern	Safety Category	Suggested Improvement	Time Frame	Cost	Responsibility
<b>11—Norman and Washington Streets Segment</b>					
The segment is part of a high-injury network, and two intersections on the segment are primary angle crash sites.	Traffic Signal Operations and Visibility	Consider enhancing safety with traffic calming, signal optimization, lighting, and intersection improvements.	Long	High	City of Salem
Bike lanes are absent on Washington Street from Mill Street to Lafayette Street.	Pedestrian and Bicycle Accommodation	Consider adding shared-lane markings or signs to alert drivers of the presence of bicyclists.	Short	Low	City of Salem
Drivers often become confused about lane assignments and end up in the wrong lane.	Traffic Signal Operations and Visibility	Consider installing signs and pavement markings (including white dotted lines at intersections) in advance to guide drivers into the correct lanes at intersections.	Short	Low	City of Salem
Crashes are more likely to occur in dark conditions.	Intersection Visibility	Evaluate and improve street and pedestrian-scale lighting to increase visibility and reduce crashes during dark and low-light conditions.	Short	Low	City of Salem
Crashes are more likely to occur in dark conditions.	Traffic Signal Operations and Visibility	Consider installing backplates with retroreflective borders on all signal heads to improve signal visibility.	Short	Medium	City of Salem
Drivers tend to speed on Washington Street.	Roadway Features	Install speed limit and speed feedback signs at regular intervals to raise awareness.	Short	Low	City of Salem
<b>12—Norman Street/New Derby Street at Washington Street</b>					
Intersection is a primary angle crash site.	Traffic Signal Operations and Visibility	Review clearance intervals and update them to current standards as needed to enhance safety and operational efficiency.	Short	Low	City of Salem
Intersection is a primary angle crash site.	Traffic Signal Operations and Visibility	Consider a Road Safety Audit for the intersection.	Short	Low	City of Salem
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bicycle Accommodation	Consider prohibiting right turns on red after stopping on Norman Street to increase pedestrian safety.	Short	Low	City of Salem
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bicycle Accommodation	Evaluate and update the placement of No Right Turn on Red signage to ensure it is MUTCD compliant.	Short	Low	City of Salem
Pedestrians have to cross too many lanes.	Pedestrian and Bicycle Accommodation	Assess the feasibility of incorporating curb extensions to decrease crossing distance and tightening curb radii to prevent speeding.	Short	Medium	City of Salem
Crashes are more likely to occur in dark conditions.	Traffic Signal Operations and Visibility	Evaluate and enhance street and pedestrian-scale lighting to improve visibility and decrease crashes in dark and low-light conditions.	Short	Low	City of Salem
Crashes are more likely to occur in dark conditions.	Traffic Signal Operations and Visibility	Consider installing backplates with retroreflective borders on all signal heads to improve signal visibility.	Short	Medium	City of Salem
Drivers often run red lights, risking the safety of pedestrians.	Traffic Signal Operations and Visibility	Evaluate clearance intervals and update them to current standards as needed to enhance safety and operational efficiency.	Short	Low	City of Salem
Drivers encounter congestion and pedestrians wait too long for the Walk signal to change.	Traffic Signal Operations and Visibility	Optimize signal timings and phasing and coordinate signals within 1,500 feet of each other to enhance traffic flow and pedestrian safety.	Short	Medium	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Upgrade the signal equipment to incorporate technologies that can adapt and respond dynamically to changing conditions, thereby optimizing traffic flow and reducing congestion.	Long	High	City of Salem
Drivers often become confused about lane assignments on the North Street southbound approach and end up in the wrong lane.	Pavement Markings and Signage	Consider installing signs and pavement markings (including dotted white lines in the intersection) in advance to guide drivers into the correct lanes.	Short	Low	City of Salem
Drivers get into crashes due to the lane drop and merge on Washington Street just north of New Derby Street.	Pavement Markings and Signage	Consider installing pavement markings in addition to existing signage to enhance safety at the merge area.	Short	Low	City of Salem
<b>13—Mill Street/Canal Street at Washington Street</b>					
Intersection is a primary angle crash site.	Traffic Signal Operations and Visibility	Review clearance intervals and update them to current standards as needed to enhance safety and operational efficiency.	Short	Low	City of Salem
Intersection is a primary angle crash site.	Traffic Signal Operations and Visibility	Consider a Road Safety Audit for the intersection.	Short	Low	City of Salem
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bicycle Accommodation	Evaluate and update the placement of No Turn on Red signage to ensure it is MUTCD compliant.	Short	Low	City of Salem

Issue/ Concern	Safety Category	Suggested Improvement	Time Frame	Cost	Responsibility
The bike lane on the west side (southbound) of Washington Street ends before reaching Mill Street.	Pedestrian and Bicycle Accommodation	Assess whether removing the exclusive right-turn lane on southbound Washington Street is feasible, due to the low volume of right turns, and consider implementing a shared through/right turn lane.	Short	Medium	City of Salem
The bike lane on the west side of Washington Street ends before reaching Mill Street.	Pedestrian and Bicycle Accommodation	If a shared through/right-turn lane is installed, consider extending the bike lane on the west side of Washington Street to Mill Street.	Short	Medium	City of Salem
The bike lane ends on the west side of Washington Street before the approach at Mill Street.	Pedestrian and Bicycle Accommodation	An alternative to the above recommendation is to consider narrowing lanes on the southbound approach of Washington Street at Mill Street to accommodate a bike lane.	Middle	Medium	City of Salem
Pedestrians have to cross too many lanes.	Pedestrian and Bicycle Accommodation	Assess the feasibility of incorporating curb extensions to shorten crossing distances and tightening curb radii to slow down vehicles.	Short	Medium	City of Salem
Crashes are more likely to occur in dark conditions.	Traffic Signal Operations and Visibility	Assess street and pedestrian-scale lighting to increase visibility and reduce crashes during dark and low-light conditions.	Short	Low	City of Salem
Drivers encounter congestion and pedestrians wait too long for the walk signal to change.	Traffic Signal Operations and Visibility	Optimize signal timings and phasing and coordinate signals within 1,500 feet of each other to enhance traffic flow and pedestrian safety.	Short	Medium	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Review and upgrade the signal equipment to incorporate technologies that can adapt and respond flexibly to changing conditions, thereby optimizing flow and reducing congestion.	Long	High	City of Salem
Drivers often run red lights, risking the safety of pedestrians.	Traffic Signal Operations and Visibility	Review clearance intervals and revise them to meet current standards, enhancing safety and traffic flow.	Short	Low	City of Salem
Drivers frequently get confused about lane assignments on the approaches and often end up in the wrong lane.	Pavement Markings and Signage	Consider installing signs and pavement markings (including dotted white lines in the intersection) in advance to guide drivers into the correct lanes.	Short	Low	City of Salem
14—Ropes Street at Washington Street					
Drivers often fail to yield to pedestrians.	Pedestrian and Bicycle Accommodation	Consider installing pedestrian crossing signs for the crosswalk on Washington Street near Ropes Street.	Short	Low	City of Salem

MUTCD = Manual on Uniform Traffic Control Devices.

Table 6  
Potential Improvements on Lafayette Street

Issue/ Concern	Safety Category	Suggested Improvement	Time Frame	Cost	Responsibility
15—Lafayette Street Segment					
The segment is part of a high-injury network, and several intersections along the segment are primary angle crash sites.	Traffic Signal Operations and Visibility	Consider enhancing safety with traffic calming, signal optimization, lighting, and intersection improvements.	Long	High	City of Salem
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Consider daylighting intersections, installing curb extensions, or adding a rectangular rapid flashing beacon to enhance visibility and signal to drivers to yield.	Short	Medium	City of Salem
Drivers park too close to intersections, which limits sight distance.	Pedestrian and Bike Accommodation	Consider removing parking near crosswalks to enhance visibility by installing curb extensions or daylighting intersections.	Middle	Medium	City of Salem
Bike lane markings are fading and becoming hard to see.	Pedestrian and Bike Accommodation	Repaint bike lane markings and extend the markings through intersections to improve visibility.	Short	Low	City of Salem
Bike lanes are unprotected, and drivers frequently use them to pass other vehicles.	Pedestrian and Bike Accommodation	Consider establishing parking-protected bike lanes on Lafayette Street.	Middle	High	City of Salem
Bike lanes are unprotected, and drivers frequently use them to pass other vehicles.	Pedestrian and Bike Accommodation	Consider raising the bike lanes and connecting them to the sidewalk to enhance safety.	Long	High	City of Salem
Sidewalks are in poor condition or need repairs.	Pedestrian and Bike Accommodation	Repair or reconstruct sidewalks and curb ramps to comply with ADA standards.	Middle	Medium	City of Salem
Crashes are more likely to occur in dark conditions.	Intersection Visibility	Evaluate and adjust street and pedestrian-scale lighting to increase visibility.	Short	Low	City of Salem
Drivers often speed on Lafayette Street, especially south of Loring Avenue.	Roadway Features	Install speed limit signs and speed feedback signs at regular intervals.	Short	Low	City of Salem
Drivers often speed on Lafayette Street, especially south of Loring Avenue.	Roadway Features	Consider implementing the traffic calming and speed management improvements on Lafayette Street.	Long	High	City of Salem
Drivers run red lights, risking pedestrian safety.	Traffic Signal Operations and Visibility	Assess clearance intervals and update to current standards as necessary to enhance safety.	Short	Low	City of Salem
Drivers encounter congestion, delays, and long queues in the segment.	Traffic Signal Operations and Visibility	Optimize signal timings and phasing to enhance traffic flow.	Short	Medium	City of Salem
Drivers encounter congestion, delays, and long queues in the segment.	Traffic Signal Operations and Visibility	Upgrade the signal equipment to incorporate technologies that can adapt and respond dynamically to changing conditions.	Long	High	City of Salem
Drivers encounter delays on the side streets.	Pavement Marking and Signage	Add pavement markings and signage to help traffic turning out of the side streets or consider installing traffic signals at intersections that meet signal warrants.	Short	Low	City of Salem
The surface of the road is in poor condition and not well maintained.	Maintenance	Assess and provide routine maintenance or resurface Lafayette Street.	Middle	Medium	City of Salem
Transit service is infrequent.	Transit	Coordinate with the MBTA to ensure that frequent and express bus service is available on Lafayette Street.	Short	Medium	City of Salem
16—Washington Street, Dow Street at Lafayette Street					
The intersection is a primary site for angle crashes.	Traffic Signal Operations and Visibility	Assess clearance intervals and update them to current standards as needed to enhance safety and operations.	Short	Low	City of Salem
The intersection is a primary site for angle crashes.	Traffic Signal Operations and Visibility	Consider a Road Safety Audit for this intersection and the intersections of Palmer and Leavitt Streets.	Short	Low	City of Salem
Drivers park too close to the intersection, which limits sight distance.	Pedestrian and Bike Accommodation	Consider daylighting intersections by removing parking near crosswalks or installing curb extensions to enhance visibility.	Short	Medium	City of Salem
Vulnerable road users are at high risk. (Drivers make right turns on red after stopping on Washington Street, which is unsafe.)	Pedestrian and Bike Accommodation	Consider prohibiting right turns on red after stopping on Washington Street to Lafayette Street southbound.	Short	Low	City of Salem
Vulnerable road users are at high risk, especially when drivers make illegal left turns onto Dow Street from Washington Street.	Pedestrian and Bike Accommodation	Consider installing No Left Turn signs (both overhead and post-mounted) to alert drivers on Washington Street not to turn left onto Dow Street.	Short	Low	City of Salem

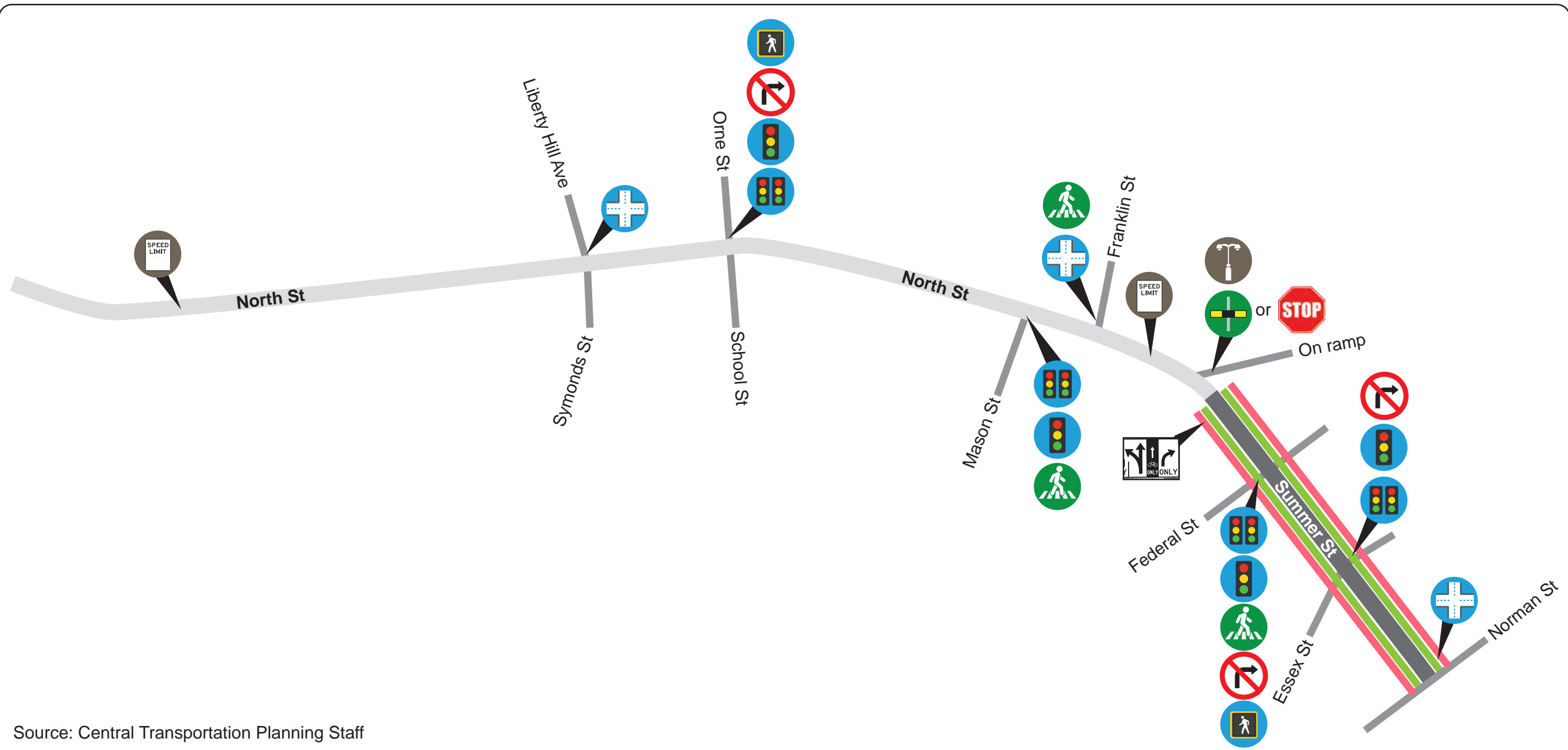
Issue/ Concern	Safety Category	Suggested Improvement	Time Frame	Cost	Responsibility
Drivers often fail to yield to pedestrians in crosswalks.	Pedestrian and Bike Accommodation	Evaluate and update the placement of No Turn On Red signage to ensure it complies with the MUTCD.	Short	Low	City of Salem
Pavement markings are fading and becoming difficult to see, especially at the intersections.	Pedestrian and Bike Accommodation	Repaint bike lane markings through the intersection to improve visibility and enhance safety for bicyclists.	Short	Low	City of Salem
Drivers run red lights, risking pedestrian safety.	Traffic Signal Operations and Visibility	Assess clearance intervals and revise them to meet current safety and efficiency standards.	Short	Low	City of Salem
Crashes are more likely to occur in dark conditions.	Intersection Visibility	Evaluate and adjust street and pedestrian-scale lighting to increase visibility.	Short	Low	City of Salem
Crashes are more likely to occur in dark conditions.	Intersection Visibility	Consider installing backplates with retroreflective borders on all signal heads to improve signal visibility.	Short	Low	City of Salem
Drivers encounter congestion and delays, and pedestrians have to wait too long for the Walk signal to appear.	Traffic Signal Operations and Visibility	Evaluate signal phasing and timing, and consider making improvements to reduce queues and congestion.	Short	Medium	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Assess and upgrade the signal equipment to incorporate technologies that can adapt and respond dynamically to changing conditions.	Long	High	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Evaluate whether implementing a one-way flow around Lafayette Park and reversing some existing one-way directions could help improve safety and traffic flow, or enhance bike safety.	Long	High	City of Salem
<b>17—Palmer Street at Lafayette Street</b>					
The intersection is a primary site for angle crashes.	Traffic Signal Operations and Visibility	Install a traffic signal at the intersection to enhance pedestrian safety and traffic flow.	Long	High	City of Salem
Drivers often fail to yield to pedestrians in crosswalks.	Pedestrian and Bike Accommodation	Consider installing rectangular rapid flashing beacons on the uncontrolled marked crosswalk on Lafayette Street to improve pedestrian safety.	Short	Medium	City of Salem
Crashes are more likely to occur in dark conditions.	Intersection Visibility	Evaluate and adjust street and pedestrian-scale lighting to enhance visibility.	Short	Low	City of Salem
Drivers have to wait too long to turn out of Palmer Street.	Traffic Signal Operations and Visibility	Consider installing a traffic signal to improve traffic flow.	Long	High	City of Salem
Drivers have to wait too long to turn out of Palmer Street.	Traffic Signal Operations and Visibility	Consider reversing traffic directions on Leavitt Street and installing a traffic signal at the Leavitt Street intersection to improve traffic flow. This option provides more space between the signal at the intersection of Dow and Washington Streets for queue build-up.	Long	High	City of Salem
<b>18—Leavitt Street at Lafayette Street</b>					
Drivers often fail to yield to pedestrians in crosswalks.	Pedestrian and Bicycle Accommodation	Consider installing rectangular rapid flashing beacon at the uncontrolled marked crosswalk on Lafayette Street to improve pedestrian safety.	Middle	Medium	City of Salem
Drivers often fail to yield to pedestrians in crosswalks.	Traffic Signal Operations and Visibility	Consider reversing traffic directions on Palmer Street and installing a traffic signal at the Leavitt Street intersection to improve traffic flow. This option provides more space between the signal at the intersection of Dow and Washington Streets for queue build-up.	Long	High	City of Salem
Vulnerable road users are at high risk as drivers park close to intersections, which limits sight distance.	Pedestrian and Bike Accommodation	Consider daylighting the intersection or installing curb extensions by removing parking near crosswalks.	Short	Medium	City of Salem
<b>19—Saltonstall/Hancock Street at Lafayette Street</b>					
Drivers often fail to yield to pedestrians in crosswalks.	Pedestrian and Bicycle Accommodation	Consider installing rectangular rapid flashing beacons at the uncontrolled marked crosswalks on Lafayette Street near Hancock Street/Saltonstall Parkway.	Middle	Medium	City of Salem
Drivers park too close to the intersection, which limits sight distance.	Pedestrian and Bike Accommodation	Consider daylighting the intersection by removing parking near crosswalks or installing curb extensions to improve visibility.	Short	Medium	City of Salem
Crashes occur more often in dark conditions.	Intersection Visibility	Assess and enhance street and pedestrian-level lighting to improve visibility and reduce crashes in dark and low-light conditions.	Short	Low	City of Salem
There is congestion during school drop-off and pick-up times.	Pavement Markings and Signage	Consider using pavement markings and signage to prevent double parking, parking in bike lanes, and parking near crosswalks.	Short	Low	City of Salem
<b>20—Leach Street/Holly Street at Lafayette Street</b>					

Issue/ Concern	Safety Category	Suggested Improvement	Time Frame	Cost	Responsibility
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Consider upgrading the pedestrian signal equipment to comply with current MassDOT standards.	Long	High	City of Salem
Drivers become confused by the blinking green light and the simultaneous yellow and red lights.	Pedestrian and Bike Accommodation	Consider updating the flashing green, simultaneous yellow, and red signal indications as needed to comply with MassDOT standards.	Middle	Medium	City of Salem
The pedestrian signal equipment is outdated.	Traffic Signal Operations and Visibility	Upgrade the pedestrian signal equipment as necessary to comply with current MassDOT standards.	Long	High	City of Salem
Drivers have to wait too long to turn out of the side streets.	Traffic Signal Operations and Visibility	Assess and upgrade the pedestrian signal to full traffic signals to manage traffic on side streets, speeding, and system coordination. Ocean Avenue has more traffic than Leach Street; however, Leach Street is in a more central position.	Long	High	City of Salem
Drivers often park too close to intersections, which reduces sight distance and endangers pedestrian safety.	Pedestrian and Bike Accommodation	Consider daylighting the intersection or installing curb extensions to increase pedestrian visibility.	Middle	Medium	City of Salem
Pavement markings are fading and becoming increasingly difficult to see, especially at intersections.	Pedestrian and Bike Accommodation	Repaint bike lane and crosswalk markings to improve safety for bicyclists.	Short	Low	City of Salem
Crashes are more likely to occur in dark conditions.	Intersection Visibility	Evaluate and improve street and pedestrian-level lighting to increase visibility.	Short	Low	City of Salem
21—Laurel Street/Willow Avenue at Lafayette Street					
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Consider installing pedestrian crossing signs at the uncontrolled marked crosswalk on Lafayette Street to enhance pedestrian safety.	Middle	Medium	City of Salem
Drivers park too close to the intersection, which limits sight distance.	Pedestrian and Bike Accommodation	Consider daylighting the intersection by removing parking near the crosswalk or installing curb extensions to enhance visibility.	Short	Medium	City of Salem
Drivers have to wait too long to turn out of the side streets.	Pavement Marking and Signage	Assess and install pavement markings and signage to assist traffic turning onto the side streets.	Short	Low	City of Salem
22 Ocean Avenue at Lafayette Street					
Intersection is a primary angle crash site.	Traffic Signal Operations and Visibility	Assess and upgrade the pedestrian signal to full traffic signals to manage traffic on side streets, speeding, and system coordination.	Long	High	City of Salem
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Consider upgrading the pedestrian signal equipment to meet current MassDOT standards.	Long	High	City of Salem
Drivers become confused by the blinking green light and the simultaneous yellow and red lights.	Pedestrian and Bike Accommodation	Consider updating the flashing green, simultaneous yellow, and red signal indications as necessary to comply with current MassDOT standards.	Middle	Medium	City of Salem
Drivers park close to the intersection, which limits sight distance.	Pedestrian and Bike Accommodation	Consider installing curb extensions or daylighting the intersection to enhance pedestrian visibility.	Middle	Medium	City of Salem
Crashes are more likely to occur in dark conditions.	Intersection Visibility	Evaluate and improve street and pedestrian-level lighting to increase visibility.	Short	Low	City of Salem
Drivers have to wait too long to turn out of the side streets.	Traffic Signal Operations and Visibility	Upgrade the pedestrian signal to a full traffic signal to better control traffic on side streets, speeding, and system coordination. Ocean Avenue has more traffic than Leach Street; however, Leach Street is in a more central position.	Long	High	City of Salem
The pedestrian signal equipment is outdated.	Traffic Signal Operations and Visibility	Upgrade the pedestrian signal equipment as necessary to comply with current MassDOT standards.	Long	High	City of Salem
23—Forest Avenue/Clifton Avenue at Lafayette Street					
The intersection is a primary angle crash site.	Intersection Visibility	Consider installing curb extensions or daylighting the intersection by removing parking to enhance visibility and increase safety for pedestrians and drivers.	Short	Medium	City of Salem
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Consider adding pedestrian crossing signs to the uncontrolled marked crosswalk on Lafayette Street.	Middle	Medium	City of Salem
Drivers have to wait too long to turn out of the side streets.	Pavement Marking and Signage	Evaluate and install pavement markings and signage to assist traffic in turning out of the side streets.	Short	Low	City of Salem
Traffic queues frequently extend into the intersection, creating safety problems for pedestrians and drivers.	Traffic Signal Operations and Visibility	Assess and optimize signal timing and phasing sequence at the intersection of Lafayette Street and Loring Avenue to decrease queues.	Short	Medium	City of Salem



Issue/ Concern	Safety Category	Suggested Improvement	Time Frame	Cost	Responsibility
24—Loring Avenue/West Avenue at Lafayette Street					
Drivers run red lights, risking pedestrian safety.	Traffic Signal Operations and Visibility	Assess clearance intervals and update them to comply with current standards.	Short	Low	City of Salem
The right-turn lane on Lafayette Street is too short for the amount of traffic it carries.	Intersection Geometry	Assess and consider lengthening the southbound right-turn lane on Lafayette Street to accommodate current traffic demands.	Short	Low	City of Salem
Vulnerable road users are at high risk at intersections.	Pedestrian and Bike Accommodation	Evaluate and update No Turn On Red signs to improve pedestrian safety at the intersection.	Short	Low	City of Salem
Drivers encounter congestion and delays, and pedestrians have to wait too long for the Walk signal.	Traffic Signal Operations and Visibility	Optimize signal timings and phasing to enhance pedestrian crossing experience and traffic flow.	Short	Medium	City of Salem
Drivers encounter congestion, delays, and long queues.	Traffic Signal Operations and Visibility	Assess and upgrade the signal equipment to incorporate technologies that can adapt and respond dynamically to changing conditions, thereby optimizing flow and reducing congestion.	Long	High	City of Salem
25—Marblehead Trail Crossing at Lafayette Street					
Drivers often fail to yield to pedestrians crossing Lafayette Street.	Pedestrian and Bike Accommodation	Consider adding pavement marking yield lines and Yield Here to Pedestrians signs (R1-5) to the existing rectangular rapid flashing beacon to enhance pedestrian safety.	Short	Low	City of Salem
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Consider installing rumble strips before the crosswalk to alert drivers to their approach.	Short	Low	City of Salem
Drivers often fail to yield to pedestrians crossing streets.	Pedestrian and Bike Accommodation	Consider installing a pedestrian refuge island or median island to shorten the crosswalk and provide space for pedestrians to pause.	Short	Low	City of Salem
The existing rectangular rapid flashing beacon is not working well.	Pedestrian and Bike Accommodation	Evaluate and upgrade the existing rectangular rapid flashing beacon to a traditional pedestrian crossing signal.	Middle	High	City of Salem
Sidewalks are missing or in need of repair.	Pedestrian and Bike Accommodation	Evaluate and repair sidewalks and/or reconstruct sidewalks to close gaps	Short	Medium	City of Salem
Bike lanes are unprotected, and drivers frequently use them to pass.	Pedestrian and Bike Accommodation	Consider installing parking-protected or buffered bike lanes, or raising the bike lanes and connecting them to the sidewalks.	Middle	Medium	City of Salem
Drivers often speed, particularly in this segment.	Roadway Features	Install speed limit signs and speed feedback signs at regular intervals to inform drivers of speed limits.	Short	Low	City of Salem

ADA = Americans with Disabilities Act. MUTCD = Manual on Uniform Traffic Control Devices.

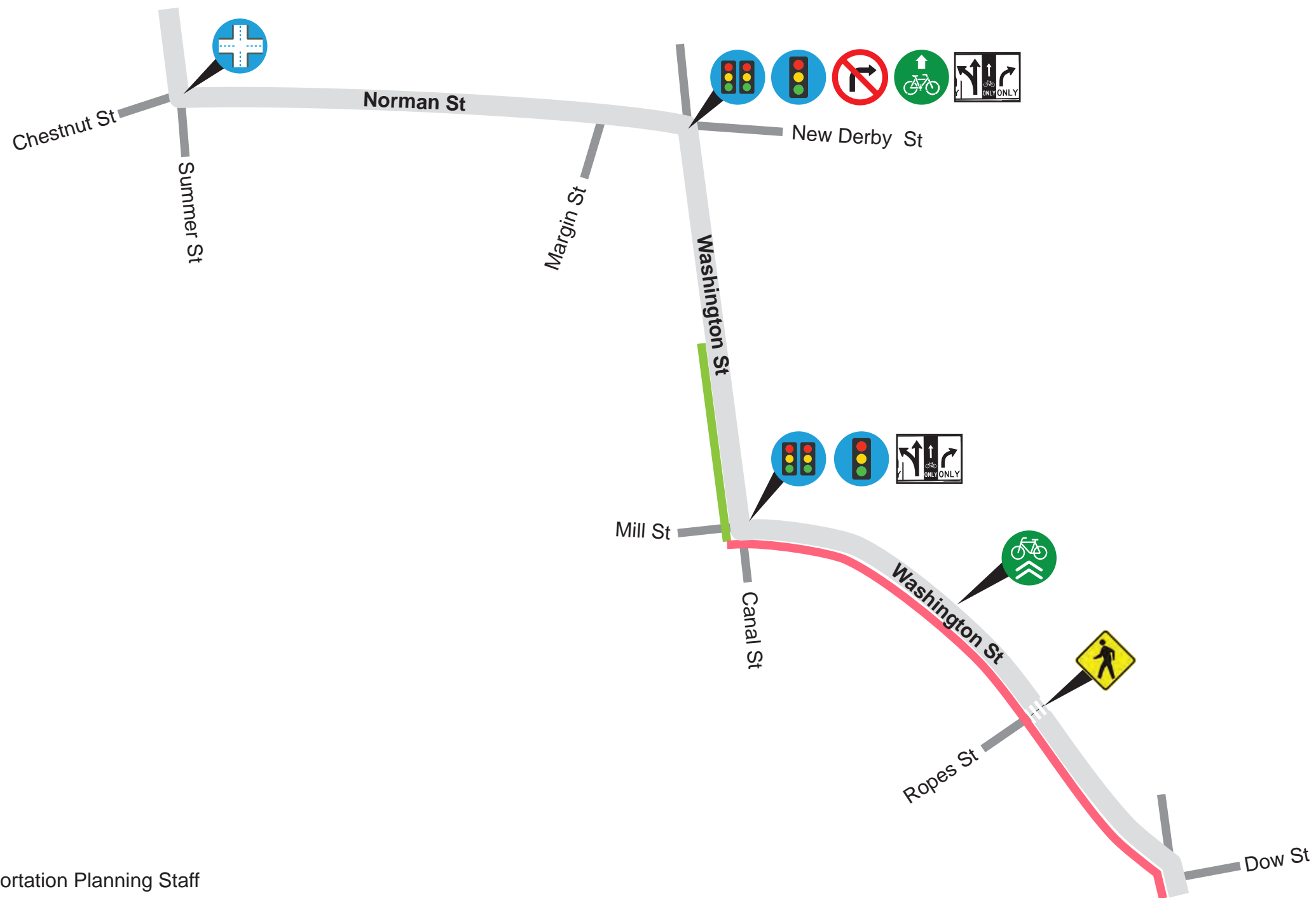


- |  |   |  |   |  |  |
|--|---|--|---|--|--|
|  | Retime and coordinate traffic signals             |  | Add crosswalk(s)  |  | Improve lighting   |
|  | Upgrade traffic signal equipment                  |  | Install rectangular rapid flashing beacon                   |  | Install a stop sign  |
|  | Signalization and intersection improvements       |  | Install speed limit and feedback signs at regular intervals |  | Install signs and pavement markings in advance to guide drivers into correct lanes |
|  | Evaluate and install leading pedestrian intervals |  | Evaluate and adjust No Right Turn on Red signage placement  |  | Evaluate and resurface road  |
|  |   |  |   |  | Protect bike lanes   |
|  |   |  |   |  | Repair or reconstruct sidewalks  |













**Figure 19**  
**Potential Improvements for North Street**



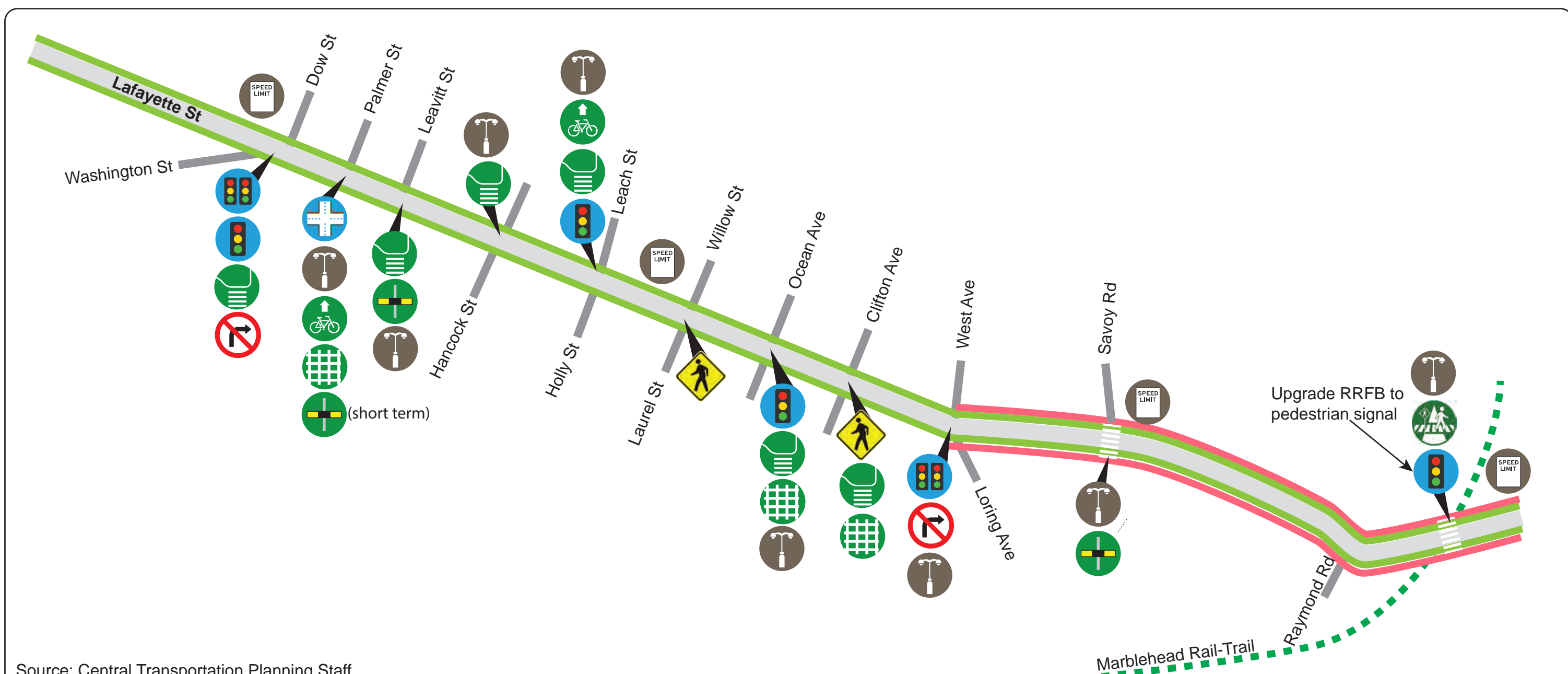


Source: Central Transportation Planning Staff

- |   |   |   |  |   |  |
|---|---|---|--|---|--|
|  | Retime and coordinate traffic signals         |  | Evaluate Right Turn on Red signage placement                                       |  | Paint bike lane markings through intersections |
|  | Upgrade traffic signal equipment and features |  | Add pedestrian crossing signs  |  | Add shared lane markings                       |
|  | Signalization and intersection improvements   |  | Install signs and pavement markings in advance to guide drivers into correct lanes |  | Repair or reconstruct sidewalk                 |
|   |   |   |  |  | Protect bike lanes                             |



**Figure 20**  
**Potential Improvements for Washington Street**



Source: Central Transportation Planning Staff

	Retime and coordinate traffic signals		Paint do not block intersection markings and/or add signs		Improve street and pedestrian-level lighting
	Upgrade traffic or pedestrian signal equipment		Install rectangular rapid flashing beacon		Install speed limit and feedback signs at regular intervals
	Signalization and intersection improvements		Paint bike lane markings through intersections		Add pedestrian crossing signs
	Evaluate and adjust No Right Turn on Red signage placement		Install curb extensions or daylight intersection		Evaluate and resurface road
			Install pedestrian refuge or median island		Protect bike lanes and paint bike lane markings through intersections
					Evaluate and reconstruct sidewalks

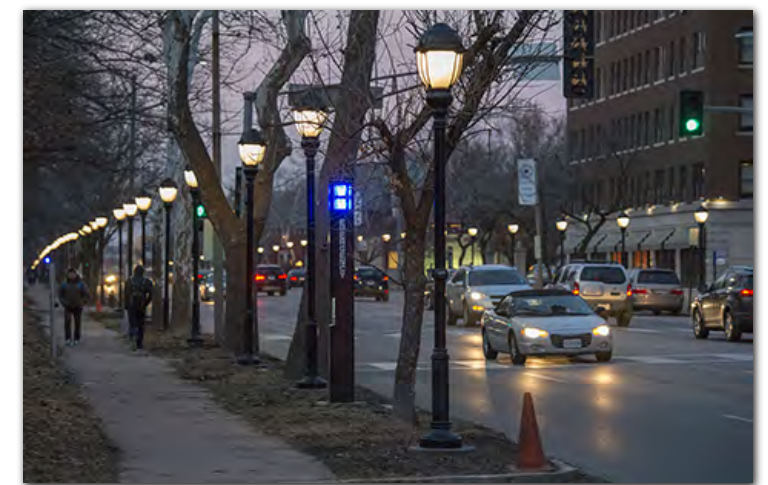




Bike Lane Protection: Cycle Track



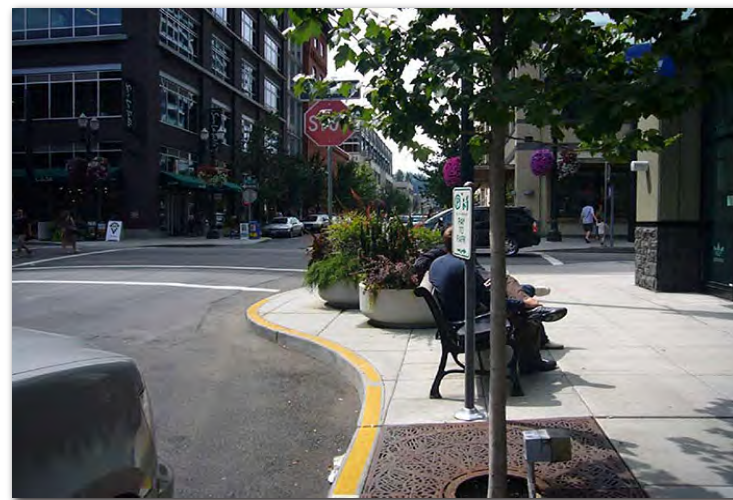
Bike Lane Protection: Parking-Protected



Pedestrian-Scale Lighting: Sidewalk



Curb Extension: Flush with Bollards



Curb Extension: Raised



Pedestrian-Scale Lighting: Intersection



Pedestrian Refuge Island: Midblock Crossing



Pedestrian Signal



Speed Limit and Feedback Sign

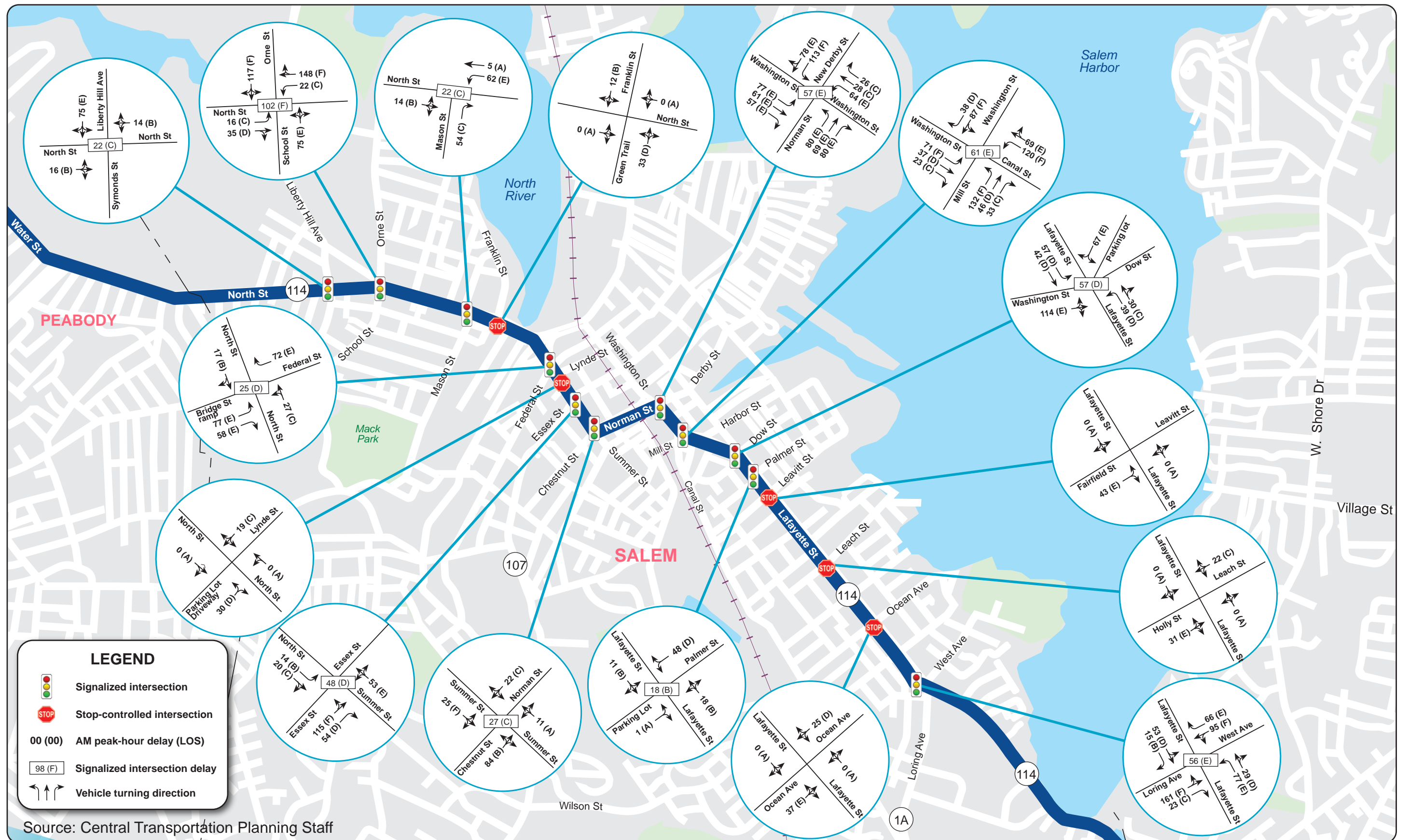




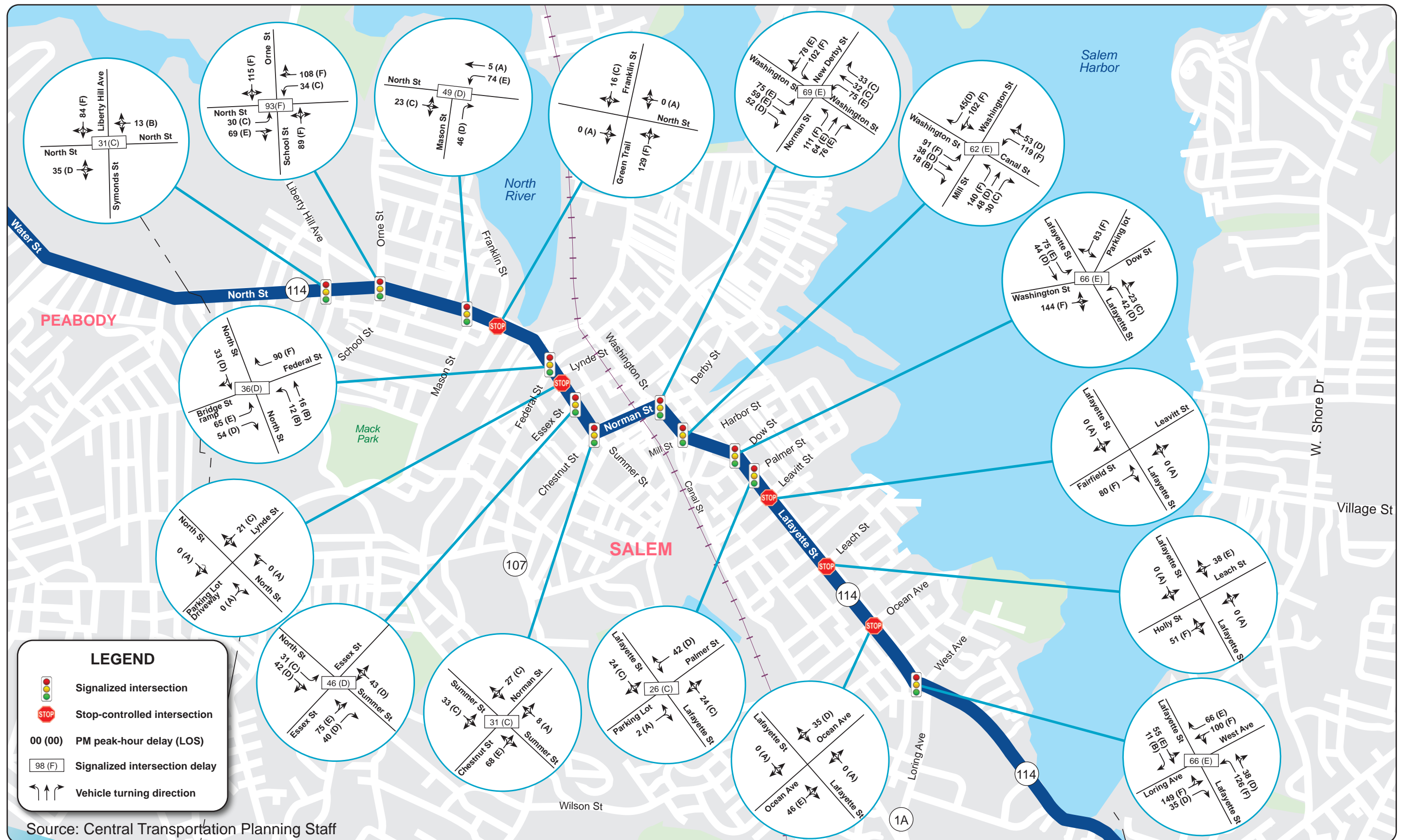
### **3.3 OPERATIONAL IMPACTS OF SUGGESTED IMPROVEMENTS**

The Boston Region MPO's transportation planning model (TDM23 2.0) was used to forecast traffic for this study to the target year of 2040. The model results projected that between 2019 and 2040 traffic volumes on Route 114 in Salem would increase by approximately 0.019 percent annually. The results also indicate that there would be minimal increases in traffic volumes in the vicinity of the study area in the future.

If the potential improvements are implemented, travel conditions in 2040, measured by total travel time, are expected to decrease by as much as 17 percent compared to 2025 levels, while delays at intersections are expected to decline by as much as 22 percent. Figures 23 and 24 show the delays and LOS projected for 2040 with the proposed improvements.



**Figure 23**  
**2040 Build: Weekday AM Peak Hour Delays and Level of Service**



**Figure 24**  
**2040 Build: Weekday PM Peak Hour Delays and Level of Service**

### 3.4 SAFETY IMPACTS OF SUGGESTED IMPROVEMENTS

Each proposed safety improvement was selected to address specific safety deficiencies. Considering the limited funding for projects, improvements that reduce injurious and fatal crashes should be prioritized. Therefore, stakeholders must understand the extent to which a particular safety improvement, or a set of enhancements, can reduce the number of crashes. Table 7 illustrates some of the safety benefits of the proposed improvements.

**Table 7**  
**Safety Benefits of Proposed Improvements**

<b>Improvements</b>	<b>Safety Benefit</b>
Install a rectangular rapid flashing beacon.	Up to 47 percent reduction in pedestrian crashes
Install a high-visibility crosswalk.	Up to 40 percent reduction in pedestrian injuries
Improve street lighting.	Up to 28 percent reduction in nighttime injury crashes
Improve intersection lighting.	Up to 42 percent reduction in pedestrian crashes Up to 38 percent reduction in nighttime crashes
Install advance yield or stop marking.	Up to 25 percent reduction in pedestrian crashes
Provide sidewalks.	Up to 40 percent reduction in pedestrian crashes
Implement road diets.	Between 19 percent and 47 percent reduction in total crashes
Install leading pedestrian intervals.	Up to 13 percent reduction in pedestrian-vehicle crashes at intersections
Install separated bike lanes.	Converting traditional or flush-buffered bicycle lanes into separated bicycle lanes can reduce bicycle/vehicle crashes by up to 53 percent
Add stop signs or stop lines.	Up to 10 percent reduction in total crashes Up to 37 percent reduction in injury and fatal crashes
Modify clearance or change times to standards.	Up to 50 percent reduction in red light running Up to 14 percent reduction in all crashes
Add yellow retroreflective borders to signal heads.	Up to 15 percent reduction in nighttime crashes

Source: Federal Highway Administration, [Crash Modification Factors Clearinghouse](#).





# Chapter 4—Conclusion and Next Steps

## 4.1 PROJECT DEVELOPMENT

Addressing deficiencies in the Route 114 corridor in Salem will involve converting the planning stage improvements into projects and identifying the necessary funding to implement them. The City of Salem is encouraged to start collaborating with MassDOT and the Boston Region MPO to initiate projects and secure funding for their design, engineering, and construction. The types of projects that can be started include the following:

- Complete Streets projects to modernize and enhance multimodal transportation in the corridor, especially for Lafayette Street near Salem State University
- Traffic signal modernization projects that aim to reduce congestion, especially on North Street and Lafayette Street
- Intersection improvement projects focused on enhancing safety, including signalization and geometry modifications at the intersections of Liberty Hill Avenue or Franklin Street on North Street, Summer Street at Norman Street, and Palmer Street or Leavitt Street on Lafayette Street
- Pavement rehabilitation directed at resurfacing and preserving pavement conditions on North Street and Lafayette Street
- Pedestrian and bicycle projects centered on safety, such as adding curb extensions, creating pedestrian refuge islands, protecting bike lanes, and installing rectangular rapid flashing beacons (RRFBs).
- Lighting upgrade projects at intersections and crossings to reduce crashes under dark conditions

## 4.2 PROJECT FUNDING

There are various types of funding available through [MassDOT](#)<sup>2</sup> and the [Boston Region MPO](#)<sup>3</sup> for implementing projects, and Salem staff are encouraged to explore these funding options for projects on Route 114:

- MassDOT's Complete Streets Funding Program provides funding to promote Complete Streets, which offers safe and accessible options for all travel modes for all users.
- MassDOT's Local Bottleneck Reduction Program seeks to fund innovative solutions to modernize traffic signals and address congestion, including coordinating multiple traffic signals, retiming traffic signals, and upgrading traffic signal controllers and cabinets.

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<sup>2</sup> See MassDOT's Grant Central website: <https://madothway.my.site.com/GrantCentral/s/>.

<sup>3</sup> See the Boston Region MPO's summary of investment programs: <https://www.bostonmpo.org/data/pdf/plans/TIP/TIP-Flyer-2024-03-23.pdf>.

- MassDOT's Municipal Pavement Program aims to improve pavement conditions of municipally owned, state-numbered routes, especially those on the National Highway System (NHS), such as Route 114.
- MassDOT's Shared Streets and Spaces Program provides funding to municipalities to quickly enhance public spaces such as plazas, sidewalks, curbs, streets, bus stops, and parking areas to support health, safe mobility, and stronger commerce.
- MassDOT's Safe Route to Schools Program provides funding to municipalities to increase safe walking, biking, and rolling among public elementary, middle, and high school students.
- MassDOT's Local Early and Actionable Planning (LEAP) Program provides planning and design support for municipally prioritized transportation infrastructure projects.
- The MPO's Intersection Improvements investment program funds projects to update intersection layouts and signals, enhancing safety for all users.
- The MPO's Complete Streets investment program funds projects to modernize roadways to improve safety and mobility for all users. This program is independent of the MassDOT Complete Streets program.
- The MPO's Bicycle Network and Pedestrian Connections investment program funds projects to expand bicycle and pedestrian networks to improve safe access to transit, schools, employment centers, and shopping destinations.
- MassWorks' Infrastructure Program provides funding to municipalities for public infrastructure projects that support housing production, economic development, and job creation.

### 4.3 CONCLUSION

The improvements proposed in this report, if implemented, would significantly improve safety, mobility, and operations in the Route 114 corridor by supporting walking, biking, transit, and other transportation modes that connect Salem's downtown, schools, residential areas, and recreational spaces. The improvements would also provide stakeholders with the opportunity to review options for addressing deficiencies in the corridor before committing funds to a roadway improvement project. The next steps are to begin project development and seek funding. The City of Salem is encouraged to start collaborating with MassDOT and the Boston Region MPO to initiate projects and secure funding for their design, engineering, and construction.

## **Appendix A**

### **Advisory Committee and Comments**

- 1: Advisory Committee
- 2: Review Comments

## **Part 1: Advisory Committee**

**Route 114 Corridor Study  
Advisory Committee**

**MPO Staff**

Sean Rourke, MPO staff  
Jia Huang, MPO staff  
Stella Jordan, MPO staff  
Seth Asante, MPO staff

**Salem City Councilors**

Councilor Megan Stott, Ward 6,  
Councilor Caroline Watson-Felt, Ward 2  
Councilor Cynthia Jerzylo, Ward 1  
Councilor Jeff Cohen, Ward 5  
Councilor Andrew Varela, Ward 7

**Salem City Staff**

David Kucharsky, Director of Traffic & Parking  
Christina Hodge, Dept of Transportation  
Lisa Peterson, Mayor's Office  
Gisell De la Cruz, Engineering Dept  
Tom Devine, Dept of Planning and Community Development  
John Giardi, Electrical Department  
Lt. Tucker, Salem Police Department  
Chief Alan Dionne, Salem Fire Department  
Peter Schaeublin, Salem Fire Department  
Jaime Garmendia, Salem Transportation Commission, Chair  
John Wathne, Bicycling and Shared Path Advisory Committee, Chair

**Salem Public Schools**

Bethann Jellison, Saltonstall School Principal  
João Barros, Transportation Manager for Salem Public School

**Salem State University**

Adria Duijvesteijn, Salem State University

**MassDOT District 4 & OTP**

Timothy Paris, MassDOT District 4  
Katherine Duffy, MassDOT District 4  
Sara Timoner, MassDOT District 4  
Rachel Kelly, MassDOT Planning  
April Antonelli, MassDOT

**MBTA**

Miles Taylor

## **Part 2: Review Comments**



## Re: Route 114 Corridor Study, City of Salem

1 message

Seth Asante <sasante@ctps.org>

Mon, Nov 24, 2025 at 2:34 PM

To: David Kucharsky <dkucharsky@salem.com>

Cc: Christina Hodge <chodge@salem.com>, Tom Devine <tdevine@salem.com>

Good afternoon! David,

Thank you for sharing your feedback. I value your input and would like to take a moment to address your comments, which I have highlighted in bold.

On page 17, Section 2.1 Study Area, please note that MassDOT owns the North Street Bridge overpass as well as the portion of North Street that traverses over the North River culvert.

**We have added this information and clarified the MassDOT-owned portions in the report.**

Figure 6 of the document, I am questioning the change in volumes from location 23 to 24 heading southbound, as well as location 24 to 23 northbound. Can the data be reviewed to ensure its accuracy?

**We believe the directions and volumes for location 23 that were provided to us should be reversed. We have updated Figure 6 accordingly, and the counts now accurately display the traffic has diverted onto Raymond Road or Raymond Avenue. In the future, the city may need to conduct a traffic count to verify these changes.**

On page 49, please note the following:

Project #612990 Flint to Commuter Station Entrance/Exit not to Washington Street

**We have updated the reference to read "Flint Street to Commuter Station Entrance/Exit."**

Please indicate that a Shared Streets grant was awarded to the City on Lafayette St from Loring Ave to Harborview Terrace.

**We have added a note indicating a Shared Streets grant was awarded to the City for Lafayette Street, from Loring Avenue to Harborview Terrace.**

Table 4 Issue 7 Federal Street Ramp at North Street: The suggested improvement states, "Assess the feasibility of eliminating the right turn slip lane from the ramp onto North Street due to low volumes." Is this the eastbound ramp making a right onto southbound North Street?

**Yes, we have clarified this in Table 4.**

Appendix C Traffic Safety Data: Can you confirm the collision diagram figures and tables match, and clarify what the dark grey boxes on the diagrams are supposed to represent?

**We have reviewed the collision diagrams and ensured that they match the tables. The grey boxes indicate collisions that occurred under dark conditions; we have labeled them on the diagrams for clarity.**

Finally, we will present the study results to the MPO board on December 4, and I will invite the advisory committee to attend and support the study and the projects planned for the corridor.

Thank you for your support and participation in this study.

Best regards,  
Seth

**Seth Asante**  
**Chief Transportation Planner**  
Central Transportation Planning Staff  
Boston Region Metropolitan Planning Organization  
[857.702.3644](tel:857.702.3644) | [sasante@ctps.org](mailto:sasante@ctps.org) | [bostonmpo.org](http://bostonmpo.org)



# City of Salem, Massachusetts

Department of Transportation  
98 Washington Street, 2<sup>nd</sup> Floor  
Salem, MA 01970  
[www.salem.com](http://www.salem.com)

**Dominick Pangallo, Mayor**

**David Kucharsky, Transportation Director**

November 13<sup>th</sup>, 2025

Seth Asante  
Chief Transportation Planner  
Central Transportation Planning Staff  
Boston Region Metropolitan Planning Organization

RE: Route 114 Corridor Study

Mr. Asante:

Thank you for the opportunity to review and provide feedback on the Route 114 Corridor Study. I appreciate the time you and other CTPS staff spent on developing this document. I believe overall it will help the city to further focus our ongoing efforts to improve safety and accessibility along this corridor as well as dovetail with other planning efforts including our recently completed Safety Action Plan, Complete Streets Policy, Neighborhood Traffic Calming Program and Bicycle Master Plan. Below are some comments and questions:

- On page 17 Section 2.1 Study Area please note that MassDOT owns the North Street Bridge overpass as well as the portion of North Street that traverses over the North River culvert.
- Figure 6 of the document, I am questioning the change in volumes from location 23 to 24 heading southbound as well as location 24 to 23 northbound. Can the data be reviewed to ensure their accuracy.
- On page 49 please note the following:
  - Project # 612990 Flint to Commuter Station Entrance/Exit not to Washington Street
  - Please indicate a Shared Streets grant was awarded to city on Lafayette St from Loring Ave to Harborview Terrace
- Table 4 Issue 7 Federal Street Ramp at North Street: The suggested improvement states "*Assess feasibility of eliminating the right turn slip lane from the ramp onto North Street due to low volumes.*" Is this the eastbound ramp making a right onto southbound North Street?
- Appendix C Traffic Safety Data: Can you confirm the collision diagram figures and tables match and clarify what the dark grey boxes on the diagrams are supposed to represent.

Sincerely,

A handwritten signature in black ink, appearing to read "David Kucharsky", is written over a light blue horizontal line.

David Kucharsky

Director of Transportation

Phone – 978.619.5697

[dkucharsky@salem.com](mailto:dkucharsky@salem.com)

## Re: Route 114 Corridor Study, City of Salem

John Giardi <JGiardi@salem.com>

Mon, Nov 10, 2025 at 9:52 AM

To: Seth Asante <sasante@ctps.org>, "Krevat, Derek (DOT)" <Derek.Krevat@dot.state.ma.us>, Megan Stott <mstott@salem.com>, Caroline Watson-Felt <cwatsonfelt@salem.com>, Cynthia Jerzylo <cjerzylo@salem.com>, Jeff Cohen <jcohen@salem.com>, Andrew Varela <avarela@salem.com>, David Kucharsky <dkucharsky@salem.com>, Christina Hodge <chodge@salem.com>, Lisa Peterson <lpeterson@salem.com>, Gisell Delacruz <gdelacruz@salem.com>, Tom Devine <tdevine@salem.com>, "David M. Tucker" <dmtucker@salempd.net>, Alan Dionne <ADionne@salem.com>, Peter Schaeublin <pschaeublin@salem.com>, Jaime Garmendia <jgarmendia@salem.com>, John Wathne <jwathne@structures-north.com>, Bethann Jellison <bjellison@salemk12.org>, João Barros <jbarros@salemk12.org>, Adria Duijvesteijn <aduijvesteijn@salemstate.edu>, "Paris, Timothy D. (DOT)" <timothy.paris@state.ma.us>, Katherine Duffy <katherine.l.duffy@dot.state.ma.us>, "Sara Timoner (DOT)" <sara.timoner@state.ma.us>, "Kelly, Rachel F. (DOT)" <rachel.f.kelly@dot.state.ma.us>, "Antonelli, April S. (DOT)" <April.S.Antonelli@dot.state.ma.us>, Miles Taylor <MTaylor@mbta.com>

Good morning Seth, the City is considering no right turn on red which I am in favor of because people are blowing through red lights without stopping. This was designed to help the pedestrians and the motorists keep on moving in a safe fashion. Drivers are to aggressive. Another thing that is long overdue is concurrent traffic signals. We are developing at record pace in the City of Salem and waiving all the past parking ordinances that were in place. I'm all for that as well, at the same time we need to move traffic so we don't waste fuel and peoples time. We can achieve this safely by redesigning some of the streets so that they work to help us achieve this goal. We have a smart signal system that is almost ready to implement. This has taken a couple of years to build and we have one more step to go. I would be happy to meet with you to go over any questions you may have. Thank you for taking the time to read this.

City Electrician  
John Giardi

**RE: Route 114 Corridor Study in Salem**

Krevat, Derek (DOT)

1:03 PM

to me, dhong, Jenn, Annette

Hi Seth,

Thank you for checking in on this. I didn't have any comments. We'll be in touch with the City as this proceeds to project development, so would love to stay in the loop on the next steps for design, which I will plan to coordinate with the City on.

**Re: Route 114 Corridor Study, City of Salem**

Kelly, Rachel F. (DOT)

Nov 10, 2025, 4:39 PM

Hi Seth,

I have no changes to the plan. I think it's great – very user friendly and lays out the data clearly. Well done.

Rachel F. Kelly  
Multimodal Planning | Office of Transportation Planning | MassDOT  
10 Park Plaza, Suite 4150, Boston, MA 02116

**Re: Route 114 Corridor Study, City of Salem**

Peter Schaeublin

Wed, Nov 12, 2:24 PM

To me, Derek, Megan, Caroline, Cynthia, Jeff, Andrew, David, Christina, Lisa, Gisell, Tom, John, David, Alan, Jaime, John, Bethann, João, Adria, Timothy, Katherine, Sara, Rachel, April, Miles

Mr. Asante,

The Salem Fire Department appreciates the City's ongoing efforts to improve pedestrian and traffic safety through the use of traffic calming measures. While we recognize the value of these initiatives in reducing vehicle speeds and enhancing walkability, we would like to share some concerns from a public safety response perspective.

Any restriction or reduction of roadway width — including the installation of bump-out crosswalks, speed humps, stanchions, or protected bike lanes — can significantly impact our ability to respond quickly and safely to emergencies. These features often limit the space available for motorists to yield to emergency vehicles, impede access for large fire apparatus, and can increase response times during critical incidents when every second counts.

We encourage continued collaboration between the Salem Fire Department, the Traffic and Parking Department, and City Planning to ensure that roadway design improvements balance the goals of pedestrian safety with the essential need for unobstructed emergency access. We are available to review proposed projects and provide input to help achieve both objectives.

Thank you for your attention to this important matter and for your ongoing partnership in keeping Salem safe for all.

Peter Schaeublin  
Deputy Fire Chief | City of Salem  
48 Lafayette Street  
Salem, MA 01970  
bus (978) 744-6990  
pschaeublin@salem.com  
<https://www.salemma.gov/fire-department>

**Re: Route 114 Corridor Study, City of Salem**

David M. Tucker

Thu, Nov 13, 6:01 PM

to me, Derek, Megan, Caroline, Cynthia, Jeff, Andrew, David, Christina, Lisa, Gisell, Tom, John, Alan, Peter, Jaime, John, Bethann, João, Adria, Timothy, Katherine, Sara, Rachel, April, Miles

Good afternoon Mr. Asante,

Thank you to you and your team for providing this very comprehensive look at the conditions along route 114 in Salem. We agree with many of the findings and recommendations in the draft report. We also agree with our colleagues at the Fire Department on their points.

The report accurately sums up the conditions found on the roadway. It is very congested, and is also needed by many pedestrians, cyclists and other vulnerable users. One aspect touched upon in the report, and commented on by Mr. Giardi, is the need to move traffic safely but as efficiently as possible. We need to find ways to gain the compliance of motorists so that they will abide by the motor vehicle laws and follow the various traffic signals and devices. From experience in stopping many motorists, most are good people who make mistakes in judgement. Often, those mistakes are tied to running late, frustration with traffic congestion, etc.

In terms of comments made by Deputy Chief Schaeublin, we feel much the same way. We have had a few projects and experiments which narrowed the roadway or tightened the turning radius of corners, but we have found in some cases that this created unsafe conditions for motorists. On roadways that have been narrowed, if you add emergency vehicle responses, snow removal, trash collection or road construction, then you find much more difficult conditions when dealing with traffic. If there is a crash, we find that multiple police units are occupied with a significant detour. Just listing some factors that we are all aware of but should be considered when designing any major changes.

We think that continuing the investment in signal upgrades and timing could be one key to moving traffic safely, which should also create improvements in the safety of our vulnerable road users.

Lastly, the report talks about lighting for dark areas. Would it be beneficial to add extra, focused lighting to crosswalks and intersections? This would help illuminate pedestrians, who are often wearing dark clothing or who are out in poor weather. And adding bright lighting to intersections could help reduce crashes.

Again, thank you all for your efforts on this corridor.

Sincerely,

Lt. David Tucker  
Traffic Division  
Salem Police Department  
978-744-0171 x50271

## **Appendix B**

### **Traffic and Speed Data**

1: Traffic Data

2: Speed Data



## **Part 1: Traffic Data**

# 250511- 1 Liberty Hill Ave @ North TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279713, Location: 42.529801, -70.906255

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Liberty Hill Avenue Southbound						North Street (Route 114) Westbound						Symonds Street Northbound						North Street (Route 114) Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	2	1	3	0	6	1	0	122	0	0	122	0	0	0	0	0	0	1	0	56	4	0	60	0	188
6:15AM	5	0	2	0	7	2	0	158	0	0	158	0	0	0	0	0	0	0	0	72	1	0	73	0	238
6:30AM	9	0	3	0	12	1	1	191	0	0	192	1	0	0	0	0	0	2	0	113	2	0	115	0	319
6:45AM	15	3	0	0	18	2	4	182	1	0	187	1	0	0	0	0	0	1	0	117	3	0	120	0	325
Hourly Total	31	4	8	0	43	6	5	653	1	0	659	2	0	0	0	0	0	4	0	358	10	0	368	0	1070
7:00AM	13	4	1	0	18	0	1	227	0	0	228	0	0	0	0	0	0	2	1	131	5	0	137	0	383
7:15AM	29	0	2	0	31	1	3	217	0	0	220	0	0	0	0	0	0	0	3	144	11	0	158	0	409
7:30AM	48	19	6	0	73	3	16	209	0	0	225	2	0	0	0	0	0	3	6	131	29	0	166	0	464
7:45AM	38	13	4	0	55	4	4	195	0	0	199	2	0	0	0	0	0	1	5	140	9	0	154	0	408
Hourly Total	128	36	13	0	177	8	24	848	0	0	872	4	0	0	0	0	0	6	15	546	54	0	615	0	1664
8:00AM	16	3	1	0	20	1	3	196	1	0	200	2	0	0	0	0	0	1	6	122	5	0	133	0	353
8:15AM	17	1	3	0	21	0	2	229	0	0	231	0	0	0	0	0	0	0	6	106	4	0	116	0	368
8:30AM	14	1	1	0	16	1	4	205	0	0	209	2	0	0	0	0	0	4	3	181	5	0	189	0	414
8:45AM	20	1	1	0	22	0	3	203	0	0	206	1	0	0	0	0	0	1	8	159	7	0	174	0	402
Hourly Total	67	6	6	0	79	2	12	833	1	0	846	5	0	0	0	0	0	6	23	568	21	0	612	0	1537
3:00PM	24	4	5	0	33	2	4	203	0	0	207	0	0	0	0	0	0	0	5	169	9	0	183	0	423
3:15PM	22	8	3	0	33	3	1	192	2	0	195	0	0	0	0	0	0	0	11	165	6	0	182	0	410
3:30PM	28	5	2	0	35	1	0	156	1	0	157	0	0	0	0	0	0	4	4	140	6	0	150	0	342
3:45PM	27	6	7	0	40	4	2	166	1	0	169	0	0	0	0	0	0	2	8	157	3	0	168	0	377
Hourly Total	101	23	17	0	141	10	7	717	4	0	728	0	0	0	0	0	0	6	28	631	24	0	683	0	1552
4:00PM	37	6	0	0	43	2	2	173	1	0	176	2	0	0	0	0	0	1	13	155	4	0	172	0	391
4:15PM	33	4	0	0	37	1	1	188	0	0	189	2	0	0	0	0	0	2	8	176	5	0	189	0	415
4:30PM	29	9	2	0	40	5	1	208	1	0	210	0	0	0	0	0	0	0	16	168	9	0	193	0	443
4:45PM	41	9	3	0	53	1	2	187	4	0	193	0	0	0	0	0	0	4	1	148	7	0	156	0	402
Hourly Total	140	28	5	0	173	9	6	756	6	0	768	4	0	0	0	0	0	7	38	647	25	0	710	0	1651
5:00PM	46	9	5	0	60	0	1	187	3	0	191	0	0	0	0	0	0	0	7	132	5	0	144	0	395
5:15PM	34	7	4	0	45	1	3	215	0	0	218	0	0	0	0	0	0	4	10	163	5	0	178	0	441
5:30PM	42	6	2	0	50	0	2	199	0	0	201	1	0	0	0	0	0	3	10	155	2	0	167	0	418
5:45PM	27	4	3	0	34	3	4	169	3	0	176	0	0	0	0	0	0	2	9	155	3	0	167	0	377
Hourly Total	149	26	14	0	189	4	10	770	6	0	786	1	0	0	0	0	0	9	36	605	15	0	656	0	1631
<b>Total</b>	616	123	63	0	802	39	64	4577	18	0	4659	16	0	0	0	0	0	38	140	3355	149	0	3644	0	9105
<b>% Approach</b>	76.8%	15.3%	7.9%	0%	-	-	1.4%	98.2%	0.4%	0%	-	-	0%	0%	0%	0%	-	-	3.8%	92.1%	4.1%	0%	-	-	-
<b>% Total</b>	6.8%	1.4%	0.7%	0%	8.8%	-	0.7%	50.3%	0.2%	0%	51.2%	-	0%	0%	0%	0%	0%	-	1.5%	36.8%	1.6%	0%	40.0%	-	-
<b>Motorcycles</b>	1	0	1	0	2	-	0	3	0	0	3	-	0	0	0	0	0	-	0	3	0	0	3	-	8
<b>% Motorcycles</b>	0.2%	0%	1.6%	0%	0.2%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	-	-	0%	0.1%	0%	0%	0.1%	-	0.1%
<b>Lights</b>	607	121	61	0	789	-	63	4475	17	0	4555	-	0	0	0	0	0	-	138	3247	143	0	3528	-	8872
<b>% Lights</b>	98.5%	98.4%	96.8%	0%	98.4%	-	98.4%	97.8%	94.4%	0%	97.8%	-	0%	0%	0%	0%	-	-	98.6%	96.8%	96.0%	0%	96.8%	-	97.4%
<b>Single-Unit Trucks</b>	4	0	0	0	4	-	1	61	0	0	62	-	0	0	0	0	0	-	2	59	2	0	63	-	129
<b>% Single-Unit Trucks</b>	0.6%	0%	0%	0%	0.5%	-	1.6%	1.3%	0%	0%	1.3%	-	0%	0%	0%	0%	-	-	1.4%	1.8%	1.3%	0%	1.7%	-	1.4%
<b>Articulated Trucks</b>	1	0	0	0	1	-	0	10	0	0	10	-	0	0	0	0	0	-	0	9	1	0	10	-	21
<b>% Articulated Trucks</b>	0.2%	0%	0%	0%	0.1%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	-	-	0%	0.3%	0.7%	0%	0.3%	-	0.2%
<b>Buses</b>	2	2	1	0	5	-	0	24	1	0	25	-	0	0	0	0	0	-	0	29	3	0	32	-	62
<b>% Buses</b>	0.3%	1.6%	1.6%	0%	0.6%	-	0%	0.5%	5.6%	0%	0.5%	-	0%	0%	0%	0%	-	-	0%	0.9%	2.0%	0%	0.9%	-	0.7%
<b>Bicycles on Road</b>	1	0	0	0	1	-	0	4	0	0	4	-	0	0	0	0	0	-	0	8	0	0	8	-	13
<b>% Bicycles on Road</b>	0.2%	0%	0%	0%	0.1%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	-	-	0%	0.2%	0%	0%	0.2%	-	0.1%
<b>Pedestrians</b>	-	-	-	-	-	37	-	-	-	-	-	16	-	-	-	-	-	38	-	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	94.9%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	5.1%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 1 Liberty Hill Ave @ North TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279713, Location: 42.529801, -70.906255

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

[N] Liberty Hill Avenue

Total: 1015

In: 802 Out: 213

616  
123  
63

20

19

8

64

4577

18

8

Out: 3418 In: 4659

Total: 8077

[E] North Street (Route 114)

17

21

Out: 281 In: 0

Total: 281

[S] Symonds Street

[W] North Street (Route 114)

Total: 8837

Out: 5193

In: 3644

149

3355

140

# 250511- 1 Liberty Hill Ave @ North TMC - TMC

Thu Mar 27, 2025

AM Peak (7 AM - 8 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279713, Location: 42.529801, -70.906255

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Liberty Hill Avenue Southbound						North Street (Route 114) Westbound						Symonds Street Northbound						North Street (Route 114) Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:00AM	13	4	1	0	18	0	1	227	0	0	228	0	0	0	0	0	2	1	131	5	0	137	0	383	
7:15AM	29	0	2	0	31	1	3	217	0	0	220	0	0	0	0	0	0	3	144	11	0	158	0	409	
7:30AM	48	19	6	0	73	3	16	209	0	0	225	2	0	0	0	0	0	3	6	131	29	0	166	0	464
7:45AM	38	13	4	0	55	4	4	195	0	0	199	2	0	0	0	0	0	1	5	140	9	0	154	0	408
Total	128	36	13	0	177	8	24	848	0	0	872	4	0	0	0	0	0	6	15	546	54	0	615	0	1664
% Approach	72.3%	20.3%	7.3%	0%	-	-	2.8%	97.2%	0%	0%	-	-	0%	0%	0%	0%	-	-	2.4%	88.8%	8.8%	0%	-	-	-
% Total	7.7%	2.2%	0.8%	0%	10.6%	-	1.4%	51.0%	0%	0%	52.4%	-	0%	0%	0%	0%	0%	-	0.9%	32.8%	3.2%	0%	37.0%	-	-
PHF	0.667	0.474	0.542	-	0.606	-	0.375	0.931	-	-	0.953	-	-	-	-	-	-	-	0.625	0.944	0.466	-	0.929	-	0.896
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%
Lights	128	35	13	0	176	-	24	820	0	0	844	-	0	0	0	0	0	-	15	515	52	0	582	-	1602
% Lights	100%	97.2%	100%	0%	99.4%	-	100%	96.7%	0%	0%	96.8%	-	0%	0%	0%	0%	-	-	100%	94.3%	96.3%	0%	94.6%	-	96.3%
Single-Unit Trucks	0	0	0	0	0	-	0	18	0	0	18	-	0	0	0	0	0	-	0	22	1	0	23	-	41
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	2.1%	0%	0%	2.1%	-	0%	0%	0%	0%	-	-	0%	4.0%	1.9%	0%	3.7%	-	2.5%
Articulated Trucks	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	0	4	0	0	4	-	6
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	-	-	0%	0.7%	0%	0%	0.7%	-	0.4%
Buses	0	1	0	0	1	-	0	5	0	0	5	-	0	0	0	0	0	-	0	3	1	0	4	-	10
% Buses	0%	2.8%	0%	0%	0.6%	-	0%	0.6%	0%	0%	0.6%	-	0%	0%	0%	0%	-	-	0%	0.5%	1.9%	0%	0.7%	-	0.6%
Bicycles on Road	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	0	2	0	0	2	-	5
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.3%	-	0%	0%	0%	0%	-	-	0%	0.4%	0%	0%	0.3%	-	0.3%
Pedestrians	-	-	-	-	-	8	-	-	-	-	-	4	-	-	-	-	-	6	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 1 Liberty Hill Ave @ North TMC - TMC

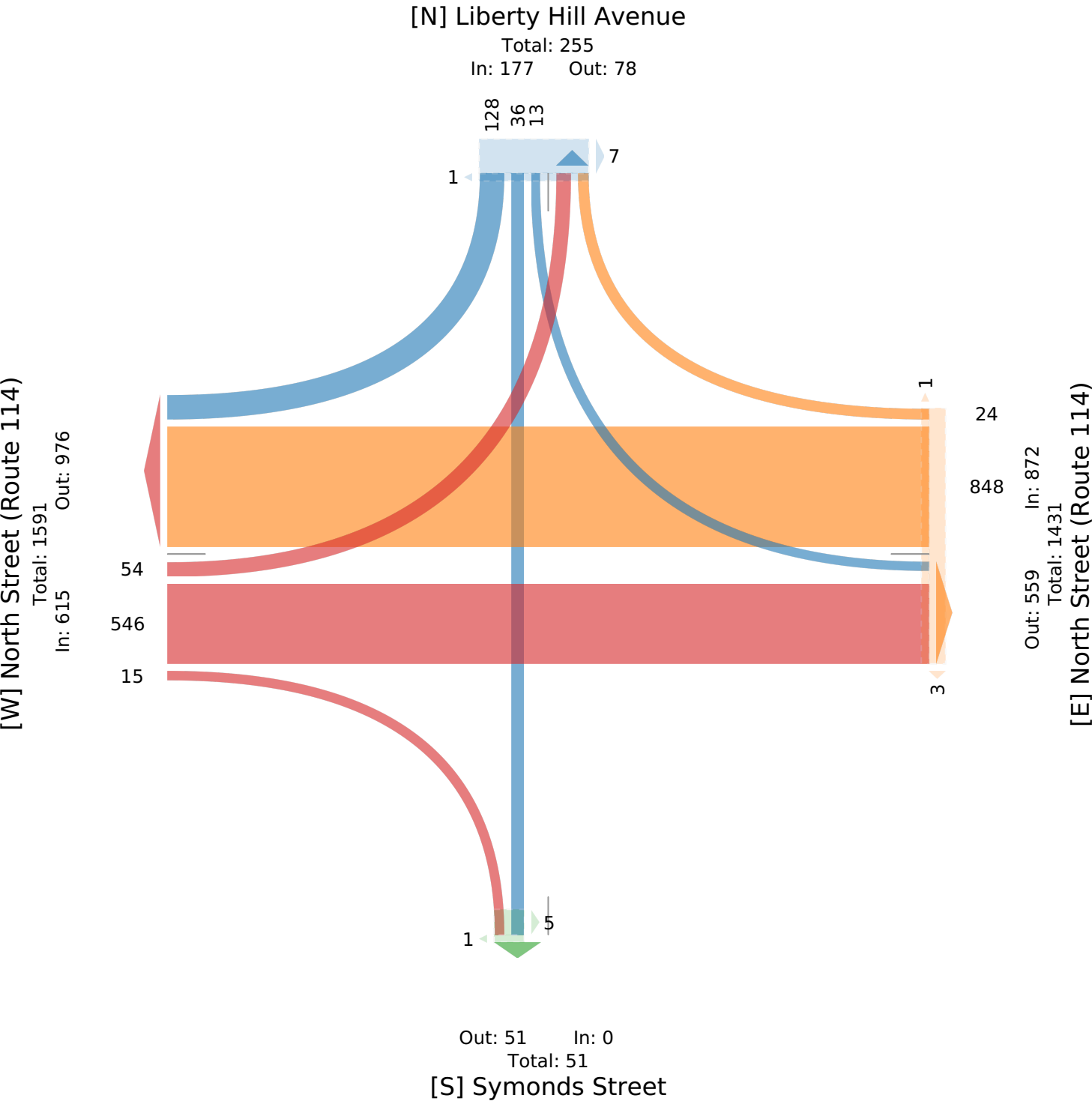
Thu Mar 27, 2025  
AM Peak (7 AM - 8 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279713, Location: 42.529801, -70.906255

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 1 Liberty Hill Ave @ North TMC - TMC

Thu Mar 27, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279713, Location: 42.529801, -70.906255

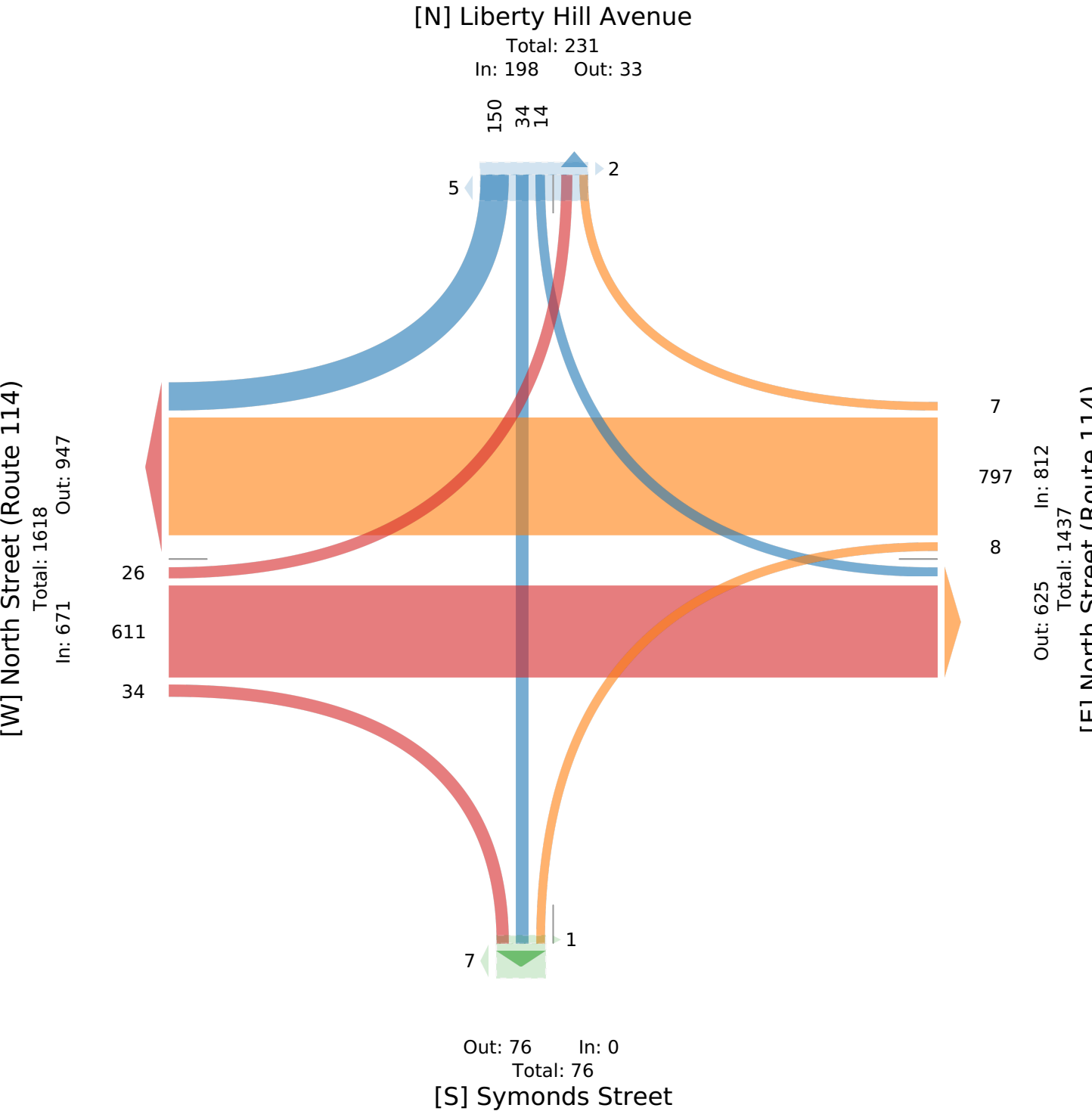
Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Liberty Hill Avenue Southbound						North Street (Route 114) Westbound						Symonds Street Northbound						North Street (Route 114) Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 4:30PM	29	9	2	0	40	5	1	208	1	0	210	0	0	0	0	0	0	0	16	168	9	0	193	0	443
4:45PM	41	9	3	0	53	1	2	187	4	0	193	0	0	0	0	0	0	4	1	148	7	0	156	0	402
5:00PM	46	9	5	0	60	0	1	187	3	0	191	0	0	0	0	0	0	0	7	132	5	0	144	0	395
5:15PM	34	7	4	0	45	1	3	215	0	0	218	0	0	0	0	0	0	4	10	163	5	0	178	0	441
Total	150	34	14	0	198	7	7	797	8	0	812	0	0	0	0	0	0	8	34	611	26	0	671	0	1681
% Approach	75.8%	17.2%	7.1%	0%	-	-	0.9%	98.2%	1.0%	0%	-	-	0%	0%	0%	0%	-	-	5.1%	91.1%	3.9%	0%	-	-	-
% Total	8.9%	2.0%	0.8%	0%	11.8%	-	0.4%	47.4%	0.5%	0%	48.3%	-	0%	0%	0%	0%	0%	-	2.0%	36.3%	1.5%	0%	39.9%	-	-
PHF	0.815	0.944	0.700	-	0.825	-	0.583	0.927	0.500	-	0.931	-	-	-	-	-	-	-	0.531	0.910	0.722	-	0.870	-	0.949
Motorcycles	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	0	1	0	0	1	-	2
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	-	-	0%	0.2%	0%	0%	0.1%	-	0.1%
Lights	149	34	14	0	197	-	7	781	8	0	796	-	0	0	0	0	0	-	33	595	25	0	653	-	1646
% Lights	99.3%	100%	100%	0%	99.5%	-	100%	98.0%	100%	0%	98.0%	-	0%	0%	0%	0%	-	-	97.1%	97.4%	96.2%	0%	97.3%	-	97.9%
Single-Unit Trucks	0	0	0	0	0	-	0	9	0	0	9	-	0	0	0	0	0	-	1	5	0	0	6	-	15
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	1.1%	0%	0%	1.1%	-	0%	0%	0%	0%	-	-	2.9%	0.8%	0%	0%	0.9%	-	0.9%
Articulated Trucks	1	0	0	0	1	-	0	3	0	0	3	-	0	0	0	0	0	-	0	0	1	0	1	-	5
% Articulated Trucks	0.7%	0%	0%	0%	0.5%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	-	-	0%	0%	3.8%	0%	0.1%	-	0.3%
Buses	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	0	7	0	0	7	-	10
% Buses	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	-	-	0%	1.1%	0%	0%	1.0%	-	0.6%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	3	0	0	3	-	3
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0.5%	0%	0%	0.4%	-	0.2%
Pedestrians	-	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	8	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 1 Liberty Hill Ave @ North TMC - TMC  
Thu Mar 27, 2025  
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour  
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)  
All Movements  
ID: 1279713, Location: 42.529801, -70.906255

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 2 North St @ Orne St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279714, Location: 42.528973, -70.904062

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Orne Street Southbound						North Street (Route 114) Westbound						School Street Northbound						North Street (Route 114) Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	2	2	4	0	8	2	5	125	2	0	132	0	6	2	1	0	9	0	0	56	1	0	57	0	206
6:15AM	5	4	10	0	19	1	2	160	0	0	162	2	0	5	6	0	11	0	2	77	0	0	79	0	271
6:30AM	7	8	11	0	26	2	3	186	1	0	190	0	3	14	7	0	24	1	0	103	2	0	105	0	345
6:45AM	6	4	22	0	32	5	8	187	1	0	196	0	3	9	11	0	23	0	2	127	1	0	130	1	381
Hourly Total	20	18	47	0	85	10	18	658	4	0	680	2	12	30	25	0	67	1	4	363	4	0	371	1	1203
7:00AM	11	9	19	0	39	1	9	187	4	0	200	0	5	10	17	0	32	1	1	129	0	0	130	1	401
7:15AM	10	9	27	0	46	2	18	198	2	0	218	0	4	26	8	0	38	0	2	137	1	0	140	0	442
7:30AM	9	28	38	0	75	3	15	179	5	0	199	0	6	28	15	0	49	2	2	132	1	0	135	4	458
7:45AM	5	28	34	0	67	4	9	172	3	0	184	0	3	19	19	0	41	2	6	130	0	0	136	1	428
Hourly Total	35	74	118	0	227	10	51	736	14	0	801	0	18	83	59	0	160	5	11	528	2	0	541	6	1729
8:00AM	8	13	29	0	50	3	4	158	5	0	167	3	4	24	18	0	46	1	3	113	2	0	118	0	381
8:15AM	4	11	25	0	40	3	3	217	1	0	221	0	5	17	12	0	34	1	4	119	1	0	124	0	419
8:30AM	3	12	18	0	33	1	5	182	2	0	189	0	4	15	15	0	34	2	2	163	1	0	166	0	422
8:45AM	7	11	21	0	39	1	17	186	7	0	210	0	4	16	12	0	32	0	4	168	2	0	174	0	455
Hourly Total	22	47	93	0	162	8	29	743	15	0	787	3	17	72	57	0	146	4	13	563	6	0	582	0	1677
3:00PM	6	26	29	0	61	2	3	185	5	0	193	0	8	22	20	0	50	0	8	159	4	0	171	0	475
3:15PM	5	25	28	0	58	1	8	172	2	0	182	2	7	29	13	0	49	0	3	164	5	0	172	0	461
3:30PM	2	38	25	0	65	1	14	145	7	0	166	4	4	27	10	0	41	5	5	138	1	0	144	0	416
3:45PM	4	21	25	0	50	6	6	148	5	0	159	6	9	13	19	0	41	1	4	152	1	0	157	0	407
Hourly Total	17	110	107	0	234	10	31	650	19	0	700	12	28	91	62	0	181	6	20	613	11	0	644	0	1759
4:00PM	7	26	35	0	68	4	6	159	3	0	168	4	5	15	18	0	38	1	1	156	0	0	157	1	431
4:15PM	5	34	22	0	61	2	6	174	6	0	186	0	7	21	16	0	44	0	7	159	3	0	169	0	460
4:30PM	10	20	28	0	58	3	10	189	6	0	205	0	6	16	14	0	36	0	5	163	2	0	170	0	469
4:45PM	10	24	23	0	57	0	9	169	5	0	183	0	8	17	10	0	35	0	3	135	1	0	139	0	414
Hourly Total	32	104	108	0	244	9	31	691	20	0	742	4	26	69	58	0	153	1	16	613	6	0	635	1	1774
5:00PM	5	33	36	0	74	0	6	169	4	0	179	0	3	11	20	0	34	0	5	131	1	0	137	0	424
5:15PM	5	35	27	0	67	2	10	186	3	0	199	0	10	11	18	0	39	2	10	156	1	0	167	0	472
5:30PM	4	43	33	0	80	2	5	173	3	0	181	4	7	18	21	0	46	1	5	152	1	0	158	0	465
5:45PM	3	21	38	0	62	1	14	175	5	0	194	3	7	20	10	0	37	3	3	168	3	0	174	0	467
Hourly Total	17	132	134	0	283	5	35	703	15	0	753	7	27	60	69	0	156	6	23	607	6	0	636	0	1828
<b>Total</b>	143	485	607	0	1235	52	195	4181	87	0	4463	28	128	405	330	0	863	23	87	3287	35	0	3409	8	9970
<b>% Approach</b>	11.6%	39.3%	49.1%	0%	-	-	4.4%	93.7%	1.9%	0%	-	-	14.8%	46.9%	38.2%	0%	-	-	2.6%	96.4%	1.0%	0%	-	-	-
<b>% Total</b>	1.4%	4.9%	6.1%	0%	12.4%	-	2.0%	41.9%	0.9%	0%	44.8%	-	1.3%	4.1%	3.3%	0%	8.7%	-	0.9%	33.0%	0.4%	0%	34.2%	-	-
<b>Motorcycles</b>	0	0	1	0	1	-	0	2	0	0	2	-	0	0	0	0	0	-	0	5	0	0	5	-	8
<b>% Motorcycles</b>	0%	0%	0.2%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.1%	-	0.1%
<b>Lights</b>	139	476	594	0	1209	-	186	4083	83	0	4352	-	114	396	325	0	835	-	86	3181	34	0	3301	-	9697
<b>% Lights</b>	97.2%	98.1%	97.9%	0%	97.9%	-	95.4%	97.7%	95.4%	0%	97.5%	-	89.1%	97.8%	98.5%	0%	96.8%	-	98.9%	96.8%	97.1%	0%	96.8%	-	97.3%
<b>Single-Unit Trucks</b>	2	5	9	0	16	-	5	62	3	0	70	-	6	6	3	0	15	-	0	55	1	0	56	-	157
<b>% Single-Unit Trucks</b>	1.4%	1.0%	1.5%	0%	1.3%	-	2.6%	1.5%	3.4%	0%	1.6%	-	4.7%	1.5%	0.9%	0%	1.7%	-	0%	1.7%	2.9%	0%	1.6%	-	1.6%
<b>Articulated Trucks</b>	1	1	0	0	2	-	0	8	0	0	8	-	0	1	0	0	1	-	0	9	0	0	9	-	20
<b>% Articulated Trucks</b>	0.7%	0.2%	0%	0%	0.2%	-	0%	0.2%	0%	0%	0.2%	-	0%	0.2%	0%	0%	0.1%	-	0%	0.3%	0%	0%	0.3%	-	0.2%
<b>Buses</b>	0	3	3	0	6	-	4	22	1	0	27	-	8	2	2	0	12	-	1	30	0	0	31	-	76
<b>% Buses</b>	0%	0.6%	0.5%	0%	0.5%	-	2.1%	0.5%	1.1%	0%	0.6%	-	6.3%	0.5%	0.6%	0%	1.4%	-	1.1%	0.9%	0%	0%	0.9%	-	0.8%
<b>Bicycles on Road</b>	1	0	0	0	1	-	0	4	0	0	4	-	0	0	0	0	0	-	0	7	0	0	7	-	12
<b>% Bicycles on Road</b>	0.7%	0%	0%	0%	0.1%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0.1%
<b>Pedestrians</b>	-	-	-	-	-	51	-	-	-	-	-	24	-	-	-	-	-	22	-	-	-	-	-	8	-
<b>% Pedestrians</b>	-	-	-	-	-	98.1%	-	-	-	-	-	85.7%	-	-	-	-	-	95.7%	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	1.9%	-	-	-	-	-	14.3%	-	-	-	-	-	4.3%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



250511- 2 North St @ Orne St TMC - TMC

Thu Mar 27, 2025

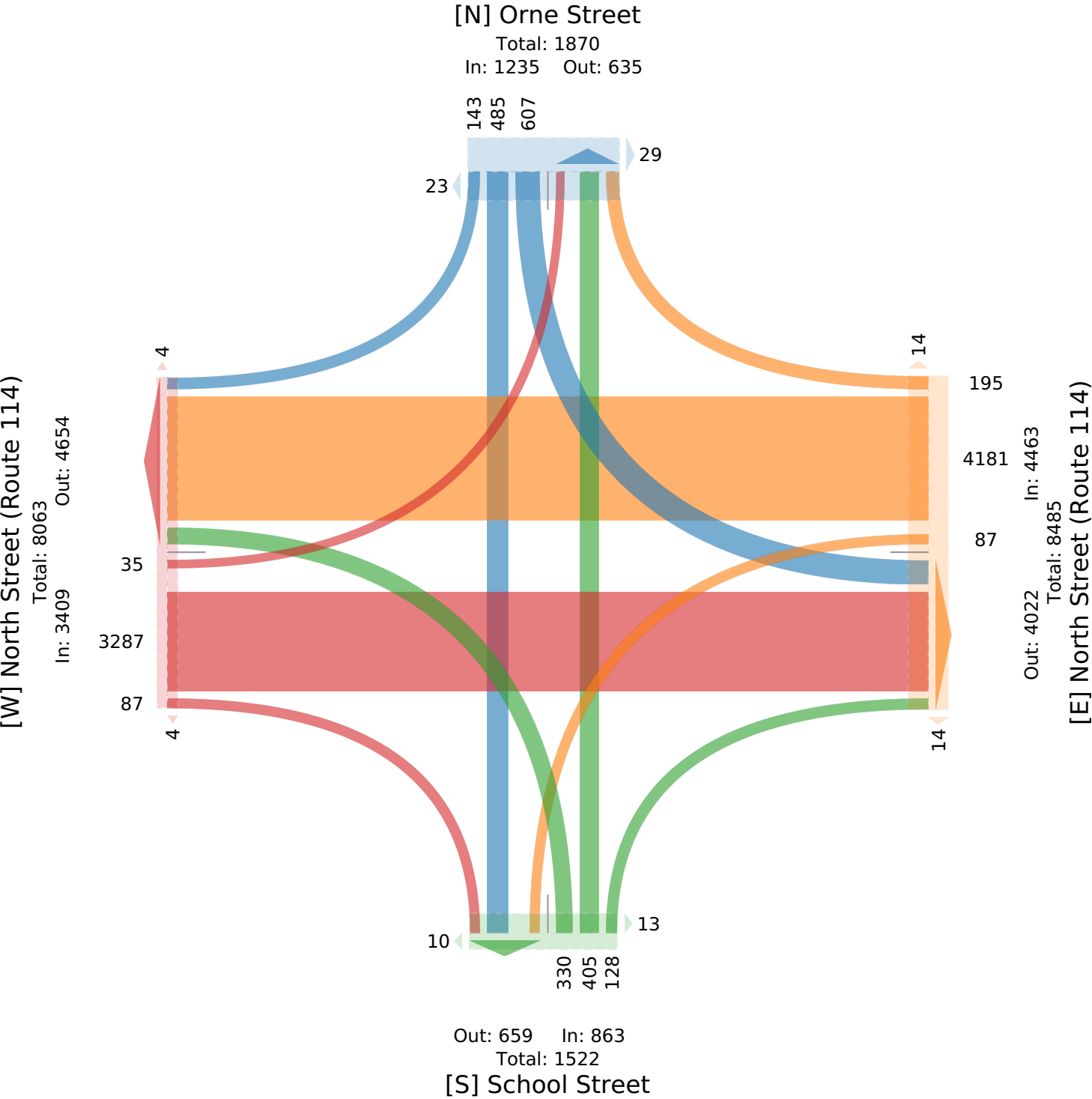
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279714, Location: 42.528973, -70.904062

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 2 North St @ Orne St TMC - TMC

Thu Mar 27, 2025

AM Peak (7 AM - 8 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279714, Location: 42.528973, -70.904062

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Orne Street Southbound						North Street (Route 114) Westbound						School Street Northbound						North Street (Route 114) Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:00AM	11	9	19	0	39	1	9	187	4	0	200	0	5	10	17	0	32	1	1	129	0	0	130	1	401
7:15AM	10	9	27	0	46	2	18	198	2	0	218	0	4	26	8	0	38	0	2	137	1	0	140	0	442
7:30AM	9	28	38	0	75	3	15	179	5	0	199	0	6	28	15	0	49	2	2	132	1	0	135	4	458
7:45AM	5	28	34	0	67	4	9	172	3	0	184	0	3	19	19	0	41	2	6	130	0	0	136	1	428
<b>Total</b>	35	74	118	0	227	10	51	736	14	0	801	0	18	83	59	0	160	5	11	528	2	0	541	6	1729
<b>% Approach</b>	15.4%	32.6%	52.0%	0%	-	-	6.4%	91.9%	1.7%	0%	-	-	11.3%	51.9%	36.9%	0%	-	-	2.0%	97.6%	0.4%	0%	-	-	-
<b>% Total</b>	2.0%	4.3%	6.8%	0%	13.1%	-	2.9%	42.6%	0.8%	0%	46.3%	-	1.0%	4.8%	3.4%	0%	9.3%	-	0.6%	30.5%	0.1%	0%	31.3%	-	-
<b>PHF</b>	0.773	0.661	0.776	-	0.753	-	0.708	0.933	0.700	-	0.922	-	0.750	0.741	0.776	-	0.816	-	0.458	0.965	0.500	-	0.968	-	0.943
<b>Motorcycles</b>	0	0	1	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
<b>% Motorcycles</b>	0%	0%	0.8%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
<b>Lights</b>	33	73	114	0	220	-	47	714	13	0	774	-	17	81	56	0	154	-	11	498	2	0	511	-	1659
<b>% Lights</b>	94.3%	98.6%	96.6%	0%	96.9%	-	92.2%	97.0%	92.9%	0%	96.6%	-	94.4%	97.6%	94.9%	0%	96.3%	-	100%	94.3%	100%	0%	94.5%	-	96.0%
<b>Single-Unit Trucks</b>	0	0	1	0	1	-	2	16	1	0	19	-	0	0	2	0	2	-	0	21	0	0	21	-	43
<b>% Single-Unit Trucks</b>	0%	0%	0.8%	0%	0.4%	-	3.9%	2.2%	7.1%	0%	2.4%	-	0%	0%	3.4%	0%	1.3%	-	0%	4.0%	0%	0%	3.9%	-	2.5%
<b>Articulated Trucks</b>	1	0	0	0	1	-	0	1	0	0	1	-	0	1	0	0	1	-	0	4	0	0	4	-	7
<b>% Articulated Trucks</b>	2.9%	0%	0%	0%	0.4%	-	0%	0.1%	0%	0%	0.1%	-	0%	1.2%	0%	0%	0.6%	-	0%	0.8%	0%	0%	0.7%	-	0.4%
<b>Buses</b>	0	1	2	0	3	-	2	4	0	0	6	-	1	1	1	0	3	-	0	2	0	0	2	-	14
<b>% Buses</b>	0%	1.4%	1.7%	0%	1.3%	-	3.9%	0.5%	0%	0%	0.7%	-	5.6%	1.2%	1.7%	0%	1.9%	-	0%	0.4%	0%	0%	0.4%	-	0.8%
<b>Bicycles on Road</b>	1	0	0	0	1	-	0	1	0	0	1	-	0	0	0	0	0	-	0	3	0	0	3	-	5
<b>% Bicycles on Road</b>	2.9%	0%	0%	0%	0.4%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.6%	0%	0%	0.6%	-	0.3%
<b>Pedestrians</b>	-	-	-	-	-	9	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	6	
<b>% Pedestrians</b>	-	-	-	-	-	90.0%	-	-	-	-	-	-	-	-	-	-	-	80.0%	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	10.0%	-	-	-	-	-	-	-	-	-	-	-	20.0%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 2 North St @ Orne St TMC - TMC

Thu Mar 27, 2025

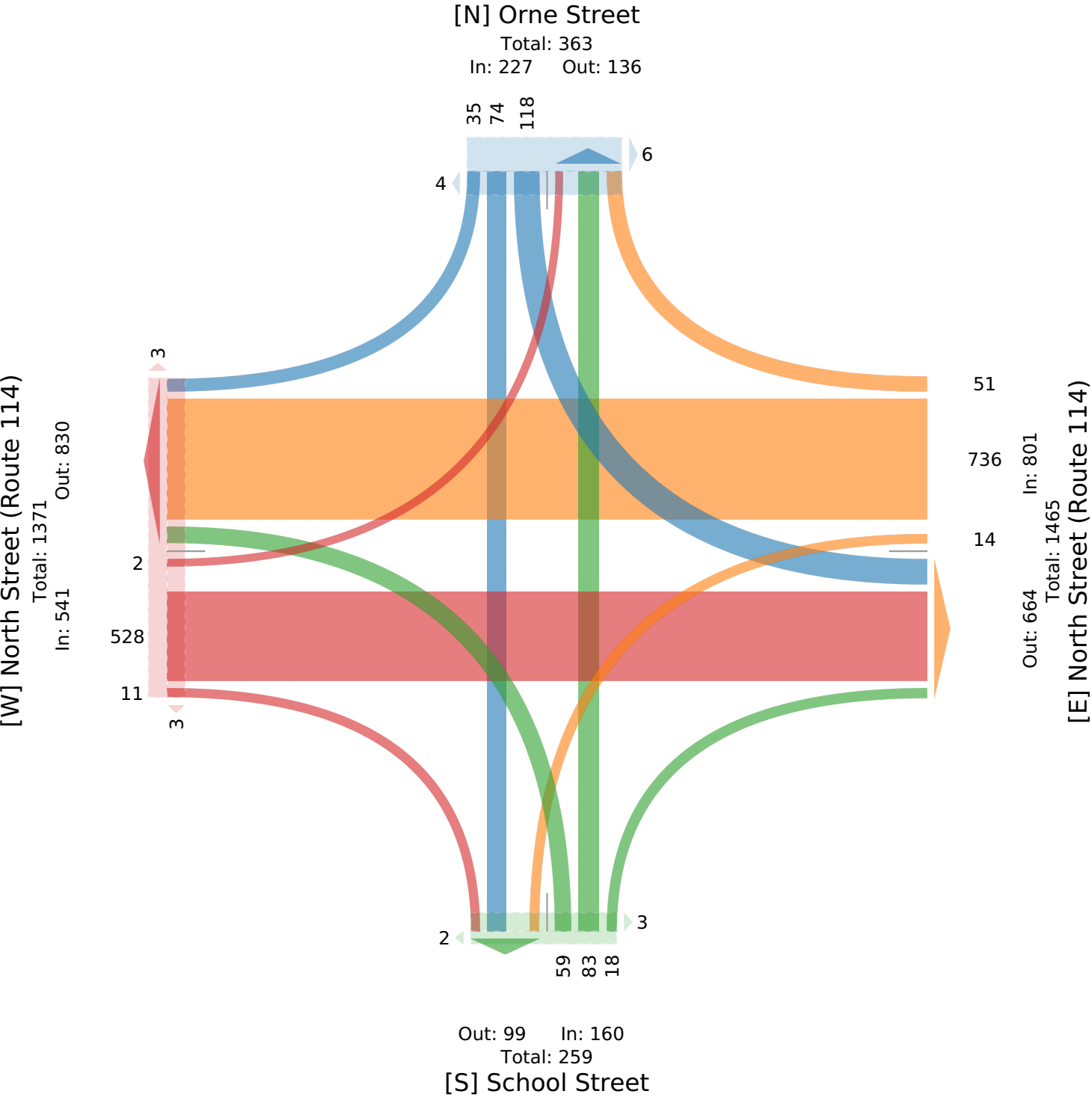
AM Peak (7 AM - 8 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279714, Location: 42.528973, -70.904062

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 2 North St @ Orne St TMC - TMC

Thu Mar 27, 2025

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279714, Location: 42.528973, -70.904062

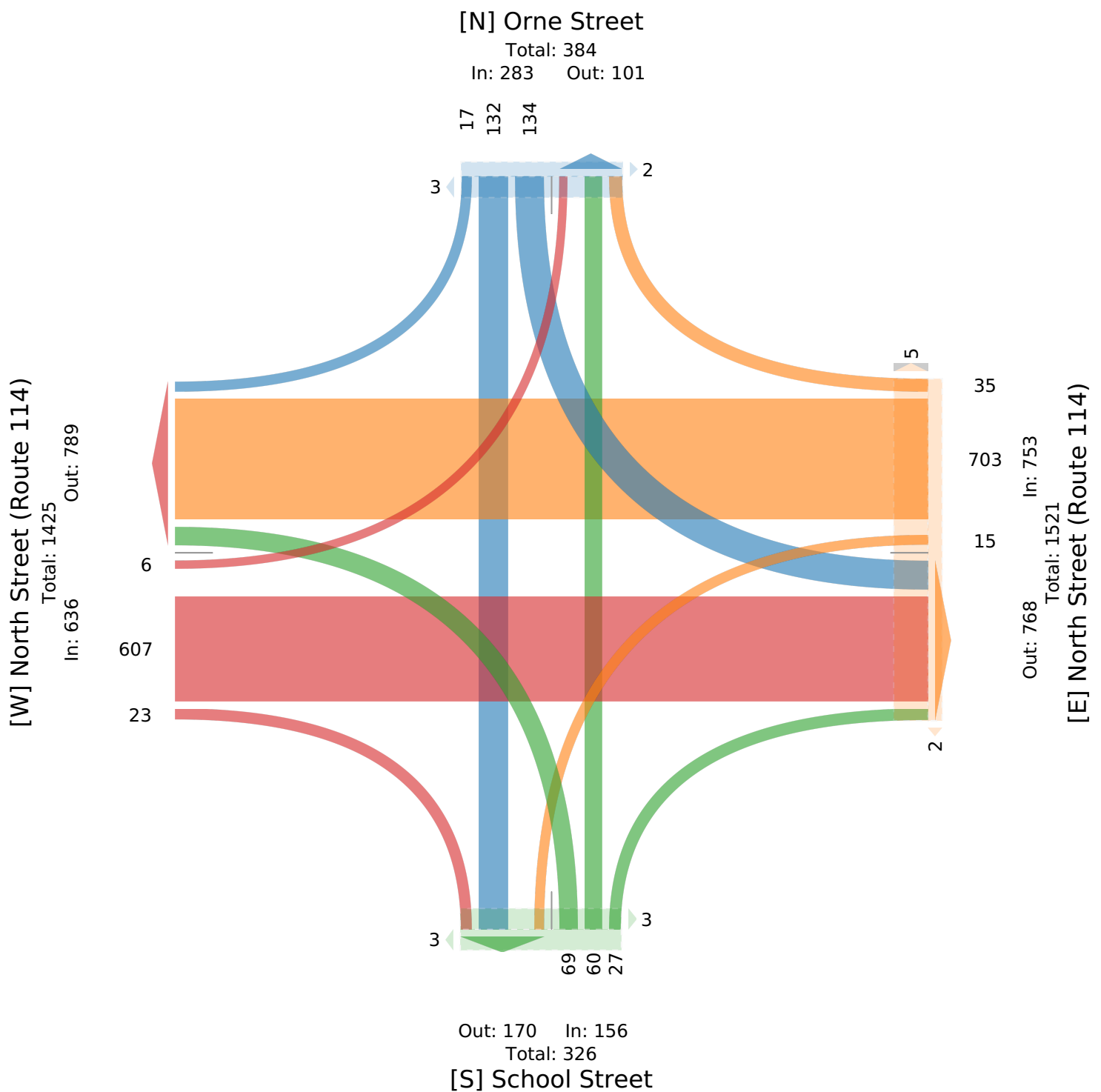
Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Orne Street Southbound						North Street (Route 114) Westbound						School Street Northbound						North Street (Route 114) Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 5:00PM	5	33	36	0	74	0	6	169	4	0	179	0	3	11	20	0	34	0	5	131	1	0	137	0	424
5:15PM	5	35	27	0	67	2	10	186	3	0	199	0	10	11	18	0	39	2	10	156	1	0	167	0	472
5:30PM	4	43	33	0	80	2	5	173	3	0	181	4	7	18	21	0	46	1	5	152	1	0	158	0	465
5:45PM	3	21	38	0	62	1	14	175	5	0	194	3	7	20	10	0	37	3	3	168	3	0	174	0	467
Total	17	132	134	0	283	5	35	703	15	0	753	7	27	60	69	0	156	6	23	607	6	0	636	0	1828
% Approach	6.0%	46.6%	47.3%	0%	-	-	4.6%	93.4%	2.0%	0%	-	-	17.3%	38.5%	44.2%	0%	-	-	3.6%	95.4%	0.9%	0%	-	-	-
% Total	0.9%	7.2%	7.3%	0%	15.5%	-	1.9%	38.5%	0.8%	0%	41.2%	-	1.5%	3.3%	3.8%	0%	8.5%	-	1.3%	33.2%	0.3%	0%	34.8%	-	-
PHF	0.850	0.767	0.882	-	0.884	-	0.625	0.944	0.750	-	0.945	-	0.675	0.750	0.821	-	0.848	-	0.575	0.904	0.500	-	0.915	-	0.968
Motorcycles	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Lights	16	132	132	0	280	-	34	691	15	0	740	-	25	59	69	0	153	-	23	592	6	0	621	-	1794
% Lights	94.1%	100%	98.5%	0%	98.9%	-	97.1%	98.3%	100%	0%	98.3%	-	92.6%	98.3%	100%	0%	98.1%	-	100%	97.5%	100%	0%	97.6%	-	98.1%
Single-Unit Trucks	1	0	2	0	3	-	1	6	0	0	7	-	0	1	0	0	1	-	0	4	0	0	4	-	15
% Single-Unit Trucks	5.9%	0%	1.5%	0%	1.1%	-	2.9%	0.9%	0%	0%	0.9%	-	0%	1.7%	0%	0%	0.6%	-	0%	0.7%	0%	0%	0.6%	-	0.8%
Articulated Trucks	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	0	1	0	0	1	-	4
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0.2%
Buses	0	0	0	0	0	-	0	1	0	0	1	-	2	0	0	0	2	-	0	7	0	0	7	-	10
% Buses	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	7.4%	0%	0%	0%	1.3%	-	0%	1.2%	0%	0%	1.1%	-	0.5%
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	0	3	0	0	3	-	4
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	0.2%
Pedestrians	-	-	-	-	-	5	-	-	-	-	-	7	-	-	-	-	-	6	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

ID: 1279714, Location: 42.528973, -70.904062

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 3 North Street (Route 114) & Mason S... - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279715, Location: 42.526246, -70.900682

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound					North Street (Route 114) Northbound					Mason Street Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2025-03-27 6:00AM	2	69	0	71	0	118	24	0	142	1	16	0	0	16	1	229
6:15AM	3	89	0	92	0	143	23	0	166	2	17	0	0	17	2	275
6:30AM	5	117	0	122	0	184	32	0	216	4	23	1	0	24	3	362
6:45AM	4	156	0	160	0	193	61	0	254	2	29	0	0	29	0	443
Hourly Total	14	431	0	445	0	638	140	0	778	9	85	1	0	86	6	1309
7:00AM	9	161	0	170	0	181	42	0	223	2	21	0	0	21	1	414
7:15AM	11	181	0	192	0	220	64	0	284	1	39	0	0	39	0	515
7:30AM	5	175	0	180	0	196	61	0	257	5	36	0	0	36	1	473
7:45AM	7	174	0	181	0	150	90	0	240	4	44	0	0	44	3	465
Hourly Total	32	691	0	723	0	747	257	0	1004	12	140	0	0	140	5	1867
8:00AM	4	185	0	189	0	175	80	0	255	1	55	0	0	55	5	499
8:15AM	5	157	0	162	2	188	49	0	237	0	44	0	0	44	0	443
8:30AM	4	192	0	196	3	212	68	0	280	3	51	0	0	51	1	527
8:45AM	6	187	0	193	1	183	36	0	219	0	50	0	0	50	3	462
Hourly Total	19	721	0	740	6	758	233	0	991	4	200	0	0	200	9	1931
3:00PM	6	193	0	199	0	188	102	0	290	1	46	0	0	46	2	535
3:15PM	6	205	0	211	0	196	74	0	270	3	32	0	0	32	1	513
3:30PM	10	161	0	171	0	163	80	0	243	2	47	0	0	47	6	461
3:45PM	4	186	0	190	0	158	122	0	280	3	32	0	0	32	3	502
Hourly Total	26	745	0	771	0	705	378	0	1083	9	157	0	0	157	12	2011
4:00PM	12	172	0	184	0	162	107	0	269	3	37	0	0	37	2	490
4:15PM	5	185	0	190	0	194	108	0	302	3	49	0	0	49	2	541
4:30PM	7	204	0	211	0	198	106	0	304	4	49	0	0	49	0	564
4:45PM	4	178	0	182	1	166	87	0	253	4	40	0	0	40	3	475
Hourly Total	28	739	0	767	1	720	408	0	1128	14	175	0	0	175	7	2070
5:00PM	4	154	0	158	0	199	101	0	300	7	42	0	0	42	2	500
5:15PM	10	188	0	198	0	180	79	1	260	2	42	0	0	42	2	500
5:30PM	9	191	0	200	0	208	116	0	324	4	48	0	0	48	0	572
5:45PM	13	195	0	208	1	169	70	0	239	2	41	0	0	41	4	488
Hourly Total	36	728	0	764	1	756	366	1	1123	15	173	0	0	173	8	2060
<b>Total</b>	155	4055	0	4210	8	4324	1782	1	6107	63	930	1	0	931	47	11248
<b>% Approach</b>	3.7%	96.3%	0%	-	-	70.8%	29.2%	0%	-	-	99.9%	0.1%	0%	-	-	-
<b>% Total</b>	1.4%	36.1%	0%	37.4%	-	38.4%	15.8%	0%	54.3%	-	8.3%	0%	0%	8.3%	-	-
<b>Motorcycles</b>	0	5	0	5	-	2	3	0	5	-	3	0	0	3	-	13
<b>% Motorcycles</b>	0%	0.1%	0%	0.1%	-	0%	0.2%	0%	0.1%	-	0.3%	0%	0%	0.3%	-	0.1%
<b>Lights</b>	145	3923	0	4068	-	4207	1727	1	5935	-	894	1	0	895	-	10898
<b>% Lights</b>	93.5%	96.7%	0%	96.6%	-	97.3%	96.9%	100%	97.2%	-	96.1%	100%	0%	96.1%	-	96.9%
<b>Single-Unit Trucks</b>	7	65	0	72	-	71	24	0	95	-	14	0	0	14	-	181
<b>% Single-Unit Trucks</b>	4.5%	1.6%	0%	1.7%	-	1.6%	1.3%	0%	1.6%	-	1.5%	0%	0%	1.5%	-	1.6%
<b>Articulated Trucks</b>	0	9	0	9	-	8	4	0	12	-	0	0	0	0	-	21
<b>% Articulated Trucks</b>	0%	0.2%	0%	0.2%	-	0.2%	0.2%	0%	0.2%	-	0%	0%	0%	0%	-	0.2%
<b>Buses</b>	2	45	0	47	-	27	23	0	50	-	17	0	0	17	-	114
<b>% Buses</b>	1.3%	1.1%	0%	1.1%	-	0.6%	1.3%	0%	0.8%	-	1.8%	0%	0%	1.8%	-	1.0%
<b>Bicycles on Road</b>	1	8	0	9	-	9	1	0	10	-	2	0	0	2	-	21
<b>% Bicycles on Road</b>	0.6%	0.2%	0%	0.2%	-	0.2%	0.1%	0%	0.2%	-	0.2%	0%	0%	0.2%	-	0.2%
<b>Pedestrians</b>	-	-	-	-	8	-	-	-	-	63	-	-	-	-	47	-
<b>% Pedestrians</b>	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 3 North Street (Route 114) & Mason S... - TMC

Thu Mar 27, 2025

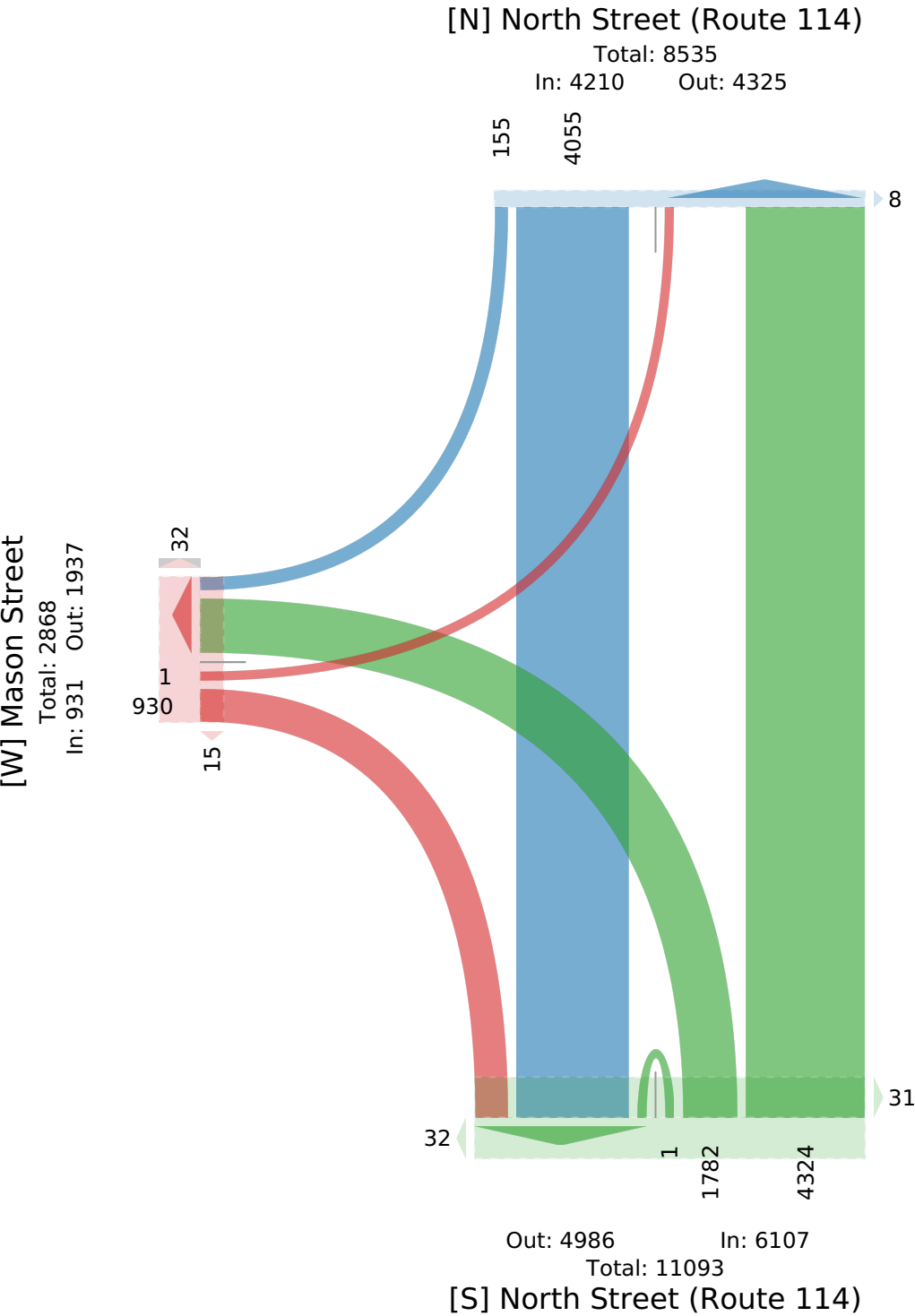
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279715, Location: 42.526246, -70.900682

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 3 North Street (Route 114) & Mason S... - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279715, Location: 42.526246, -70.900682

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound					North Street (Route 114) Northbound					Mason Street Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2025-03-27 7:15AM	11	181	0	192	0	220	64	0	284	1	39	0	0	39	0	515
7:30AM	5	175	0	180	0	196	61	0	257	5	36	0	0	36	1	473
7:45AM	7	174	0	181	0	150	90	0	240	4	44	0	0	44	3	465
8:00AM	4	185	0	189	0	175	80	0	255	1	55	0	0	55	5	499
<b>Total</b>	27	715	0	742	0	741	295	0	1036	11	174	0	0	174	9	1952
<b>% Approach</b>	3.6%	96.4%	0%	-	-	71.5%	28.5%	0%	-	-	100%	0%	0%	-	-	-
<b>% Total</b>	1.4%	36.6%	0%	38.0%	-	38.0%	15.1%	0%	53.1%	-	8.9%	0%	0%	8.9%	-	-
<b>PHF</b>	0.614	0.962	-	0.962	-	0.852	0.819	-	0.921	-	0.796	-	-	0.796	-	0.952
<b>Motorcycles</b>	0	2	0	2	-	1	1	0	2	-	0	0	0	0	-	4
<b>% Motorcycles</b>	0%	0.3%	0%	0.3%	-	0.1%	0.3%	0%	0.2%	-	0%	0%	0%	0%	-	0.2%
<b>Lights</b>	24	683	0	707	-	709	289	0	998	-	167	0	0	167	-	1872
<b>% Lights</b>	88.9%	95.5%	0%	95.3%	-	95.7%	98.0%	0%	96.3%	-	96.0%	0%	0%	96.0%	-	95.9%
<b>Single-Unit Trucks</b>	3	19	0	22	-	19	2	0	21	-	3	0	0	3	-	46
<b>% Single-Unit Trucks</b>	11.1%	2.7%	0%	3.0%	-	2.6%	0.7%	0%	2.0%	-	1.7%	0%	0%	1.7%	-	2.4%
<b>Articulated Trucks</b>	0	2	0	2	-	2	0	0	2	-	0	0	0	0	-	4
<b>% Articulated Trucks</b>	0%	0.3%	0%	0.3%	-	0.3%	0%	0%	0.2%	-	0%	0%	0%	0%	-	0.2%
<b>Buses</b>	0	6	0	6	-	5	3	0	8	-	2	0	0	2	-	16
<b>% Buses</b>	0%	0.8%	0%	0.8%	-	0.7%	1.0%	0%	0.8%	-	1.1%	0%	0%	1.1%	-	0.8%
<b>Bicycles on Road</b>	0	3	0	3	-	5	0	0	5	-	2	0	0	2	-	10
<b>% Bicycles on Road</b>	0%	0.4%	0%	0.4%	-	0.7%	0%	0%	0.5%	-	1.1%	0%	0%	1.1%	-	0.5%
Pedestrians	-	-	-	-	0	-	-	-	-	11	-	-	-	-	9	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



250511- 3 North Street (Route 114) & Mason S... - TMC

Thu Mar 27, 2025

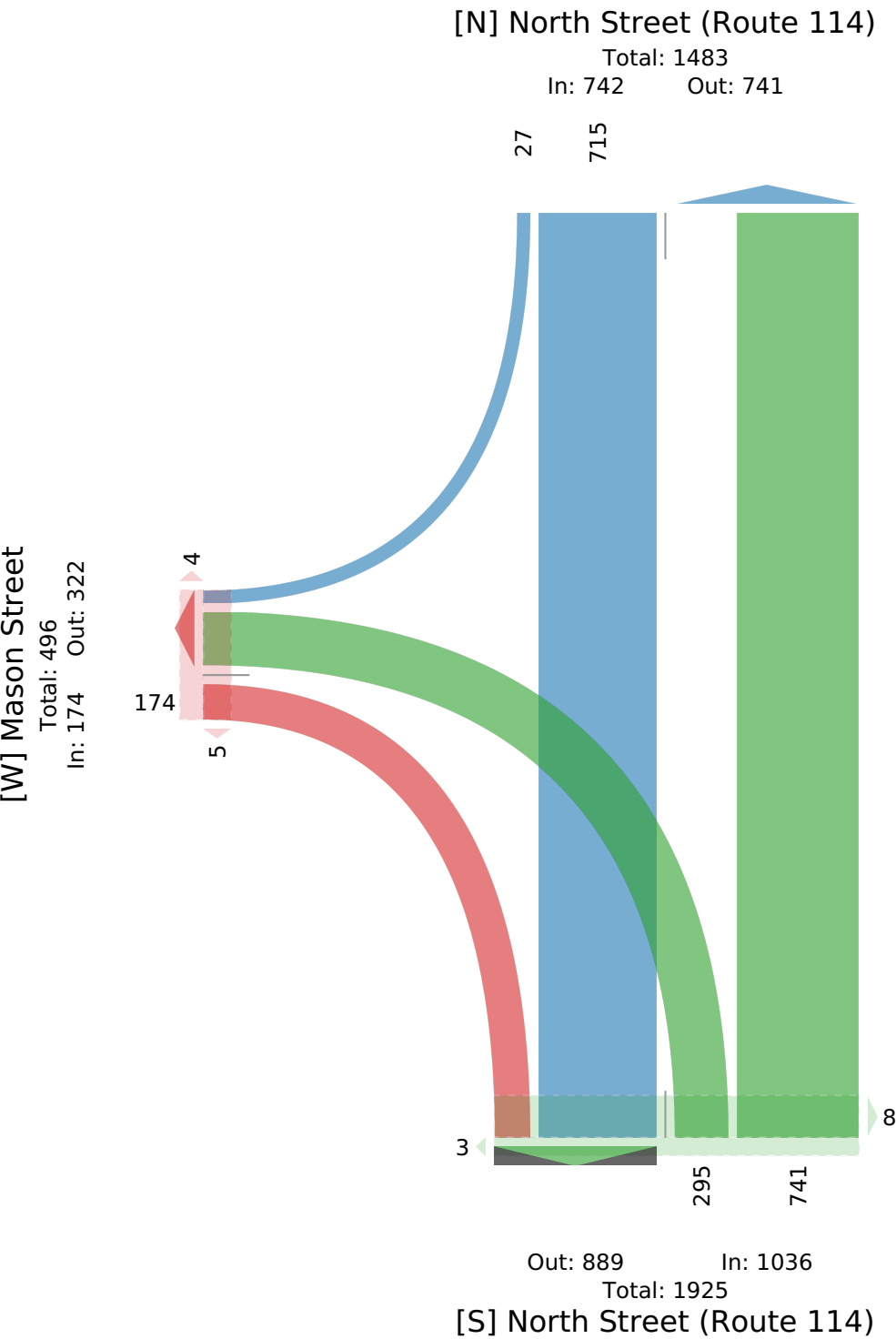
AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279715, Location: 42.526246, -70.900682

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



## 250511- 3 North Street (Route 114) & Mason S... - TMC

Thu Mar 27, 2025

PM Peak (3:45 PM - 4:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279715, Location: 42.526246, -70.900682

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound					North Street (Route 114) Northbound					Mason Street Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2025-03-27 3:45PM	4	186	0	190	0	158	122	0	280	3	32	0	0	32	3	502
4:00PM	12	172	0	184	0	162	107	0	269	3	37	0	0	37	2	490
4:15PM	5	185	0	190	0	194	108	0	302	3	49	0	0	49	2	541
4:30PM	7	204	0	211	0	198	106	0	304	4	49	0	0	49	0	564
<b>Total</b>	28	747	0	775	0	712	443	0	1155	13	167	0	0	167	7	2097
<b>% Approach</b>	3.6%	96.4%	0%	-	-	61.6%	38.4%	0%	-	-	100%	0%	0%	-	-	-
<b>% Total</b>	1.3%	35.6%	0%	37.0%	-	34.0%	21.1%	0%	55.1%	-	8.0%	0%	0%	8.0%	-	-
<b>PHF</b>	0.583	0.917	-	0.920	-	0.901	0.913	-	0.950	-	0.852	-	-	0.852	-	0.931
<b>Motorcycles</b>	0	2	0	2	-	0	0	0	0	-	0	0	0	0	-	2
<b>% Motorcycles</b>	0%	0.3%	0%	0.3%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0.1%
<b>Lights</b>	27	732	0	759	-	696	435	0	1131	-	163	0	0	163	-	2053
<b>% Lights</b>	96.4%	98.0%	0%	97.9%	-	97.8%	98.2%	0%	97.9%	-	97.6%	0%	0%	97.6%	-	97.9%
<b>Single-Unit Trucks</b>	0	3	0	3	-	9	3	0	12	-	2	0	0	2	-	17
<b>% Single-Unit Trucks</b>	0%	0.4%	0%	0.4%	-	1.3%	0.7%	0%	1.0%	-	1.2%	0%	0%	1.2%	-	0.8%
<b>Articulated Trucks</b>	0	1	0	1	-	0	1	0	1	-	0	0	0	0	-	2
<b>% Articulated Trucks</b>	0%	0.1%	0%	0.1%	-	0%	0.2%	0%	0.1%	-	0%	0%	0%	0%	-	0.1%
<b>Buses</b>	1	7	0	8	-	5	3	0	8	-	2	0	0	2	-	18
<b>% Buses</b>	3.6%	0.9%	0%	1.0%	-	0.7%	0.7%	0%	0.7%	-	1.2%	0%	0%	1.2%	-	0.9%
<b>Bicycles on Road</b>	0	2	0	2	-	2	1	0	3	-	0	0	0	0	-	5
<b>% Bicycles on Road</b>	0%	0.3%	0%	0.3%	-	0.3%	0.2%	0%	0.3%	-	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	0	-	-	-	-	13	-	-	-	-	7	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 3 North Street (Route 114) & Mason S... - TMC

Thu Mar 27, 2025

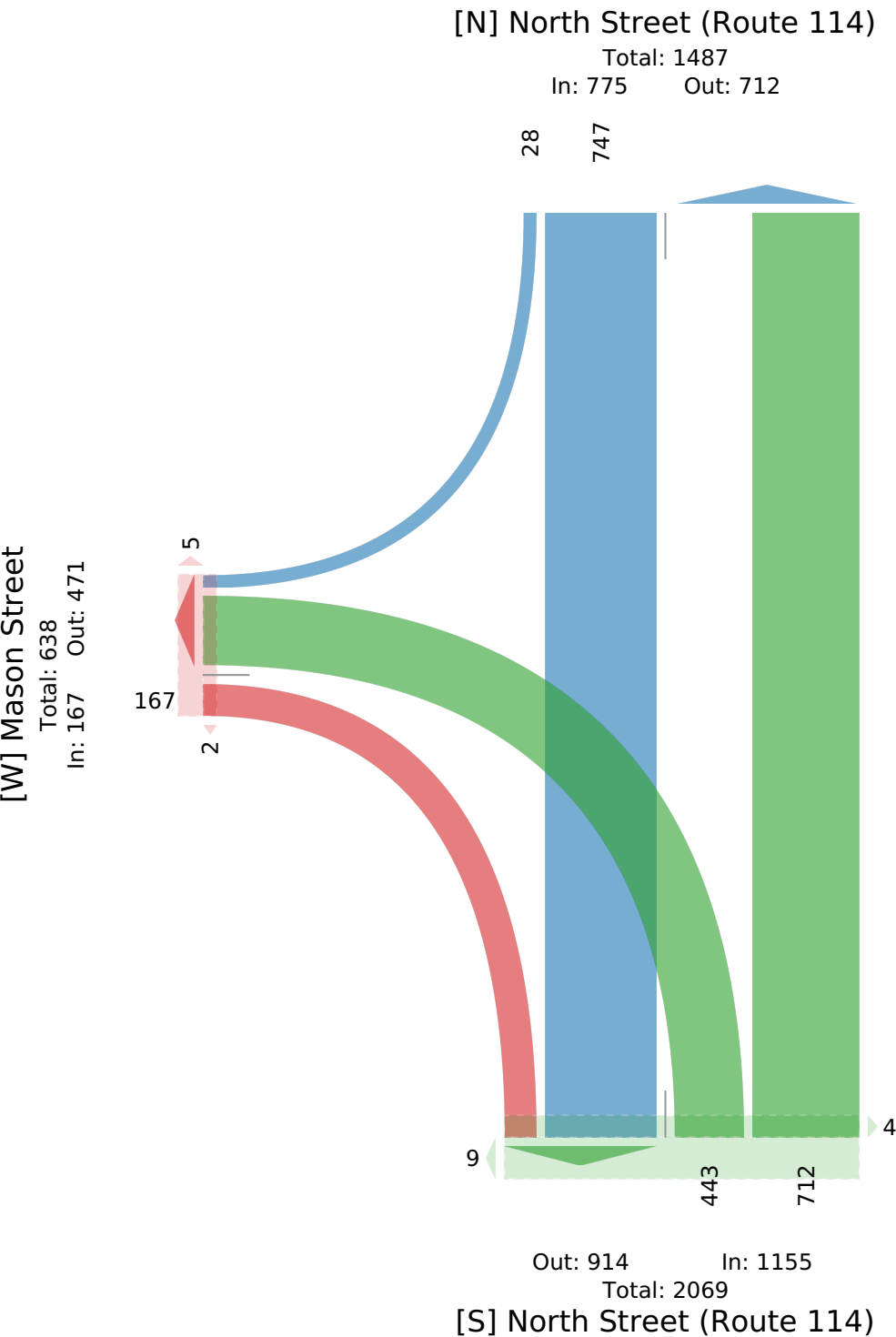
PM Peak (3:45 PM - 4:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279715, Location: 42.526246, -70.900682

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 4 North Street (Route 114) & Frankli... - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279718, Location: 42.525566, -70.899781

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound							Franklin Street Westbound							North Street (Route 114) Northbound							Green Trail Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*	Int	
2025-03-27 6:00AM	1	79	3	0	83	0		3	0	0	0	3	4		5	138	0	0	143	1		0	0	0	0	0	0	229	
6:15AM	1	106	3	0	110	0		0	0	0	0	0	6		4	160	1	0	165	0		1	0	3	0	4	1	279	
6:30AM	0	158	1	0	159	0		0	0	0	0	0	3		12	213	2	0	227	0		0	0	0	0	0	1	386	
6:45AM	1	201	1	0	203	0		3	0	0	0	3	7		13	253	3	0	269	0		2	0	0	0	2	0	477	
Hourly Total	3	544	8	0	555	0		6	0	0	0	6	20		34	764	6	0	804	1		3	0	3	0	6	2	1371	
7:00AM	1	177	5	0	183	0		2	0	0	0	2	4		7	216	5	0	228	0		3	0	0	0	3	0	416	
7:15AM	1	212	3	0	216	0		6	0	1	0	7	5		37	272	4	1	314	0		3	0	2	0	5	1	542	
7:30AM	5	200	6	0	211	0		4	0	0	0	4	2		59	257	6	2	324	0		2	0	0	0	2	0	541	
7:45AM	5	211	2	0	218	0		4	0	0	0	4	21		29	233	13	6	281	0		3	0	1	0	4	1	507	
Hourly Total	12	800	16	0	828	0		16	0	1	0	17	32		132	978	28	9	1147	0		11	0	3	0	14	2	2006	
8:00AM	9	229	6	0	244	2		2	0	0	0	2	8		31	235	4	1	271	0		8	0	0	0	8	3	525	
8:15AM	9	195	4	0	208	0		1	0	1	0	2	9		20	241	6	1	268	1		6	0	0	0	6	1	484	
8:30AM	4	235	2	0	241	0		2	0	0	0	2	7		16	273	7	0	296	0		3	0	2	0	5	0	544	
8:45AM	2	237	8	0	247	0		3	0	1	0	4	6		15	223	8	0	246	0		4	0	3	0	7	0	504	
Hourly Total	24	896	20	0	940	2		8	0	2	0	10	30		82	972	25	2	1081	1		21	0	5	0	26	4	2057	
3:00PM	7	227	3	0	237	0		0	1	0	0	1	5		31	279	2	0	312	0		6	0	4	0	10	0	560	
3:15PM	2	234	1	0	237	0		4	0	0	0	4	4		30	264	7	0	301	0		8	0	0	0	8	1	550	
3:30PM	3	193	7	0	203	0		2	0	2	0	4	9		34	242	3	0	279	0		7	0	3	0	10	2	496	
3:45PM	1	217	4	0	222	0		3	0	1	0	4	2		33	264	5	0	302	0		3	0	2	0	5	3	533	
Hourly Total	13	871	15	0	899	0		9	1	3	0	13	20		128	1049	17	0	1194	0		24	0	9	0	33	6	2139	
4:00PM	7	212	1	0	220	0		7	0	0	0	7	9		35	255	4	1	295	0		8	0	5	0	13	2	535	
4:15PM	2	228	6	0	236	3		2	0	1	0	3	3		22	276	3	0	301	0		6	1	5	0	12	0	552	
4:30PM	2	252	4	0	258	1		5	0	1	0	6	12		34	302	4	1	341	0		9	0	9	0	18	0	623	
4:45PM	2	217	3	1	223	1		1	0	0	0	1	2		20	241	2	0	263	1		4	0	1	0	5	0	492	
Hourly Total	13	909	14	1	937	5		15	0	2	0	17	26		111	1074	13	2	1200	1		27	1	20	0	48	2	2202	
5:00PM	4	185	3	0	192	1		5	0	1	0	6	12		26	283	2	0	311	0		7	0	5	0	12	1	521	
5:15PM	2	225	3	1	231	0		7	0	1	0	8	11		38	213	3	0	254	0		3	0	1	0	4	2	497	
5:30PM	3	229	6	0	238	0		2	0	0	0	2	6		26	267	5	0	298	0		8	0	2	0	10	1	548	
5:45PM	6	227	3	0	236	0		6	0	0	0	6	4		22	210	3	0	235	0		10	1	6	0	17	0	494	
Hourly Total	15	866	15	1	897	1		20	0	2	0	22	33		112	973	13	0	1098	0		28	1	14	0	43	4	2060	
Total	80	4886	88	2	5056	8		74	1	10	0	85	161		599	5810	102	13	6524	3		114	2	54	0	170	20	11835	
% Approach	1.6%	96.6%	1.7%	0%	-	-		87.1%	1.2%	11.8%	0%	-	-		9.2%	89.1%	1.6%	0.2%	-	-		67.1%	1.2%	31.8%	0%	-	-	-	
% Total	0.7%	41.3%	0.7%	0%	42.7%	-		0.6%	0%	0.1%	0%	0.7%	-		5.1%	49.1%	0.9%	0.1%	55.1%	-		1.0%	0%	0.5%	0%	1.4%	-	-	
Motorcycles	0	7	0	0	7	-		0	0	0	0	0	-		1	2	0	0	3	-		0	0	0	0	0	-	10	
% Motorcycles	0%	0.1%	0%	0%	0.1%	-		0%	0%	0%	0%	0%	-		0.2%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-	0.1%	
Lights	74	4749	84	2	4909	-		67	1	10	0	78	-		588	5655	95	13	6351	-		108	2	50	0	160	-	11498	
% Lights	92.5%	97.2%	95.5%	100%	97.1%	-		90.5%	100%	100%	0%	91.8%	-		98.2%	97.3%	93.1%	100%	97.3%	-		94.7%	100%	92.6%	0%	94.1%	-	97.2%	
Single-Unit Trucks	2	62	3	0	67	-		6	0	0	0	6	-		8	78	7	0	93	-		4	0	4	0	8	-	174	
% Single-Unit Trucks	2.5%	1.3%	3.4%	0%	1.3%	-		8.1%	0%	0%	0%	7.1%	-		1.3%	1.3%	6.9%	0%	1.4%	-		3.5%	0%	7.4%	0%	4.7%	-	1.5%	
Articulated Trucks	2	6	0	0	8	-		0	0	0	0	0	-		0	13	0	0	13	-		2	0	0	0	2	-	23	
% Articulated Trucks	2.5%	0.1%	0%	0%	0.2%	-		0%	0%	0%	0%	0%	-		0%	0.2%	0%	0%	0.2%	-		1.8%	0%	0%	0%	1.2%	-	0.2%	
Buses	0	59	0	0	59	-		0	0	0	0	0	-		2	52	0	0	54	-		0	0	0	0	0	-	113	
% Buses	0%	1.2%	0%	0%	1.2%	-		0%	0%	0%	0%	0%	-		0.3%	0.9%	0%	0%	0.8%	-		0%	0%	0%	0%	0%	-	1.0%	
Bicycles on Road	2	3	1	0	6	-		1	0	0	0	1	-		0	10	0	0	10	-		0	0	0	0	0	-	17	
% Bicycles on Road	2.5%	0.1%	1.1%	0%	0.1%	-		1.4%	0%	0%	0%	1.2%	-		0%	0.2%	0%	0%	0.2%	-		0%	0%	0%	0%	0%	-	0.1%	
Pedestrians	-	-	-	-	-	8		-	-	-	-	-	156		-	-	-	-	-	3		-	-	-	-	-	20		
% Pedestrians	-	-	-	-	-	100%		-	-	-	-	-	96.9%		-	-	-	-	-	100%		-	-	-	-	-	100%	-	
Bicycles on Crosswalk	-	-	-	-	-	0		-	-	-	-	-	5		-	-	-	-	-	0		-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	0%		-	-	-	-	-	3.1%		-	-	-	-	-	0%		-	-	-	-	-	0%		

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 4 North Street (Route 114) & Frankli... - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279718, Location: 42.525566, -70.899781

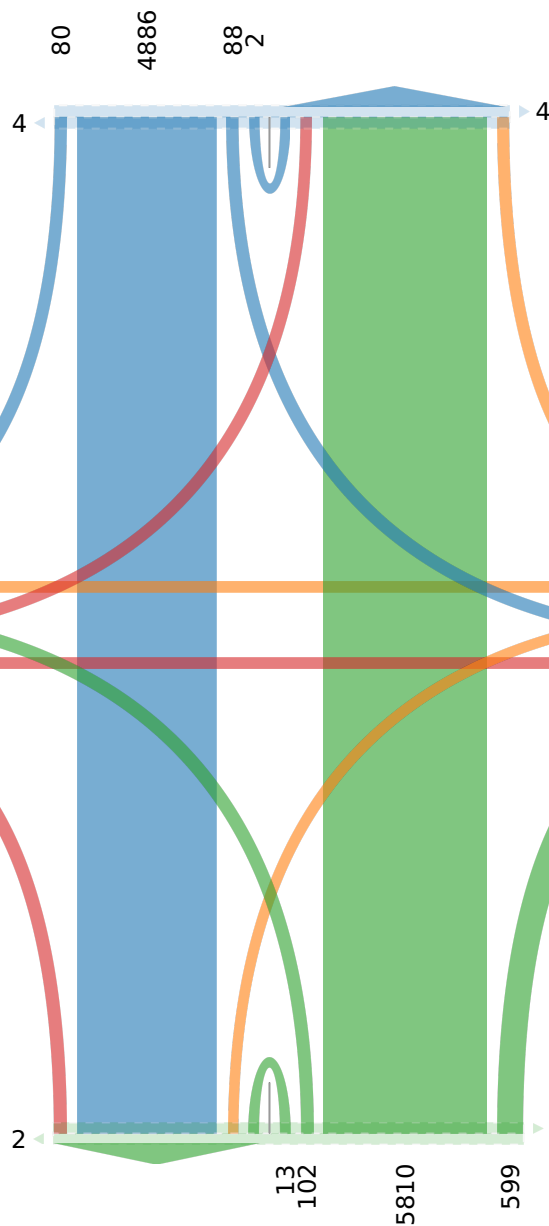
Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

## [N] North Street (Route 114)

Total: 10996

In: 5056

Out: 5940



## [S] North Street (Route 114)

Total: 11547

Out: 5023

In: 6524

## [W] Green Trail

Total: 353

In: 170 Out: 183

10  
54  
2  
114  
10

## [E] Franklin Street

Out: 689 In: 85

Total: 774

74  
1  
10

86

# 250511- 4 North Street (Route 114) & Frankli... - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279718, Location: 42.525566, -70.899781

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound						Franklin Street Westbound						North Street (Route 114) Northbound						Green Trail Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:15AM	1	212	3	0	216	0	6	0	1	0	7	5	37	272	4	1	314	0	3	0	2	0	5	1	542
7:30AM	5	200	6	0	211	0	4	0	0	0	4	2	59	257	6	2	324	0	2	0	0	0	2	0	541
7:45AM	5	211	2	0	218	0	4	0	0	0	4	21	29	233	13	6	281	0	3	0	1	0	4	1	507
8:00AM	9	229	6	0	244	2	2	0	0	0	2	8	31	235	4	1	271	0	8	0	0	0	8	3	525
Total	20	852	17	0	889	2	16	0	1	0	17	36	156	997	27	10	1190	0	16	0	3	0	19	5	2115
% Approach	2.2%	95.8%	1.9%	0%	-	-	94.1%	0%	5.9%	0%	-	-	13.1%	83.8%	2.3%	0.8%	-	-	84.2%	0%	15.8%	0%	-	-	-
% Total	0.9%	40.3%	0.8%	0%	42.0%	-	0.8%	0%	0%	0%	0.8%	-	7.4%	47.1%	1.3%	0.5%	56.3%	-	0.8%	0%	0.1%	0%	0.9%	-	-
PHF	0.563	0.930	0.708	-	0.913	-	0.750	-0.250	-	0.667	-	-	0.661	0.920	0.519	0.417	0.916	-	0.500	-	0.375	-	0.594	-	0.976
Motorcycles	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Motorcycles	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Lights	18	829	16	0	863	-	14	0	1	0	15	-	153	964	25	10	1152	-	14	0	3	0	17	-	2047
% Lights	90.0%	97.3%	94.1%	0%	97.1%	-	87.5%	0%	100%	0%	88.2%	-	98.1%	96.7%	92.6%	100%	96.8%	-	87.5%	0%	100%	0%	89.5%	-	96.8%
Single-Unit Trucks	0	15	1	0	16	-	1	0	0	0	1	-	2	21	2	0	25	-	2	0	0	0	2	-	44
% Single-Unit Trucks	0%	1.8%	5.9%	0%	1.8%	-	6.3%	0%	0%	0%	5.9%	-	1.3%	2.1%	7.4%	0%	2.1%	-	12.5%	0%	0%	0%	10.5%	-	2.1%
Articulated Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	2
% Articulated Trucks	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.1%
Buses	0	6	0	0	6	-	0	0	0	0	0	-	1	8	0	0	9	-	0	0	0	0	0	-	15
% Buses	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0.6%	0.8%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0.7%
Bicycles on Road	2	0	0	0	2	-	1	0	0	0	1	-	0	3	0	0	3	-	0	0	0	0	0	-	6
% Bicycles on Road	10.0%	0%	0%	0%	0.2%	-	6.3%	0%	0%	0%	5.9%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.3%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	34	-	-	-	-	-	0	-	-	-	-	-	5	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	94.4%	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	5.6%	-	-	-	-	-	-	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 4 North Street (Route 114) & Frankli... - TMC

Thu Mar 27, 2025

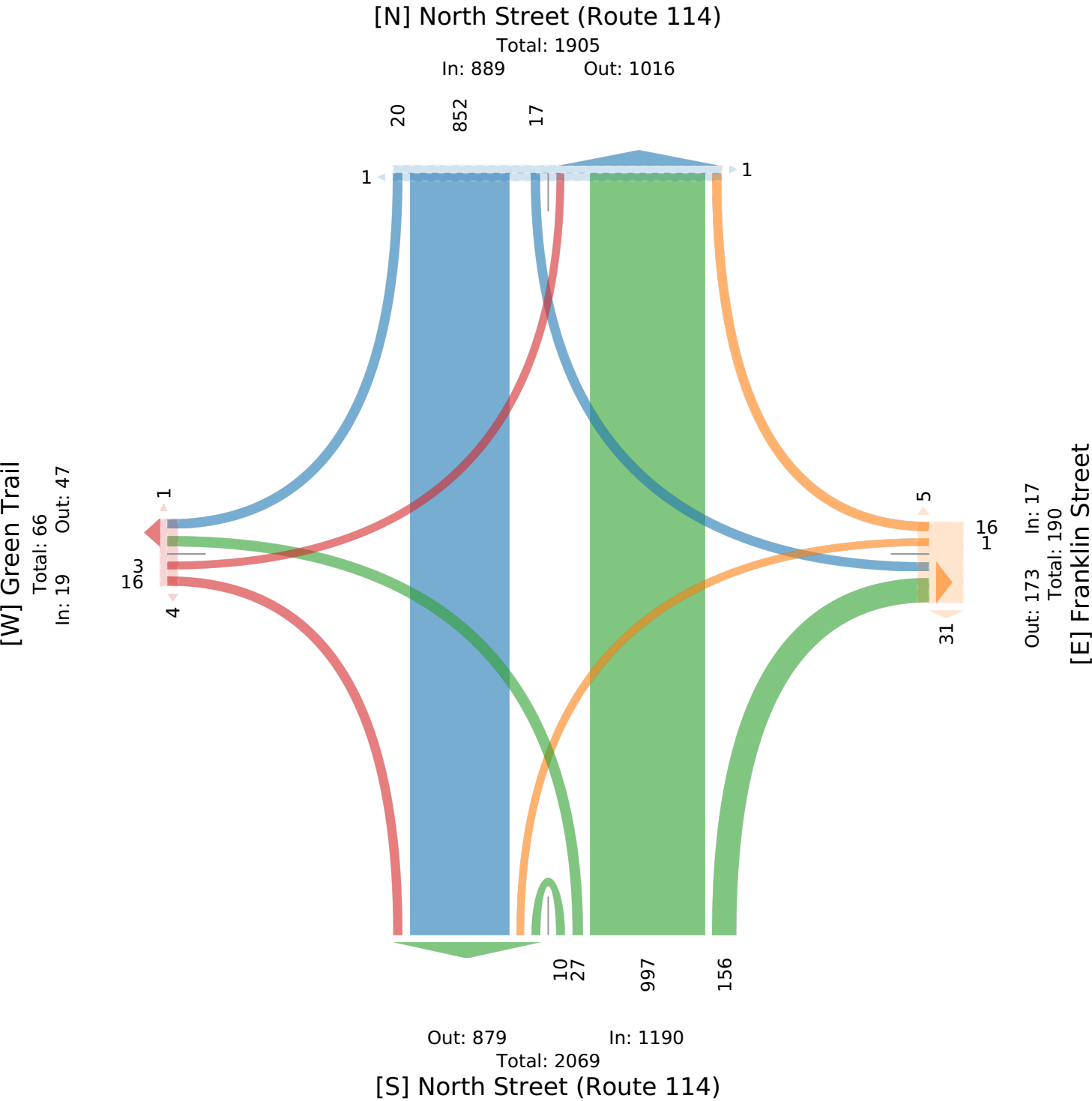
AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279718, Location: 42.525566, -70.899781

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 4 North Street (Route 114) & Frankli... - TMC

Thu Mar 27, 2025

PM Peak (3:45 PM - 4:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279718, Location: 42.525566, -70.899781

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound						Franklin Street Westbound						North Street (Route 114) Northbound						Green Trail Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 3:45PM	1	217	4	0	222	0	3	0	1	0	4	2	33	264	5	0	302	0	3	0	2	0	5	3	533
4:00PM	7	212	1	0	220	0	7	0	0	0	7	9	35	255	4	1	295	0	8	0	5	0	13	2	535
4:15PM	2	228	6	0	236	3	2	0	1	0	3	3	22	276	3	0	301	0	6	1	5	0	12	0	552
4:30PM	2	252	4	0	258	1	5	0	1	0	6	12	34	302	4	1	341	0	9	0	9	0	18	0	623
Total	12	909	15	0	936	4	17	0	3	0	20	26	124	1097	16	2	1239	0	26	1	21	0	48	5	2243
% Approach	1.3%	97.1%	1.6%	0%	-	-	85.0%	0%	15.0%	0%	-	-	10.0%	88.5%	1.3%	0.2%	-	-	54.2%	2.1%	43.8%	0%	-	-	-
% Total	0.5%	40.5%	0.7%	0%	41.7%	-	0.8%	0%	0.1%	0%	0.9%	-	5.5%	48.9%	0.7%	0.1%	55.2%	-	1.2%	0%	0.9%	0%	2.1%	-	-
PHF	0.429	0.902	0.625	-	0.907	-	0.607	-	0.750	-	0.714	-	0.886	0.911	0.800	0.500	0.911	-	0.722	0.250	0.583	-	0.667	-	0.901
Motorcycles	0	3	0	0	3	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	3
% Motorcycles	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Lights	10	892	15	0	917	-	16	0	3	0	19	-	123	1076	14	2	1215	-	23	1	20	0	44	-	2195
% Lights	83.3%	98.1%	100%	0%	98.0%	-	94.1%	0%	100%	0%	95.0%	-	99.2%	98.1%	87.5%	100%	98.1%	-	88.5%	100%	95.2%	0%	91.7%	-	97.9%
Single-Unit Trucks	1	5	0	0	6	-	1	0	0	0	1	-	1	6	2	0	9	-	2	0	1	0	3	-	19
% Single-Unit Trucks	8.3%	0.6%	0%	0%	0.6%	-	5.9%	0%	0%	0%	5.0%	-	0.8%	0.5%	12.5%	0%	0.7%	-	7.7%	0%	4.8%	0%	6.3%	-	0.8%
Articulated Trucks	1	0	0	0	1	-	0	0	0	0	0	-	0	1	0	0	1	-	1	0	0	0	1	-	3
% Articulated Trucks	8.3%	0%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	3.8%	0%	0%	0%	2.1%	-	0.1%
Buses	0	9	0	0	9	-	0	0	0	0	0	-	0	10	0	0	10	-	0	0	0	0	0	-	19
% Buses	0%	1.0%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	0%	0.9%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0.8%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	4	0	0	4	-	0	0	0	0	0	-	4
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	-	4	-	-	-	-	-	26	-	-	-	-	-	0	-	-	-	-	-	5	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



250511- 4 North Street (Route 114) & Frankli... - TMC

Thu Mar 27, 2025

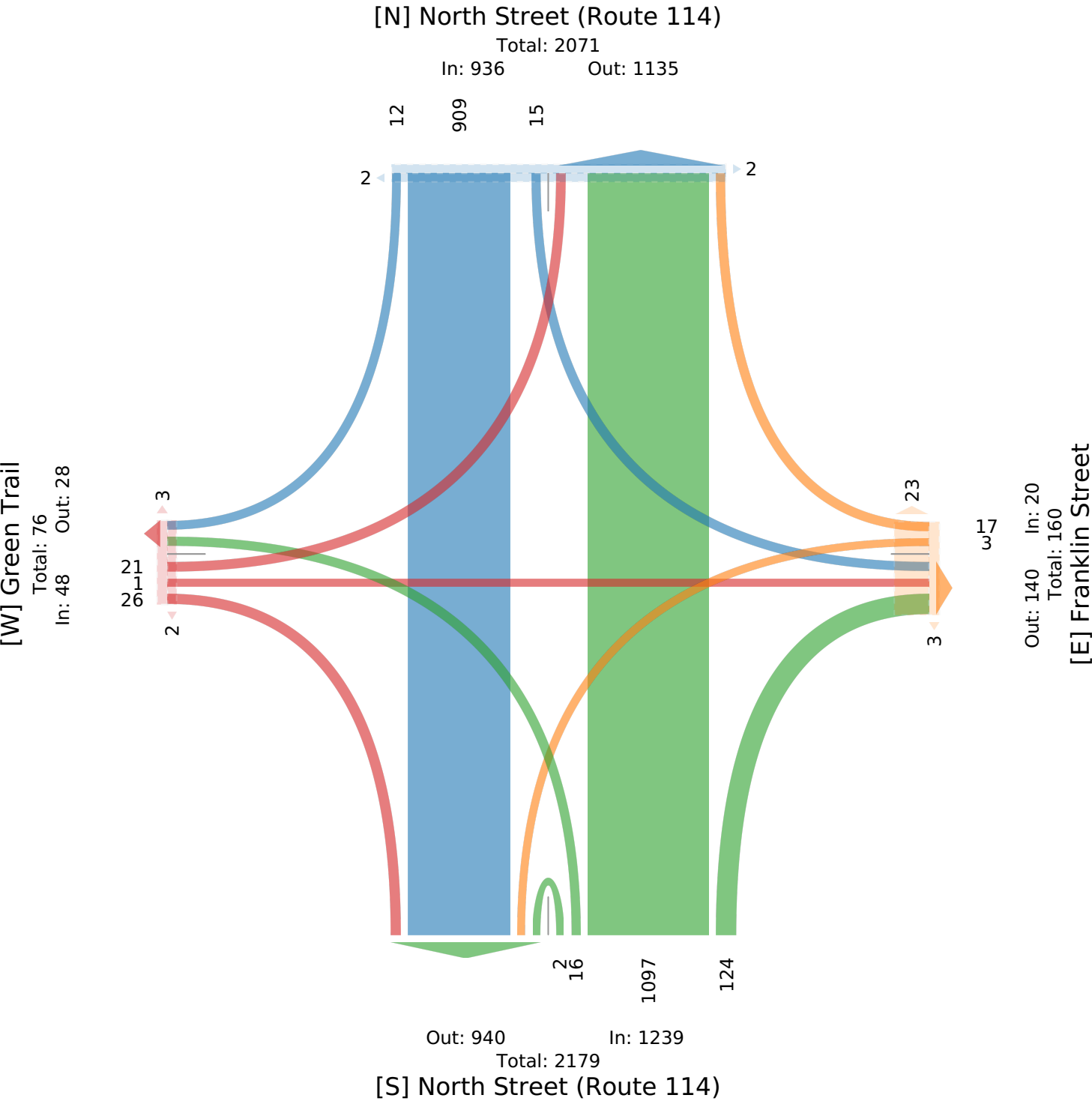
PM Peak (3:45 PM - 4:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279718, Location: 42.525566, -70.899781

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 5 North St @ Federal St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279721, Location: 42.523154, -70.898831

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound						Federal Street Westbound						North Street (Route 114) Northbound						Bridge Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	28	48	0	0	76	0	25	3	0	0	28	2	0	38	2	0	40	1	5	0	0	0	5	0	149
6:15AM	30	69	0	0	99	0	27	1	0	0	28	2	0	67	7	0	74	1	9	0	3	0	12	1	213
6:30AM	29	108	0	0	137	0	36	2	1	0	39	0	0	94	6	0	100	0	5	0	2	0	7	3	283
6:45AM	50	137	0	0	187	0	28	1	1	0	30	3	0	141	11	0	152	3	13	0	5	0	18	1	387
Hourly Total	137	362	0	0	499	0	116	7	2	0	125	7	0	340	26	0	366	5	32	0	10	0	42	5	1032
7:00AM	55	121	0	0	176	0	30	0	0	0	30	1	0	111	13	0	124	3	8	0	1	0	9	0	339
7:15AM	63	155	0	0	218	0	38	1	1	0	40	4	0	160	17	0	177	5	18	0	5	0	23	2	458
7:30AM	60	147	0	0	207	0	36	3	0	0	39	0	0	160	18	0	178	1	8	0	5	0	13	0	437
7:45AM	80	142	0	0	222	0	23	7	3	0	33	9	0	154	23	0	177	10	22	0	5	0	27	4	459
Hourly Total	258	565	0	0	823	0	127	11	4	0	142	14	0	585	71	0	656	19	56	0	16	0	72	6	1693
8:00AM	87	142	0	0	229	1	17	12	3	0	32	2	0	136	25	0	161	6	19	0	1	0	20	2	442
8:15AM	72	133	0	0	205	0	11	9	4	0	24	10	0	118	15	0	133	14	26	0	2	0	28	1	390
8:30AM	81	153	0	0	234	0	19	8	5	0	32	10	0	144	21	0	165	15	23	0	7	0	30	0	461
8:45AM	85	156	0	0	241	0	12	4	2	0	18	17	0	111	14	0	125	17	27	0	6	0	33	0	417
Hourly Total	325	584	0	0	909	1	59	33	14	0	106	39	0	509	75	0	584	52	95	0	16	0	111	3	1710
3:00PM	52	172	0	0	224	0	20	2	1	0	23	1	0	120	18	0	138	5	24	0	7	0	31	0	416
3:15PM	58	190	0	0	248	1	26	4	2	0	32	2	1	140	24	0	165	5	24	0	4	1	29	1	474
3:30PM	57	155	0	0	212	0	21	4	1	0	26	6	0	120	15	0	135	6	27	0	8	0	35	0	408
3:45PM	63	154	0	0	217	2	15	2	1	0	18	1	0	144	29	1	174	4	18	0	4	0	22	1	431
Hourly Total	230	671	0	0	901	3	82	12	5	0	99	10	1	524	86	1	612	20	93	0	23	1	117	2	1729
4:00PM	45	171	0	0	216	1	25	5	0	0	30	2	0	140	13	0	153	12	36	0	6	0	42	1	441
4:15PM	50	186	0	0	236	0	10	2	0	0	12	2	0	116	13	1	130	3	31	0	10	0	41	0	419
4:30PM	61	197	0	0	258	0	37	9	5	0	51	3	0	152	20	0	172	20	22	0	17	0	39	0	520
4:45PM	54	171	0	0	225	1	11	3	0	0	14	5	0	120	23	0	143	8	28	0	5	0	33	0	415
Hourly Total	210	725	0	0	935	2	83	19	5	0	107	12	0	528	69	1	598	43	117	0	38	0	155	1	1795
5:00PM	43	150	0	0	193	1	17	0	2	0	19	5	0	129	36	0	165	5	29	0	12	0	41	0	418
5:15PM	61	172	0	0	233	3	23	4	0	0	27	11	0	152	17	0	169	2	23	0	10	0	33	0	462
5:30PM	63	173	0	0	236	0	16	2	0	0	18	3	1	136	26	0	163	2	34	0	6	0	40	2	457
5:45PM	62	173	0	0	235	0	7	1	0	0	8	0	0	108	24	0	132	9	27	0	10	0	37	2	412
Hourly Total	229	668	0	0	897	4	63	7	2	0	72	19	1	525	103	0	629	18	113	0	38	0	151	4	1749
<b>Total</b>	1389	3575	0	0	4964	10	530	89	32	0	651	101	2	3011	430	2	3445	157	506	0	141	1	648	21	9708
<b>% Approach</b>	28.0%	72.0%	0%	0%	-	-	81.4%	13.7%	4.9%	0%	-	-	0.1%	87.4%	12.5%	0.1%	-	-	78.1%	0%	21.8%	0.2%	-	-	-
<b>% Total</b>	14.3%	36.8%	0%	0%	51.1%	-	5.5%	0.9%	0.3%	0%	6.7%	-	0%	31.0%	4.4%	0%	35.5%	-	5.2%	0%	1.5%	0%	6.7%	-	-
<b>Motorcycles</b>	2	3	0	0	5	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	6
<b>% Motorcycles</b>	0.1%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
<b>Lights</b>	1338	3481	0	0	4819	-	523	87	31	0	641	-	0	2948	415	2	3365	-	469	0	128	1	598	-	9423
<b>% Lights</b>	96.3%	97.4%	0%	0%	97.1%	-	98.7%	97.8%	96.9%	0%	98.5%	-	0%	97.9%	96.5%	100%	97.7%	-	92.7%	0%	90.8%	100%	92.3%	-	97.1%
<b>Single-Unit Trucks</b>	15	50	0	0	65	-	3	2	0	0	5	-	0	33	13	0	46	-	7	0	5	0	12	-	128
<b>% Single-Unit Trucks</b>	1.1%	1.4%	0%	0%	1.3%	-	0.6%	2.2%	0%	0%	0.8%	-	0%	1.1%	3.0%	0%	1.3%	-	1.4%	0%	3.5%	0%	1.9%	-	1.3%
<b>Articulated Trucks</b>	5	5	0	0	10	-	0	0	0	0	0	-	0	4	0	0	4	-	1	0	2	0	3	-	17
<b>% Articulated Trucks</b>	0.4%	0.1%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0.2%	0%	1.4%	0%	0.5%	-	0.2%
<b>Buses</b>	28	31	0	0	59	-	2	0	0	0	2	-	0	20	2	0	22	-	27	0	6	0	33	-	116
<b>% Buses</b>	2.0%	0.9%	0%	0%	1.2%	-	0.4%	0%	0%	0%	0.3%	-	0%	0.7%	0.5%	0%	0.6%	-	5.3%	0%	4.3%	0%	5.1%	-	1.2%
<b>Bicycles on Road</b>	1	5	0	0	6	-	2	0	1	0	3	-	2	5	0	0	7	-	2	0	0	0	2	-	18
<b>% Bicycles on Road</b>	0.1%	0.1%	0%	0%	0.1%	-	0.4%	0%	3.1%	0%	0.5%	-	100%	0.2%	0%	0%	0.2%	-	0.4%	0%	0%	0%	0.3%	-	0.2%
<b>Pedestrians</b>	-	-	-	-	-	9	-	-	-	-	-	99	-	-	-	-	-	155	-	-	-	-	-	20	-
<b>% Pedestrians</b>	-	-	-	-	-	90.0%	-	-	-	-	-	98.0%	-	-	-	-	-	98.7%	-	-	-	-	-	95.2%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	1	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	10.0%	-	-	-	-	-	2.0%	-	-	-	-	-	1.3%	-	-	-	-	-	4.8%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 5 North St @ Federal St TMC - TMC

Thu Mar 27, 2025

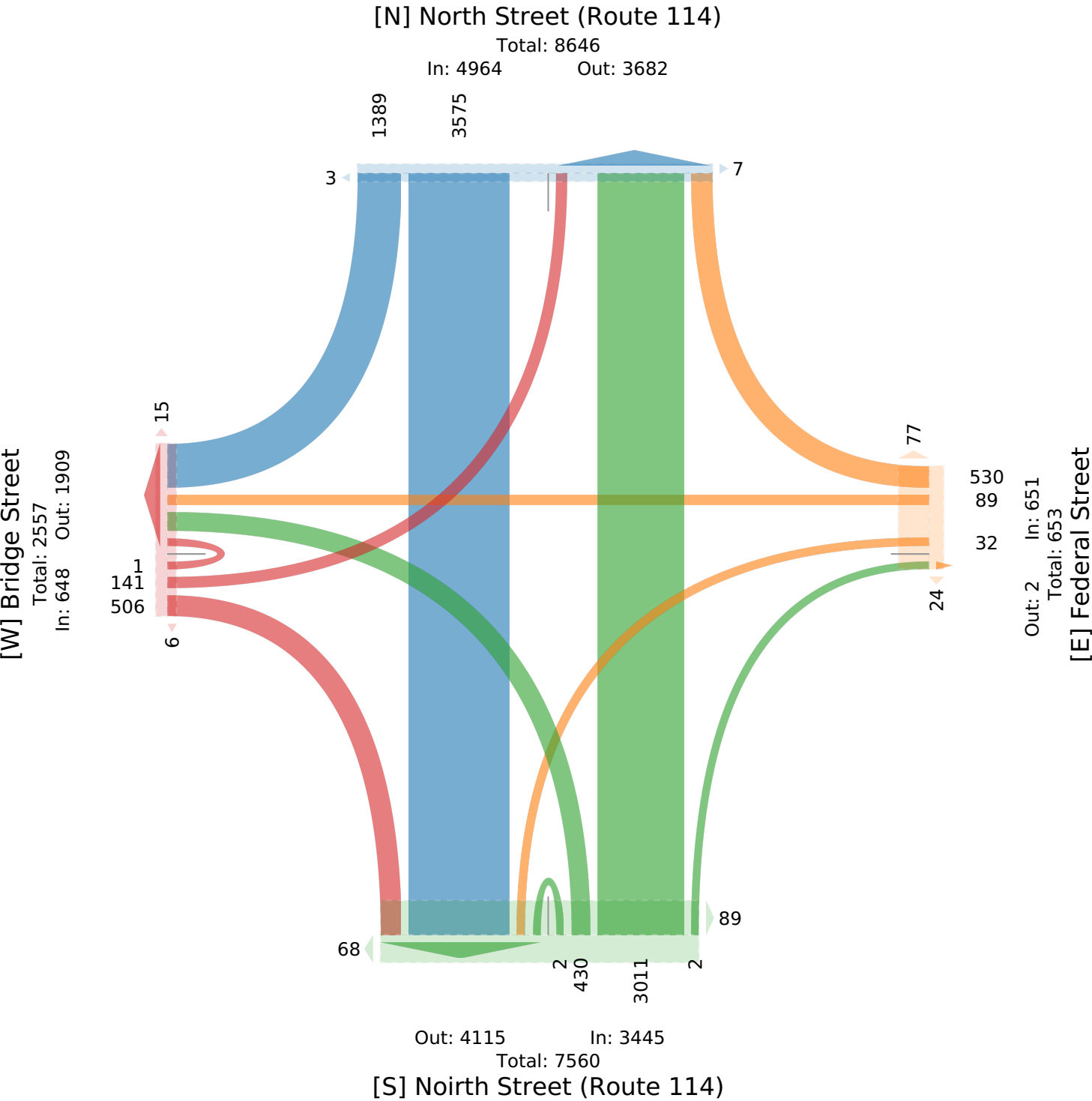
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279721, Location: 42.523154, -70.898831

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 5 North St @ Federal St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279721, Location: 42.523154, -70.898831

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound							Federal Street Westbound							Noirth Street (Route 114) Northbound							Bridge Street Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		Int
2025-03-27 7:15AM	63	155	0	0	218	0		38	1	1	0	40	4		0	160	17	0	177	5		18	0	5	0	23	2		458
7:30AM	60	147	0	0	207	0		36	3	0	0	39	0		0	160	18	0	178	1		8	0	5	0	13	0		437
7:45AM	80	142	0	0	222	0		23	7	3	0	33	9		0	154	23	0	177	10		22	0	5	0	27	4		459
8:00AM	87	142	0	0	229	1		17	12	3	0	32	2		0	136	25	0	161	6		19	0	1	0	20	2		442
<b>Total</b>	290	586	0	0	876	1		114	23	7	0	144	15		0	610	83	0	693	22		67	0	16	0	83	8		1796
<b>% Approach</b>	33.1%	66.9%	0%	0%	-	-		79.2%	16.0%	4.9%	0%	-	-		0%	88.0%	12.0%	0%	-	-		80.7%	0%	19.3%	0%	-	-		-
<b>% Total</b>	16.1%	32.6%	0%	0%	48.8%	-		6.3%	1.3%	0.4%	0%	8.0%	-		0%	34.0%	4.6%	0%	38.6%	-		3.7%	0%	0.9%	0%	4.6%	-		-
<b>PHF</b>	0.833	0.950	-	-	0.955	-		0.750	0.479	0.583	-	0.900	-		-	0.950	0.830	-	0.971	-		0.761	-	0.800	-	0.769	-		0.979
<b>Motorcycles</b>	1	0	0	0	1	-		0	0	0	0	0	-		0	1	0	0	1	-		0	0	0	0	0	-		2
<b>% Motorcycles</b>	0.3%	0%	0%	0%	0.1%	-		0%	0%	0%	0%	0%	-		0%	0.2%	0%	0%	0.1%	-		0%	0%	0%	0%	0%	-		0.1%
<b>Lights</b>	281	566	0	0	847	-		114	23	7	0	144	-		0	597	77	0	674	-		61	0	13	0	74	-		1739
<b>% Lights</b>	96.9%	96.6%	0%	0%	96.7%	-		100%	100%	100%	0%	100%	-		0%	97.9%	92.8%	0%	97.3%	-		91.0%	0%	81.3%	0%	89.2%	-		96.8%
<b>Single-Unit Trucks</b>	4	15	0	0	19	-		0	0	0	0	0	-		0	7	6	0	13	-		0	0	2	0	2	-		34
<b>% Single-Unit Trucks</b>	1.4%	2.6%	0%	0%	2.2%	-		0%	0%	0%	0%	0%	-		0%	1.1%	7.2%	0%	1.9%	-		0%	0%	12.5%	0%	2.4%	-		1.9%
<b>Articulated Trucks</b>	0	2	0	0	2	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		2
<b>% Articulated Trucks</b>	0%	0.3%	0%	0%	0.2%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0.1%
<b>Buses</b>	4	2	0	0	6	-		0	0	0	0	0	-		0	3	0	0	3	-		6	0	1	0	7	-		16
<b>% Buses</b>	1.4%	0.3%	0%	0%	0.7%	-		0%	0%	0%	0%	0%	-		0%	0.5%	0%	0%	0.4%	-		9.0%	0%	6.3%	0%	8.4%	-		0.9%
<b>Bicycles on Road</b>	0	1	0	0	1	-		0	0	0	0	0	-		0	2	0	0	2	-		0	0	0	0	0	-		3
<b>% Bicycles on Road</b>	0%	0.2%	0%	0%	0.1%	-		0%	0%	0%	0%	0%	-		0%	0.3%	0%	0%	0.3%	-		0%	0%	0%	0%	0%	-		0.2%
<b>Pedestrians</b>	-	-	-	-	-	1		-	-	-	-	-	15		-	-	-	-	-	22		-	-	-	-	-	7		
<b>% Pedestrians</b>	-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	87.5%		-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	1		
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	12.5%		-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 5 North St @ Federal St TMC - TMC

Thu Mar 27, 2025

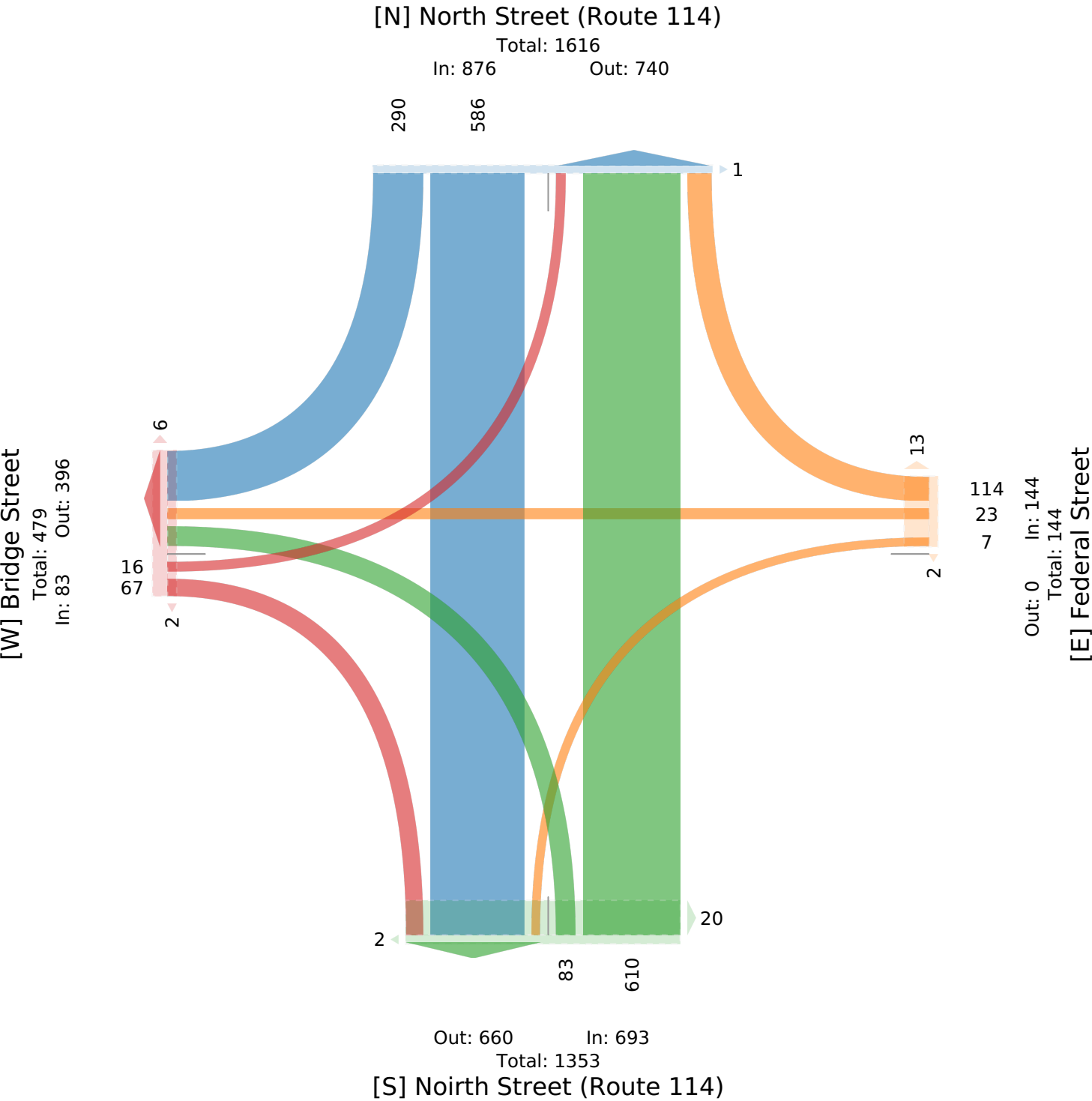
AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279721, Location: 42.523154, -70.898831

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 5 North St @ Federal St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279721, Location: 42.523154, -70.898831

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound							Federal Street Westbound							Noirth Street (Route 114) Northbound							Bridge Street Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		Int
2025-03-27 4:30PM	61	197	0	0	258	0		37	9	5	0	51	3		0	152	20	0	172	20		22	0	17	0	39	0		520
4:45PM	54	171	0	0	225	1		11	3	0	0	14	5		0	120	23	0	143	8		28	0	5	0	33	0		415
5:00PM	43	150	0	0	193	1		17	0	2	0	19	5		0	129	36	0	165	5		29	0	12	0	41	0		418
5:15PM	61	172	0	0	233	3		23	4	0	0	27	11		0	152	17	0	169	2		23	0	10	0	33	0		462
<b>Total</b>	219	690	0	0	909	5		88	16	7	0	111	24		0	553	96	0	649	35		102	0	44	0	146	0		1815
<b>% Approach</b>	24.1%	75.9%	0%	0%	-	-		79.3%	14.4%	6.3%	0%	-	-		0%	85.2%	14.8%	0%	-	-		69.9%	0%	30.1%	0%	-	-		-
<b>% Total</b>	12.1%	38.0%	0%	0%	50.1%	-		4.8%	0.9%	0.4%	0%	6.1%	-		0%	30.5%	5.3%	0%	35.8%	-		5.6%	0%	2.4%	0%	8.0%	-		-
<b>PHF</b>	0.893	0.873	-	-	0.881	-		0.595	0.444	0.350	-	0.544	-		-	0.910	0.667	-	0.943	-		0.879	-	0.647	-	0.890	-		0.873
<b>Motorcycles</b>	0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0
<b>% Motorcycles</b>	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%
<b>Lights</b>	215	679	0	0	894	-		87	16	7	0	110	-		0	546	94	0	640	-		98	0	42	0	140	-		1784
<b>% Lights</b>	98.2%	98.4%	0%	0%	98.3%	-		98.9%	100%	100%	0%	99.1%	-		0%	98.7%	97.9%	0%	98.6%	-		96.1%	0%	95.5%	0%	95.9%	-		98.3%
<b>Single-Unit Trucks</b>	0	2	0	0	2	-		0	0	0	0	0	-		0	5	2	0	7	-		1	0	0	0	1	-		10
<b>% Single-Unit Trucks</b>	0%	0.3%	0%	0%	0.2%	-		0%	0%	0%	0%	0%	-		0%	0.9%	2.1%	0%	1.1%	-		1.0%	0%	0%	0%	0.7%	-		0.6%
<b>Articulated Trucks</b>	2	0	0	0	2	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	1	0	1	-		3
<b>% Articulated Trucks</b>	0.9%	0%	0%	0%	0.2%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	2.3%	0%	0.7%	-		0.2%
<b>Buses</b>	1	7	0	0	8	-		1	0	0	0	1	-		0	2	0	0	2	-		3	0	1	0	4	-		15
<b>% Buses</b>	0.5%	1.0%	0%	0%	0.9%	-		1.1%	0%	0%	0%	0.9%	-		0%	0.4%	0%	0%	0.3%	-		2.9%	0%	2.3%	0%	2.7%	-		0.8%
<b>Bicycles on Road</b>	1	2	0	0	3	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		3
<b>% Bicycles on Road</b>	0.5%	0.3%	0%	0%	0.3%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0.2%
<b>Pedestrians</b>	-	-	-	-	-	4		-	-	-	-	-	24		-	-	-	-	-	35		-	-	-	-	-	0		
<b>% Pedestrians</b>	-	-	-	-	-	80.0%		-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	-		-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	1		-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0		
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	20.0%		-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	-		-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 5 North St @ Federal St TMC - TMC

Thu Mar 27, 2025

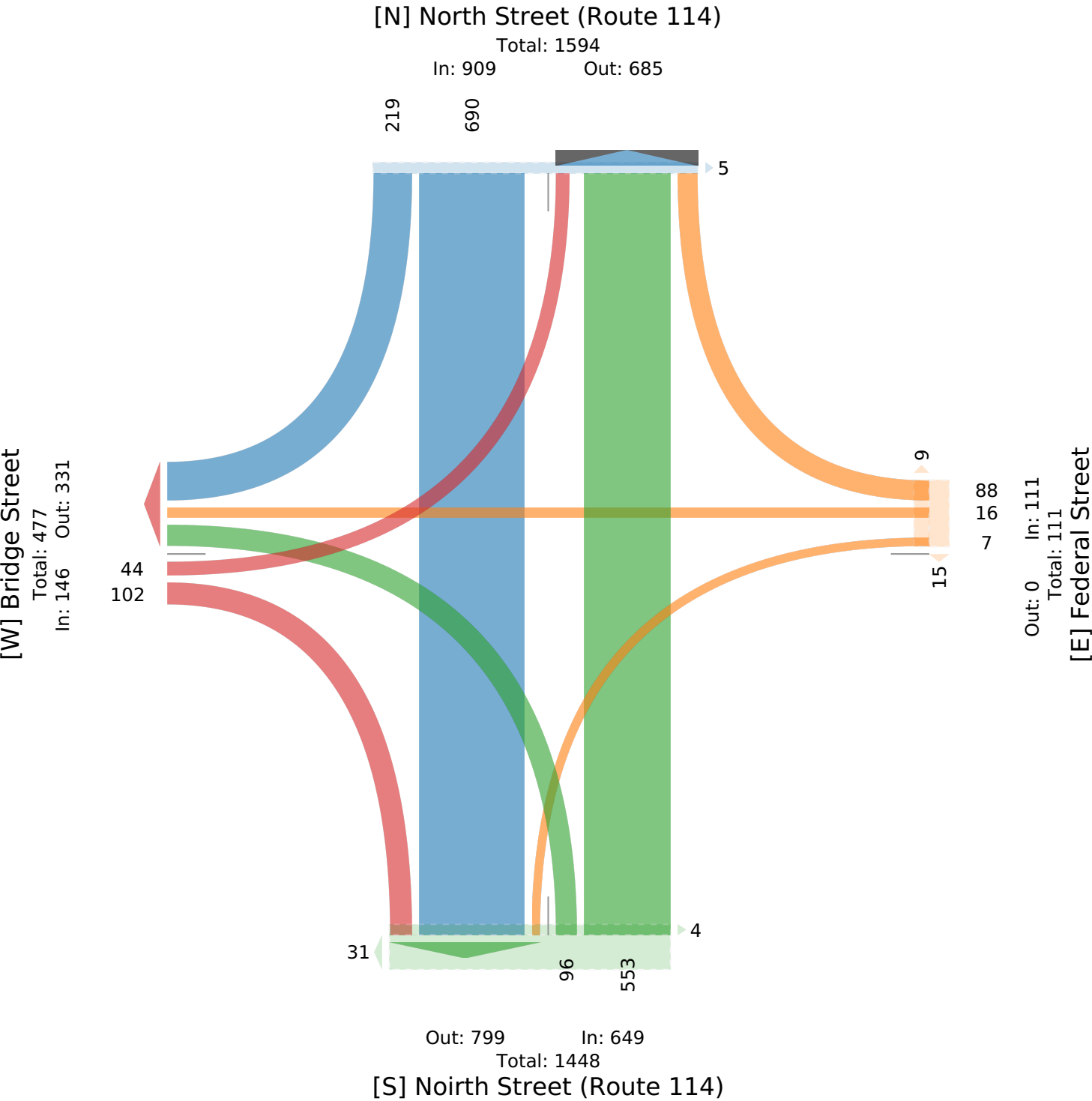
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279721, Location: 42.523154, -70.898831

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 6 North St (Rt 114) @ Lynde St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279724, Location: 42.522553, -70.898765

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

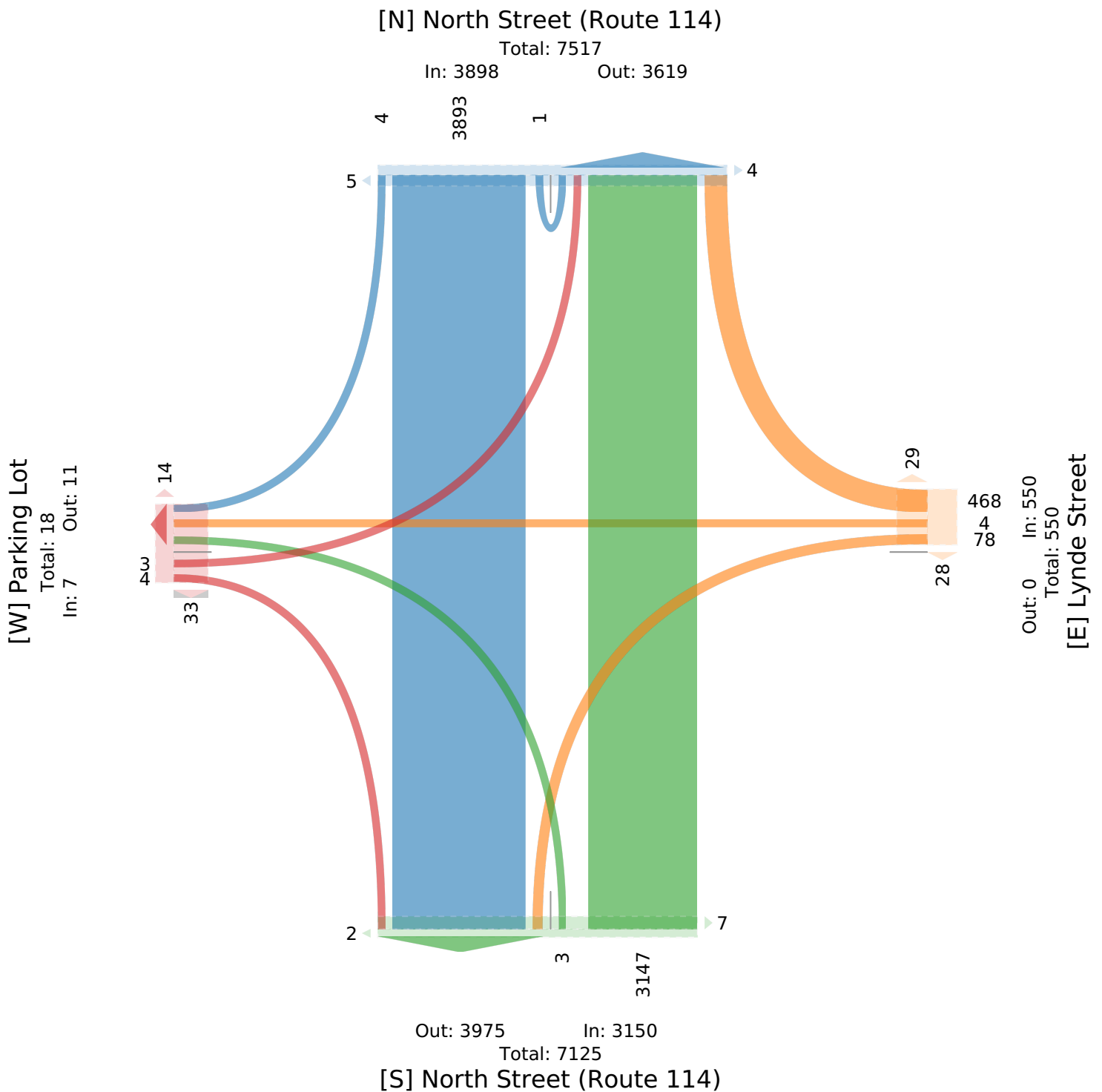
Leg Direction	North Street (Route 114) Southbound						Lynde Street Westbound						North Street (Route 114) Northbound						Parking Lot Eastbound							
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int	
2025-03-27 6:00AM	0	52	0	0	52	0	7	0	0	0	7	0	0	36	0	0	0	36	0	0	0	0	0	0	0	95
6:15AM	0	78	0	0	78	0	8	0	2	0	10	1	0	67	0	0	0	67	0	0	0	0	0	0	1	155
6:30AM	0	108	0	0	108	0	9	0	2	0	11	1	0	90	0	0	0	90	0	0	0	0	0	0	2	209
6:45AM	0	143	0	0	143	0	15	0	1	0	16	0	0	139	1	0	0	140	0	0	0	0	0	0	1	299
Hourly Total	0	381	0	0	381	0	39	0	5	0	44	2	0	332	1	0	0	333	0	0	0	0	0	0	4	758
7:00AM	0	130	0	0	130	0	19	0	0	0	19	0	0	109	0	0	0	109	0	0	0	0	0	0	0	258
7:15AM	0	166	0	0	166	1	13	1	4	0	18	1	0	165	0	0	0	165	0	1	0	1	0	2	4	351
7:30AM	0	151	0	0	151	0	22	0	2	0	24	2	0	161	0	0	0	161	0	0	0	0	0	0	2	336
7:45AM	0	154	0	0	154	0	19	0	1	0	20	1	0	153	0	0	0	153	0	0	0	0	0	0	2	327
Hourly Total	0	601	0	0	601	1	73	1	7	0	81	4	0	588	0	0	0	588	0	1	0	1	0	2	8	1272
8:00AM	0	155	0	0	155	0	16	0	3	0	19	2	0	156	0	0	0	156	0	0	0	0	0	0	2	330
8:15AM	0	150	0	0	150	0	9	1	3	0	13	1	0	124	0	0	0	124	0	0	0	0	0	0	0	287
8:30AM	1	176	0	0	177	0	28	1	6	0	35	1	0	144	0	0	0	144	1	1	0	0	0	1	0	357
8:45AM	1	174	0	0	175	2	14	0	4	0	18	2	0	123	2	0	0	125	1	0	0	0	0	0	2	318
Hourly Total	2	655	0	0	657	2	67	2	16	0	85	6	0	547	2	0	0	549	2	1	0	0	0	1	4	1292
3:00PM	0	188	0	0	188	0	17	0	0	0	17	1	0	136	0	0	0	136	0	0	0	0	0	0	2	341
3:15PM	0	205	0	0	205	1	19	0	8	0	27	6	0	149	0	0	0	149	1	0	0	0	0	0	4	381
3:30PM	1	171	0	1	173	2	16	1	3	0	20	7	0	125	0	0	0	125	0	1	0	0	0	1	0	319
3:45PM	0	168	0	0	168	0	26	0	4	0	30	3	0	158	0	0	0	158	0	0	0	0	0	0	1	356
Hourly Total	1	732	0	1	734	3	78	1	15	0	94	17	0	568	0	0	0	568	1	1	0	0	0	1	7	1397
4:00PM	0	188	0	0	188	1	29	0	3	0	32	1	0	136	0	0	0	136	0	0	0	2	0	2	2	358
4:15PM	0	197	0	0	197	0	17	0	7	0	24	0	0	120	0	0	0	120	3	1	0	0	0	1	6	342
4:30PM	1	211	0	0	212	0	29	0	2	0	31	4	0	158	0	0	0	158	3	0	0	0	0	0	2	401
4:45PM	0	191	0	0	191	0	23	0	5	0	28	2	0	128	0	0	0	128	0	0	0	0	0	0	4	347
Hourly Total	1	787	0	0	788	1	98	0	17	0	115	7	0	542	0	0	0	542	6	1	0	2	0	3	14	1448
5:00PM	0	169	0	0	169	0	35	0	8	0	43	7	0	146	0	0	0	146	0	0	0	0	0	0	1	358
5:15PM	0	186	0	0	186	2	27	0	4	0	31	8	0	156	0	0	0	156	0	0	0	0	0	0	0	373
5:30PM	0	198	0	0	198	0	30	0	5	0	35	2	0	143	0	0	0	143	0	0	0	0	0	0	5	376
5:45PM	0	184	0	0	184	0	21	0	1	0	22	4	0	125	0	0	0	125	0	0	0	0	0	0	4	331
Hourly Total	0	737	0	0	737	2	113	0	18	0	131	21	0	570	0	0	0	570	0	0	0	0	0	0	10	1438
Total	4	3893	0	1	3898	9	468	4	78	0	550	57	0	3147	3	0	3150	9	4	0	3	0	7	47	7605	
% Approach	0.1%	99.9%	0%	0%	-	-	85.1%	0.7%	14.2%	0%	-	-	0%	99.9%	0.1%	0%	-	-	57.1%	0%	42.9%	0%	-	-	-	-
% Total	0.1%	51.2%	0%	0%	51.3%	-	6.2%	0.1%	1.0%	0%	7.2%	-	0%	41.4%	0%	0%	41.4%	-	0.1%	0%	0%	0%	0.1%	-	-	-
Motorcycles	0	2	0	0	2	-	1	0	0	0	1	-	0	3	0	0	3	-	0	0	0	0	0	0	-	6
% Motorcycles	0%	0.1%	0%	0%	0.1%	-	0.2%	0%	0%	0%	0.2%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.1%	-
Lights	4	3767	0	1	3772	-	457	2	76	0	535	-	0	3076	3	0	3079	-	4	0	3	0	7	-	7393	-
% Lights	100%	96.8%	0%	100%	96.8%	-	97.6%	50.0%	97.4%	0%	97.3%	-	0%	97.7%	100%	0%	97.7%	-	100%	0%	100%	0%	100%	-	97.2%	-
Single-Unit Trucks	0	58	0	0	58	-	7	1	2	0	10	-	0	39	0	0	39	-	0	0	0	0	0	-	107	-
% Single-Unit Trucks	0%	1.5%	0%	0%	1.5%	-	1.5%	25.0%	2.6%	0%	1.8%	-	0%	1.2%	0%	0%	1.2%	-	0%	0%	0%	0%	0%	-	1.4%	-
Articulated Trucks	0	7	0	0	7	-	0	0	0	0	0	-	0	5	0	0	5	-	0	0	0	0	0	-	12	-
% Articulated Trucks	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.2%	-
Buses	0	56	0	0	56	-	1	0	0	0	1	-	0	22	0	0	22	-	0	0	0	0	0	-	79	-
% Buses	0%	1.4%	0%	0%	1.4%	-	0.2%	0%	0%	0%	0.2%	-	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	1.0%	-
Bicycles on Road	0	3	0	0	3	-	2	1	0	0	3	-	0	2	0	0	2	-	0	0	0	0	0	-	8	-
% Bicycles on Road	0%	0.1%	0%	0%	0.1%	-	0.4%	25.0%	0%	0%	0.5%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.1%	-
Pedestrians	-	-	-	-	-	9	-	-	-	-	-	56	-	-	-	-	-	9	-	-	-	-	-	45	-	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	98.2%	-	-	-	-	-	100%	-	-	-	-	-	95.7%	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	1.8%	-	-	-	-	-	0%	-	-	-	-	-	4.3%	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



ID: 1279724, Location: 42.522553, -70.898765

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 6 North St (Rt 114) @ Lynde St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279724, Location: 42.522553, -70.898765

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound						Lynde Street Westbound						North Street (Route 114) Northbound						Parking Lot Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:15AM	0	166	0	0	166	1	13	1	4	0	18	1	0	165	0	0	165	0	1	0	1	0	2	4	351
7:30AM	0	151	0	0	151	0	22	0	2	0	24	2	0	161	0	0	161	0	0	0	0	0	0	2	336
7:45AM	0	154	0	0	154	0	19	0	1	0	20	1	0	153	0	0	153	0	0	0	0	0	0	2	327
8:00AM	0	155	0	0	155	0	16	0	3	0	19	2	0	156	0	0	156	0	0	0	0	0	0	2	330
Total	0	626	0	0	626	1	70	1	10	0	81	6	0	635	0	0	635	0	1	0	1	0	2	10	1344
% Approach	0%	100%	0%	0%	-	-	86.4%	1.2%	12.3%	0%	-	-	0%	100%	0%	0%	-	-	50.0%	0%	50.0%	0%	-	-	-
% Total	0%	46.6%	0%	0%	46.6%	-	5.2%	0.1%	0.7%	0%	6.0%	-	0%	47.2%	0%	0%	47.2%	-	0.1%	0%	0.1%	0%	0.1%	-	-
PHF	-	0.943	-	-	0.943	-	0.795	0.250	0.625	-	0.844	-	-	0.966	-	-	0.966	-	0.250	-	0.250	-	0.250	-	0.959
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	2
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.1%
Lights	0	603	0	0	603	-	69	0	9	0	78	-	0	618	0	0	618	-	1	0	1	0	2	-	1301
% Lights	0%	96.3%	0%	0%	96.3%	-	98.6%	0%	90.0%	0%	96.3%	-	0%	97.3%	0%	0%	97.3%	-	100%	0%	100%	0%	100%	-	96.8%
Single-Unit Trucks	0	15	0	0	15	-	1	1	1	0	3	-	0	11	0	0	11	-	0	0	0	0	0	-	29
% Single-Unit Trucks	0%	2.4%	0%	0%	2.4%	-	1.4%	100%	10.0%	0%	3.7%	-	0%	1.7%	0%	0%	1.7%	-	0%	0%	0%	0%	0%	-	2.2%
Articulated Trucks	0	2	0	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	2
% Articulated Trucks	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Buses	0	6	0	0	6	-	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	9
% Buses	0%	1.0%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0.7%
Bicycles on Road	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	1
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.1%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	9	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	90.0%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	10.0%	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 6 North St (Rt 114) @ Lynde St TMC - TMC

Thu Mar 27, 2025

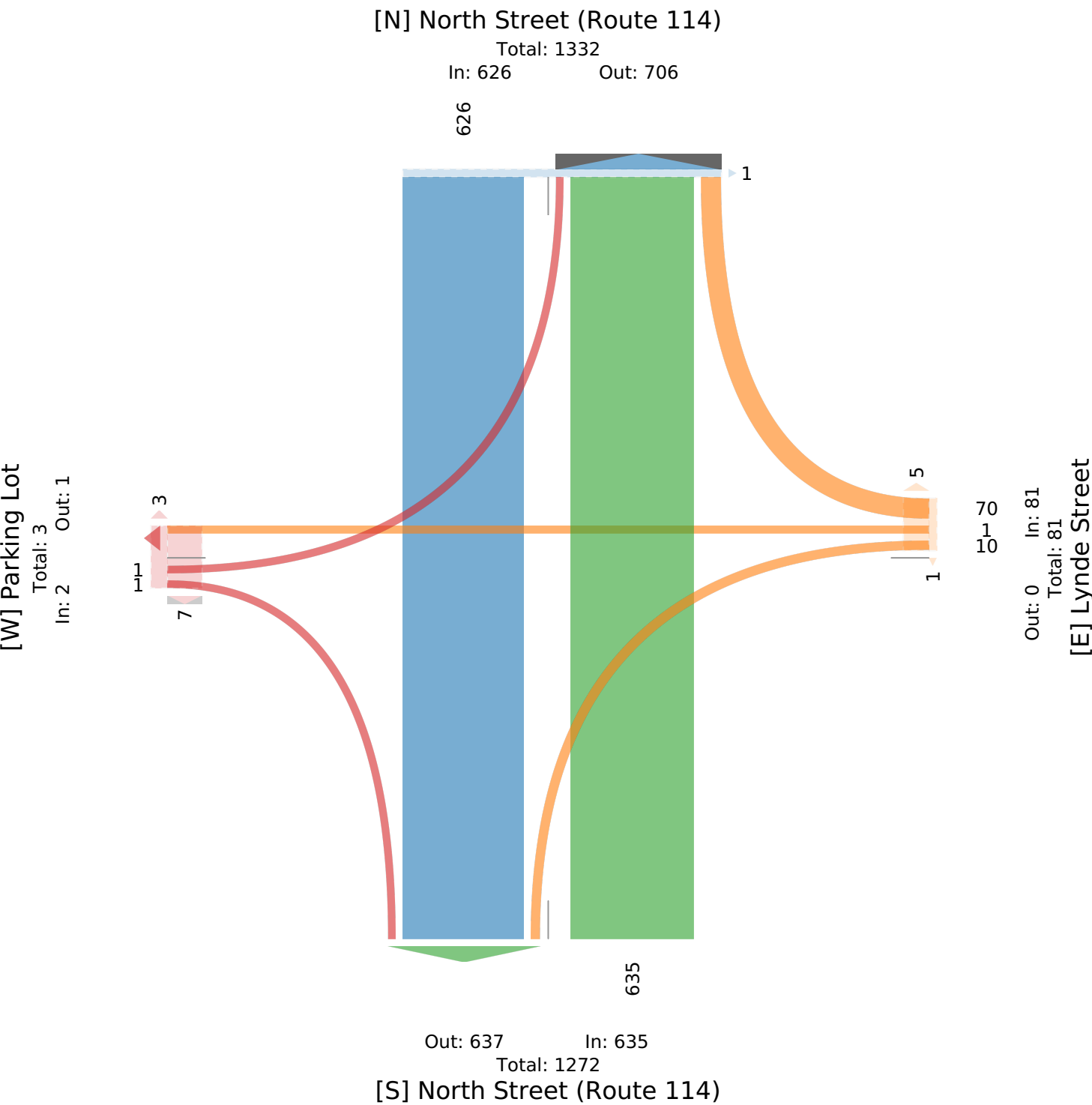
AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279724, Location: 42.522553, -70.898765

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 6 North St (Rt 114) @ Lynde St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279724, Location: 42.522553, -70.898765

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound						Lynde Street Westbound						North Street (Route 114) Northbound						Parking Lot Eastbound							
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int	
2025-03-27 4:30PM	1	211	0	0	212	0	29	0	2	0	31	4	0	158	0	0	158	3	0	0	0	0	0	0	2	401
4:45PM	0	191	0	0	191	0	23	0	5	0	28	2	0	128	0	0	128	0	0	0	0	0	0	0	4	347
5:00PM	0	169	0	0	169	0	35	0	8	0	43	7	0	146	0	0	146	0	0	0	0	0	0	0	1	358
5:15PM	0	186	0	0	186	2	27	0	4	0	31	8	0	156	0	0	156	0	0	0	0	0	0	0	0	373
Total	1	757	0	0	758	2	114	0	19	0	133	21	0	588	0	0	588	3	0	0	0	0	0	0	7	1479
% Approach	0.1%	99.9%	0%	0%	-	-	85.7%	0%	14.3%	0%	-	-	0%	100%	0%	0%	-	-	0%	0%	0%	0%	-	-	-	-
% Total	0.1%	51.2%	0%	0%	51.3%	-	7.7%	0%	1.3%	0%	9.0%	-	0%	39.8%	0%	0%	39.8%	-	0%	0%	0%	0%	0%	-	-	-
PHF	0.250	0.896	-	-	0.893	-	0.814	-	0.594	-	0.773	-	-	0.930	-	-	0.930	-	-	-	-	-	-	-	-	0.921
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	0
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	-	0%
Lights	1	744	0	0	745	-	112	0	19	0	131	-	0	581	0	0	581	-	0	0	0	0	0	0	-	1457
% Lights	100%	98.3%	0%	0%	98.3%	-	98.2%	0%	100%	0%	98.5%	-	0%	98.8%	0%	0%	98.8%	-	0%	0%	0%	0%	-	-	-	98.5%
Single-Unit Trucks	0	2	0	0	2	-	2	0	0	0	2	-	0	5	0	0	5	-	0	0	0	0	0	0	-	9
% Single-Unit Trucks	0%	0.3%	0%	0%	0.3%	-	1.8%	0%	0%	0%	1.5%	-	0%	0.9%	0%	0%	0.9%	-	0%	0%	0%	0%	-	-	-	0.6%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	-	0%
Buses	0	10	0	0	10	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	0	-	12
% Buses	0%	1.3%	0%	0%	1.3%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	-	-	-	0.8%
Bicycles on Road	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	1
% Bicycles on Road	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	-	0.1%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	21	-	-	-	-	-	3	-	-	-	-	-	-	7	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	0%	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 6 North St (Rt 114) @ Lynde St TMC - TMC

Thu Mar 27, 2025

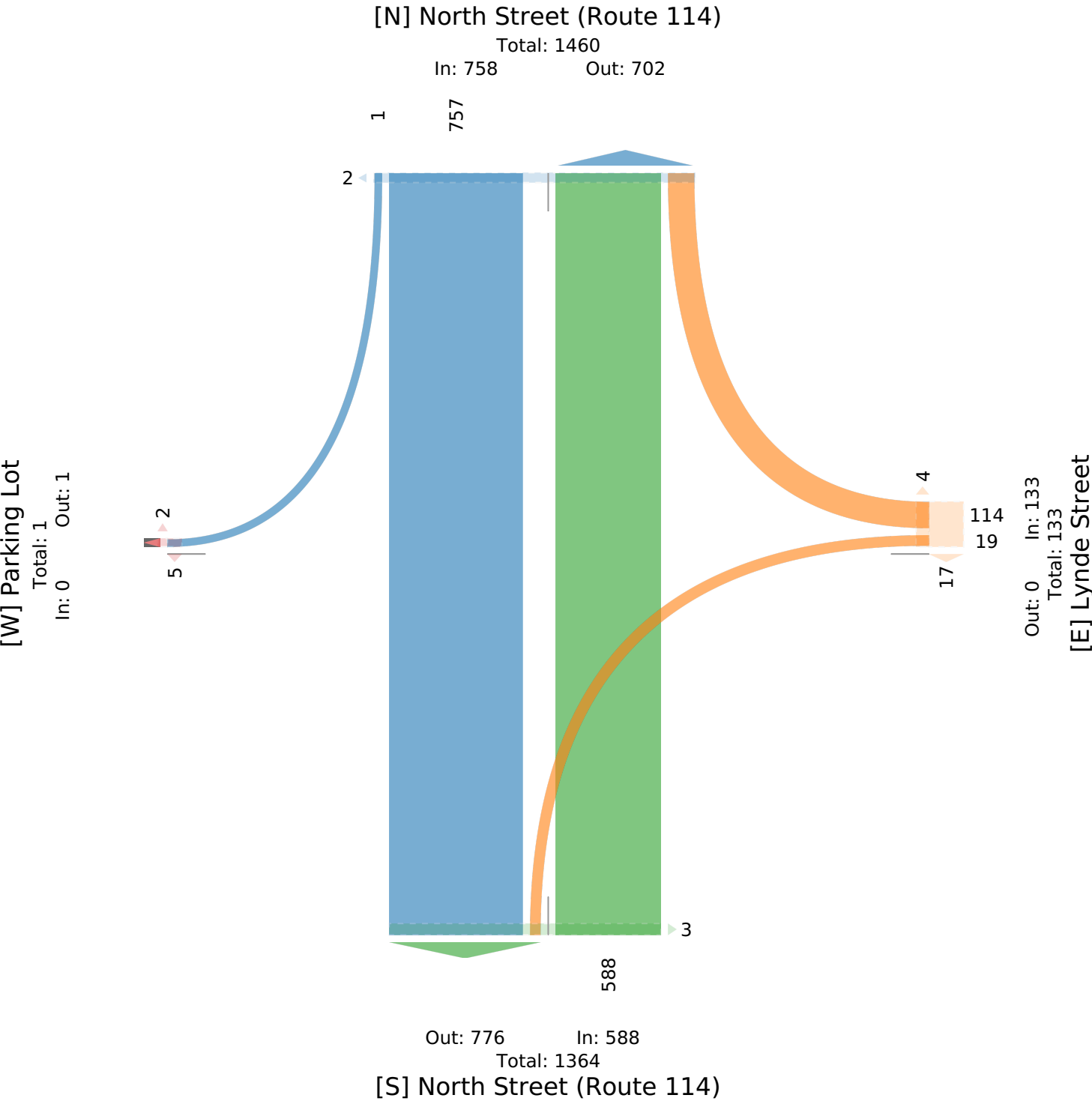
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279724, Location: 42.522553, -70.898765

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 7 North St (Rt 114) @ Essex St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279725, Location: 42.5214, -70.898642

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound						Essex Street Westbound						Summer Street (Route 114) Northbound						Essex Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	5	45	3	0	53	2	0	0	0	0	0	1	1	34	0	0	35	0	2	4	8	0	14	0	102
6:15AM	9	61	6	0	76	3	0	0	0	0	0	2	2	51	0	0	53	1	3	4	13	0	20	1	149
6:30AM	6	100	5	0	111	3	0	0	0	0	0	2	4	80	0	0	84	4	9	18	10	0	37	2	232
6:45AM	19	118	9	0	146	5	0	0	0	0	0	1	3	123	0	0	126	3	6	25	15	0	46	1	318
Hourly Total	39	324	23	0	386	13	0	0	0	0	0	6	10	288	0	0	298	8	20	51	46	0	117	4	801
7:00AM	9	109	16	0	134	1	0	0	0	0	0	0	6	99	0	0	105	4	7	22	9	0	38	0	277
7:15AM	16	127	19	0	162	8	0	0	0	0	0	1	3	144	0	0	147	4	8	27	26	0	61	3	370
7:30AM	17	116	26	0	159	4	0	0	0	0	0	2	6	143	0	0	149	3	5	27	24	0	56	1	364
7:45AM	11	126	23	0	160	3	1	0	0	0	1	1	13	135	0	0	148	4	10	35	21	0	66	2	375
Hourly Total	53	478	84	0	615	16	1	0	0	0	1	4	28	521	0	0	549	15	30	111	80	0	221	6	1386
8:00AM	9	111	38	0	158	4	0	0	0	0	0	1	13	128	0	0	141	2	9	31	29	0	69	4	368
8:15AM	6	99	39	0	144	13	0	0	0	0	0	3	11	113	0	0	124	5	5	50	11	0	66	1	334
8:30AM	14	139	43	0	196	5	0	0	0	0	0	3	8	118	0	0	126	2	9	30	24	0	63	2	385
8:45AM	15	116	46	0	177	6	0	0	0	0	0	2	10	110	0	0	120	7	13	31	17	0	61	2	358
Hourly Total	44	465	166	0	675	28	0	0	0	0	0	9	42	469	0	0	511	16	36	142	81	0	259	9	1445
3:00PM	10	144	35	0	189	34	0	0	0	0	0	2	8	112	0	0	120	14	9	23	21	0	53	10	362
3:15PM	14	164	34	0	212	29	0	0	0	0	0	7	11	121	0	0	132	12	13	19	27	0	59	4	403
3:30PM	16	128	30	0	174	20	0	0	0	0	0	9	11	103	0	0	114	15	21	28	23	0	72	2	360
3:45PM	13	123	32	0	168	27	0	0	0	0	0	3	9	126	0	0	135	7	12	20	29	0	61	3	364
Hourly Total	53	559	131	0	743	110	0	0	0	0	0	21	39	462	0	0	501	48	55	90	100	0	245	19	1489
4:00PM	15	145	29	0	189	27	0	0	0	0	0	8	11	124	1	0	136	10	15	18	18	0	51	1	376
4:15PM	16	147	35	0	198	37	0	0	0	0	0	4	13	104	0	0	117	19	11	20	18	0	49	7	364
4:30PM	19	157	34	0	210	16	0	0	0	0	0	1	6	130	0	0	136	6	12	29	27	0	68	8	414
4:45PM	15	154	35	0	204	35	0	0	0	0	0	10	10	107	0	0	117	14	10	23	23	0	56	11	377
Hourly Total	65	603	133	0	801	115	0	0	0	0	0	23	40	465	1	0	506	49	48	90	86	0	224	27	1531
5:00PM	17	121	32	0	170	11	0	0	0	0	0	1	10	122	0	0	132	17	7	27	21	0	55	2	357
5:15PM	19	146	34	0	199	21	0	0	0	0	0	1	17	124	0	0	141	9	10	22	33	0	65	3	405
5:30PM	15	160	28	0	203	9	0	0	0	0	0	3	17	107	1	0	125	13	10	22	33	0	65	2	393
5:45PM	13	138	30	0	181	17	0	0	0	0	0	2	13	98	0	0	111	10	13	28	24	0	65	5	357
Hourly Total	64	565	124	0	753	58	0	0	0	0	0	7	57	451	1	0	509	49	40	99	111	0	250	12	1512
<b>Total</b>	318	2994	661	0	3973	340	1	0	0	0	1	70	216	2656	2	0	2874	185	229	583	504	0	1316	77	8164
<b>% Approach</b>	8.0%	75.4%	16.6%	0%	-	-	100%	0%	0%	0%	-	-	7.5%	92.4%	0.1%	0%	-	-	17.4%	44.3%	38.3%	0%	-	-	-
<b>% Total</b>	3.9%	36.7%	8.1%	0%	48.7%	-	0%	0%	0%	0%	0%	-	2.6%	32.5%	0%	0%	35.2%	-	2.8%	7.1%	6.2%	0%	16.1%	-	-
<b>Motorcycles</b>	2	3	0	0	5	-	0	0	0	0	0	-	1	2	0	0	3	-	2	1	0	0	3	-	11
<b>% Motorcycles</b>	0.6%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.5%	0.1%	0%	0%	0.1%	-	0.9%	0.2%	0%	0%	0.2%	-	0.1%
<b>Lights</b>	292	2893	651	0	3836	-	0	0	0	0	0	-	210	2603	2	0	2815	-	205	569	485	0	1259	-	7910
<b>% Lights</b>	91.8%	96.6%	98.5%	0%	96.6%	-	0%	0%	0%	0%	0%	-	97.2%	98.0%	100%	0%	97.9%	-	89.5%	97.6%	96.2%	0%	95.7%	-	96.9%
<b>Single-Unit Trucks</b>	9	48	5	0	62	-	0	0	0	0	0	-	3	32	0	0	35	-	7	6	9	0	22	-	119
<b>% Single-Unit Trucks</b>	2.8%	1.6%	0.8%	0%	1.6%	-	0%	0%	0%	0%	0%	-	1.4%	1.2%	0%	0%	1.2%	-	3.1%	1.0%	1.8%	0%	1.7%	-	1.5%
<b>Articulated Trucks</b>	1	6	0	0	7	-	0	0	0	0	0	-	0	4	0	0	4	-	1	0	1	0	2	-	13
<b>% Articulated Trucks</b>	0.3%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.1%	-	0.4%	0%	0.2%	0%	0.2%	-	0.2%
<b>Buses</b>	13	40	4	0	57	-	0	0	0	0	0	-	2	13	0	0	15	-	11	3	9	0	23	-	95
<b>% Buses</b>	4.1%	1.3%	0.6%	0%	1.4%	-	0%	0%	0%	0%	0%	-	0.9%	0.5%	0%	0%	0.5%	-	4.8%	0.5%	1.8%	0%	1.7%	-	1.2%
<b>Bicycles on Road</b>	1	4	1	0	6	-	1	0	0	0	1	-	0	2	0	0	2	-	3	4	0	0	7	-	16
<b>% Bicycles on Road</b>	0.3%	0.1%	0.2%	0%	0.2%	-	100%	0%	0%	0%	100%	-	0%	0.1%	0%	0%	0.1%	-	1.3%	0.7%	0%	0%	0.5%	-	0.2%
<b>Pedestrians</b>	-	-	-	-	-	340	-	-	-	-	-	69	-	-	-	-	-	183	-	-	-	-	-	77	-
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	98.6%	-	-	-	-	-	98.9%	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	1.4%	-	-	-	-	-	1.1%	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 7 North St (Rt 114) @ Essex St TMC - TMC

Thu Mar 27, 2025

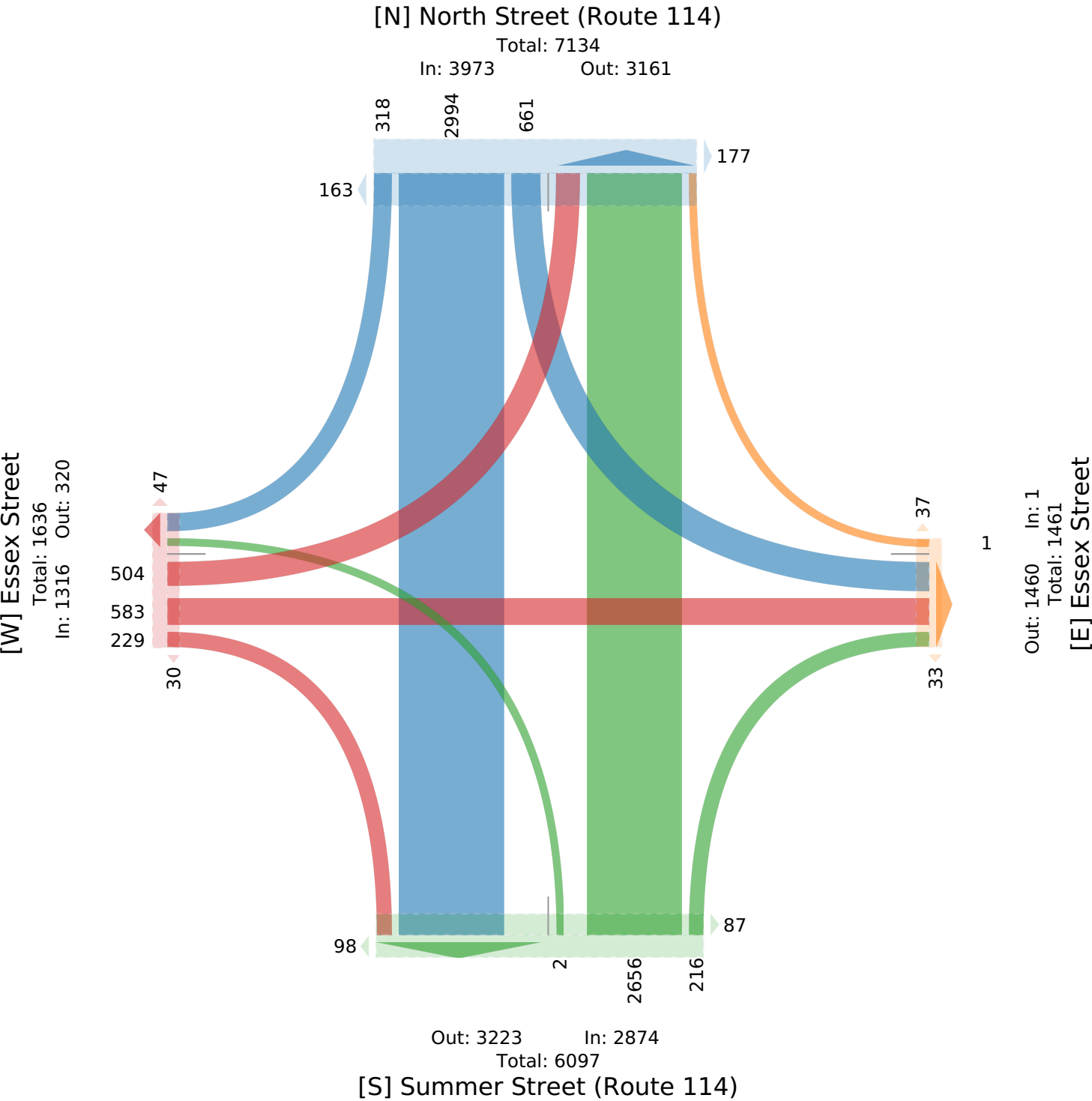
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279725, Location: 42.5214, -70.898642

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 7 North St (Rt 114) @ Essex St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279725, Location: 42.5214, -70.898642

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound						Essex Street Westbound						Summer Street (Route 114) Northbound						Essex Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:15AM	16	127	19	0	162	8	0	0	0	0	0	1	3	144	0	0	147	4	8	27	26	0	61	3	370
7:30AM	17	116	26	0	159	4	0	0	0	0	0	2	6	143	0	0	149	3	5	27	24	0	56	1	364
7:45AM	11	126	23	0	160	3	1	0	0	0	1	1	13	135	0	0	148	4	10	35	21	0	66	2	375
8:00AM	9	111	38	0	158	4	0	0	0	0	0	1	13	128	0	0	141	2	9	31	29	0	69	4	368
<b>Total</b>	53	480	106	0	639	19	1	0	0	0	1	5	35	550	0	0	585	13	32	120	100	0	252	10	1477
<b>% Approach</b>	8.3%	75.1%	16.6%	0%	-	-	100%	0%	0%	0%	-	-	6.0%	94.0%	0%	0%	-	-	12.7%	47.6%	39.7%	0%	-	-	-
<b>% Total</b>	3.6%	32.5%	7.2%	0%	43.3%	-	0.1%	0%	0%	0%	0.1%	-	2.4%	37.2%	0%	0%	39.6%	-	2.2%	8.1%	6.8%	0%	17.1%	-	-
<b>PHF</b>	0.779	0.950	0.697	-	0.991	-	-	-	-	-	-	-	0.673	0.955	-	-	0.982	-	0.861	0.850	0.862	-	0.906	-	0.987
<b>Motorcycles</b>	0	0	0	0	0	-	0	0	0	0	0	-	1	1	0	0	2	-	0	0	0	0	0	-	2
<b>% Motorcycles</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	2.9%	0.2%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.1%
<b>Lights</b>	49	458	104	0	611	-	0	0	0	0	0	-	33	536	0	0	569	-	30	116	98	0	244	-	1424
<b>% Lights</b>	92.5%	95.4%	98.1%	0%	95.6%	-	0%	0%	0%	0%	0%	-	94.3%	97.5%	0%	0%	97.3%	-	93.8%	96.7%	98.0%	0%	96.8%	-	96.4%
<b>Single-Unit Trucks</b>	2	16	1	0	19	-	0	0	0	0	0	-	1	10	0	0	11	-	0	3	2	0	5	-	35
<b>% Single-Unit Trucks</b>	3.8%	3.3%	0.9%	0%	3.0%	-	0%	0%	0%	0%	0%	-	2.9%	1.8%	0%	0%	1.9%	-	0%	2.5%	2.0%	0%	2.0%	-	2.4%
<b>Articulated Trucks</b>	0	2	0	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	2
<b>% Articulated Trucks</b>	0%	0.4%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
<b>Buses</b>	2	3	1	0	6	-	0	0	0	0	0	-	0	3	0	0	3	-	1	0	0	0	1	-	10
<b>% Buses</b>	3.8%	0.6%	0.9%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	3.1%	0%	0%	0%	0.4%	-	0.7%
<b>Bicycles on Road</b>	0	1	0	0	1	-	1	0	0	0	1	-	0	0	0	0	0	-	1	1	0	0	2	-	4
<b>% Bicycles on Road</b>	0%	0.2%	0%	0%	0.2%	-	100%	0%	0%	0%	100%	-	0%	0%	0%	0%	0%	-	3.1%	0.8%	0%	0%	0.8%	-	0.3%
<b>Pedestrians</b>	-	-	-	-	-	19	-	-	-	-	-	4	-	-	-	-	-	12	-	-	-	-	-	10	
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	80.0%	-	-	-	-	-	92.3%	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	20.0%	-	-	-	-	-	7.7%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



250511- 7 North St (Rt 114) @ Essex St TMC - TMC

Thu Mar 27, 2025

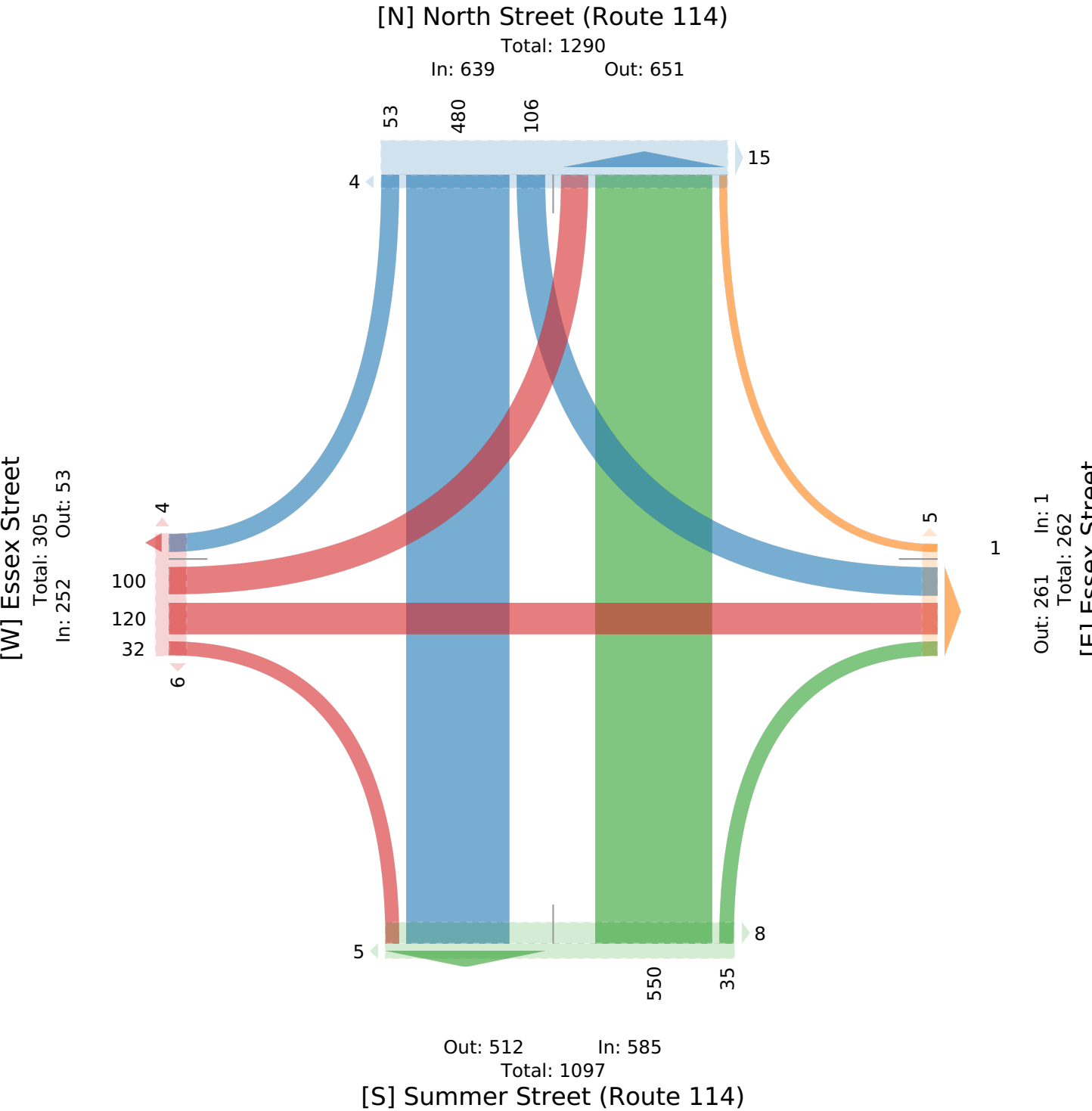
AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279725, Location: 42.5214, -70.898642

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 7 North St (Rt 114) @ Essex St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279725, Location: 42.5214, -70.898642

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	North Street (Route 114) Southbound						Essex Street Westbound						Summer Street (Route 114) Northbound						Essex Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 4:30PM	19	157	34	0	210	16	0	0	0	0	0	1	6	130	0	0	136	6	12	29	27	0	68	8	414
4:45PM	15	154	35	0	204	35	0	0	0	0	0	10	10	107	0	0	117	14	10	23	23	0	56	11	377
5:00PM	17	121	32	0	170	11	0	0	0	0	0	1	10	122	0	0	132	17	7	27	21	0	55	2	357
5:15PM	19	146	34	0	199	21	0	0	0	0	0	1	17	124	0	0	141	9	10	22	33	0	65	3	405
<b>Total</b>	70	578	135	0	783	83	0	0	0	0	0	13	43	483	0	0	526	46	39	101	104	0	244	24	1553
<b>% Approach</b>	8.9%	73.8%	17.2%	0%	-	-	0%	0%	0%	0%	-	-	8.2%	91.8%	0%	0%	-	-	16.0%	41.4%	42.6%	0%	-	-	-
<b>% Total</b>	4.5%	37.2%	8.7%	0%	50.4%	-	0%	0%	0%	0%	0%	-	2.8%	31.1%	0%	0%	33.9%	-	2.5%	6.5%	6.7%	0%	15.7%	-	-
<b>PHF</b>	0.921	0.919	0.964	-	0.931	-	-	-	-	-	-	-	0.632	0.929	-	-	0.933	-	0.813	0.862	0.788	-	0.893	-	0.937
<b>Motorcycles</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
<b>% Motorcycles</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
<b>Lights</b>	69	566	134	0	769	-	0	0	0	0	0	-	42	479	0	0	521	-	37	100	101	0	238	-	1528
<b>% Lights</b>	98.6%	97.9%	99.3%	0%	98.2%	-	0%	0%	0%	0%	-	-	97.7%	99.2%	0%	0%	99.0%	-	94.9%	99.0%	97.1%	0%	97.5%	-	98.4%
<b>Single-Unit Trucks</b>	0	1	1	0	2	-	0	0	0	0	0	-	1	3	0	0	4	-	1	0	2	0	3	-	9
<b>% Single-Unit Trucks</b>	0%	0.2%	0.7%	0%	0.3%	-	0%	0%	0%	0%	-	-	2.3%	0.6%	0%	0%	0.8%	-	2.6%	0%	1.9%	0%	1.2%	-	0.6%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
<b>Buses</b>	1	10	0	0	11	-	0	0	0	0	0	-	0	1	0	0	1	-	1	0	1	0	2	-	14
<b>% Buses</b>	1.4%	1.7%	0%	0%	1.4%	-	0%	0%	0%	0%	-	-	0%	0.2%	0%	0%	0.2%	-	2.6%	0%	1.0%	0%	0.8%	-	0.9%
<b>Bicycles on Road</b>	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	2
<b>% Bicycles on Road</b>	0%	0.2%	0%	0%	0.1%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	1.0%	0%	0%	0.4%	-	0.1%
Pedestrians	-	-	-	-	-	83	-	-	-	-	-	13	-	-	-	-	-	46	-	-	-	-	-	24	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 7 North St (Rt 114) @ Essex St TMC - TMC

Thu Mar 27, 2025

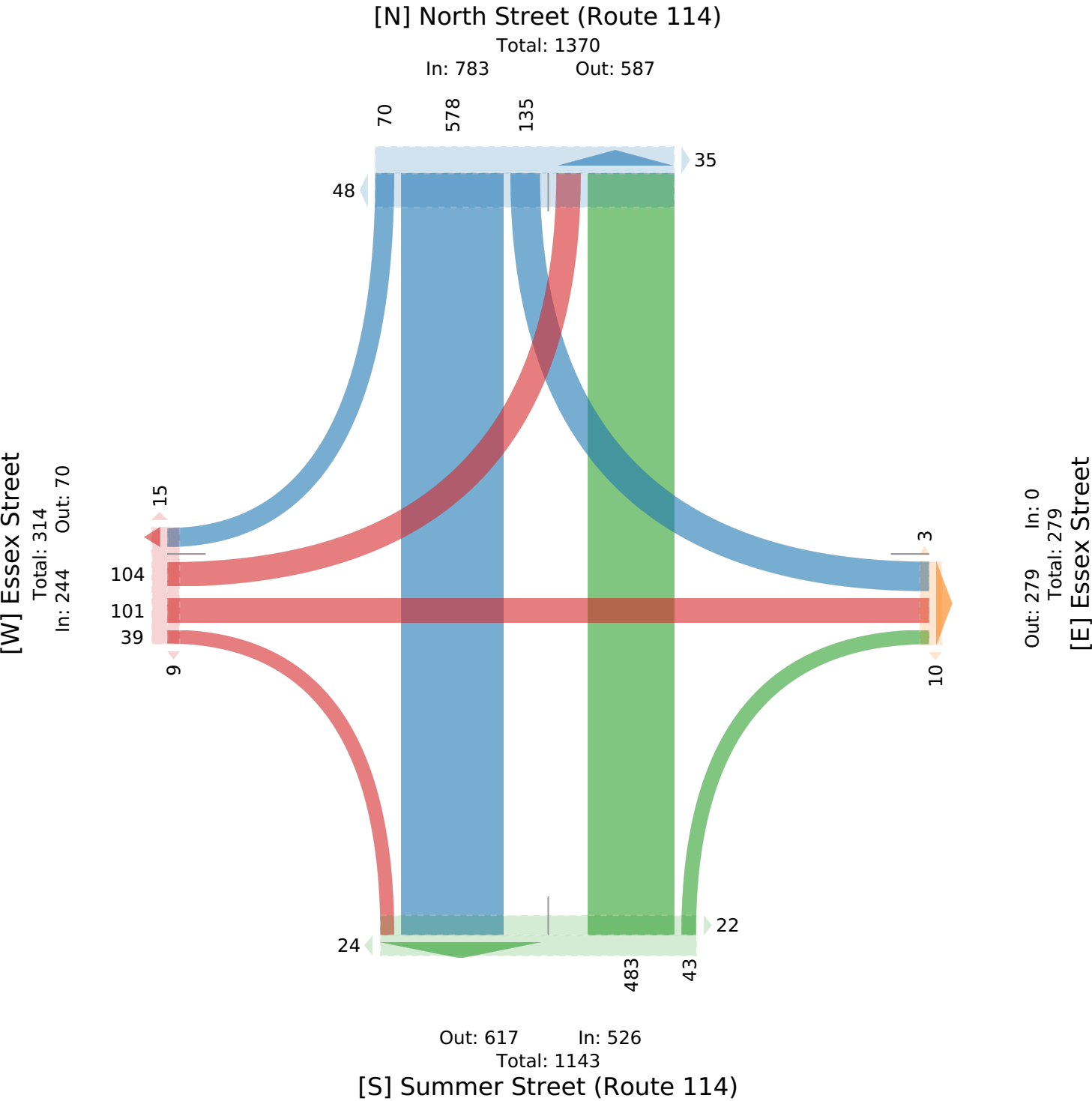
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279725, Location: 42.5214, -70.898642

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 8 Summer ST & Norman St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279729, Location: 42.520028, -70.898456

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Summer Street Southbound						Norman Street Westbound						Summer Street Northbound						Chestnut Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	0	7	37	0	44	0	24	0	1	0	25	0	3	15	0	0	18	0	0	2	0	0	2	0	89
6:15AM	0	14	52	0	66	1	35	0	1	0	36	0	1	19	0	0	20	0	1	2	0	0	3	0	125
6:30AM	0	29	76	1	106	0	52	0	3	0	55	0	3	30	0	0	33	0	0	3	0	0	3	1	197
6:45AM	0	29	94	0	123	5	76	0	4	0	80	0	13	51	0	0	64	1	0	4	2	0	6	1	273
Hourly Total	0	79	259	1	339	6	187	0	9	0	196	0	20	115	0	0	135	1	1	11	2	0	14	2	684
7:00AM	0	29	82	1	112	0	63	0	2	0	65	0	12	36	0	0	48	1	1	14	1	0	16	0	241
7:15AM	0	43	86	0	129	3	88	1	3	0	92	0	10	63	0	0	73	0	3	16	2	0	21	2	315
7:30AM	0	41	83	0	124	1	92	0	4	0	96	0	4	54	0	0	58	1	5	16	0	0	21	3	299
7:45AM	0	47	91	0	138	3	81	0	8	0	89	0	9	54	0	0	63	2	3	25	5	0	33	0	323
Hourly Total	0	160	342	1	503	7	324	1	17	0	342	0	35	207	0	0	242	4	12	71	8	0	91	5	1178
8:00AM	0	35	82	0	117	3	80	0	4	0	84	0	15	63	0	1	79	1	2	31	1	0	34	0	314
8:15AM	0	32	77	1	110	5	73	0	3	0	76	0	13	45	0	0	58	0	3	30	7	0	40	1	284
8:30AM	0	33	106	1	140	4	79	0	5	0	84	0	17	48	0	0	65	1	11	20	1	0	32	6	321
8:45AM	0	34	97	0	131	5	63	1	7	1	72	0	8	42	0	0	50	0	4	23	4	0	31	1	284
Hourly Total	0	134	362	2	498	17	295	1	19	1	316	0	53	198	0	1	252	2	20	104	13	0	137	8	1203
3:00PM	0	47	109	1	157	7	82	0	5	1	88	0	9	31	0	0	40	6	2	26	2	0	30	2	315
3:15PM	0	52	123	1	176	9	74	0	13	1	88	0	3	51	0	0	54	5	5	21	1	0	27	2	345
3:30PM	0	46	98	0	144	4	64	0	5	0	69	0	4	58	0	0	62	10	7	19	2	0	28	3	303
3:45PM	0	45	91	0	136	4	80	0	4	0	84	0	7	54	0	1	62	3	5	27	2	0	34	3	316
Hourly Total	0	190	421	2	613	24	300	0	27	2	329	0	23	194	0	1	218	24	19	93	7	0	119	10	1279
4:00PM	0	45	118	0	163	2	83	0	9	0	92	0	9	46	0	0	55	3	3	26	1	0	30	1	340
4:15PM	0	49	110	0	159	10	66	0	11	0	77	0	5	44	0	0	49	2	3	23	2	0	28	7	313
4:30PM	0	52	112	0	164	3	93	0	5	0	98	0	12	41	0	0	53	0	2	22	0	0	24	1	339
4:45PM	0	63	107	0	170	9	76	0	11	2	89	0	14	36	0	0	50	1	4	14	2	0	20	0	329
Hourly Total	0	209	447	0	656	24	318	0	36	2	356	0	40	167	0	0	207	6	12	85	5	0	102	9	1321
5:00PM	0	45	85	0	130	17	96	0	9	0	105	0	7	47	0	0	54	2	3	34	0	0	37	6	326
5:15PM	1	62	95	1	159	12	91	0	5	0	96	0	5	44	0	0	49	2	3	24	0	0	27	7	331
5:30PM	0	42	121	1	164	8	78	0	8	0	86	0	7	48	0	0	55	2	3	18	0	0	21	7	326
5:45PM	0	36	123	1	160	9	68	1	13	0	82	0	9	43	0	0	52	4	5	21	0	0	26	6	320
Hourly Total	1	185	424	3	613	46	333	1	35	0	369	0	28	182	0	0	210	10	14	97	0	0	111	26	1303
Total	1	957	2255	9	3222	124	1757	3	143	5	1908	0	199	1063	0	2	1264	47	78	461	35	0	574	60	6968
% Approach	0%	29.7%	70.0%	0.3%	-	-	92.1%	0.2%	7.5%	0.3%	-	-	15.7%	84.1%	0%	0.2%	-	-	13.6%	80.3%	6.1%	0%	-	-	-
% Total	0%	13.7%	32.4%	0.1%	46.2%	-	25.2%	0%	2.1%	0.1%	27.4%	-	2.9%	15.3%	0%	0%	18.1%	-	1.1%	6.6%	0.5%	0%	8.2%	-	-
Motorcycles	0	0	3	0	3	-	0	0	0	0	0	-	0	3	0	0	3	-	0	2	0	0	2	-	8
% Motorcycles	0%	0%	0.1%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.2%	-	0%	0.4%	0%	0%	0.3%	-	0.1%
Lights	1	937	2149	9	3096	-	1722	1	140	5	1868	-	194	1040	0	2	1236	-	76	452	35	0	563	-	6763
% Lights	100%	97.9%	95.3%	100%	96.1%	-	98.0%	33.3%	97.9%	100%	97.9%	-	97.5%	97.8%	0%	100%	97.8%	-	97.4%	98.0%	100%	0%	98.1%	-	97.1%
Single-Unit Trucks	0	10	48	0	58	-	22	0	2	0	24	-	1	11	0	0	12	-	1	3	0	0	4	-	98
% Single-Unit Trucks	0%	1.0%	2.1%	0%	1.8%	-	1.3%	0%	1.4%	0%	1.3%	-	0.5%	1.0%	0%	0%	0.9%	-	1.3%	0.7%	0%	0%	0.7%	-	1.4%
Articulated Trucks	0	2	5	0	7	-	6	0	1	0	7	-	0	0	0	0	0	-	0	0	0	0	0	-	14
% Articulated Trucks	0%	0.2%	0.2%	0%	0.2%	-	0.3%	0%	0.7%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.2%
Buses	0	7	42	0	49	-	5	0	0	0	5	-	4	9	0	0	13	-	1	2	0	0	3	-	70
% Buses	0%	0.7%	1.9%	0%	1.5%	-	0.3%	0%	0%	0%	0.3%	-	2.0%	0.8%	0%	0%	1.0%	-	1.3%	0.4%	0%	0%	0.5%	-	1.0%
Bicycles on Road	0	1	8	0	9	-	2	2	0	0	4	-	0	0	0	0	0	-	0	2	0	0	2	-	15
% Bicycles on Road	0%	0.1%	0.4%	0%	0.3%	-	0.1%	66.7%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.3%	-	0.2%
Pedestrians	-	-	-	-	-	122	-	-	-	-	-	0	-	-	-	-	-	46	-	-	-	-	-	59	
% Pedestrians	-	-	-	-	-	98.4%	-	-	-	-	-	-	-	-	-	-	-	97.9%	-	-	-	-	-	98.3%	-
Bicycles on Crosswalk	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	1.6%	-	-	-	-	-	-	-	-	-	-	-	2.1%	-	-	-	-	-	1.7%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 8 Summer ST & Norman St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279729, Location: 42.520028, -70.898456

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

## [N] Summer Street

Total: 6086

In: 3222

Out: 2864

## [W] Chestnut Street

Total: 578

In: 574 Out: 4

## [E] Norman Street

In: 1908

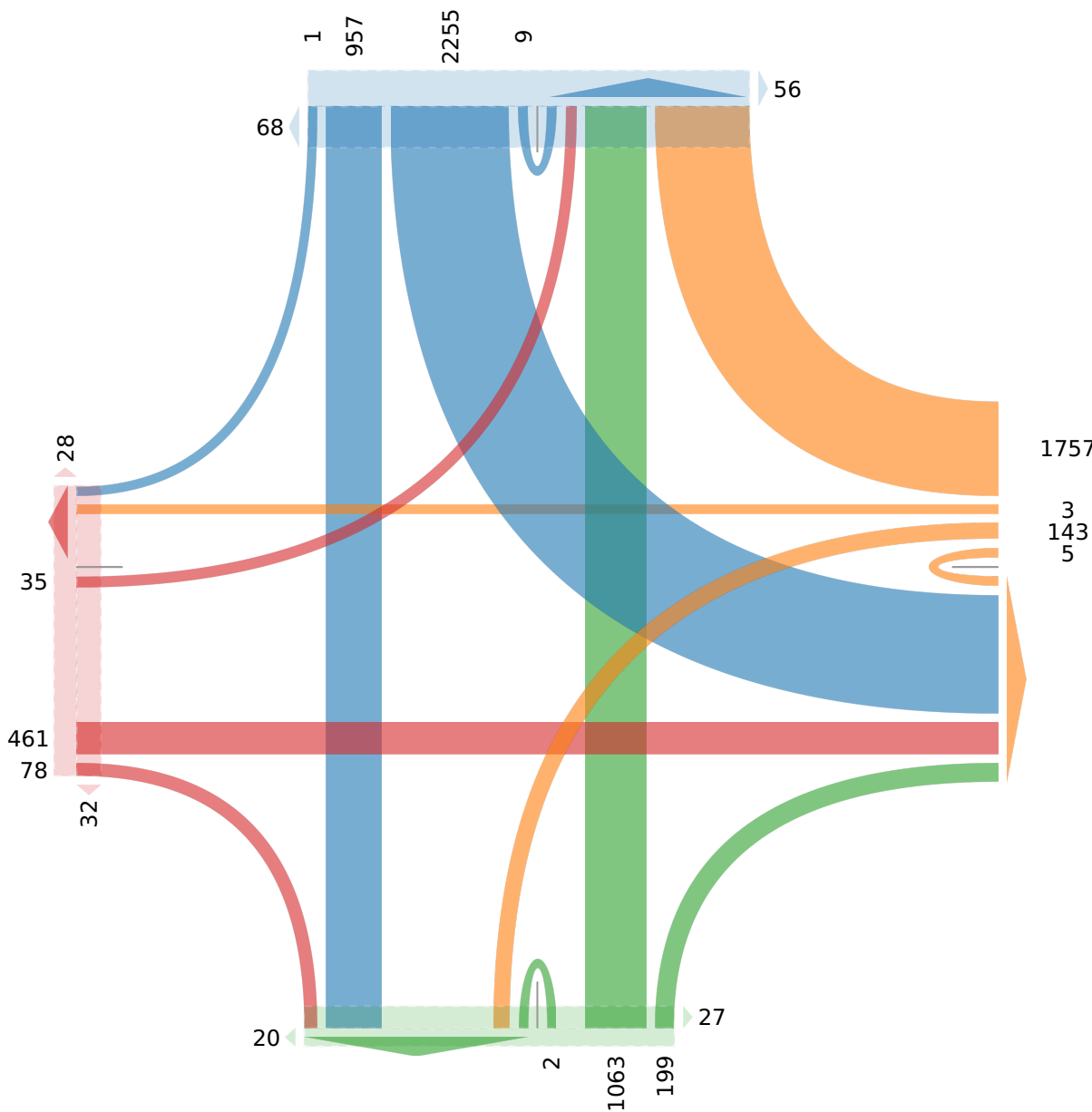
Total: 4828

Out: 2920

Out: 1180 In: 1264

Total: 2444

## [S] Summer Street



# 250511- 8 Summer ST & Norman St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279729, Location: 42.520028, -70.898456

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Summer Street Southbound						Norman Street Westbound						Summer Street Northbound						Chestnut Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:15AM	0	43	86	0	129	3	88	1	3	0	92	0	10	63	0	0	73	0	3	16	2	0	21	2	315
7:30AM	0	41	83	0	124	1	92	0	4	0	96	0	4	54	0	0	58	1	5	16	0	0	21	3	299
7:45AM	0	47	91	0	138	3	81	0	8	0	89	0	9	54	0	0	63	2	3	25	5	0	33	0	323
8:00AM	0	35	82	0	117	3	80	0	4	0	84	0	15	63	0	1	79	1	2	31	1	0	34	0	314
Total	0	166	342	0	508	10	341	1	19	0	361	0	38	234	0	1	273	4	13	88	8	0	109	5	1251
% Approach	0%	32.7%	67.3%	0%	-	-	94.5%	0.3%	5.3%	0%	-	-	13.9%	85.7%	0%	0.4%	-	-	11.9%	80.7%	7.3%	0%	-	-	-
% Total	0%	13.3%	27.3%	0%	40.6%	-	27.3%	0.1%	1.5%	0%	28.9%	-	3.0%	18.7%	0%	0.1%	21.8%	-	1.0%	7.0%	0.6%	0%	8.7%	-	-
PHF	-	0.883	0.944	-	0.923	-	0.927	0.250	0.594	-	0.940	-	0.633	0.929	-	0.250	0.864	-	0.650	0.702	0.400	-	0.794	-	0.969
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	2	0	0	2	-	0	1	0	0	1	-	3
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.9%	0%	0%	0.7%	-	0%	1.1%	0%	0%	0.9%	-	0.2%
Lights	0	163	321	0	484	-	336	1	18	0	355	-	38	225	0	1	264	-	13	85	8	0	106	-	1209
% Lights	0%	98.2%	93.9%	0%	95.3%	-	98.5%	100%	94.7%	0%	98.3%	-	100%	96.2%	0%	100%	96.7%	-	100%	96.6%	100%	0%	97.2%	-	96.6%
Single-Unit Trucks	0	2	14	0	16	-	4	0	1	0	5	-	0	5	0	0	5	-	0	0	0	0	0	-	26
% Single-Unit Trucks	0%	1.2%	4.1%	0%	3.1%	-	1.2%	0%	5.3%	0%	1.4%	-	0%	2.1%	0%	0%	1.8%	-	0%	0%	0%	0%	0%	-	2.1%
Articulated Trucks	0	1	2	0	3	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	3
% Articulated Trucks	0%	0.6%	0.6%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.2%
Buses	0	0	3	0	3	-	1	0	0	0	1	-	0	2	0	0	2	-	0	1	0	0	1	-	7
% Buses	0%	0%	0.9%	0%	0.6%	-	0.3%	0%	0%	0%	0.3%	-	0%	0.9%	0%	0%	0.7%	-	0%	1.1%	0%	0%	0.9%	-	0.6%
Bicycles on Road	0	0	2	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	3
% Bicycles on Road	0%	0%	0.6%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.1%	0%	0%	0.9%	-	0.2%
Pedestrians	-	-	-	-	-	10	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	5	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 8 Summer ST & Norman St TMC - TMC

Thu Mar 27, 2025

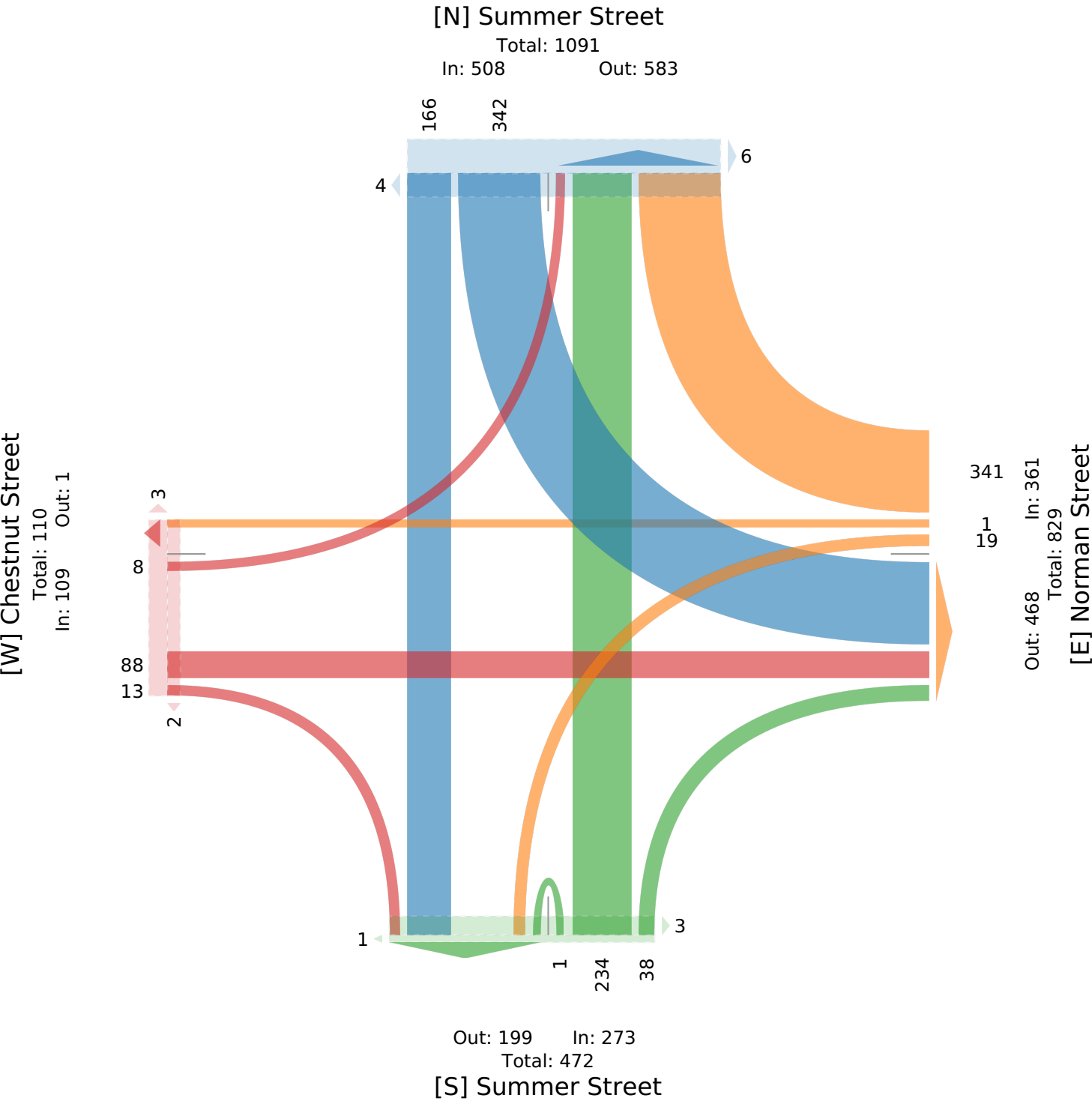
AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279729, Location: 42.520028, -70.898456

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



## 250511- 8 Summer ST & Norman St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279729, Location: 42.520028, -70.898456

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Summer Street Southbound						Norman Street Westbound						Summer Street Northbound						Chestnut Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 4:30PM	0	52	112	0	164	3	93	0	5	0	98	0	12	41	0	0	53	0	2	22	0	0	24	1	339
4:45PM	0	63	107	0	170	9	76	0	11	2	89	0	14	36	0	0	50	1	4	14	2	0	20	0	329
5:00PM	0	45	85	0	130	17	96	0	9	0	105	0	7	47	0	0	54	2	3	34	0	0	37	6	326
5:15PM	1	62	95	1	159	12	91	0	5	0	96	0	5	44	0	0	49	2	3	24	0	0	27	7	331
Total	1	222	399	1	623	41	356	0	30	2	388	0	38	168	0	0	206	5	12	94	2	0	108	14	1325
% Approach	0.2%	35.6%	64.0%	0.2%	-	-	91.8%	0%	7.7%	0.5%	-	-	18.4%	81.6%	0%	0%	-	-	11.1%	87.0%	1.9%	0%	-	-	-
% Total	0.1%	16.8%	30.1%	0.1%	47.0%	-	26.9%	0%	2.3%	0.2%	29.3%	-	2.9%	12.7%	0%	0%	15.5%	-	0.9%	7.1%	0.2%	0%	8.2%	-	-
PHF	0.250	0.881	0.886	0.250	0.913	-	0.927	-	0.682	0.250	0.924	-	0.679	0.894	-	-	0.954	-	0.750	0.691	0.250	-	0.730	-	0.976
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Lights	1	220	387	1	609	-	352	0	30	2	384	-	38	167	0	0	205	-	12	94	2	0	108	-	1306
% Lights	100%	99.1%	97.0%	100%	97.8%	-	98.9%	0%	100%	100%	99.0%	-	100%	99.4%	0%	0%	99.5%	-	100%	100%	100%	0%	100%	-	98.6%
Single-Unit Trucks	0	0	3	0	3	-	4	0	0	0	4	-	0	0	0	0	0	-	0	0	0	0	0	-	7
% Single-Unit Trucks	0%	0%	0.8%	0%	0.5%	-	1.1%	0%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.5%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	2	7	0	9	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	10
% Buses	0%	0.9%	1.8%	0%	1.4%	-	0%	0%	0%	0%	0%	-	0%	0.6%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0.8%
Bicycles on Road	0	0	2	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	2
% Bicycles on Road	0%	0%	0.5%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	-	40	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	14	
% Pedestrians	-	-	-	-	-	97.6%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	2.4%	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



250511- 8 Summer ST & Norman St TMC - TMC

Thu Mar 27, 2025

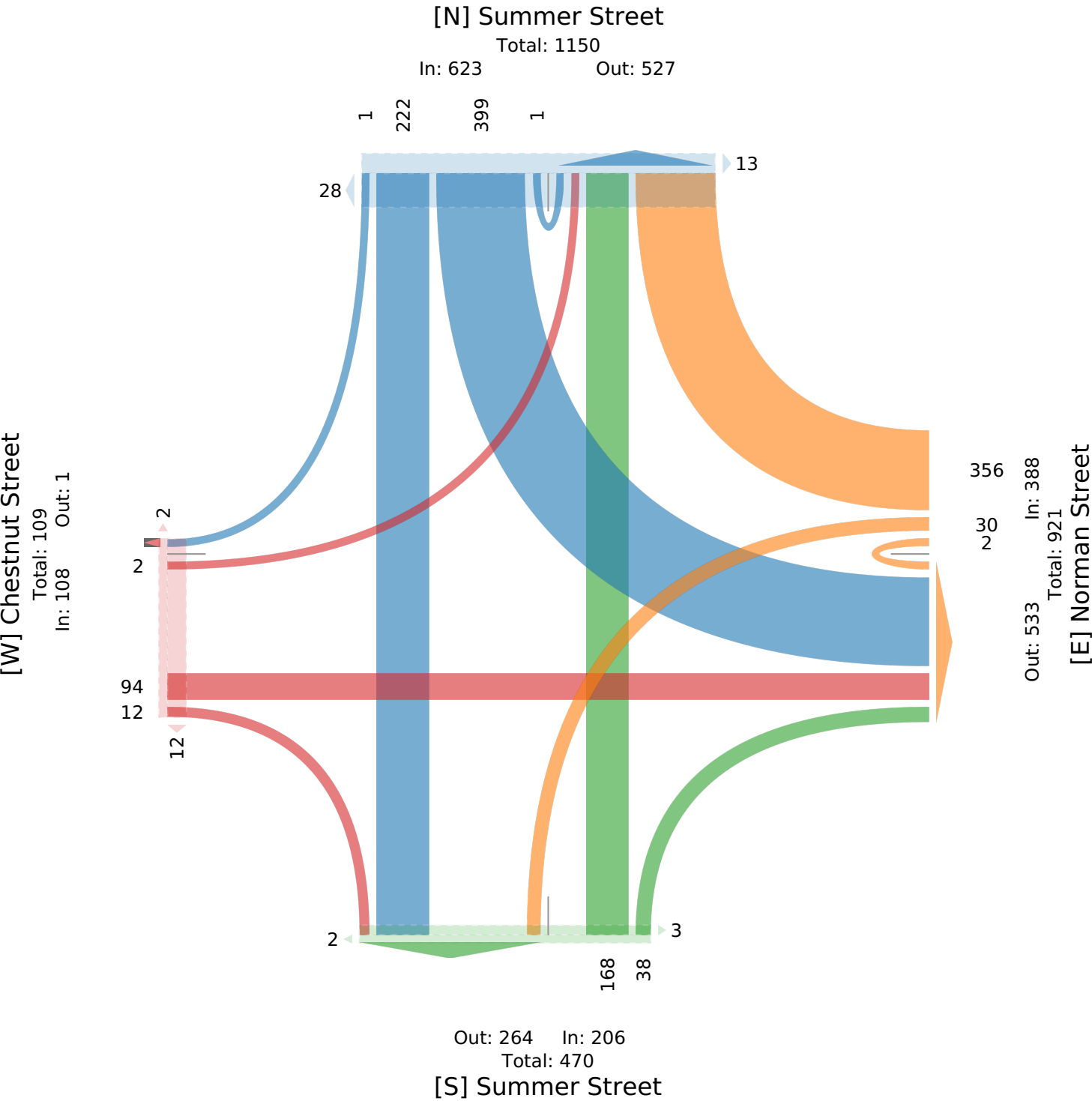
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279729, Location: 42.520028, -70.898456

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 9 Washington St & Norman/New Derby S... - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279733, Location: 42.519774, -70.895494

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Washington Street Southbound							New Derby Street Westbound							Washington Street Northbound							Norman Street Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*	Int	
2025-03-27 6:00AM	9	20	1	0	30	0		10	17	6	0	33	1		4	83	18	0	105	0		21	14	1	0	36	1	204	
6:15AM	16	25	3	0	44	0		12	13	5	0	30	3		10	92	32	0	134	2		29	17	1	0	47	2	255	
6:30AM	20	28	7	0	55	0		15	20	10	0	45	4		11	98	51	1	161	0		47	17	2	0	66	0	327	
6:45AM	23	48	4	0	75	1		9	32	13	0	54	5		20	151	60	0	231	2		52	26	5	0	83	2	443	
Hourly Total	68	121	15	0	204	1		46	82	34	0	162	13		45	424	161	1	631	4		149	74	9	0	232	5	1229	
7:00AM	14	33	11	0	58	7		18	33	18	0	69	6		26	119	34	0	179	4		49	36	12	0	97	1	403	
7:15AM	13	58	10	0	81	3		23	41	14	0	78	8		42	172	66	0	280	0		39	30	4	0	73	0	512	
7:30AM	25	39	20	0	84	3		22	64	19	0	105	5		39	144	61	0	244	1		49	51	7	0	107	3	540	
7:45AM	17	44	12	0	73	3		19	68	12	1	100	6		35	148	63	1	247	3		50	47	9	0	106	2	526	
Hourly Total	69	174	53	0	296	16		82	206	63	1	352	25		142	583	224	1	950	8		187	164	32	0	383	6	1981	
8:00AM	14	55	20	0	89	5		11	52	18	0	81	11		49	132	60	0	241	5		52	57	10	0	119	2	530	
8:15AM	12	56	16	0	84	0		24	53	15	0	92	11		40	131	48	0	219	4		35	74	5	0	114	3	509	
8:30AM	12	58	19	0	89	1		17	45	25	0	87	11		39	126	64	0	229	2		50	72	7	0	129	2	534	
8:45AM	13	49	9	0	71	3		13	57	25	0	95	9		42	106	47	0	195	3		70	40	5	0	115	2	476	
Hourly Total	51	218	64	0	333	9		65	207	83	0	355	42		170	495	219	0	884	14		207	243	27	0	477	9	2049	
3:00PM	29	55	16	0	100	15		9	66	16	0	91	26		31	133	53	1	218	8		61	43	4	0	108	1	517	
3:15PM	21	53	18	0	92	11		17	72	23	0	112	15		28	113	42	0	183	11		57	51	3	1	112	3	499	
3:30PM	27	64	15	0	106	7		15	28	16	0	59	6		33	138	52	0	223	8		46	59	12	0	117	7	505	
3:45PM	19	61	18	0	98	13		16	84	24	0	124	10		32	113	44	0	189	6		46	55	6	0	107	4	518	
Hourly Total	96	233	67	0	396	46		57	250	79	0	386	57		124	497	191	1	813	33		210	208	25	1	444	15	2039	
4:00PM	30	46	16	0	92	9		16	84	21	0	121	9		39	109	28	0	176	5		65	47	6	0	118	6	507	
4:15PM	13	59	14	0	86	4		20	62	20	0	102	9		43	93	44	0	180	15		56	57	6	0	119	10	487	
4:30PM	25	67	22	0	114	4		19	60	20	0	99	11		41	113	49	1	204	5		46	43	3	0	92	10	509	
4:45PM	21	57	21	0	99	11		16	87	16	1	120	12		37	98	50	0	185	5		54	68	8	0	130	2	534	
Hourly Total	89	229	73	0	391	28		71	293	77	1	442	41		160	413	171	1	745	30		221	215	23	0	459	28	2037	
5:00PM	17	81	12	0	110	4		10	81	22	0	113	14		42	118	43	0	203	1		45	50	9	0	104	11	530	
5:15PM	12	54	18	2	86	7		14	82	28	0	124	23		47	103	39	1	190	10		43	44	13	0	100	10	500	
5:30PM	17	61	23	2	103	3		14	61	23	0	98	17		34	120	55	0	209	5		69	54	7	0	130	6	540	
5:45PM	26	51	10	1	88	8		11	80	14	0	105	11		38	102	34	0	174	9		63	52	8	0	123	6	490	
Hourly Total	72	247	63	5	387	22		49	304	87	0	440	65		161	443	171	1	776	25		220	200	37	0	457	33	2060	
Total	445	1222	335	5	2007	122		370	1342	423	2	2137	243		802	2855	1137	5	4799	114		1194	1104	153	1	2452	96	11395	
% Approach	22.2%	60.9%	16.7%	0.2%	-	-		17.3%	62.8%	19.8%	0.1%	-	-		16.7%	59.5%	23.7%	0.1%	-	-		48.7%	45.0%	6.2%	0%	-	-	-	
% Total	3.9%	10.7%	2.9%	0%	17.6%	-		3.2%	11.8%	3.7%	0%	18.8%	-		7.0%	25.1%	10.0%	0%	42.1%	-		10.5%	9.7%	1.3%	0%	21.5%	-	-	
Motorcycles	0	1	1	0	2	-		2	1	1	0	4	-		2	2	1	0	5	-		2	2	0	0	4	-	15	
% Motorcycles	0%	0.1%	0.3%	0%	0.1%	-		0.5%	0.1%	0.2%	0%	0.2%	-		0.2%	0.1%	0.1%	0%	0.1%	-		0.2%	0.2%	0%	0%	0.2%	-	0.1%	
Lights	431	1191	315	5	1942	-		334	1306	415	2	2057	-		781	2774	1116	5	4676	-		1157	1054	142	1	2354	-	11029	
% Lights	96.9%	97.5%	94.0%	100%	96.8%	-		90.3%	97.3%	98.1%	100%	96.3%	-		97.4%	97.2%	98.2%	100%	97.4%	-		96.9%	95.5%	92.8%	100%	96.0%	-	96.8%	
Single-Unit Trucks	9	17	11	0	37	-		12	17	4	0	33	-		12	45	13	0	70	-		18	19	3	0	40	-	180	
% Single-Unit Trucks	2.0%	1.4%	3.3%	0%	1.8%	-		3.2%	1.3%	0.9%	0%	1.5%	-		1.5%	1.6%	1.1%	0%	1.5%	-		1.5%	1.7%	2.0%	0%	1.6%	-	1.6%	
Articulated Trucks	1	2	3	0	6	-		0	4	1	0	5	-		2	12	6	0	20	-		6	0	0	0	6	-	37	
% Articulated Trucks	0.2%	0.2%	0.9%	0%	0.3%	-		0%	0.3%	0.2%	0%	0.2%	-		0.2%	0.4%	0.5%	0%	0.4%	-		0.5%	0%	0%	0%	0.2%	-	0.3%	
Buses	3	4	1	0	8	-		17	12	1	0	30	-		5	13	1	0	19	-		8	27	8	0	43	-	100	
% Buses	0.7%	0.3%	0.3%	0%	0.4%	-		4.6%	0.9%	0.2%	0%	1.4%	-		0.6%	0.5%	0.1%	0%	0.4%	-		0.7%	2.4%	5.2%	0%	1.8%	-	0.9%	
Bicycles on Road	1	7	4	0	12	-		5	2	1	0	8	-		0	9	0	0	9	-		3	2	0	0	5	-	34	
% Bicycles on Road	0.2%	0.6%	1.2%	0%	0.6%	-		1.4%	0.1%	0.2%	0%	0.4%	-		0%	0.3%	0%	0%	0.2%	-		0.3%	0.2%	0%	0%	0.2%	-	0.3%	
Pedestrians	-	-	-	-	-	122		-	-	-	-	-	241		-	-	-	-	-	108		-	-	-	-	-	95		
% Pedestrians	-	-	-	-	-	100%		-	-	-	-	-	99.2%		-	-	-	-	-	94.7%		-	-	-	-	-	99.0%		
Bicycles on Crosswalk	-	-	-	-	-	0		-	-	-	-	-	2		-	-	-	-	-	6		-	-	-	-	-	1		
% Bicycles on Crosswalk	-	-	-	-	-	0%		-	-	-	-	-	0.8%		-	-	-	-	-	5.3%		-	-	-	-	-	1.0%		

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 9 Washington St & Norman/New Derby S... - TMC

Thu Mar 27, 2025

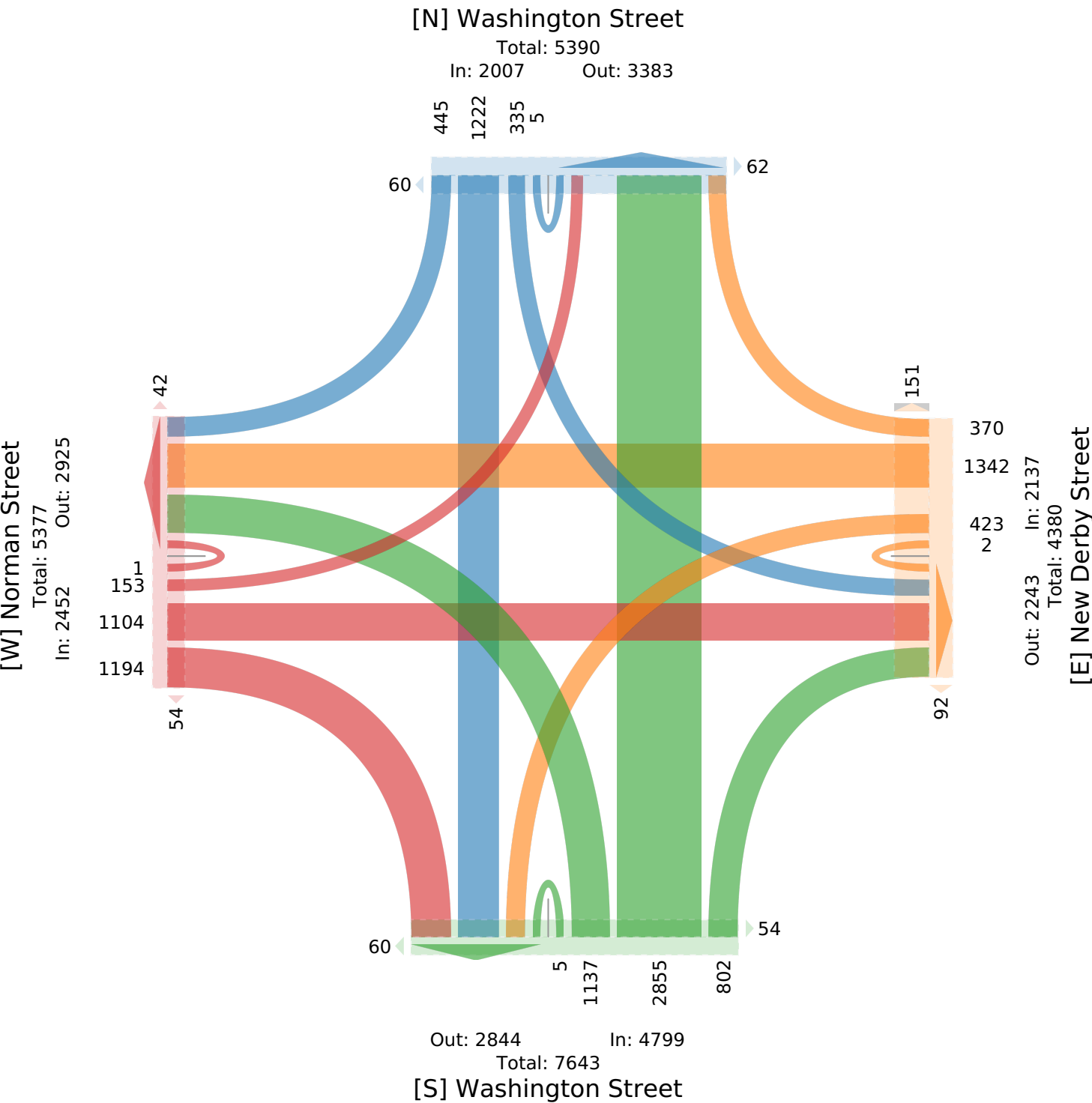
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279733, Location: 42.519774, -70.895494

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 9 Washington St & Norman/New Derby S... - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279733, Location: 42.519774, -70.895494

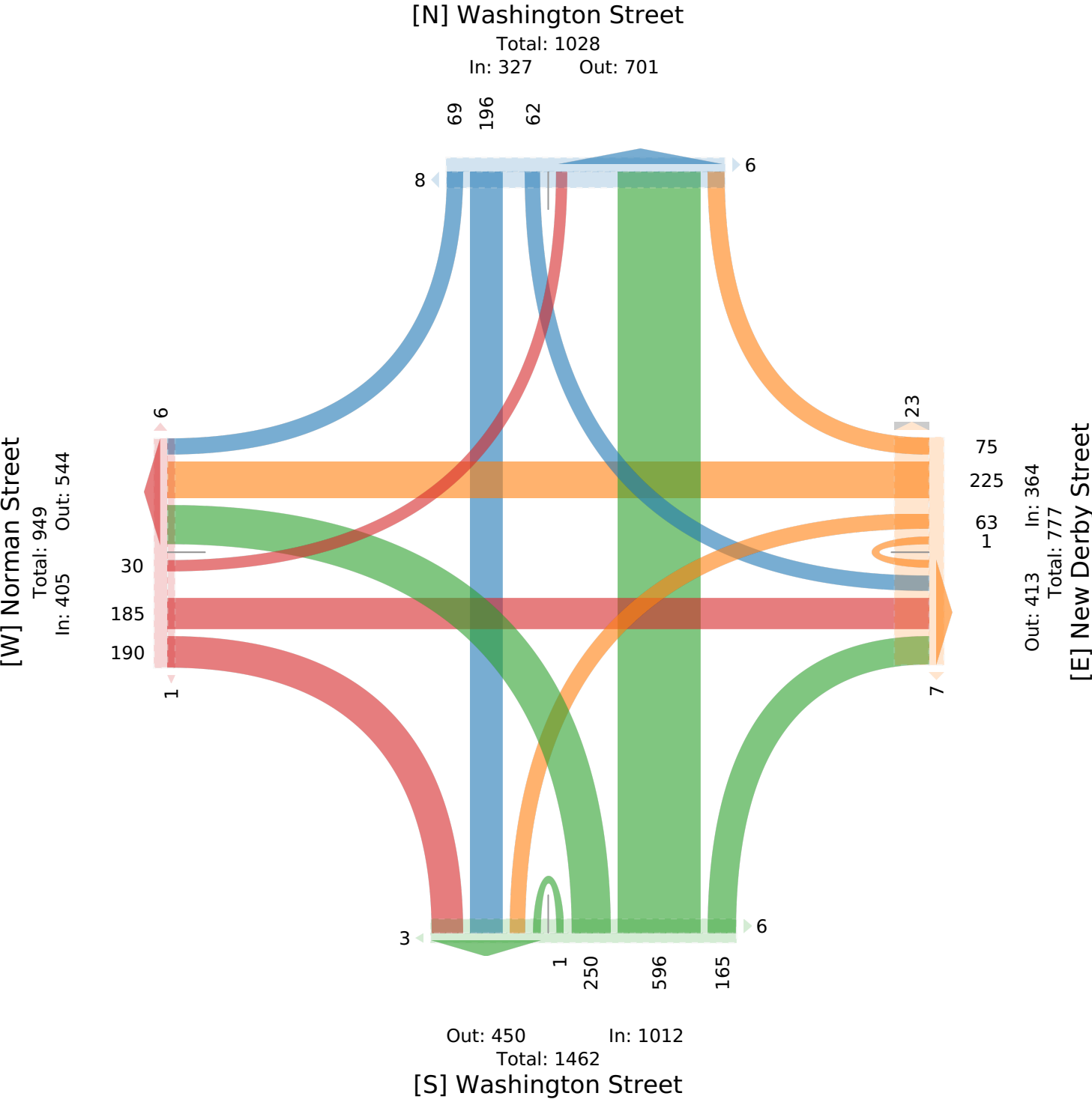
Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Washington Street Southbound						New Derby Street Westbound						Washington Street Northbound						Norman Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:15AM	13	58	10	0	81	3	23	41	14	0	78	8	42	172	66	0	280	0	39	30	4	0	73	0	512
7:30AM	25	39	20	0	84	3	22	64	19	0	105	5	39	144	61	0	244	1	49	51	7	0	107	3	540
7:45AM	17	44	12	0	73	3	19	68	12	1	100	6	35	148	63	1	247	3	50	47	9	0	106	2	526
8:00AM	14	55	20	0	89	5	11	52	18	0	81	11	49	132	60	0	241	5	52	57	10	0	119	2	530
Total	69	196	62	0	327	14	75	225	63	1	364	30	165	596	250	1	1012	9	190	185	30	0	405	7	2108
% Approach	21.1%	59.9%	19.0%	0%	-	-	20.6%	61.8%	17.3%	0.3%	-	-	16.3%	58.9%	24.7%	0.1%	-	-	46.9%	45.7%	7.4%	0%	-	-	-
% Total	3.3%	9.3%	2.9%	0%	15.5%	-	3.6%	10.7%	3.0%	0%	17.3%	-	7.8%	28.3%	11.9%	0%	48.0%	-	9.0%	8.8%	1.4%	0%	19.2%	-	-
PHF	0.690	0.841	0.763	-	0.923	-	0.815	0.824	0.829	0.250	0.864	-	0.842	0.863	0.947	0.250	0.902	-	0.904	0.807	0.750	-	0.845	-	0.974
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Lights	66	191	56	0	313	-	70	217	61	1	349	-	158	575	246	1	980	-	180	175	28	0	383	-	2025
% Lights	95.7%	97.4%	90.3%	0%	95.7%	-	93.3%	96.4%	96.8%	100%	95.9%	-	95.8%	96.5%	98.4%	100%	96.8%	-	94.7%	94.6%	93.3%	0%	94.6%	-	96.1%
Single-Unit Trucks	2	1	4	0	7	-	3	5	1	0	9	-	6	17	3	0	26	-	4	4	1	0	9	-	51
% Single-Unit Trucks	2.9%	0.5%	6.5%	0%	2.1%	-	4.0%	2.2%	1.6%	0%	2.5%	-	3.6%	2.9%	1.2%	0%	2.6%	-	2.1%	2.2%	3.3%	0%	2.2%	-	2.4%
Articulated Trucks	1	0	1	0	2	-	0	0	1	0	1	-	1	0	1	0	2	-	4	0	0	0	4	-	9
% Articulated Trucks	1.4%	0%	1.6%	0%	0.6%	-	0%	0%	1.6%	0%	0.3%	-	0.6%	0%	0.4%	0%	0.2%	-	2.1%	0%	0%	0%	1.0%	-	0.4%
Buses	0	3	0	0	3	-	2	2	0	0	4	-	0	2	0	0	2	-	0	5	1	0	6	-	15
% Buses	0%	1.5%	0%	0%	0.9%	-	2.7%	0.9%	0%	0%	1.1%	-	0%	0.3%	0%	0%	0.2%	-	0%	2.7%	3.3%	0%	1.5%	-	0.7%
Bicycles on Road	0	1	1	0	2	-	0	1	0	0	1	-	0	2	0	0	2	-	2	1	0	0	3	-	8
% Bicycles on Road	0%	0.5%	1.6%	0%	0.6%	-	0%	0.4%	0%	0%	0.3%	-	0%	0.3%	0%	0%	0.2%	-	1.1%	0.5%	0%	0%	0.7%	-	0.4%
Pedestrians	-	-	-	-	-	14	-	-	-	-	-	30	-	-	-	-	-	9	-	-	-	-	-	7	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 9 Washington St & Norman/New Derby S... - TMC  
Thu Mar 27, 2025  
AM Peak (7:15 AM - 8:15 AM) - Overall Peak Hour  
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)  
All Movements  
ID: 1279733, Location: 42.519774, -70.895494

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 9 Washington St & Norman/New Derby S... - TMC

Thu Mar 27, 2025

PM Peak (4:45 PM - 5:45 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279733, Location: 42.519774, -70.895494

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Washington Street Southbound							New Derby Street Westbound							Washington Street Northbound							Norman Street Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*	Int	
2025-03-27 4:45PM	21	57	21	0	99	11		16	87	16	1	120	12		37	98	50	0	185	5		54	68	8	0	130	2		534
5:00PM	17	81	12	0	110	4		10	81	22	0	113	14		42	118	43	0	203	1		45	50	9	0	104	11		530
5:15PM	12	54	18	2	86	7		14	82	28	0	124	23		47	103	39	1	190	10		43	44	13	0	100	10		500
5:30PM	17	61	23	2	103	3		14	61	23	0	98	17		34	120	55	0	209	5		69	54	7	0	130	6		540
<b>Total</b>	67	253	74	4	398	25		54	311	89	1	455	66		160	439	187	1	787	21		211	216	37	0	464	29		2104
<b>% Approach</b>	16.8%	63.6%	18.6%	1.0%	-	-		11.9%	68.4%	19.6%	0.2%	-	-		20.3%	55.8%	23.8%	0.1%	-	-		45.5%	46.6%	8.0%	0%	-	-		-
<b>% Total</b>	3.2%	12.0%	3.5%	0.2%	18.9%	-		2.6%	14.8%	4.2%	0%	21.6%	-		7.6%	20.9%	8.9%	0%	37.4%	-		10.0%	10.3%	1.8%	0%	22.1%	-		-
<b>PHF</b>	0.798	0.791	0.804	0.500	0.914	-		0.828	0.901	0.795	0.250	0.913	-		0.851	0.920	0.850	0.250	0.945	-		0.761	0.794	0.712	-	0.890	-		0.974
<b>Motorcycles</b>	0	0	0	0	0	-		1	1	1	0	3	-		1	1	0	0	2	-		0	0	0	0	0	-		5
<b>% Motorcycles</b>	0%	0%	0%	0%	0%	-		1.9%	0.3%	1.1%	0%	0.7%	-		0.6%	0.2%	0%	0%	0.3%	-		0%	0%	0%	0%	0%	-		0.2%
<b>Lights</b>	65	248	74	4	391	-		50	306	88	1	445	-		159	428	186	1	774	-		207	211	36	0	454	-		2064
<b>% Lights</b>	97.0%	98.0%	100%	100%	98.2%	-		92.6%	98.4%	98.9%	100%	97.8%	-		99.4%	97.5%	99.5%	100%	98.3%	-		98.1%	97.7%	97.3%	0%	97.8%	-		98.1%
<b>Single-Unit Trucks</b>	0	2	0	0	2	-		0	2	0	0	2	-		0	4	1	0	5	-		1	2	0	0	3	-		12
<b>% Single-Unit Trucks</b>	0%	0.8%	0%	0%	0.5%	-		0%	0.6%	0%	0%	0.4%	-		0%	0.9%	0.5%	0%	0.6%	-		0.5%	0.9%	0%	0%	0.6%	-		0.6%
<b>Articulated Trucks</b>	0	0	0	0	0	-		0	0	0	0	0	-		0	3	0	0	3	-		0	0	0	0	0	-		3
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0.7%	0%	0%	0.4%	-		0%	0%	0%	0%	0%	-		0.1%
<b>Buses</b>	2	0	0	0	2	-		2	1	0	0	3	-		0	2	0	0	2	-		2	3	1	0	6	-		13
<b>% Buses</b>	3.0%	0%	0%	0%	0.5%	-		3.7%	0.3%	0%	0%	0.7%	-		0%	0.5%	0%	0%	0.3%	-		0.9%	1.4%	2.7%	0%	1.3%	-		0.6%
<b>Bicycles on Road</b>	0	3	0	0	3	-		1	1	0	0	2	-		0	1	0	0	1	-		1	0	0	0	1	-		7
<b>% Bicycles on Road</b>	0%	1.2%	0%	0%	0.8%	-		1.9%	0.3%	0%	0%	0.4%	-		0%	0.2%	0%	0%	0.1%	-		0.5%	0%	0%	0%	0.2%	-		0.3%
<b>Pedestrians</b>	-	-	-	-	-	25		-	-	-	-	-	65		-	-	-	-	-	20		-	-	-	-	-	29		
<b>% Pedestrians</b>	-	-	-	-	-	100%		-	-	-	-	-	98.5%		-	-	-	-	-	95.2%		-	-	-	-	-	100%		-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0		-	-	-	-	-	1		-	-	-	-	-	1		-	-	-	-	-	0		
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%		-	-	-	-	-	1.5%		-	-	-	-	-	4.8%		-	-	-	-	-	0%		-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 9 Washington St & Norman/New Derby S... - TMC

Thu Mar 27, 2025

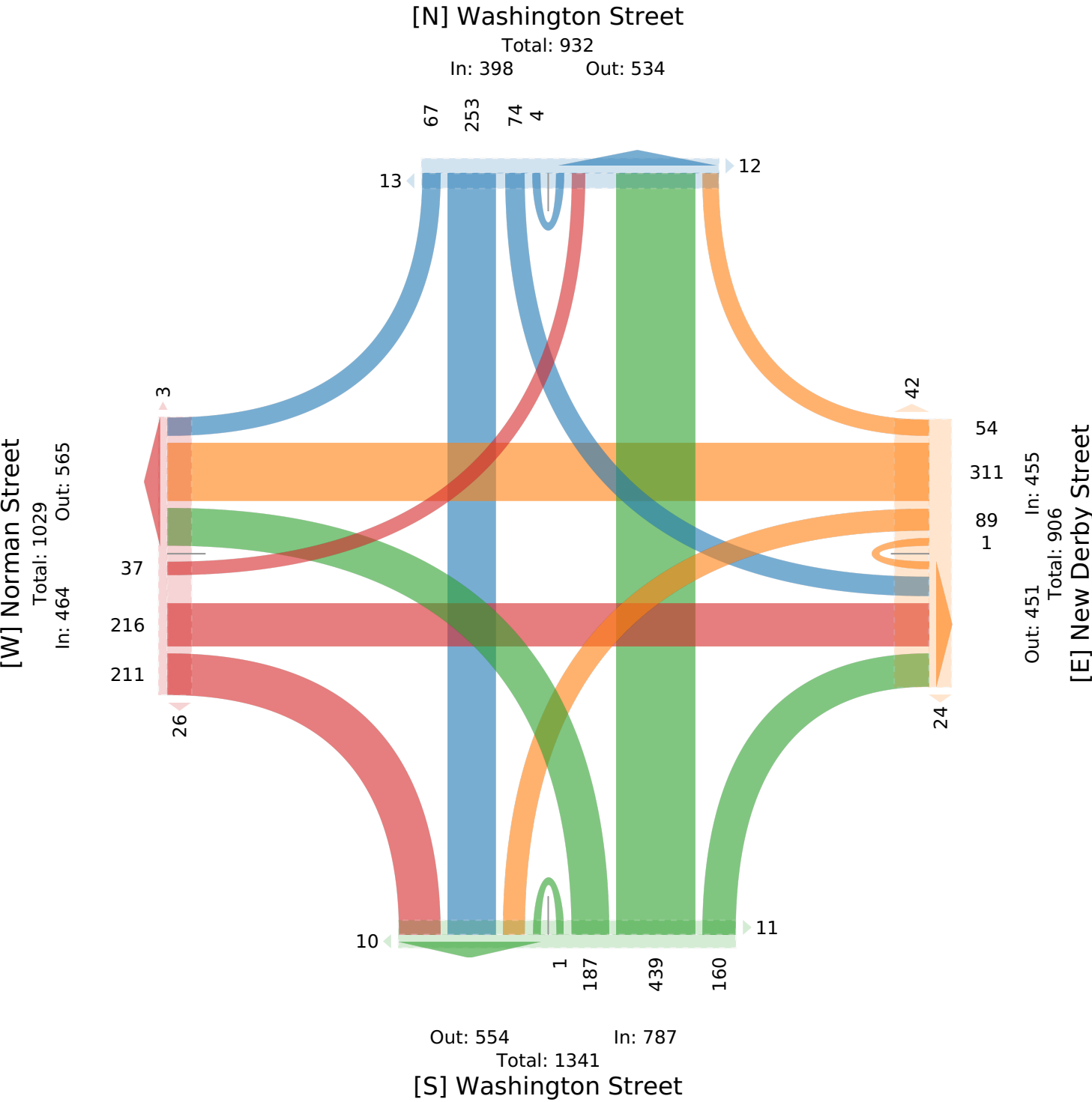
PM Peak (4:45 PM - 5:45 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279733, Location: 42.519774, -70.895494

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 10 Washington St & Canal/Mill St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279736, Location: 42.518106, -70.895215

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Washington Street Southbound						Washington Street (Route 114) Westbound						Canal Street Northbound						Mill Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	0	38	10	0	48	0	38	8	0	0	46	0	1	51	10	0	62	0	10	9	6	0	25	0	181
6:15AM	3	41	16	0	60	2	50	13	1	0	64	4	2	66	13	0	81	0	22	11	13	0	46	1	251
6:30AM	1	49	31	1	82	0	76	19	0	0	95	4	4	88	15	0	107	0	25	25	11	0	61	0	345
6:45AM	6	57	43	0	106	2	77	23	4	0	104	1	2	116	20	0	138	0	42	15	22	0	79	2	427
Hourly Total	10	185	100	1	296	4	241	63	5	0	309	9	9	321	58	0	388	0	99	60	52	0	211	3	1204
7:00AM	2	57	50	0	109	0	65	19	1	0	85	3	2	143	19	0	164	1	35	33	18	0	86	2	444
7:15AM	4	74	34	0	112	0	101	26	1	0	128	4	2	130	28	0	160	1	59	40	31	0	130	4	530
7:30AM	8	66	33	0	107	2	80	47	3	0	130	4	5	136	25	0	166	4	59	56	38	0	153	1	556
7:45AM	7	76	36	0	119	0	72	45	5	0	122	2	2	161	41	0	204	10	61	59	23	0	143	4	588
Hourly Total	21	273	153	0	447	2	318	137	10	0	465	13	11	570	113	0	694	16	214	188	110	0	512	11	2118
8:00AM	8	71	47	2	128	5	64	42	7	0	113	1	8	131	41	0	180	3	70	77	42	0	189	4	610
8:15AM	12	70	25	1	108	0	52	57	2	0	111	6	6	149	26	0	181	2	71	64	41	0	176	2	576
8:30AM	4	65	44	1	114	1	60	38	2	0	100	3	7	117	31	0	155	1	58	60	31	0	149	4	518
8:45AM	7	99	50	0	156	6	56	26	2	0	84	0	8	120	30	0	158	1	59	67	35	0	161	2	559
Hourly Total	31	305	166	4	506	12	232	163	13	0	408	10	29	517	128	0	674	7	258	268	149	0	675	12	2263
3:00PM	5	78	39	1	123	3	62	34	5	0	101	2	10	104	29	0	143	1	84	72	40	0	196	0	563
3:15PM	2	99	45	0	146	5	61	58	5	0	124	3	12	109	27	0	148	9	98	62	32	0	192	6	610
3:30PM	6	80	24	0	110	6	61	47	5	0	113	2	13	113	38	0	164	16	98	64	42	0	204	7	591
3:45PM	10	93	37	0	140	2	51	34	3	0	88	5	8	91	32	0	131	8	84	71	42	0	197	1	556
Hourly Total	23	350	145	1	519	16	235	173	18	0	426	12	43	417	126	0	586	34	364	269	156	0	789	14	2320
4:00PM	13	98	31	0	142	0	74	57	2	0	133	3	12	131	32	0	175	3	90	64	37	0	191	9	641
4:15PM	7	92	21	0	120	6	57	47	1	0	105	1	7	91	35	0	133	4	77	61	35	0	173	1	531
4:30PM	17	92	35	0	144	3	45	47	13	0	105	5	14	117	29	0	160	4	94	71	31	0	196	3	605
4:45PM	9	76	43	2	130	3	56	53	9	0	118	1	17	113	39	0	169	5	81	70	44	0	195	3	612
Hourly Total	46	358	130	2	536	12	232	204	25	0	461	10	50	452	135	0	637	16	342	266	147	0	755	16	2389
5:00PM	12	87	35	0	134	3	67	55	5	0	127	7	8	103	34	0	145	1	71	65	37	0	173	6	579
5:15PM	8	88	35	1	132	3	62	57	8	0	127	3	8	117	31	0	156	1	84	70	32	0	186	3	601
5:30PM	14	89	41	2	146	4	58	48	4	0	110	4	20	94	31	0	145	3	87	54	30	0	171	1	572
5:45PM	7	92	40	0	139	2	60	46	1	0	107	3	9	85	30	0	124	1	58	59	41	0	158	7	528
Hourly Total	41	356	151	3	551	12	247	206	18	0	471	17	45	399	126	0	570	6	300	248	140	0	688	17	2280
Total	172	1827	845	11	2855	58	1505	946	89	0	2540	71	187	2676	686	0	3549	79	1577	1299	754	0	3630	73	12574
% Approach	6.0%	64.0%	29.6%	0.4%	-	-	59.3%	37.2%	3.5%	0%	-	-	5.3%	75.4%	19.3%	0%	-	-	43.4%	35.8%	20.8%	0%	-	-	-
% Total	1.4%	14.5%	6.7%	0.1%	22.7%	-	12.0%	7.5%	0.7%	0%	20.2%	-	1.5%	21.3%	5.5%	0%	28.2%	-	12.5%	10.3%	6.0%	0%	28.9%	-	-
Motorcycles	1	3	2	0	6	-	1	1	0	0	2	-	0	3	1	0	4	-	2	2	3	0	7	-	19
% Motorcycles	0.6%	0.2%	0.2%	0%	0.2%	-	0.1%	0.1%	0%	0%	0.1%	-	0%	0.1%	0.1%	0%	0.1%	-	0.1%	0.2%	0.4%	0%	0.2%	-	0.2%
Lights	166	1790	807	11	2774	-	1468	913	89	0	2470	-	184	2613	671	0	3468	-	1552	1260	721	0	3533	-	12245
% Lights	96.5%	98.0%	95.5%	100%	97.2%	-	97.5%	96.5%	100%	0%	97.2%	-	98.4%	97.6%	97.8%	0%	97.7%	-	98.4%	97.0%	95.6%	0%	97.3%	-	97.4%
Single-Unit Trucks	3	19	25	0	47	-	25	11	0	0	36	-	1	42	8	0	51	-	13	13	15	0	41	-	175
% Single-Unit Trucks	1.7%	1.0%	3.0%	0%	1.6%	-	1.7%	1.2%	0%	0%	1.4%	-	0.5%	1.6%	1.2%	0%	1.4%	-	0.8%	1.0%	2.0%	0%	1.1%	-	1.4%
Articulated Trucks	1	3	3	0	7	-	4	0	0	0	4	-	0	7	0	0	7	-	2	6	6	0	14	-	32
% Articulated Trucks	0.6%	0.2%	0.4%	0%	0.2%	-	0.3%	0%	0%	0%	0.2%	-	0%	0.3%	0%	0%	0.2%	-	0.1%	0.5%	0.8%	0%	0.4%	-	0.3%
Buses	0	9	4	0	13	-	4	20	0	0	24	-	2	11	6	0	19	-	8	17	6	0	31	-	87
% Buses	0%	0.5%	0.5%	0%	0.5%	-	0.3%	2.1%	0%	0%	0.9%	-	1.1%	0.4%	0.9%	0%	0.5%	-	0.5%	1.3%	0.8%	0%	0.9%	-	0.7%
Bicycles on Road	1	3	4	0	8	-	3	1	0	0	4	-	0	0	0	0	0	-	0	1	3	0	4	-	16
% Bicycles on Road	0.6%	0.2%	0.5%	0%	0.3%	-	0.2%	0.1%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0.4%	0%	0.1%	-	0.1%
Pedestrians	-	-	-	-	-	51	-	-	-	-	-	70	-	-	-	-	-	74	-	-	-	-	-	65	
% Pedestrians	-	-	-	-	-	87.9%	-	-	-	-	-	98.6%	-	-	-	-	-	93.7%	-	-	-	-	-	89.0%	-
Bicycles on Crosswalk	-	-	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	8	
% Bicycles on Crosswalk	-	-	-	-	-	12.1%	-	-	-	-	-	1.4%	-	-	-	-	-	6.3%	-	-	-	-	-	11.0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



250511- 10 Washington St & Canal/Mill St TMC - TMC

Thu Mar 27, 2025

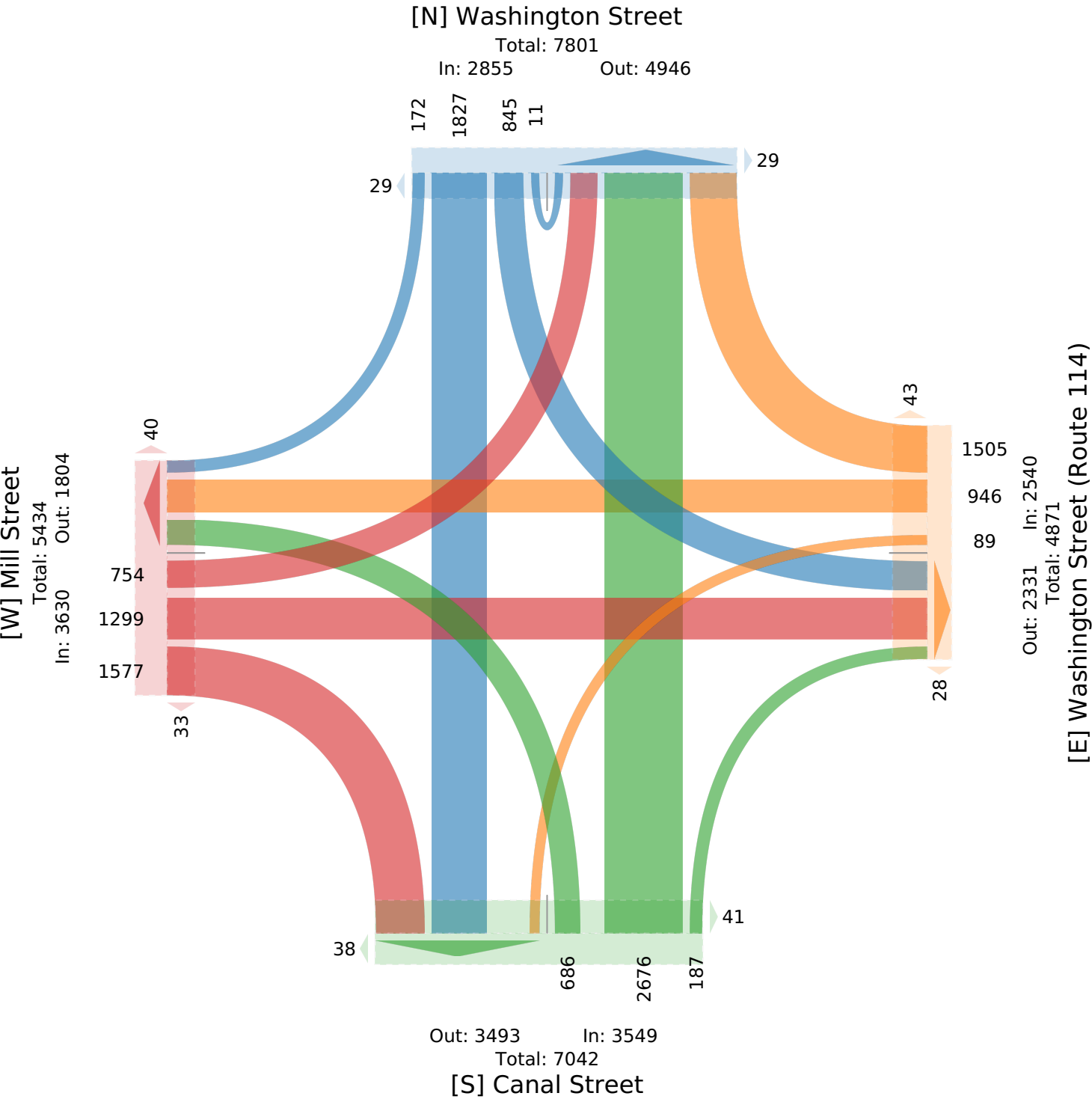
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279736, Location: 42.518106, -70.895215

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 10 Washington St & Canal/Mill St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:30 AM - 8:30 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279736, Location: 42.518106, -70.895215

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Washington Street Southbound							Washington Street (Route 114) Westbound							Canal Street Northbound							Mill Street Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		Int
2025-03-27 7:30AM	8	66	33	0	107	2		80	47	3	0	130	4		5	136	25	0	166	4		59	56	38	0	153	1		556
7:45AM	7	76	36	0	119	0		72	45	5	0	122	2		2	161	41	0	204	10		61	59	23	0	143	4		588
8:00AM	8	71	47	2	128	5		64	42	7	0	113	1		8	131	41	0	180	3		70	77	42	0	189	4		610
8:15AM	12	70	25	1	108	0		52	57	2	0	111	6		6	149	26	0	181	2		71	64	41	0	176	2		576
<b>Total</b>	35	283	141	3	462	7		268	191	17	0	476	13		21	577	133	0	731	19		261	256	144	0	661	11		2330
<b>% Approach</b>	7.6%	61.3%	30.5%	0.6%	-	-		56.3%	40.1%	3.6%	0%	-	-		2.9%	78.9%	18.2%	0%	-	-		39.5%	38.7%	21.8%	0%	-	-		-
<b>% Total</b>	1.5%	12.1%	6.1%	0.1%	19.8%	-		11.5%	8.2%	0.7%	0%	20.4%	-		0.9%	24.8%	5.7%	0%	31.4%	-		11.2%	11.0%	6.2%	0%	28.4%	-		-
<b>PHF</b>	0.729	0.928	0.750	0.375	0.900	-		0.845	0.833	0.607	-	0.926	-		0.656	0.896	0.811	-	0.896	-		0.919	0.831	0.857	-	0.874	-		0.954
<b>Motorcycles</b>	0	0	0	0	0	-		0	0	0	0	0	-		0	0	1	0	1	-		0	0	0	0	0	-		1
<b>% Motorcycles</b>	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0.8%	0%	0.1%	-		0%	0%	0%	0%	0%	-		0%
<b>Lights</b>	35	276	135	3	449	-		261	184	17	0	462	-		20	565	128	0	713	-		255	252	134	0	641	-		2265
<b>% Lights</b>	100%	97.5%	95.7%	100%	97.2%	-		97.4%	96.3%	100%	0%	97.1%	-		95.2%	97.9%	96.2%	0%	97.5%	-		97.7%	98.4%	93.1%	0%	97.0%	-		97.2%
<b>Single-Unit Trucks</b>	0	2	5	0	7	-		6	2	0	0	8	-		0	8	2	0	10	-		4	1	7	0	12	-		37
<b>% Single-Unit Trucks</b>	0%	0.7%	3.5%	0%	1.5%	-		2.2%	1.0%	0%	0%	1.7%	-		0%	1.4%	1.5%	0%	1.4%	-		1.5%	0.4%	4.9%	0%	1.8%	-		1.6%
<b>Articulated Trucks</b>	0	3	0	0	3	-		0	0	0	0	0	-		0	1	0	0	1	-		0	1	2	0	3	-		7
<b>% Articulated Trucks</b>	0%	1.1%	0%	0%	0.6%	-		0%	0%	0%	0%	0%	-		0%	0.2%	0%	0%	0.1%	-		0%	0.4%	1.4%	0%	0.5%	-		0.3%
<b>Buses</b>	0	1	1	0	2	-		0	4	0	0	4	-		1	3	2	0	6	-		2	2	1	0	5	-		17
<b>% Buses</b>	0%	0.4%	0.7%	0%	0.4%	-		0%	2.1%	0%	0%	0.8%	-		4.8%	0.5%	1.5%	0%	0.8%	-		0.8%	0.8%	0.7%	0%	0.8%	-		0.7%
<b>Bicycles on Road</b>	0	1	0	0	1	-		1	1	0	0	2	-		0	0	0	0	0	-		0	0	0	0	0	-		3
<b>% Bicycles on Road</b>	0%	0.4%	0%	0%	0.2%	-		0.4%	0.5%	0%	0%	0.4%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0.1%
<b>Pedestrians</b>	-	-	-	-	-	7		-	-	-	-	-	13		-	-	-	-	-	17		-	-	-	-	-	8		
<b>% Pedestrians</b>	-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	89.5%		-	-	-	-	-	72.7%		-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	2		-	-	-	-	-	3		
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	10.5%		-	-	-	-	-	27.3%		-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 10 Washington St & Canal/Mill St TMC - TMC

Thu Mar 27, 2025

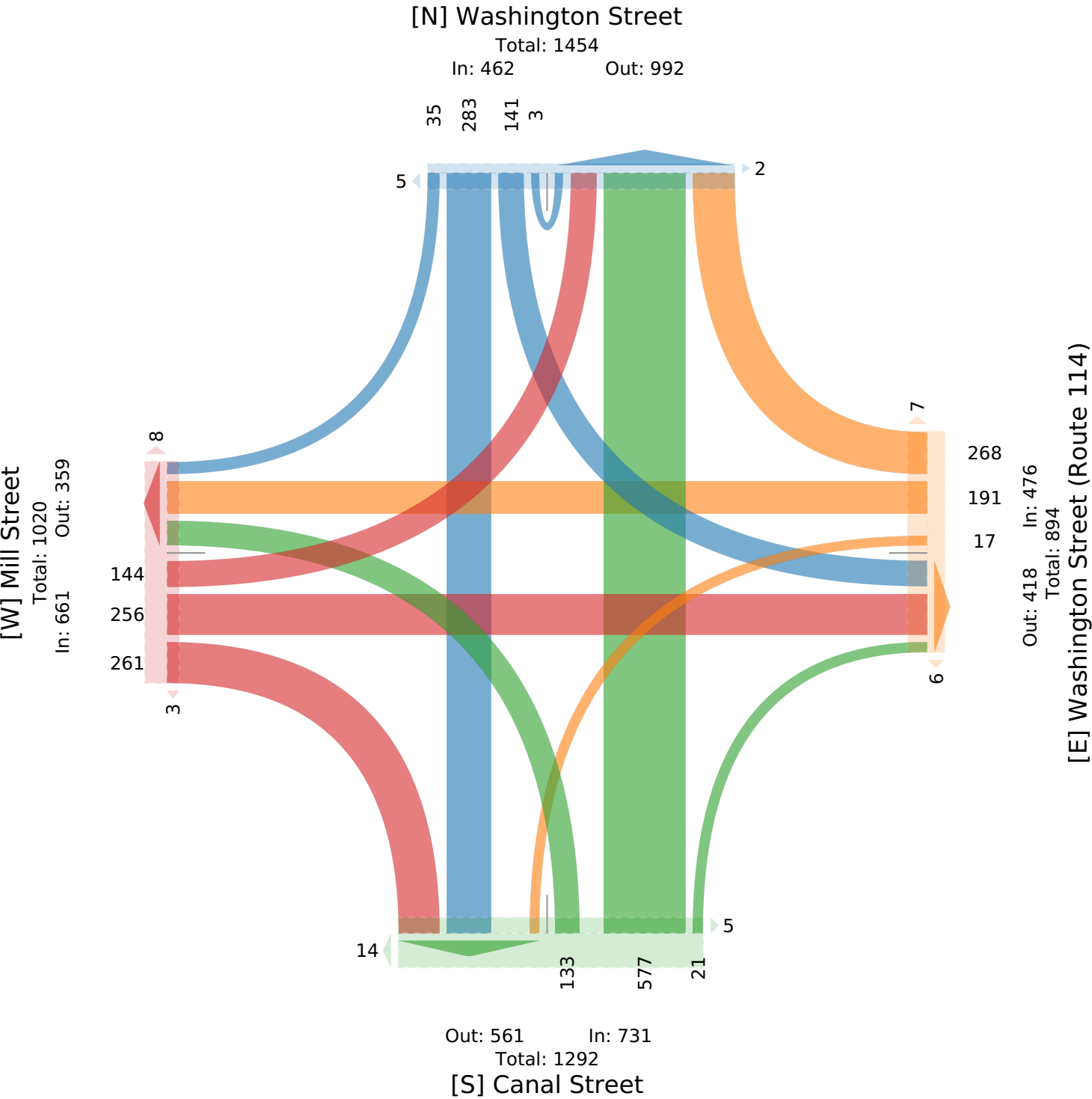
AM Peak (7:30 AM - 8:30 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279736, Location: 42.518106, -70.895215

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 10 Washington St & Canal/Mill St TMC - TMC

Thu Mar 27, 2025

PM Peak (3:15 PM - 4:15 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279736, Location: 42.518106, -70.895215

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Washington Street Southbound						Washington Street (Route 114) Westbound						Canal Street Northbound						Mill Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 3:15PM	2	99	45	0	146	5	61	58	5	0	124	3	12	109	27	0	148	9	98	62	32	0	192	6	610
3:30PM	6	80	24	0	110	6	61	47	5	0	113	2	13	113	38	0	164	16	98	64	42	0	204	7	591
3:45PM	10	93	37	0	140	2	51	34	3	0	88	5	8	91	32	0	131	8	84	71	42	0	197	1	556
4:00PM	13	98	31	0	142	0	74	57	2	0	133	3	12	131	32	0	175	3	90	64	37	0	191	9	641
<b>Total</b>	31	370	137	0	538	13	247	196	15	0	458	13	45	444	129	0	618	36	370	261	153	0	784	23	2398
<b>% Approach</b>	5.8%	68.8%	25.5%	0%	-	-	53.9%	42.8%	3.3%	0%	-	-	7.3%	71.8%	20.9%	0%	-	-	47.2%	33.3%	19.5%	0%	-	-	-
<b>% Total</b>	1.3%	15.4%	5.7%	0%	22.4%	-	10.3%	8.2%	0.6%	0%	19.1%	-	1.9%	18.5%	5.4%	0%	25.8%	-	15.4%	10.9%	6.4%	0%	32.7%	-	-
<b>PHF</b>	0.596	0.934	0.761	-	0.921	-	0.831	0.845	0.750	-	0.859	-	0.865	0.847	0.849	-	0.883	-	0.944	0.919	0.905	-	0.960	-	0.934
<b>Motorcycles</b>	1	0	1	0	2	-	0	0	0	0	0	-	0	2	0	0	2	-	0	2	1	0	3	-	7
<b>% Motorcycles</b>	3.2%	0%	0.7%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.3%	-	0%	0.8%	0.7%	0%	0.4%	-	0.3%
<b>Lights</b>	28	368	134	0	530	-	239	186	15	0	440	-	44	431	126	0	601	-	362	254	150	0	766	-	2337
<b>% Lights</b>	90.3%	99.5%	97.8%	0%	98.5%	-	96.8%	94.9%	100%	0%	96.1%	-	97.8%	97.1%	97.7%	0%	97.2%	-	97.8%	97.3%	98.0%	0%	97.7%	-	97.5%
<b>Single-Unit Trucks</b>	2	1	2	0	5	-	6	3	0	0	9	-	0	8	0	0	8	-	5	2	0	0	7	-	29
<b>% Single-Unit Trucks</b>	6.5%	0.3%	1.5%	0%	0.9%	-	2.4%	1.5%	0%	0%	2.0%	-	0%	1.8%	0%	0%	1.3%	-	1.4%	0.8%	0%	0%	0.9%	-	1.2%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1	0	0	0	1	-	1
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.3%	0%	0%	0%	0.1%	-	0%
<b>Buses</b>	0	1	0	0	1	-	1	7	0	0	8	-	1	3	3	0	7	-	2	3	1	0	6	-	22
<b>% Buses</b>	0%	0.3%	0%	0%	0.2%	-	0.4%	3.6%	0%	0%	1.7%	-	2.2%	0.7%	2.3%	0%	1.1%	-	0.5%	1.1%	0.7%	0%	0.8%	-	0.9%
<b>Bicycles on Road</b>	0	0	0	0	0	-	1	0	0	0	1	-	0	0	0	0	0	-	0	0	1	0	1	-	2
<b>% Bicycles on Road</b>	0%	0%	0%	0%	0%	-	0.4%	0%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0%	0.7%	0%	0.1%	-	0.1%
<b>Pedestrians</b>	-	-	-	-	-	9	-	-	-	-	-	13	-	-	-	-	-	35	-	-	-	-	-	21	
<b>% Pedestrians</b>	-	-	-	-	-	69.2%	-	-	-	-	-	100%	-	-	-	-	-	97.2%	-	-	-	-	-	91.3%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	30.8%	-	-	-	-	-	0%	-	-	-	-	-	2.8%	-	-	-	-	-	8.7%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 10 Washington St & Canal/Mill St TMC - TMC

Thu Mar 27, 2025

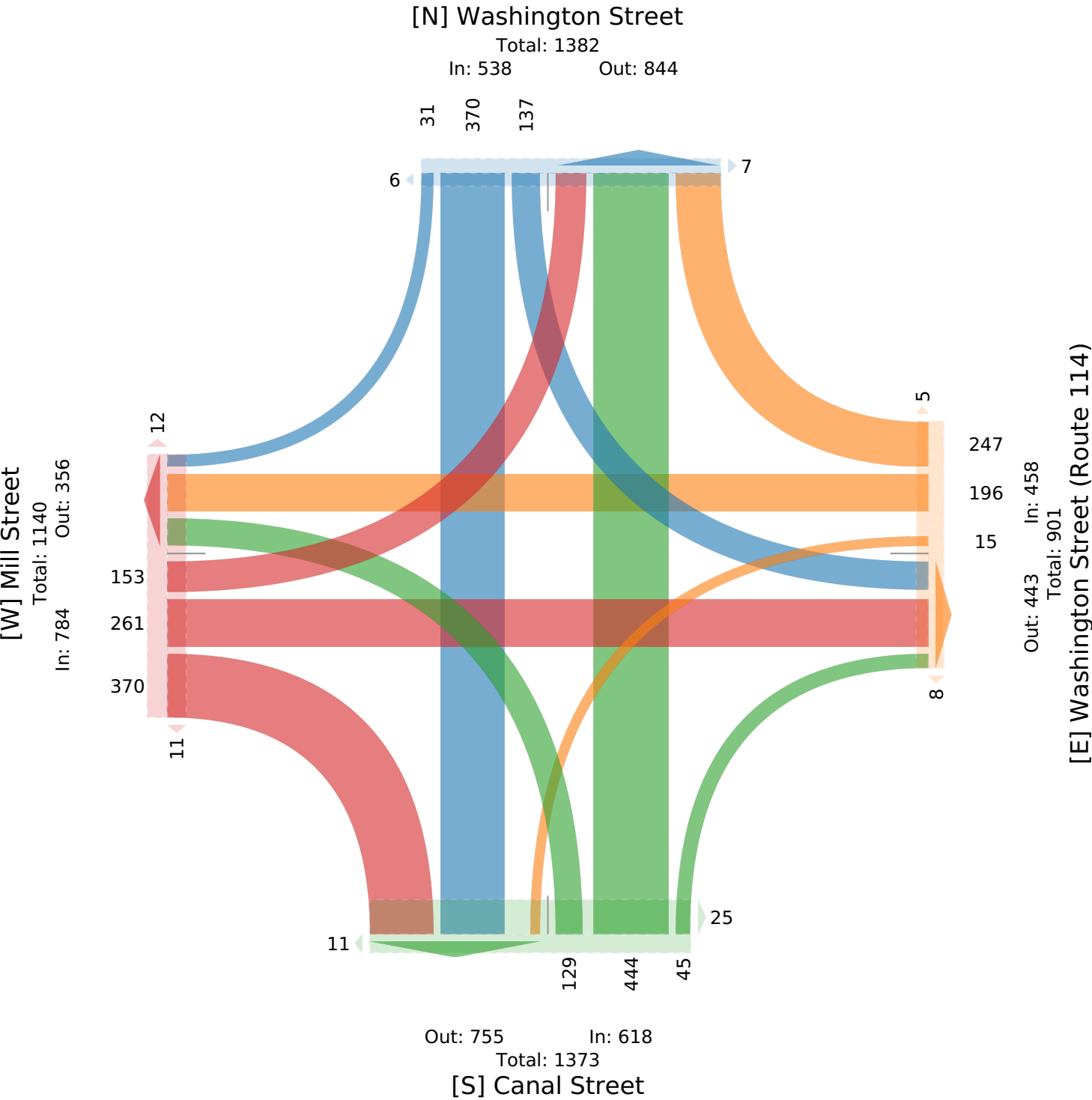
PM Peak (3:15 PM - 4:15 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279736, Location: 42.518106, -70.895215

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 11 Washington St @ Lafayette St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279740, Location: 42.516513, -70.89289

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street Southbound							Parking Lot Southwestbound							Dow Street Westbound						
Time	R	T	L	HL	U	App	Ped*	HR	BR	BL	HL	U	App	Ped*	HR	R	T	L	U	App	Ped*
2025-03-27 6:00AM	1	14	5	0	0	20	1	0	2	0	0	0	2	2	0	0	0	0	0	0	1
6:15AM	0	19	2	0	0	21	1	0	1	0	0	0	1	2	0	0	0	0	0	0	1
6:30AM	2	32	3	0	0	37	0	0	1	0	0	0	1	5	0	0	0	0	0	0	4
6:45AM	0	52	3	1	0	56	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
Hourly Total	3	117	13	1	0	134	2	0	5	0	0	0	5	9	0	0	0	0	0	0	8
7:00AM	2	51	3	0	1	57	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
7:15AM	1	68	1	0	0	70	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
7:30AM	1	66	0	1	0	68	2	1	1	1	0	0	3	3	0	0	0	0	0	0	3
7:45AM	1	68	4	0	0	73	5	0	1	1	1	0	3	8	0	0	0	0	0	0	10
Hourly Total	5	253	8	1	1	268	7	1	2	3	1	0	7	16	0	0	0	0	0	0	20
8:00AM	2	69	3	2	0	76	2	1	1	0	1	0	3	6	0	0	0	0	0	0	8
8:15AM	0	84	4	2	0	90	4	0	1	1	0	0	2	7	0	0	0	0	0	0	7
8:30AM	1	82	6	1	0	90	0	1	0	1	0	0	2	8	0	0	0	0	0	0	8
8:45AM	1	67	2	4	0	74	0	1	2	2	0	0	5	7	0	0	0	0	0	0	6
Hourly Total	4	302	15	9	0	330	6	3	4	4	1	0	12	28	0	0	0	0	0	0	29
3:00PM	0	105	7	5	0	117	8	1	0	2	1	0	4	9	0	0	0	0	0	0	9
3:15PM	2	86	6	2	2	98	7	3	1	1	0	0	5	25	0	0	0	0	0	0	26
3:30PM	0	97	11	2	0	110	4	1	2	2	0	0	5	22	0	1	0	0	0	1	21
3:45PM	2	96	7	6	0	111	5	2	0	1	1	0	4	6	0	0	0	0	0	0	8
Hourly Total	4	384	31	15	2	436	24	7	3	6	2	0	18	62	0	1	0	0	0	1	64
4:00PM	1	78	9	2	0	90	1	1	2	2	2	0	7	9	0	0	0	0	0	0	8
4:15PM	1	96	8	5	0	110	3	2	1	2	1	0	6	20	0	0	0	0	0	0	21
4:30PM	2	114	12	3	0	131	5	4	0	1	0	0	5	14	0	0	0	0	0	0	12
4:45PM	1	107	10	4	0	122	3	0	1	3	1	0	5	6	0	0	0	0	0	0	6
Hourly Total	5	395	39	14	0	453	12	7	4	8	4	0	23	49	0	0	0	0	0	0	47
5:00PM	2	106	11	11	0	130	3	2	0	2	1	0	5	8	0	0	0	0	0	0	5
5:15PM	1	107	9	10	0	127	8	4	0	1	0	0	5	21	0	0	0	0	0	0	19
5:30PM	3	99	10	1	0	113	3	1	1	3	0	0	5	6	0	0	0	0	0	0	6
5:45PM	0	109	5	5	0	119	1	1	0	2	1	0	4	14	0	0	0	0	0	0	16
Hourly Total	6	421	35	27	0	489	15	8	1	8	2	0	19	49	0	0	0	0	0	0	46
<b>Total</b>	27	1872	141	67	3	2110	66	26	19	29	10	0	84	213	0	1	0	0	0	1	214
<b>% Approach</b>	1.3%	88.7%	6.7%	3.2%	0.1%	-	-	31.0%	22.6%	34.5%	11.9%	0%	-	-	0%	100%	0%	0%	0%	-	-
<b>% Total</b>	0.4%	24.5%	1.8%	0.9%	0%	27.6%	-	0.3%	0.2%	0.4%	0.1%	0%	1.1%	-	0%	0%	0%	0%	0%	0%	-
<b>Motorcycles</b>	0	2	0	0	0	2	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Motorcycles</b>	0%	0.1%	0%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	-
<b>Lights</b>	25	1803	136	66	3	2033	-	26	19	29	9	0	83	-	0	0	0	0	0	0	-
<b>% Lights</b>	92.6%	96.3%	96.5%	98.5%	100%	96.4%	-	100%	100%	100%	90.0%	0%	98.8%	-	0%	0%	0%	0%	0%	0%	-
<b>Single-Unit Trucks</b>	0	29	2	1	0	32	-	0	0	0	1	0	1	-	0	0	0	0	0	0	-
<b>% Single-Unit Trucks</b>	0%	1.5%	1.4%	1.5%	0%	1.5%	-	0%	0%	0%	10.0%	0%	1.2%	-	0%	0%	0%	0%	0%	0%	-
<b>Articulated Trucks</b>	0	3	0	0	0	3	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Articulated Trucks</b>	0%	0.2%	0%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	-
<b>Buses</b>	1	31	3	0	0	35	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Buses</b>	3.7%	1.7%	2.1%	0%	0%	1.7%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	-
<b>Bicycles on Road</b>	1	4	0	0	0	5	-	0	0	0	0	0	0	-	0	1	0	0	0	1	-
<b>% Bicycles on Road</b>	3.7%	0.2%	0%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	0%	-	0%	100%	0%	0%	0%	100%	-
<b>Pedestrians</b>	-	-	-	-	-	-	63	-	-	-	-	-	-	210	-	-	-	-	-	-	213
<b>% Pedestrians</b>	-	-	-	-	-	-	95.5%	-	-	-	-	-	-	98.6%	-	-	-	-	-	-	99.5%
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	-	3	-	-	-	-	-	-	3	-	-	-	-	-	-	1
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	4.5%	-	-	-	-	-	-	1.4%	-	-	-	-	-	-	0.5%

\* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 11 Washington St @ Lafayette St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279740, Location: 42.516513, -70.89289

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A) Northbound							Washington Street (Route 114) Eastbound							
Time	R	BR	T	L	U	App	Ped*	R	T	BL	L	U	App	Ped*	Int
2025-03-27 6:00AM	1	0	9	44	0	54	1	15	2	0	0	0	17	0	93
6:15AM	4	0	23	57	0	84	1	17	2	0	0	0	19	1	125
6:30AM	2	0	36	86	0	124	0	46	1	0	0	0	47	0	209
6:45AM	2	0	41	82	0	125	0	67	0	0	0	0	67	1	249
Hourly Total	9	0	109	269	0	387	2	145	5	0	0	0	150	2	676
7:00AM	3	0	54	70	0	127	0	76	0	0	0	0	76	0	260
7:15AM	4	0	98	100	0	202	0	64	1	0	0	0	65	0	338
7:30AM	7	1	79	107	0	194	0	73	1	0	0	0	74	0	339
7:45AM	3	1	65	88	0	157	3	87	0	0	0	0	87	0	320
Hourly Total	17	2	296	365	0	680	3	300	2	0	0	0	302	0	1257
8:00AM	12	0	75	82	0	169	2	98	5	0	0	0	103	0	351
8:15AM	13	0	85	78	0	176	1	63	9	0	0	0	72	0	340
8:30AM	12	1	68	72	0	153	2	71	7	0	0	0	78	0	323
8:45AM	8	0	54	68	0	130	0	92	4	0	0	0	96	1	305
Hourly Total	45	1	282	300	0	628	5	324	25	0	0	0	349	1	1319
3:00PM	11	3	58	75	0	147	1	82	3	0	0	0	85	0	353
3:15PM	8	1	75	88	0	172	4	84	7	0	0	0	91	2	366
3:30PM	9	4	94	74	0	181	3	59	5	0	0	0	64	2	361
3:45PM	10	2	67	86	0	165	5	80	5	0	1	0	86	4	366
Hourly Total	38	10	294	323	0	665	13	305	20	0	1	0	326	8	1446
4:00PM	2	5	70	88	0	165	0	70	0	1	0	0	71	0	333
4:15PM	5	3	92	87	0	187	1	80	3	0	0	0	83	1	386
4:30PM	4	1	74	56	0	135	0	87	9	0	0	0	96	2	367
4:45PM	7	3	54	83	0	147	0	82	3	1	1	0	87	2	361
Hourly Total	18	12	290	314	0	634	1	319	15	2	1	0	337	5	1447
5:00PM	7	4	76	87	0	174	5	65	2	0	0	0	67	5	376
5:15PM	9	2	72	76	0	159	2	94	3	0	0	0	97	5	388
5:30PM	7	2	76	86	0	171	3	82	4	0	0	0	86	4	375
5:45PM	6	0	62	74	0	142	3	82	0	1	1	0	84	3	349
Hourly Total	29	8	286	323	0	646	13	323	9	1	1	0	334	17	1488
<b>Total</b>	156	33	1557	1894	0	3640	37	1716	76	3	3	0	1798	33	7633
<b>% Approach</b>	4.3%	0.9%	42.8%	52.0%	0%	-	-	95.4%	4.2%	0.2%	0.2%	0%	-	-	-
<b>% Total</b>	2.0%	0.4%	20.4%	24.8%	0%	47.7%	-	22.5%	1.0%	0%	0%	0%	23.6%	-	-
<b>Motorcycles</b>	0	0	2	1	0	3	-	3	0	0	0	0	3	-	8
<b>% Motorcycles</b>	0%	0%	0.1%	0.1%	0%	0.1%	-	0.2%	0%	0%	0%	0%	0.2%	-	0.1%
<b>Lights</b>	152	32	1487	1852	0	3523	-	1649	74	3	3	0	1729	-	7368
<b>% Lights</b>	97.4%	97.0%	95.5%	97.8%	0%	96.8%	-	96.1%	97.4%	100%	100%	0%	96.2%	-	96.5%
<b>Single-Unit Trucks</b>	1	1	23	28	0	53	-	32	1	0	0	0	33	-	119
<b>% Single-Unit Trucks</b>	0.6%	3.0%	1.5%	1.5%	0%	1.5%	-	1.9%	1.3%	0%	0%	0%	1.8%	-	1.6%
<b>Articulated Trucks</b>	0	0	8	3	0	11	-	9	0	0	0	0	9	-	23
<b>% Articulated Trucks</b>	0%	0%	0.5%	0.2%	0%	0.3%	-	0.5%	0%	0%	0%	0%	0.5%	-	0.3%
<b>Buses</b>	3	0	30	10	0	43	-	20	1	0	0	0	21	-	99
<b>% Buses</b>	1.9%	0%	1.9%	0.5%	0%	1.2%	-	1.2%	1.3%	0%	0%	0%	1.2%	-	1.3%
<b>Bicycles on Road</b>	0	0	7	0	0	7	-	3	0	0	0	0	3	-	16
<b>% Bicycles on Road</b>	0%	0%	0.4%	0%	0%	0.2%	-	0.2%	0%	0%	0%	0%	0.2%	-	0.2%
<b>Pedestrians</b>	-	-	-	-	-	-	37	-	-	-	-	-	-	32	-
<b>% Pedestrians</b>	-	-	-	-	-	-	100%	-	-	-	-	-	-	97.0%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	0%	-	-	-	-	-	-	3.0%	-

\* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 11 Washington St @ Lafayette St TMC - TMC

Thu Mar 27, 2025

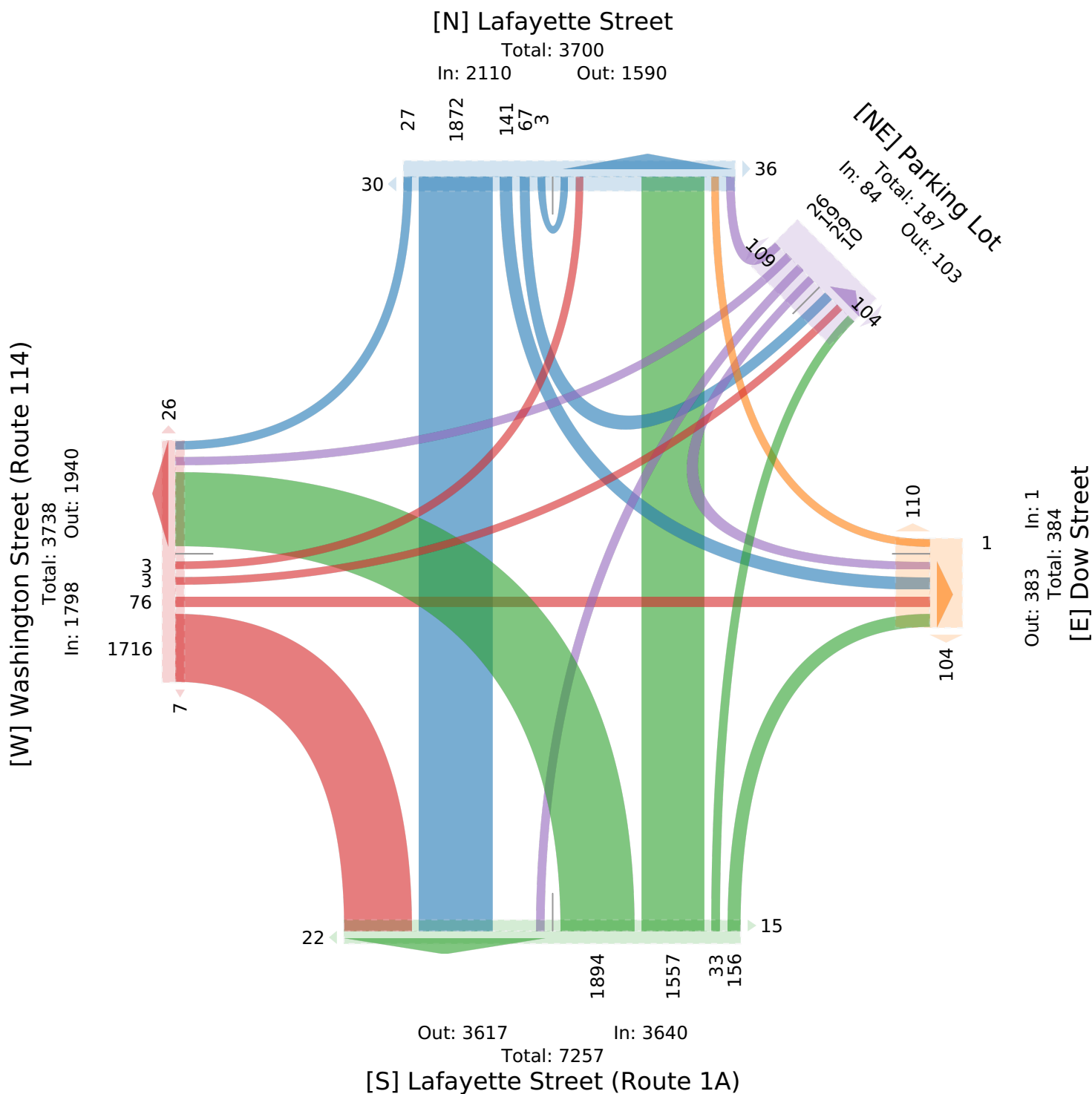
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279740, Location: 42.516513, -70.89289

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US





# 250511- 11 Washington St @ Lafayette St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:30 AM - 8:30 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279740, Location: 42.516513, -70.89289

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street Southbound							Parking Lot Southwestbound							Dow Street Westbound						
Time	R	T	L	HL	U	App	Ped*	HR	BR	BL	HL	U	App	Ped*	HR	R	T	L	U	App	Ped*
2025-03-27 7:30AM	1	66	0	1	0	68	2	1	1	1	0	0	3	3	0	0	0	0	0	0	3
7:45AM	1	68	4	0	0	73	5	0	1	1	1	0	3	8	0	0	0	0	0	0	10
8:00AM	2	69	3	2	0	76	2	1	1	0	1	0	3	6	0	0	0	0	0	0	8
8:15AM	0	84	4	2	0	90	4	0	1	1	0	0	2	7	0	0	0	0	0	0	7
<b>Total</b>	4	287	11	5	0	307	13	2	4	3	2	0	11	24	0	0	0	0	0	0	28
<b>% Approach</b>	1.3%	93.5%	3.6%	1.6%	0%	-	-	18.2%	36.4%	27.3%	18.2%	0%	-	-	0%	0%	0%	0%	0%	-	-
<b>% Total</b>	0.3%	21.3%	0.8%	0.4%	0%	22.7%	-	0.1%	0.3%	0.2%	0.1%	0%	0.8%	-	0%	0%	0%	0%	0%	0%	-
<b>PHF</b>	0.500	0.848	0.688	0.625	-	0.847	-	0.500	1.000	0.750	0.500	-	0.917	-	-	-	-	-	-	-	-
<b>Motorcycles</b>	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Motorcycles</b>	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-
<b>Lights</b>	4	270	9	5	0	288	-	2	4	3	2	0	11	-	0	0	0	0	0	0	-
<b>% Lights</b>	100%	94.1%	81.8%	100%	0%	93.8%	-	100%	100%	100%	100%	0%	100%	-	0%	0%	0%	0%	0%	-	-
<b>Single-Unit Trucks</b>	0	8	2	0	0	10	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Single-Unit Trucks</b>	0%	2.8%	18.2%	0%	0%	3.3%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-
<b>Articulated Trucks</b>	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-
<b>Buses</b>	0	7	0	0	0	7	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Buses</b>	0%	2.4%	0%	0%	0%	2.3%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-
<b>Bicycles on Road</b>	0	2	0	0	0	2	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Bicycles on Road</b>	0%	0.7%	0%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-
<b>Pedestrians</b>	-	-	-	-	-	-	11	-	-	-	-	-	-	22	-	-	-	-	-	-	27
<b>% Pedestrians</b>	-	-	-	-	-	-	84.6%	-	-	-	-	-	-	91.7%	-	-	-	-	-	-	96.4%
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	1
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	15.4%	-	-	-	-	-	-	8.3%	-	-	-	-	-	-	3.6%

\* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 11 Washington St @ Lafayette St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:30 AM - 8:30 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279740, Location: 42.516513, -70.89289

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A) Northbound							Washington Street (Route 114) Eastbound							
Time	R	BR	T	L	U	App	Ped*	R	T	BL	L	U	App	Ped*	Int
2025-03-27 7:30AM	7	1	79	107	0	194	0	73	1	0	0	0	74	0	339
7:45AM	3	1	65	88	0	157	3	87	0	0	0	0	87	0	320
8:00AM	12	0	75	82	0	169	2	98	5	0	0	0	103	0	351
8:15AM	13	0	85	78	0	176	1	63	9	0	0	0	72	0	340
<b>Total</b>	35	2	304	355	0	696	6	321	15	0	0	0	336	0	1350
<b>% Approach</b>	5.0%	0.3%	43.7%	51.0%	0%	-	-	95.5%	4.5%	0%	0%	0%	-	-	-
<b>% Total</b>	2.6%	0.1%	22.5%	26.3%	0%	51.6%	-	23.8%	1.1%	0%	0%	0%	24.9%	-	-
<b>PHF</b>	0.673	0.500	0.891	0.829	-	0.900	-	0.819	0.417	-	-	-	0.816	-	0.962
<b>Motorcycles</b>	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0
<b>% Motorcycles</b>	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	-	0%
<b>Lights</b>	32	2	290	347	0	671	-	309	15	0	0	0	324	-	1294
<b>% Lights</b>	91.4%	100%	95.4%	97.7%	0%	96.4%	-	96.3%	100%	0%	0%	0%	96.4%	-	95.9%
<b>Single-Unit Trucks</b>	1	0	5	7	0	13	-	5	0	0	0	0	5	-	28
<b>% Single-Unit Trucks</b>	2.9%	0%	1.6%	2.0%	0%	1.9%	-	1.6%	0%	0%	0%	0%	1.5%	-	2.1%
<b>Articulated Trucks</b>	0	0	1	0	0	1	-	1	0	0	0	0	1	-	2
<b>% Articulated Trucks</b>	0%	0%	0.3%	0%	0%	0.1%	-	0.3%	0%	0%	0%	0%	0.3%	-	0.1%
<b>Buses</b>	2	0	7	1	0	10	-	6	0	0	0	0	6	-	23
<b>% Buses</b>	5.7%	0%	2.3%	0.3%	0%	1.4%	-	1.9%	0%	0%	0%	0%	1.8%	-	1.7%
<b>Bicycles on Road</b>	0	0	1	0	0	1	-	0	0	0	0	0	0	-	3
<b>% Bicycles on Road</b>	0%	0%	0.3%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	-	-	6	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn



# 250511- 11 Washington St @ Lafayette St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279740, Location: 42.516513, -70.89289

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street Southbound							Parking Lot Southwestbound							Dow Street Westbound						
Time	R	T	L	HL	U	App	Ped*	HR	BR	BL	HL	U	App	Ped*	HR	R	T	L	U	App	Ped*
2025-03-27 4:45PM	1	107	10	4	0	122	3	0	1	3	1	0	5	6	0	0	0	0	0	0	6
5:00PM	2	106	11	11	0	130	3	2	0	2	1	0	5	8	0	0	0	0	0	0	5
5:15PM	1	107	9	10	0	127	8	4	0	1	0	0	5	21	0	0	0	0	0	0	19
5:30PM	3	99	10	1	0	113	3	1	1	3	0	0	5	6	0	0	0	0	0	0	6
<b>Total</b>	7	419	40	26	0	492	17	7	2	9	2	0	20	41	0	0	0	0	0	0	36
<b>% Approach</b>	1.4%	85.2%	8.1%	5.3%	0%	-	-	35.0%	10.0%	45.0%	10.0%	0%	-	-	0%	0%	0%	0%	0%	-	-
<b>% Total</b>	0.5%	27.9%	2.7%	1.7%	0%	32.8%	-	0.5%	0.1%	0.6%	0.1%	0%	1.3%	-	0%	0%	0%	0%	0%	0%	-
<b>PHF</b>	0.500	0.977	0.909	0.591	-	0.950	-	0.438	0.500	0.750	0.500	-	1.000	-	-	-	-	-	-	-	-
<b>Motorcycles</b>	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Motorcycles</b>	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-
<b>Lights</b>	6	414	40	26	0	486	-	7	2	9	1	0	19	-	0	0	0	0	0	0	-
<b>% Lights</b>	85.7%	98.8%	100%	100%	0%	98.8%	-	100%	100%	100%	50.0%	0%	95.0%	-	0%	0%	0%	0%	0%	-	-
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	-	0	0	0	1	0	1	-	0	0	0	0	0	0	-
<b>% Single-Unit Trucks</b>	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	50.0%	0%	5.0%	-	0%	0%	0%	0%	0%	-	-
<b>Articulated Trucks</b>	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-
<b>Buses</b>	0	4	0	0	0	4	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Buses</b>	0%	1.0%	0%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-
<b>Bicycles on Road</b>	1	1	0	0	0	2	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-
<b>% Bicycles on Road</b>	14.3%	0.2%	0%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-
Pedestrians	-	-	-	-	-	-	17	-	-	-	-	-	-	41	-	-	-	-	-	-	36
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	100%	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	0%	-	-	-	-	-	-	0%

\* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 11 Washington St @ Lafayette St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279740, Location: 42.516513, -70.89289

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A) Northbound							Washington Street (Route 114) Eastbound							
Time	R	BR	T	L	U	App	Ped*	R	T	BL	L	U	App	Ped*	Int
2025-03-27 4:45PM	7	3	54	83	0	147	0	82	3	1	1	0	87	2	361
5:00PM	7	4	76	87	0	174	5	65	2	0	0	0	67	5	376
5:15PM	9	2	72	76	0	159	2	94	3	0	0	0	97	5	388
5:30PM	7	2	76	86	0	171	3	82	4	0	0	0	86	4	375
<b>Total</b>	30	11	278	332	0	651	10	323	12	1	1	0	337	16	1500
<b>% Approach</b>	4.6%	1.7%	42.7%	51.0%	0%	-	-	95.8%	3.6%	0.3%	0.3%	0%	-	-	-
<b>% Total</b>	2.0%	0.7%	18.5%	22.1%	0%	43.4%	-	21.5%	0.8%	0.1%	0.1%	0%	22.5%	-	-
<b>PHF</b>	0.833	0.688	0.914	0.954	-	0.935	-	0.854	0.750	0.250	0.250	-	0.863	-	0.964
<b>Motorcycles</b>	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0
<b>% Motorcycles</b>	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	0%	-	0%
<b>Lights</b>	29	10	273	323	0	635	-	317	12	1	1	0	331	-	1471
<b>% Lights</b>	96.7%	90.9%	98.2%	97.3%	0%	97.5%	-	98.1%	100%	100%	100%	0%	98.2%	-	98.1%
<b>Single-Unit Trucks</b>	0	1	0	7	0	8	-	2	0	0	0	0	2	-	11
<b>% Single-Unit Trucks</b>	0%	9.1%	0%	2.1%	0%	1.2%	-	0.6%	0%	0%	0%	0%	0.6%	-	0.7%
<b>Articulated Trucks</b>	0	0	1	1	0	2	-	0	0	0	0	0	0	-	2
<b>% Articulated Trucks</b>	0%	0%	0.4%	0.3%	0%	0.3%	-	0%	0%	0%	0%	0%	0%	-	0.1%
<b>Buses</b>	1	0	4	1	0	6	-	2	0	0	0	0	2	-	12
<b>% Buses</b>	3.3%	0%	1.4%	0.3%	0%	0.9%	-	0.6%	0%	0%	0%	0%	0.6%	-	0.8%
<b>Bicycles on Road</b>	0	0	0	0	0	0	-	2	0	0	0	0	2	-	4
<b>% Bicycles on Road</b>	0%	0%	0%	0%	0%	0%	-	0.6%	0%	0%	0%	0%	0.6%	-	0.3%
<b>Pedestrians</b>	-	-	-	-	-	-	10	-	-	-	-	-	-	16	-
<b>% Pedestrians</b>	-	-	-	-	-	-	100%	-	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	0%	-	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 11 Washington St @ Lafayette St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279740, Location: 42.516513, -70.89289

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

## [N] Lafayette Street

Total: 778

In: 492 Out: 286

[NE] Parking Lot  
In: 20 Total: 58 Out: 38

## [W] Washington Street (Route 114)

Total: 678

In: 337 Out: 341

Out: 84 In: 0

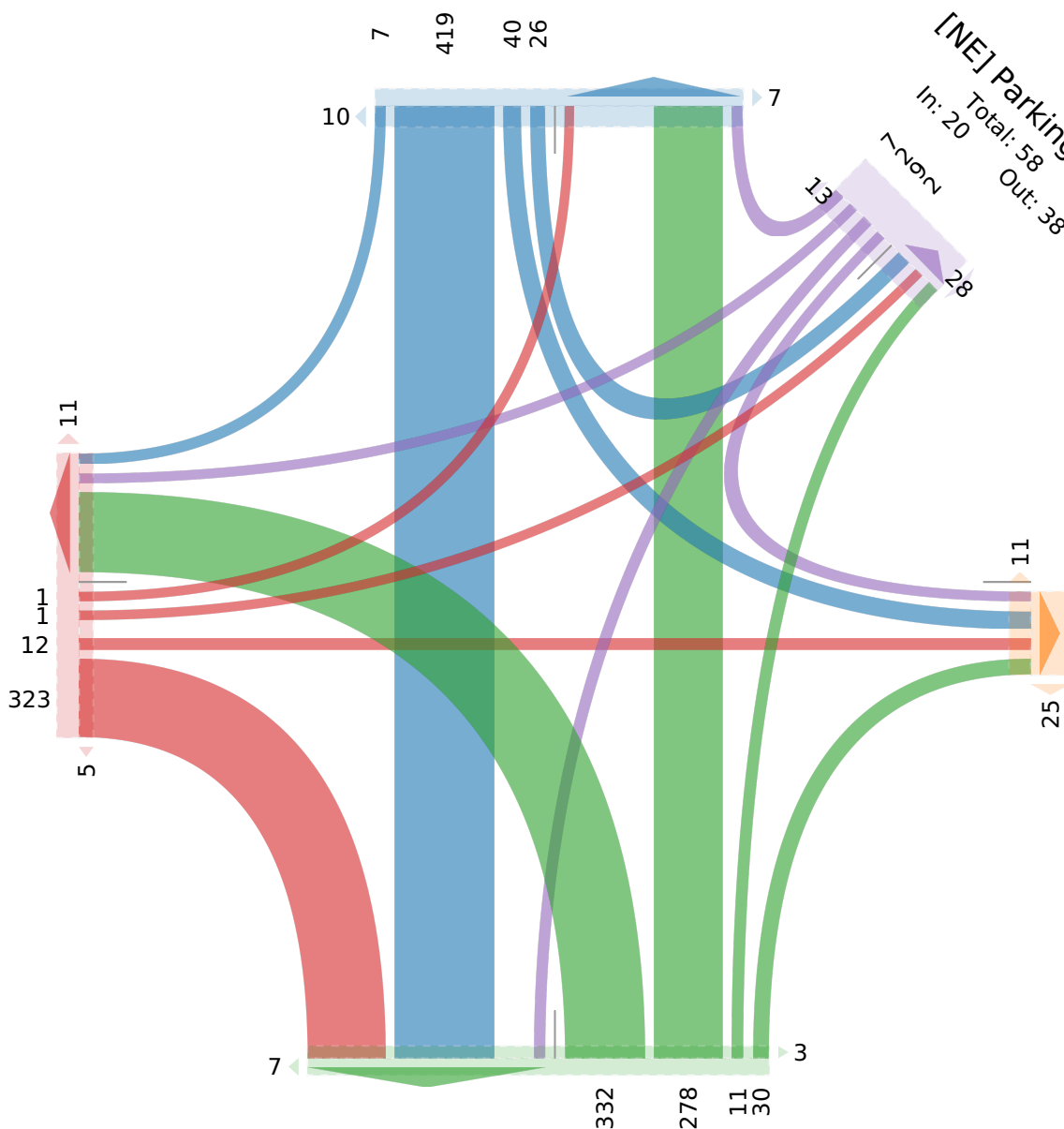
Total: 84

## [E] Dow Street

## [S] Lafayette Street (Route 1A)

Out: 751 In: 651

Total: 1402



# 250511- 12 Lafayette St @ Palmer St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279741, Location: 42.51547, -70.89267

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Palmer Street Westbound						Lafayette Street (Route 1A/114) Northbound						Parking Lot Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	1	27	0	0	28	1	5	0	8	0	13	1	0	47	0	0	47	1	0	0	0	0	0	2	88
6:15AM	1	34	0	0	35	1	9	0	7	0	16	2	0	74	0	0	74	0	1	0	0	0	1	4	126
6:30AM	0	76	0	0	76	0	11	0	19	0	30	4	0	112	1	0	113	0	0	0	0	0	0	4	219
6:45AM	0	115	0	0	115	2	10	0	17	0	27	1	0	113	0	0	113	0	1	0	0	0	1	3	256
Hourly Total	2	252	0	0	254	4	35	0	51	0	86	8	0	346	1	0	347	1	2	0	0	0	2	13	689
7:00AM	1	122	0	0	123	1	10	0	14	0	24	3	0	123	0	0	123	1	0	0	0	0	0	3	270
7:15AM	0	132	0	0	132	2	20	0	8	0	28	0	0	190	0	0	190	0	1	0	0	0	1	3	351
7:30AM	0	142	0	0	142	0	24	0	17	0	41	3	0	177	0	0	177	0	0	0	1	0	1	5	361
7:45AM	1	147	0	0	148	0	21	0	24	0	45	7	0	147	1	0	148	0	3	0	0	0	3	7	344
Hourly Total	2	543	0	0	545	3	75	0	63	0	138	13	0	637	1	0	638	1	4	0	1	0	5	18	1326
8:00AM	1	165	0	0	166	1	21	0	23	0	44	5	0	148	0	0	148	0	0	0	0	0	0	2	358
8:15AM	1	139	0	1	141	5	20	0	29	0	49	4	0	151	1	0	152	1	2	0	0	0	2	13	344
8:30AM	3	151	0	0	154	3	15	0	40	0	55	5	0	139	0	0	139	0	3	0	0	0	3	10	351
8:45AM	1	157	0	0	158	1	14	0	30	0	44	6	0	119	0	0	119	0	1	0	1	0	2	3	323
Hourly Total	6	612	0	1	619	10	70	0	122	0	192	20	0	557	1	0	558	1	6	0	1	0	7	28	1376
3:00PM	2	176	0	0	178	0	18	0	27	0	45	5	0	139	0	0	139	0	2	0	0	0	2	9	364
3:15PM	1	166	0	0	167	4	14	1	25	0	40	19	0	152	1	0	153	0	2	0	1	0	3	15	363
3:30PM	2	154	1	0	157	6	19	0	36	0	55	11	0	160	1	0	161	0	0	0	1	0	1	16	374
3:45PM	1	167	0	0	168	2	27	0	44	0	71	7	0	145	0	0	145	0	1	0	1	0	2	13	386
Hourly Total	6	663	1	0	670	12	78	1	132	0	211	42	0	596	2	0	598	0	5	0	3	0	8	53	1487
4:00PM	3	149	0	0	152	2	30	0	53	0	83	3	0	128	1	0	129	2	0	0	2	0	2	11	366
4:15PM	0	175	0	0	175	2	23	0	40	0	63	4	0	170	0	0	170	2	0	0	1	0	1	4	409
4:30PM	3	193	1	0	197	4	19	0	42	0	61	1	0	119	2	0	121	0	3	0	0	0	3	13	382
4:45PM	3	191	0	0	194	4	27	0	39	0	66	5	0	133	0	0	133	0	2	0	0	0	2	9	395
Hourly Total	9	708	1	0	718	12	99	0	174	0	273	13	0	550	3	0	553	4	5	0	3	0	8	37	1552
5:00PM	2	170	0	0	172	2	19	0	39	0	58	5	0	160	0	0	160	0	4	0	0	0	4	5	394
5:15PM	1	192	0	0	193	3	20	0	29	0	49	8	0	138	2	0	140	1	5	0	0	0	5	15	387
5:30PM	2	178	0	0	180	2	18	0	31	0	49	5	0	153	0	0	153	1	2	0	0	0	2	6	384
5:45PM	3	186	0	0	189	3	22	1	23	0	46	12	0	119	0	0	119	0	2	0	2	0	4	16	358
Hourly Total	8	726	0	0	734	10	79	1	122	0	202	30	0	570	2	0	572	2	13	0	2	0	15	42	1523
Total	33	3504	2	1	3540	51	436	2	664	0	1102	126	0	3256	10	0	3266	9	35	0	10	0	45	191	7953
% Approach	0.9%	99.0%	0.1%	0%	-	-	39.6%	0.2%	60.3%	0%	-	-	0%	99.7%	0.3%	0%	-	-	77.8%	0%	22.2%	0%	-	-	-
% Total	0.4%	44.1%	0%	0%	44.5%	-	5.5%	0%	8.3%	0%	13.9%	-	0%	40.9%	0.1%	0%	41.1%	-	0.4%	0%	0.1%	0%	0.6%	-	-
Motorcycles	0	4	0	0	4	-	2	0	1	0	3	-	0	1	0	0	1	-	0	0	0	0	0	-	8
% Motorcycles	0%	0.1%	0%	0%	0.1%	-	0.5%	0%	0.2%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Lights	33	3368	2	1	3404	-	421	2	638	0	1061	-	0	3156	10	0	3166	-	35	0	10	0	45	-	7676
% Lights	100%	96.1%	100%	100%	96.2%	-	96.6%	100%	96.1%	0%	96.3%	-	0%	96.9%	100%	0%	96.9%	-	100%	0%	100%	0%	100%	-	96.5%
Single-Unit Trucks	0	62	0	0	62	-	4	0	7	0	11	-	0	49	0	0	49	-	0	0	0	0	0	-	122
% Single-Unit Trucks	0%	1.8%	0%	0%	1.8%	-	0.9%	0%	1.1%	0%	1.0%	-	0%	1.5%	0%	0%	1.5%	-	0%	0%	0%	0%	0%	-	1.5%
Articulated Trucks	0	12	0	0	12	-	0	0	0	0	0	-	0	9	0	0	9	-	0	0	0	0	0	-	21
% Articulated Trucks	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.3%
Buses	0	48	0	0	48	-	8	0	18	0	26	-	0	33	0	0	33	-	0	0	0	0	0	-	107
% Buses	0%	1.4%	0%	0%	1.4%	-	1.8%	0%	2.7%	0%	2.4%	-	0%	1.0%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	1.3%
Bicycles on Road	0	10	0	0	10	-	1	0	0	0	1	-	0	8	0	0	8	-	0	0	0	0	0	-	19
% Bicycles on Road	0%	0.3%	0%	0%	0.3%	-	0.2%	0%	0%	0%	0.1%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	-	51	-	-	-	-	-	125	-	-	-	-	-	9	-	-	-	-	-	189	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	99.2%	-	-	-	-	-	100%	-	-	-	-	-	99.0%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0.8%	-	-	-	-	-	0%	-	-	-	-	-	1.0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 12 Lafayette St @ Palmer St TMC - TMC

Thu Mar 27, 2025

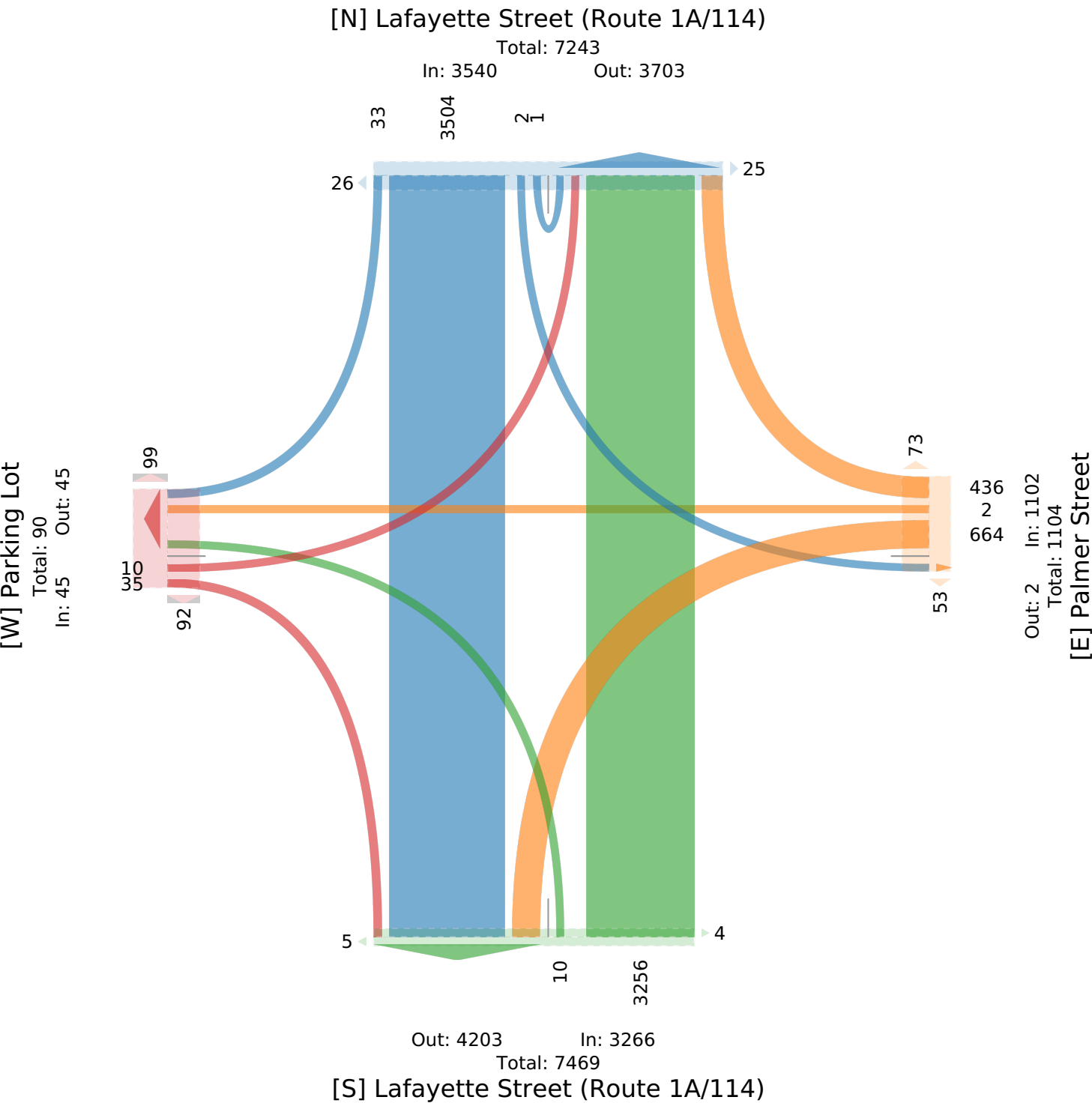
Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279741, Location: 42.51547, -70.89267

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US





# 250511- 12 Lafayette St @ Palmer St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279741, Location: 42.51547, -70.89267

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Palmer Street Westbound						Lafayette Street (Route 1A/114) Northbound						Parking Lot Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:15AM	0	132	0	0	132	2	20	0	8	0	28	0	0	190	0	0	190	0	1	0	0	0	1	3	351
7:30AM	0	142	0	0	142	0	24	0	17	0	41	3	0	177	0	0	177	0	0	0	1	0	1	5	361
7:45AM	1	147	0	0	148	0	21	0	24	0	45	7	0	147	1	0	148	0	3	0	0	0	3	7	344
8:00AM	1	165	0	0	166	1	21	0	23	0	44	5	0	148	0	0	148	0	0	0	0	0	0	2	358
Total	2	586	0	0	588	3	86	0	72	0	158	15	0	662	1	0	663	0	4	0	1	0	5	17	1414
% Approach	0.3%	99.7%	0%	0%	-	-	54.4%	0%	45.6%	0%	-	-	0%	99.8%	0.2%	0%	-	-	80.0%	0%	20.0%	0%	-	-	-
% Total	0.1%	41.4%	0%	0%	41.6%	-	6.1%	0%	5.1%	0%	11.2%	-	0%	46.8%	0.1%	0%	46.9%	-	0.3%	0%	0.1%	0%	0.4%	-	-
PHF	0.500	0.889	-	-	0.886	-	0.896	-	0.750	-	0.878	-	-	0.870	0.250	-	0.871	-	0.333	-	0.250	-	0.417	-	0.979
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Lights	2	555	0	0	557	-	84	0	67	0	151	-	0	636	1	0	637	-	4	0	1	0	5	-	1350
% Lights	100%	94.7%	0%	0%	94.7%	-	97.7%	0%	93.1%	0%	95.6%	-	0%	96.1%	100%	0%	96.1%	-	100%	0%	100%	0%	100%	-	95.5%
Single-Unit Trucks	0	16	0	0	16	-	1	0	1	0	2	-	0	15	0	0	15	-	0	0	0	0	0	-	33
% Single-Unit Trucks	0%	2.7%	0%	0%	2.7%	-	1.2%	0%	1.4%	0%	1.3%	-	0%	2.3%	0%	0%	2.3%	-	0%	0%	0%	0%	0%	-	2.3%
Articulated Trucks	0	4	0	0	4	-	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	7
% Articulated Trucks	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0.5%
Buses	0	8	0	0	8	-	1	0	4	0	5	-	0	7	0	0	7	-	0	0	0	0	0	-	20
% Buses	0%	1.4%	0%	0%	1.4%	-	1.2%	0%	5.6%	0%	3.2%	-	0%	1.1%	0%	0%	1.1%	-	0%	0%	0%	0%	0%	-	1.4%
Bicycles on Road	0	3	0	0	3	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	4
% Bicycles on Road	0%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.3%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	15	-	-	-	-	-	0	-	-	-	-	-	17	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 12 Lafayette St @ Palmer St TMC - TMC

Thu Mar 27, 2025

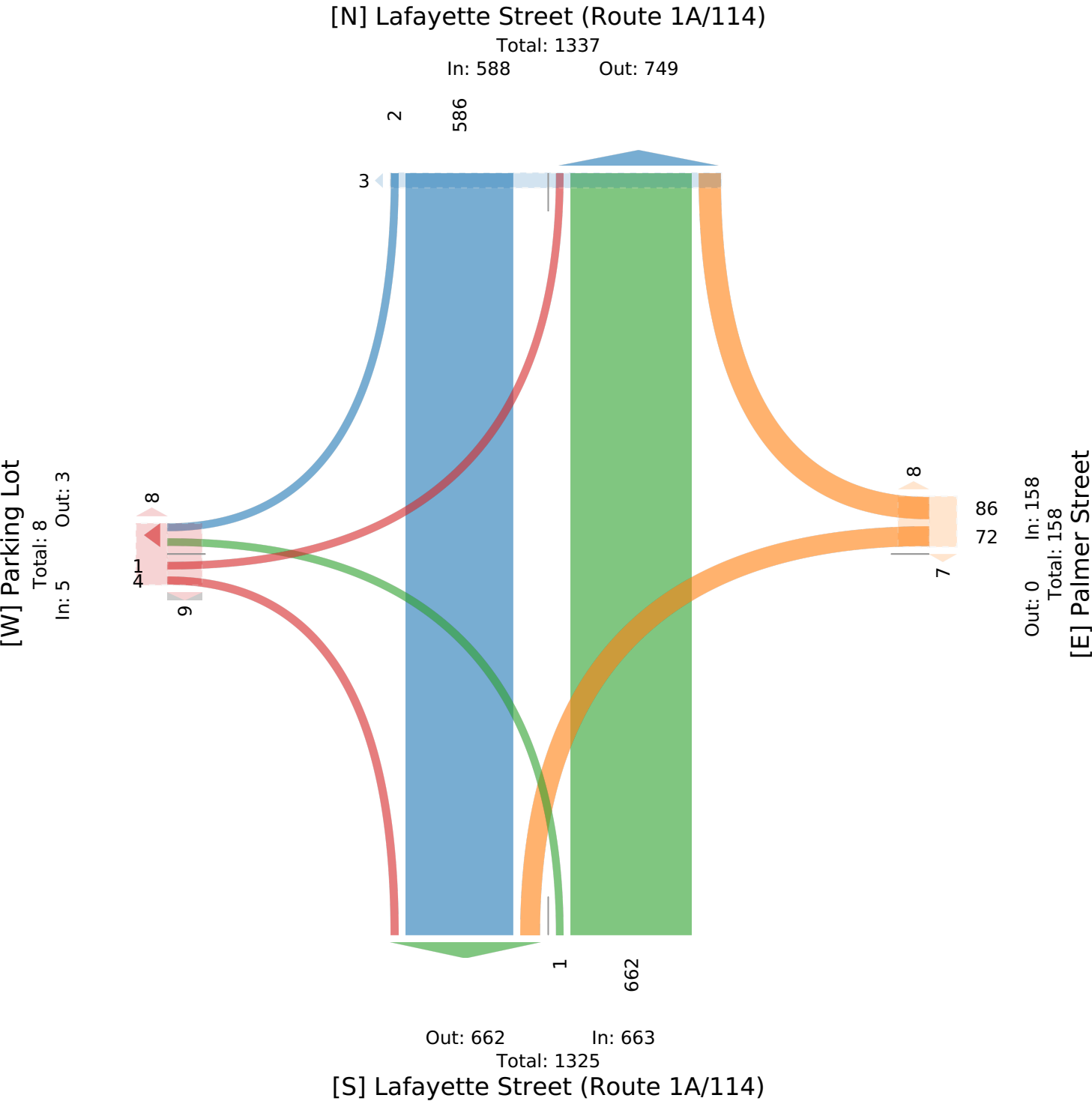
AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279741, Location: 42.51547, -70.89267

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 12 Lafayette St @ Palmer St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279741, Location: 42.51547, -70.89267

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Palmer Street Westbound						Lafayette Street (Route 1A/114) Northbound						Parking Lot Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 4:15PM	0	175	0	0	175	2	23	0	40	0	63	4	0	170	0	0	170	2	0	0	1	0	1	4	409
4:30PM	3	193	1	0	197	4	19	0	42	0	61	1	0	119	2	0	121	0	3	0	0	0	3	13	382
4:45PM	3	191	0	0	194	4	27	0	39	0	66	5	0	133	0	0	133	0	2	0	0	0	2	9	395
5:00PM	2	170	0	0	172	2	19	0	39	0	58	5	0	160	0	0	160	0	4	0	0	0	4	5	394
Total	8	729	1	0	738	12	88	0	160	0	248	15	0	582	2	0	584	2	9	0	1	0	10	31	1580
% Approach	1.1%	98.8%	0.1%	0%	-	-	35.5%	0%	64.5%	0%	-	-	0%	99.7%	0.3%	0%	-	-	90.0%	0%	10.0%	0%	-	-	-
% Total	0.5%	46.1%	0.1%	0%	46.7%	-	5.6%	0%	10.1%	0%	15.7%	-	0%	36.8%	0.1%	0%	37.0%	-	0.6%	0%	0.1%	0%	0.6%	-	-
PHF	0.667	0.943	0.250	-	0.935	-	0.815	-	0.952	-	0.939	-	-	0.858	0.250	-	0.861	-	0.563	-	0.250	-	0.625	-	0.966
Motorcycles	0	0	0	0	0	-	0	0	1	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0.6%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Lights	8	713	1	0	722	-	85	0	153	0	238	-	0	569	2	0	571	-	9	0	1	0	10	-	1541
% Lights	100%	97.8%	100%	0%	97.8%	-	96.6%	0%	95.6%	0%	96.0%	-	0%	97.8%	100%	0%	97.8%	-	100%	0%	100%	0%	100%	-	97.5%
Single-Unit Trucks	0	4	0	0	4	-	1	0	2	0	3	-	0	4	0	0	4	-	0	0	0	0	0	-	11
% Single-Unit Trucks	0%	0.5%	0%	0%	0.5%	-	1.1%	0%	1.3%	0%	1.2%	-	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0.7%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	3
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0.2%
Buses	0	7	0	0	7	-	2	0	4	0	6	-	0	4	0	0	4	-	0	0	0	0	0	-	17
% Buses	0%	1.0%	0%	0%	0.9%	-	2.3%	0%	2.5%	0%	2.4%	-	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	1.1%
Bicycles on Road	0	5	0	0	5	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	7
% Bicycles on Road	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.4%
Pedestrians	-	-	-	-	-	12	-	-	-	-	-	15	-	-	-	-	-	2	-	-	-	-	-	31	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 12 Lafayette St @ Palmer St TMC - TMC

Thu Mar 27, 2025

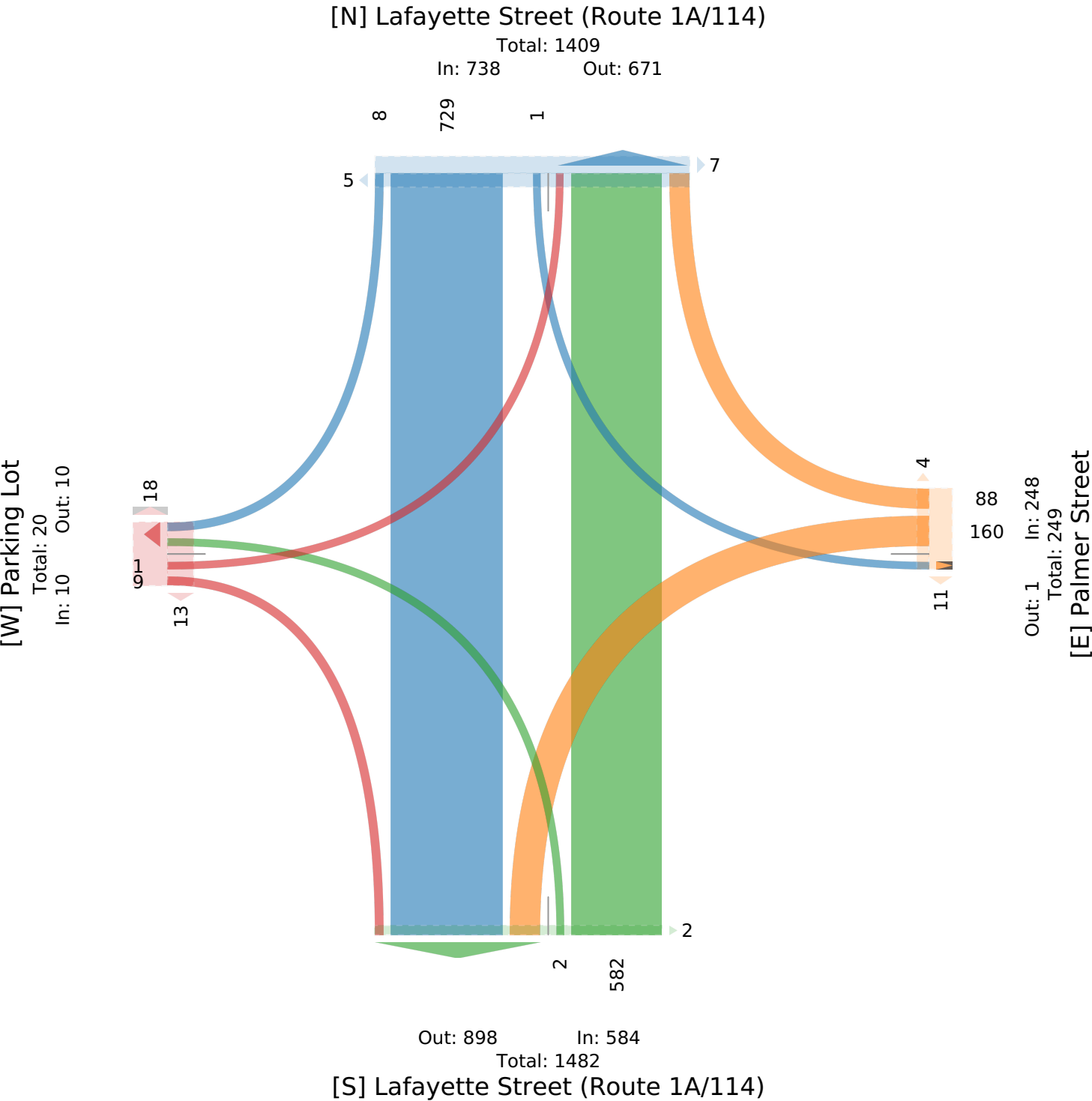
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279741, Location: 42.51547, -70.89267

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 13 Lafayette St @ Fairfield St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279742, Location: 42.51453, -70.892506

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Leavitt Street Westbound						Lafayette Street (Route 1A/114) Northbound						Fairfield Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	0	34	0	0	34	0	0	0	0	0	0	0	8	46	0	0	54	0	0	0	0	0	0	1	88
6:15AM	0	38	4	0	42	0	0	0	0	0	0	2	14	81	0	0	95	0	0	1	0	0	1	3	138
6:30AM	0	89	10	0	99	0	0	0	0	0	0	6	27	108	0	0	135	1	0	1	0	0	1	2	235
6:45AM	0	125	14	0	139	0	0	0	0	0	0	9	27	111	0	0	138	1	1	3	0	0	4	1	281
Hourly Total	0	286	28	0	314	0	0	0	0	0	0	17	76	346	0	0	422	2	1	5	0	0	6	7	742
7:00AM	5	110	22	0	137	11	0	0	0	0	0	1	30	124	0	0	154	0	0	2	2	0	4	1	295
7:15AM	1	134	13	0	148	1	0	0	0	0	0	2	33	186	1	0	220	2	1	5	1	0	7	5	375
7:30AM	0	147	15	0	162	0	0	0	0	0	0	6	55	172	1	0	228	0	0	4	0	0	4	3	394
7:45AM	0	134	33	0	167	0	0	0	0	0	0	13	61	141	1	0	203	0	1	5	1	0	7	2	377
Hourly Total	6	525	83	0	614	12	0	0	0	0	0	22	179	623	3	0	805	2	2	16	4	0	22	11	1441
8:00AM	4	156	39	0	199	1	0	0	0	0	0	17	57	150	0	0	207	5	1	8	1	0	10	15	416
8:15AM	2	142	25	0	169	0	0	0	0	0	0	8	72	140	4	0	216	1	0	11	0	0	11	4	396
8:30AM	1	176	13	0	190	0	0	0	0	0	0	5	59	139	0	0	198	2	0	7	1	0	8	3	396
8:45AM	0	170	20	0	190	0	0	0	0	0	0	8	54	117	1	0	172	1	1	5	0	0	6	2	368
Hourly Total	7	644	97	0	748	1	0	0	0	0	0	38	242	546	5	0	793	9	2	31	2	0	35	24	1576
3:00PM	4	171	24	0	199	0	0	0	0	0	0	6	54	142	0	0	196	0	1	0	1	0	2	11	397
3:15PM	1	158	23	0	182	0	0	0	0	0	0	39	28	154	2	0	184	8	2	2	3	0	7	19	373
3:30PM	5	167	22	0	194	0	1	0	0	0	1	6	67	163	1	0	231	1	1	6	1	0	8	10	434
3:45PM	6	178	28	0	212	0	0	0	0	0	0	3	55	148	0	0	203	1	2	8	1	0	11	5	426
Hourly Total	16	674	97	0	787	0	1	0	0	0	1	54	204	607	3	0	814	10	6	16	6	0	28	45	1630
4:00PM	1	181	22	0	204	0	0	0	0	0	0	3	43	127	0	0	170	0	2	1	0	0	3	3	377
4:15PM	1	180	25	0	206	0	0	0	0	0	0	12	57	167	1	0	225	2	1	1	2	0	4	2	435
4:30PM	4	208	21	0	233	0	0	0	0	0	0	3	46	115	1	0	162	4	1	4	1	0	6	10	401
4:45PM	3	197	29	0	229	0	0	0	0	0	0	4	55	137	2	0	194	2	0	3	0	0	3	8	426
Hourly Total	9	766	97	0	872	0	0	0	0	0	0	22	201	546	4	0	751	8	4	9	3	0	16	23	1639
5:00PM	3	185	14	0	202	0	0	0	0	0	0	5	48	156	3	0	207	0	1	5	3	0	9	2	418
5:15PM	2	205	20	0	227	0	0	0	0	0	0	9	49	135	0	0	184	2	2	4	0	0	6	5	417
5:30PM	2	196	17	0	215	0	0	0	0	0	0	5	48	144	0	0	192	0	1	4	2	0	7	3	414
5:45PM	2	197	15	0	214	0	0	0	0	0	0	12	56	115	2	0	173	1	2	2	1	0	5	13	392
Hourly Total	9	783	66	0	858	0	0	0	0	0	0	31	201	550	5	0	756	3	6	15	6	0	27	23	1641
<b>Total</b>	<b>47</b>	<b>3678</b>	<b>468</b>	<b>0</b>	<b>4193</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>184</b>	<b>1103</b>	<b>3218</b>	<b>20</b>	<b>0</b>	<b>4341</b>	<b>34</b>	<b>21</b>	<b>92</b>	<b>21</b>	<b>0</b>	<b>134</b>	<b>133</b>	<b>8669</b>
<b>% Approach</b>	1.1%	87.7%	11.2%	0%	-	-	100%	0%	0%	0%	-	-	25.4%	74.1%	0.5%	0%	-	-	15.7%	68.7%	15.7%	0%	-	-	-
<b>% Total</b>	0.5%	42.4%	5.4%	0%	<b>48.4%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	12.7%	37.1%	0.2%	0%	<b>50.1%</b>	-	0.2%	1.1%	0.2%	0%	<b>1.5%</b>	-	-
<b>Motorcycles</b>	0	5	1	0	<b>6</b>	-	0	0	0	0	<b>0</b>	-	3	2	0	0	<b>5</b>	-	0	0	0	0	<b>0</b>	-	11
<b>% Motorcycles</b>	0%	0.1%	0.2%	0%	<b>0.1%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0.3%	0.1%	0%	0%	<b>0.1%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0.1%
<b>Lights</b>	43	3537	452	0	<b>4032</b>	-	0	0	0	0	<b>0</b>	-	1071	3117	20	0	<b>4208</b>	-	21	90	21	0	<b>132</b>	-	8372
<b>% Lights</b>	91.5%	96.2%	96.6%	0%	<b>96.2%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	97.1%	96.9%	100%	0%	<b>96.9%</b>	-	100%	97.8%	100%	0%	<b>98.5%</b>	-	96.6%
<b>Single-Unit Trucks</b>	1	63	4	0	<b>68</b>	-	0	0	0	0	<b>0</b>	-	9	51	0	0	<b>60</b>	-	0	0	0	0	<b>0</b>	-	128
<b>% Single-Unit Trucks</b>	2.1%	1.7%	0.9%	0%	<b>1.6%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0.8%	1.6%	0%	0%	<b>1.4%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	1.5%
<b>Articulated Trucks</b>	0	10	1	0	<b>11</b>	-	0	0	0	0	<b>0</b>	-	0	9	0	0	<b>9</b>	-	0	0	0	0	<b>0</b>	-	20
<b>% Articulated Trucks</b>	0%	0.3%	0.2%	0%	<b>0.3%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0.3%	0%	0%	<b>0.2%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0.2%
<b>Buses</b>	3	53	10	0	<b>66</b>	-	0	0	0	0	<b>0</b>	-	17	31	0	0	<b>48</b>	-	0	2	0	0	<b>2</b>	-	116
<b>% Buses</b>	6.4%	1.4%	2.1%	0%	<b>1.6%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	1.5%	1.0%	0%	0%	<b>1.1%</b>	-	0%	2.2%	0%	0%	<b>1.5%</b>	-	1.3%
<b>Bicycles on Road</b>	0	10	0	0	<b>10</b>	-	1	0	0	0	<b>1</b>	-	3	8	0	0	<b>11</b>	-	0	0	0	0	<b>0</b>	-	22
<b>% Bicycles on Road</b>	0%	0.3%	0%	0%	<b>0.2%</b>	-	100%	0%	0%	0%	<b>100%</b>	-	0.3%	0.2%	0%	0%	<b>0.3%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0.3%
<b>Pedestrians</b>	-	-	-	-	-	13	-	-	-	-	-	182	-	-	-	-	-	34	-	-	-	-	-	130	
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	98.9%	-	-	-	-	-	100%	-	-	-	-	-	97.7%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	3	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	1.1%	-	-	-	-	-	0%	-	-	-	-	-	2.3%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 13 Lafayette St @ Fairfield St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279742, Location: 42.51453, -70.892506

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

[N] Lafayette Street (Route 1A/114)

Total: 7433

In: 4193

Out: 3240

[W] Fairfield Street

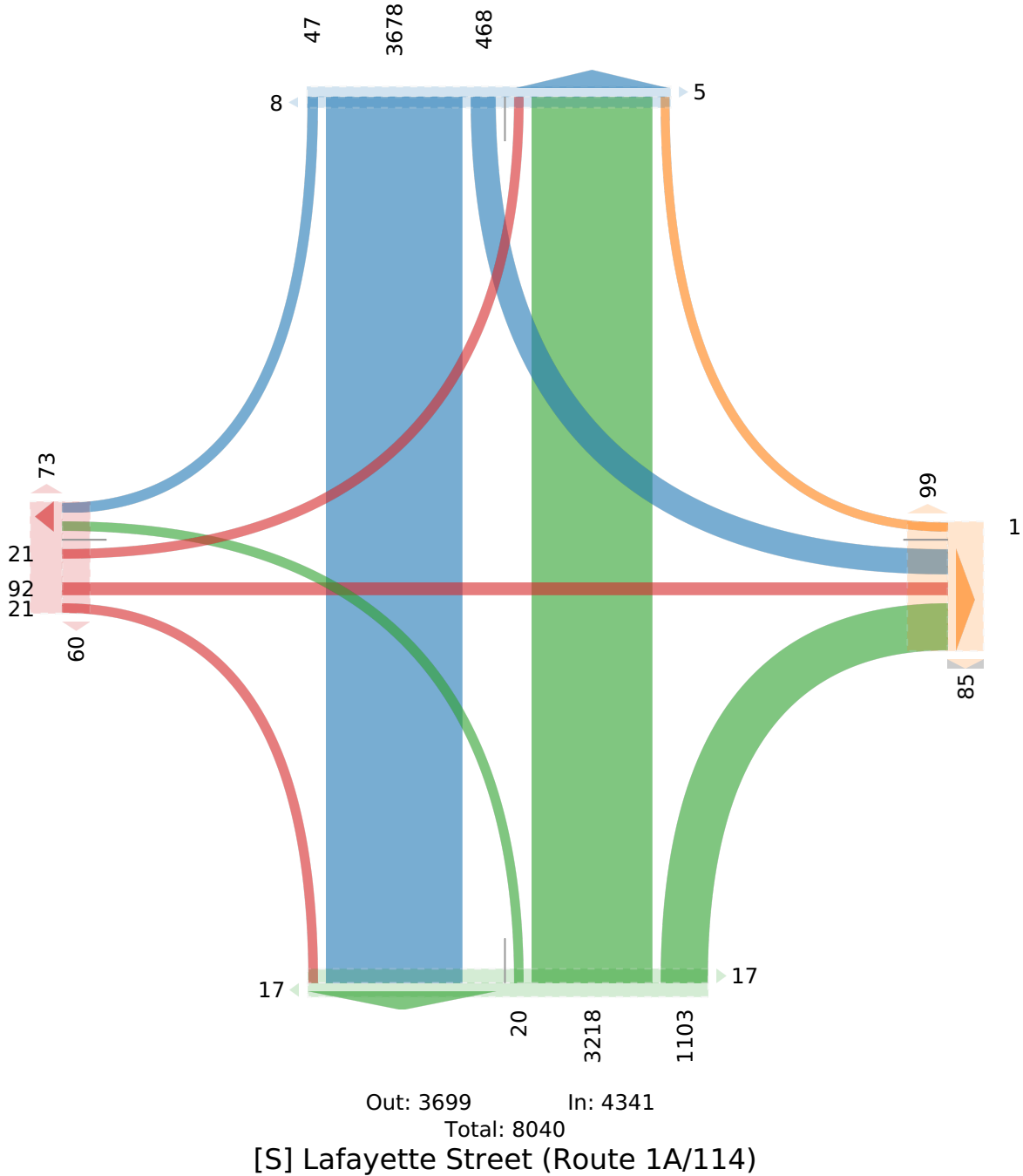
Total: 201

In: 134 Out: 67

[E] Leavitt Street

Out: 1663 In: 1

Total: 1664



# 250511- 13 Lafayette St @ Fairfield St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:45 AM - 8:45 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279742, Location: 42.51453, -70.892506

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Leavitt Street Westbound						Lafayette Street (Route 1A/114) Northbound						Fairfield Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:45AM	0	134	33	0	167	0	0	0	0	0	0	13	61	141	1	0	203	0	1	5	1	0	7	2	377
8:00AM	4	156	39	0	199	1	0	0	0	0	0	17	57	150	0	0	207	5	1	8	1	0	10	15	416
8:15AM	2	142	25	0	169	0	0	0	0	0	0	8	72	140	4	0	216	1	0	11	0	0	11	4	396
8:30AM	1	176	13	0	190	0	0	0	0	0	0	5	59	139	0	0	198	2	0	7	1	0	8	3	396
Total	7	608	110	0	725	1	0	0	0	0	0	43	249	570	5	0	824	8	2	31	3	0	36	24	1585
% Approach	1.0%	83.9%	15.2%	0%	-	-	0%	0%	0%	0%	-	-	30.2%	69.2%	0.6%	0%	-	-	5.6%	86.1%	8.3%	0%	-	-	-
% Total	0.4%	38.4%	6.9%	0%	45.7%	-	0%	0%	0%	0%	0%	-	15.7%	36.0%	0.3%	0%	52.0%	-	0.1%	2.0%	0.2%	0%	2.3%	-	-
PHF	0.438	0.861	0.705	-	0.913	-	-	-	-	-	-	-	0.865	0.950	0.313	-	0.954	-	0.500	0.705	0.750	-	0.818	-	0.954
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Lights	6	577	106	0	689	-	0	0	0	0	0	-	243	554	5	0	802	-	2	31	3	0	36	-	1527
% Lights	85.7%	94.9%	96.4%	0%	95.0%	-	0%	0%	0%	0%	-	-	97.6%	97.2%	100%	0%	97.3%	-	100%	100%	100%	0%	100%	-	96.3%
Single-Unit Trucks	0	17	1	0	18	-	0	0	0	0	0	-	1	9	0	0	10	-	0	0	0	0	0	-	28
% Single-Unit Trucks	0%	2.8%	0.9%	0%	2.5%	-	0%	0%	0%	0%	-	-	0.4%	1.6%	0%	0%	1.2%	-	0%	0%	0%	0%	0%	-	1.8%
Articulated Trucks	0	2	0	0	2	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	3
% Articulated Trucks	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	-	-	0%	0.2%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.2%
Buses	1	10	3	0	14	-	0	0	0	0	0	-	5	6	0	0	11	-	0	0	0	0	0	-	25
% Buses	14.3%	1.6%	2.7%	0%	1.9%	-	0%	0%	0%	0%	-	-	2.0%	1.1%	0%	0%	1.3%	-	0%	0%	0%	0%	0%	-	1.6%
Bicycles on Road	0	2	0	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	2
% Bicycles on Road	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	41	-	-	-	-	-	8	-	-	-	-	-	24	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	95.3%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	4.7%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 13 Lafayette St @ Fairfield St TMC - TMC

Thu Mar 27, 2025

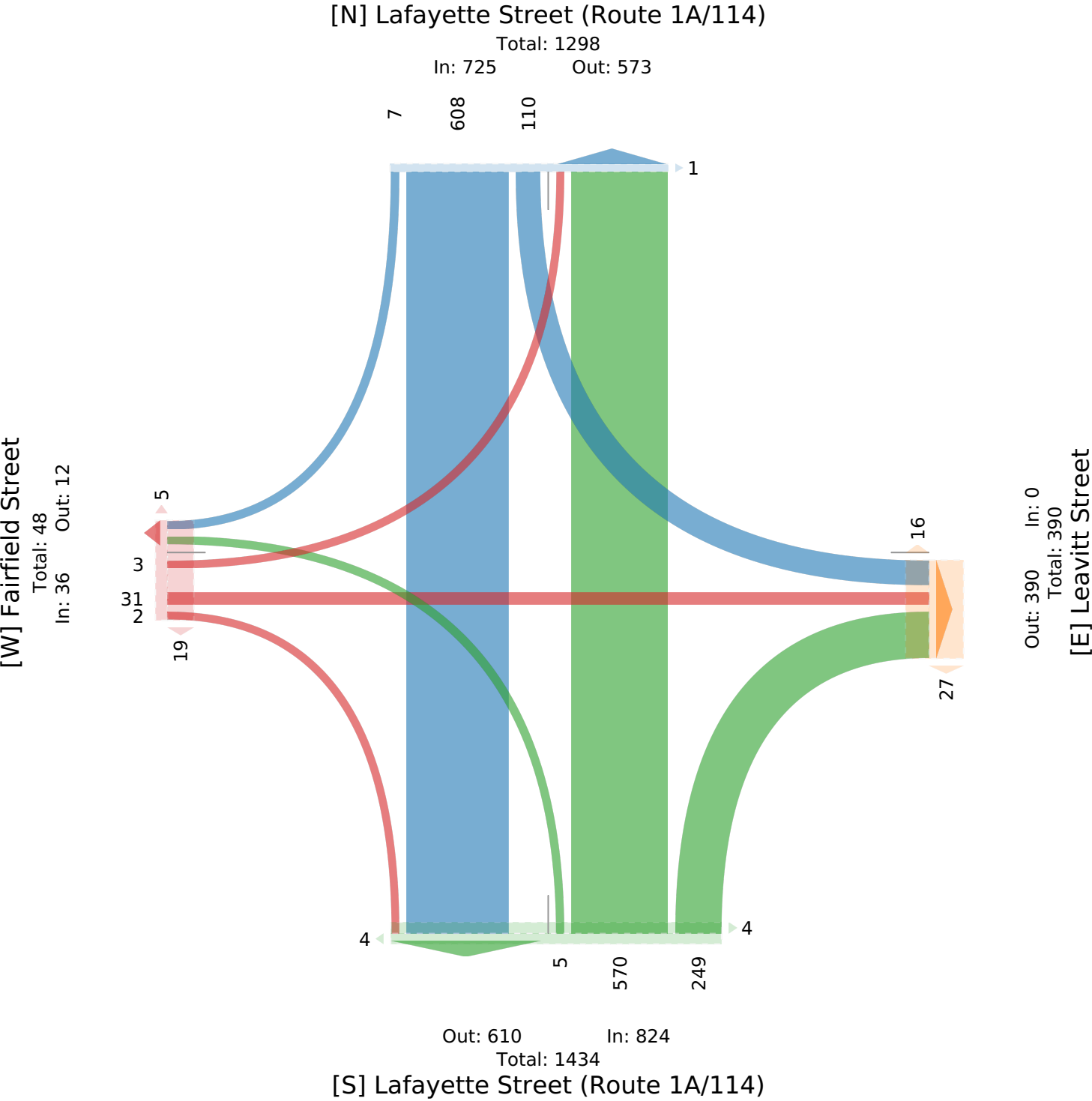
AM Peak (7:45 AM - 8:45 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279742, Location: 42.51453, -70.892506

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US





# 250511- 13 Lafayette St @ Fairfield St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279742, Location: 42.51453, -70.892506

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Leavitt Street Westbound						Lafayette Street (Route 1A/114) Northbound						Fairfield Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 4:15PM	1	180	25	0	206	0	0	0	0	0	0	12	57	167	1	0	225	2	1	1	2	0	4	2	435
4:30PM	4	208	21	0	233	0	0	0	0	0	0	3	46	115	1	0	162	4	1	4	1	0	6	10	401
4:45PM	3	197	29	0	229	0	0	0	0	0	0	4	55	137	2	0	194	2	0	3	0	0	3	8	426
5:00PM	3	185	14	0	202	0	0	0	0	0	0	5	48	156	3	0	207	0	1	5	3	0	9	2	418
<b>Total</b>	11	770	89	0	870	0	0	0	0	0	0	24	206	575	7	0	788	8	3	13	6	0	22	22	1680
<b>% Approach</b>	1.3%	88.5%	10.2%	0%	-	-	0%	0%	0%	0%	-	-	26.1%	73.0%	0.9%	0%	-	-	13.6%	59.1%	27.3%	0%	-	-	-
<b>% Total</b>	0.7%	45.8%	5.3%	0%	51.8%	-	0%	0%	0%	0%	0%	-	12.3%	34.2%	0.4%	0%	46.9%	-	0.2%	0.8%	0.4%	0%	1.3%	-	-
<b>PHF</b>	0.688	0.924	0.767	-	0.932	-	-	-	-	-	-	-	0.899	0.863	0.583	-	0.876	-	0.750	0.650	0.500	-	0.611	-	0.965
<b>Motorcycles</b>	0	1	0	0	1	-	0	0	0	0	0	-	2	0	0	0	2	-	0	0	0	0	0	-	3
<b>% Motorcycles</b>	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	-	-	1.0%	0%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.2%
<b>Lights</b>	11	748	88	0	847	-	0	0	0	0	0	-	200	561	7	0	768	-	3	13	6	0	22	-	1637
<b>% Lights</b>	100%	97.1%	98.9%	0%	97.4%	-	0%	0%	0%	0%	-	-	97.1%	97.6%	100%	0%	97.5%	-	100%	100%	100%	0%	100%	-	97.4%
<b>Single-Unit Trucks</b>	0	7	0	0	7	-	0	0	0	0	0	-	2	7	0	0	9	-	0	0	0	0	0	-	16
<b>% Single-Unit Trucks</b>	0%	0.9%	0%	0%	0.8%	-	0%	0%	0%	0%	-	-	1.0%	1.2%	0%	0%	1.1%	-	0%	0%	0%	0%	0%	-	1.0%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	1
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0.2%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.1%
<b>Buses</b>	0	9	1	0	10	-	0	0	0	0	0	-	1	4	0	0	5	-	0	0	0	0	0	-	15
<b>% Buses</b>	0%	1.2%	1.1%	0%	1.1%	-	0%	0%	0%	0%	-	-	0.5%	0.7%	0%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.9%
<b>Bicycles on Road</b>	0	5	0	0	5	-	0	0	0	0	0	-	1	2	0	0	3	-	0	0	0	0	0	-	8
<b>% Bicycles on Road</b>	0%	0.6%	0%	0%	0.6%	-	0%	0%	0%	0%	-	-	0.5%	0.3%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.5%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	24	-	-	-	-	-	8	-	-	-	-	-	21	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	95.5%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	4.5%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 13 Lafayette St @ Fairfield St TMC - TMC

Thu Mar 27, 2025

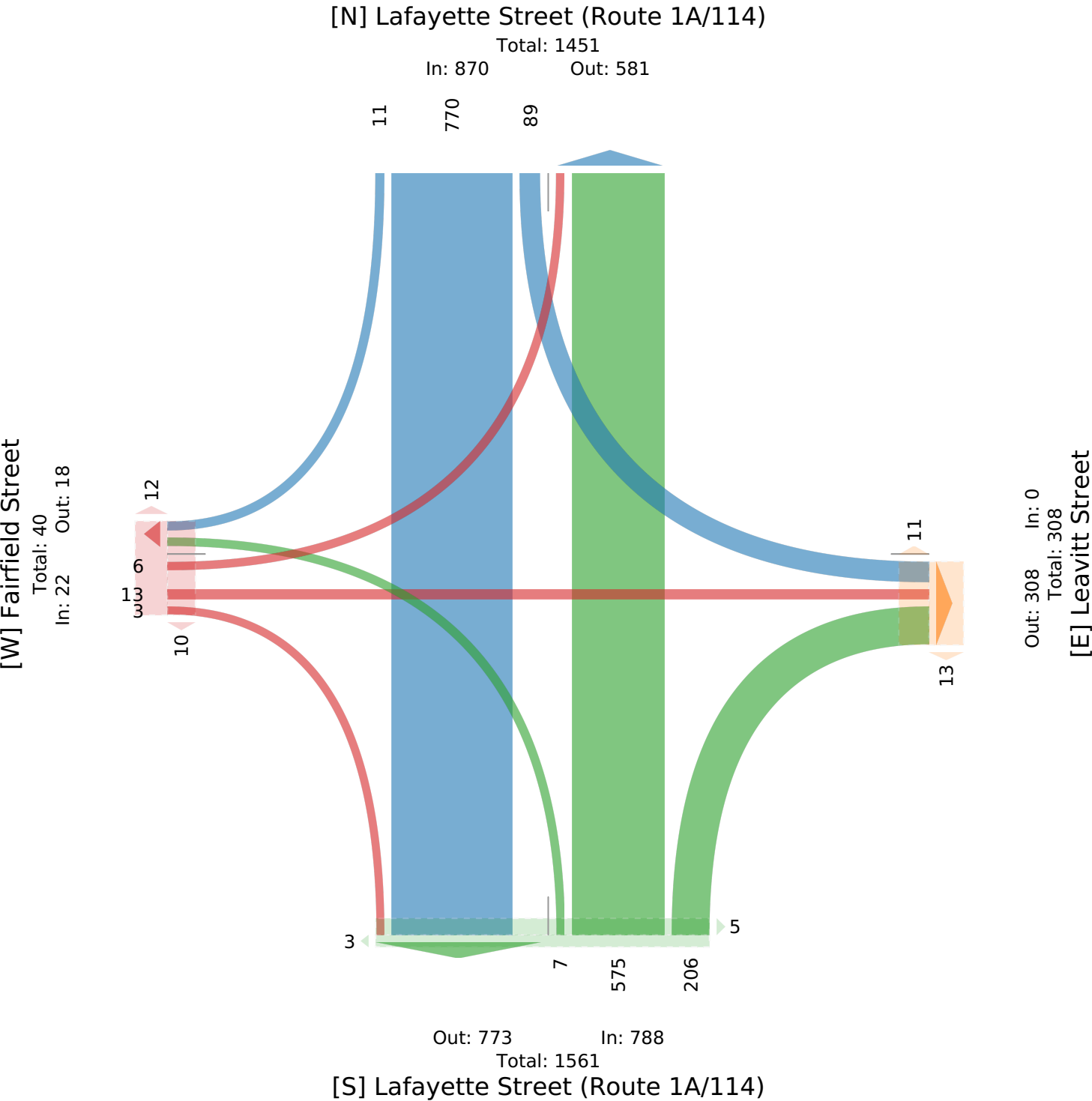
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279742, Location: 42.51453, -70.892506

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 14 Lafayette St @ Holly St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279744, Location: 42.511167, -70.891869

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Leach Street Westbound						Lafayette Street (Route 1A/114) Northbound						Holly Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	0	31	0	0	31	2	3	0	2	0	5	0	0	48	0	0	48	0	0	0	1	0	1	0	85
6:15AM	0	39	0	0	39	0	5	0	2	0	7	0	0	84	0	0	84	0	0	0	0	0	0	0	130
6:30AM	1	88	0	0	89	0	7	0	4	0	11	2	0	116	0	0	116	0	0	0	0	0	0	1	216
6:45AM	1	113	1	0	115	8	5	0	2	0	7	2	1	126	0	0	127	1	0	0	3	0	3	0	252
Hourly Total	2	271	1	0	274	10	20	0	10	0	30	4	1	374	0	0	375	1	0	0	4	0	4	1	683
7:00AM	0	101	2	0	103	6	5	0	1	0	6	0	0	153	0	0	153	5	2	0	0	0	2	2	264
7:15AM	0	133	2	0	135	7	9	0	1	0	10	4	1	184	3	0	188	6	2	0	0	0	2	3	335
7:30AM	2	136	4	0	142	2	7	0	2	0	9	2	2	205	0	0	207	2	0	0	3	0	3	0	361
7:45AM	2	121	4	0	127	3	6	0	1	0	7	4	4	187	0	0	191	2	1	0	1	0	2	2	327
Hourly Total	4	491	12	0	507	18	27	0	5	0	32	10	7	729	3	0	739	15	5	0	4	0	9	7	1287
8:00AM	0	134	1	0	135	4	3	0	2	0	5	5	8	183	2	0	193	6	1	0	2	0	3	4	336
8:15AM	0	139	2	0	141	3	10	0	1	0	11	7	4	151	2	0	157	7	0	1	4	0	5	1	314
8:30AM	3	166	4	1	174	0	6	0	2	0	8	1	1	176	2	0	179	0	0	0	1	0	1	1	362
8:45AM	2	163	3	0	168	0	2	0	1	0	3	4	1	166	0	0	167	0	0	0	1	0	1	5	339
Hourly Total	5	602	10	1	618	7	21	0	6	0	27	17	14	676	6	0	696	13	1	1	8	0	10	11	1351
3:00PM	3	142	6	0	151	3	6	0	1	0	7	0	6	194	0	0	200	1	1	0	1	0	2	9	360
3:15PM	5	136	5	0	146	10	5	0	1	0	6	0	5	133	1	0	139	1	0	1	1	0	2	11	293
3:30PM	1	167	4	0	172	10	7	0	3	0	10	13	2	181	1	0	184	2	1	0	1	0	2	2	368
3:45PM	4	163	4	0	171	6	4	0	2	0	6	5	6	166	1	0	173	0	0	0	2	0	2	7	352
Hourly Total	13	608	19	0	640	29	22	0	7	0	29	18	19	674	3	0	696	4	2	1	5	0	8	29	1373
4:00PM	3	157	7	0	167	1	7	1	3	0	11	4	4	149	2	0	155	1	0	0	3	0	3	2	336
4:15PM	7	152	7	0	166	2	8	0	1	0	9	8	6	210	1	0	217	0	0	0	2	0	2	5	394
4:30PM	6	148	15	0	169	0	6	1	0	0	7	4	5	145	2	0	152	0	2	0	0	0	2	3	330
4:45PM	5	159	20	0	184	2	4	0	1	0	5	2	3	183	0	0	186	0	1	1	0	0	2	3	377
Hourly Total	21	616	49	0	686	5	25	2	5	0	32	18	18	687	5	0	710	1	3	1	5	0	9	13	1437
5:00PM	4	173	4	0	181	3	10	0	2	0	12	7	3	194	2	0	199	1	0	0	2	0	2	4	394
5:15PM	2	176	14	0	192	2	6	0	0	0	6	4	3	169	3	0	175	2	1	1	1	0	3	4	376
5:30PM	4	171	5	1	181	7	5	0	5	0	10	6	3	170	0	0	173	6	1	1	1	0	3	9	367
5:45PM	4	188	8	0	200	4	5	0	4	0	9	7	3	162	1	0	166	2	2	0	0	0	2	9	377
Hourly Total	14	708	31	1	754	16	26	0	11	0	37	24	12	695	6	0	713	11	4	2	4	0	10	26	1514
<b>Total</b>	59	3296	122	2	3479	85	141	2	44	0	187	91	71	3835	23	0	3929	45	15	5	30	0	50	87	7645
<b>% Approach</b>	1.7%	94.7%	3.5%	0.1%	-	-	75.4%	1.1%	23.5%	0%	-	-	1.8%	97.6%	0.6%	0%	-	-	30.0%	10.0%	60.0%	0%	-	-	-
<b>% Total</b>	0.8%	43.1%	1.6%	0%	45.5%	-	1.8%	0%	0.6%	0%	2.4%	-	0.9%	50.2%	0.3%	0%	51.4%	-	0.2%	0.1%	0.4%	0%	0.7%	-	-
<b>Motorcycles</b>	0	6	0	0	6	-	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	9
<b>% Motorcycles</b>	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.1%
<b>Lights</b>	56	3162	120	2	3340	-	139	2	44	0	185	-	68	3714	23	0	3805	-	12	5	27	0	44	-	7374
<b>% Lights</b>	94.9%	95.9%	98.4%	100%	96.0%	-	98.6%	100%	100%	0%	98.9%	-	95.8%	96.8%	100%	0%	96.8%	-	80.0%	100%	90.0%	0%	88.0%	-	96.5%
<b>Single-Unit Trucks</b>	1	65	2	0	68	-	2	0	0	0	2	-	2	59	0	0	61	-	3	0	1	0	4	-	135
<b>% Single-Unit Trucks</b>	1.7%	2.0%	1.6%	0%	2.0%	-	1.4%	0%	0%	0%	1.1%	-	2.8%	1.5%	0%	0%	1.6%	-	20.0%	0%	3.3%	0%	8.0%	-	1.8%
<b>Articulated Trucks</b>	0	8	0	0	8	-	0	0	0	0	0	-	0	13	0	0	13	-	0	0	0	0	0	-	21
<b>% Articulated Trucks</b>	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.3%
<b>Buses</b>	2	47	0	0	49	-	0	0	0	0	0	-	1	38	0	0	39	-	0	0	2	0	2	-	90
<b>% Buses</b>	3.4%	1.4%	0%	0%	1.4%	-	0%	0%	0%	0%	0%	-	1.4%	1.0%	0%	0%	1.0%	-	0%	0%	6.7%	0%	4.0%	-	1.2%
<b>Bicycles on Road</b>	0	8	0	0	8	-	0	0	0	0	0	-	0	8	0	0	8	-	0	0	0	0	0	-	16
<b>% Bicycles on Road</b>	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.2%
<b>Pedestrians</b>	-	-	-	-	-	84	-	-	-	-	-	90	-	-	-	-	-	45	-	-	-	-	-	85	-
<b>% Pedestrians</b>	-	-	-	-	-	98.8%	-	-	-	-	-	98.9%	-	-	-	-	-	100%	-	-	-	-	-	97.7%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	1.2%	-	-	-	-	-	1.1%	-	-	-	-	-	0%	-	-	-	-	-	2.3%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 14 Lafayette St @ Holly St TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279744, Location: 42.511167, -70.891869

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

## [N] Lafayette Street (Route 1A/114)

Total: 7487

In: 3479

Out: 4008

## [W] Holly Street

Total: 134

In: 50 Out: 84

## [E] Leach Street

Out: 198 In: 187

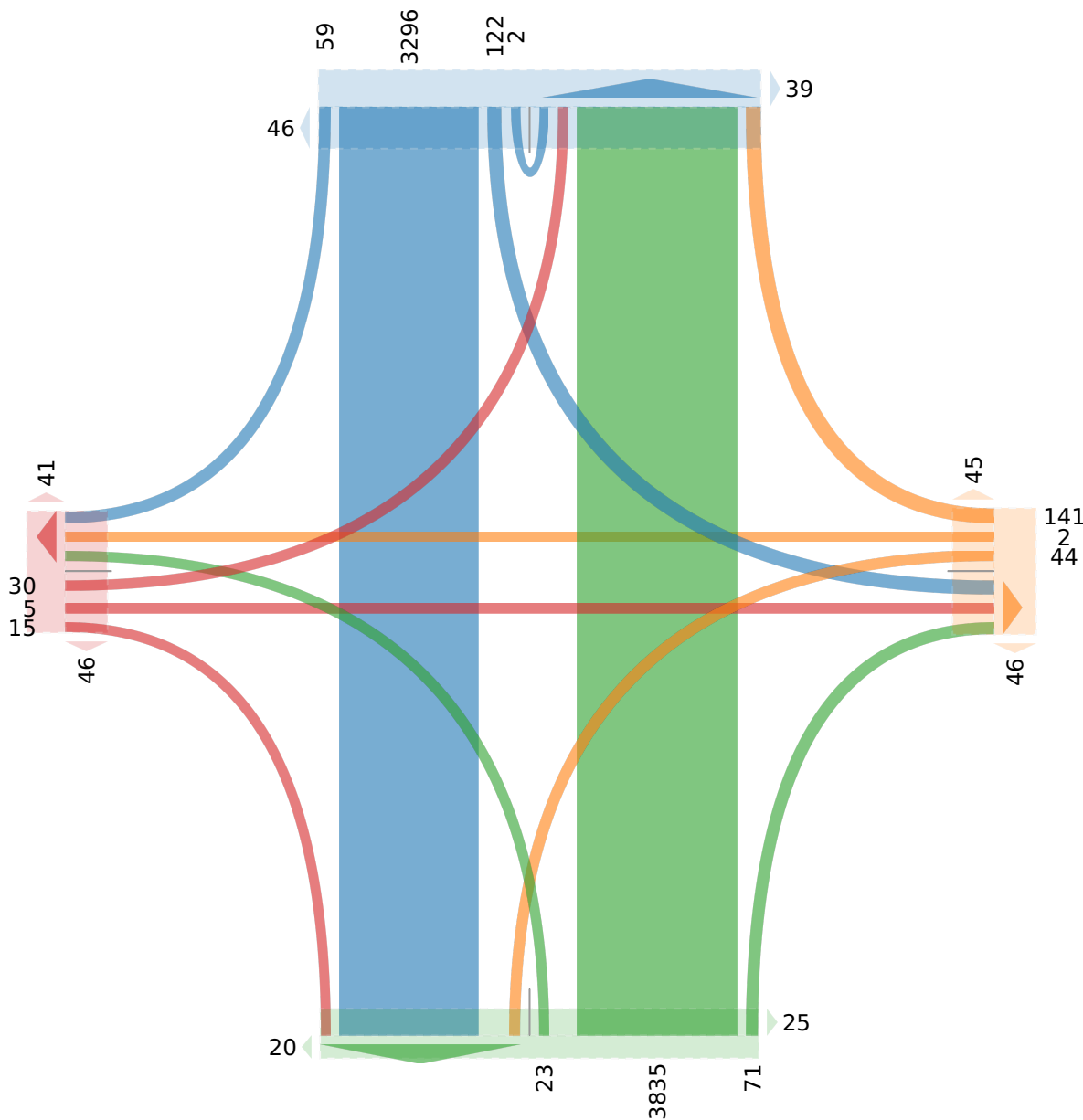
Total: 385

## [S] Lafayette Street (Route 1A/114)

Total: 7284

Out: 3355

In: 3929



# 250511- 14 Lafayette St @ Holly St TMC - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279744, Location: 42.511167, -70.891869

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Leach Street Westbound						Lafayette Street (Route 1A/114) Northbound						Holly Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:15AM	0	133	2	0	135	7	9	0	1	0	10	4	1	184	3	0	188	6	2	0	0	0	2	3	335
7:30AM	2	136	4	0	142	2	7	0	2	0	9	2	2	205	0	0	207	2	0	0	3	0	3	0	361
7:45AM	2	121	4	0	127	3	6	0	1	0	7	4	4	187	0	0	191	2	1	0	1	0	2	2	327
8:00AM	0	134	1	0	135	4	3	0	2	0	5	5	8	183	2	0	193	6	1	0	2	0	3	4	336
Total	4	524	11	0	539	16	25	0	6	0	31	15	15	759	5	0	779	16	4	0	6	0	10	9	1359
% Approach	0.7%	97.2%	2.0%	0%	-	-	80.6%	0%	19.4%	0%	-	-	1.9%	97.4%	0.6%	0%	-	-	40.0%	0%	60.0%	0%	-	-	-
% Total	0.3%	38.6%	0.8%	0%	39.7%	-	1.8%	0%	0.4%	0%	2.3%	-	1.1%	55.8%	0.4%	0%	57.3%	-	0.3%	0%	0.4%	0%	0.7%	-	-
PHF	0.500	0.960	0.688	-	0.945	-	0.694	-	0.750	-	0.775	-	0.469	0.928	0.417	-	0.943	-	0.500	-	0.500	-	0.833	-	0.941
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Lights	4	491	11	0	506	-	25	0	6	0	31	-	13	730	5	0	748	-	3	0	5	0	8	-	1293
% Lights	100%	93.7%	100%	0%	93.9%	-	100%	0%	100%	0%	100%	-	86.7%	96.2%	100%	0%	96.0%	-	75.0%	0%	83.3%	0%	80.0%	-	95.1%
Single-Unit Trucks	0	19	0	0	19	-	0	0	0	0	0	-	1	16	0	0	17	-	1	0	0	0	1	-	37
% Single-Unit Trucks	0%	3.6%	0%	0%	3.5%	-	0%	0%	0%	0%	0%	-	6.7%	2.1%	0%	0%	2.2%	-	25.0%	0%	0%	0%	10.0%	-	2.7%
Articulated Trucks	0	2	0	0	2	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	4
% Articulated Trucks	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.3%
Buses	0	10	0	0	10	-	0	0	0	0	0	-	1	9	0	0	10	-	0	0	1	0	1	-	21
% Buses	0%	1.9%	0%	0%	1.9%	-	0%	0%	0%	0%	0%	-	6.7%	1.2%	0%	0%	1.3%	-	0%	0%	16.7%	0%	10.0%	-	1.5%
Bicycles on Road	0	2	0	0	2	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	4
% Bicycles on Road	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.3%
Pedestrians	-	-	-	-	-	16	-	-	-	-	-	15	-	-	-	-	-	16	-	-	-	-	-	9	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 14 Lafayette St @ Holly St TMC - TMC

Thu Mar 27, 2025

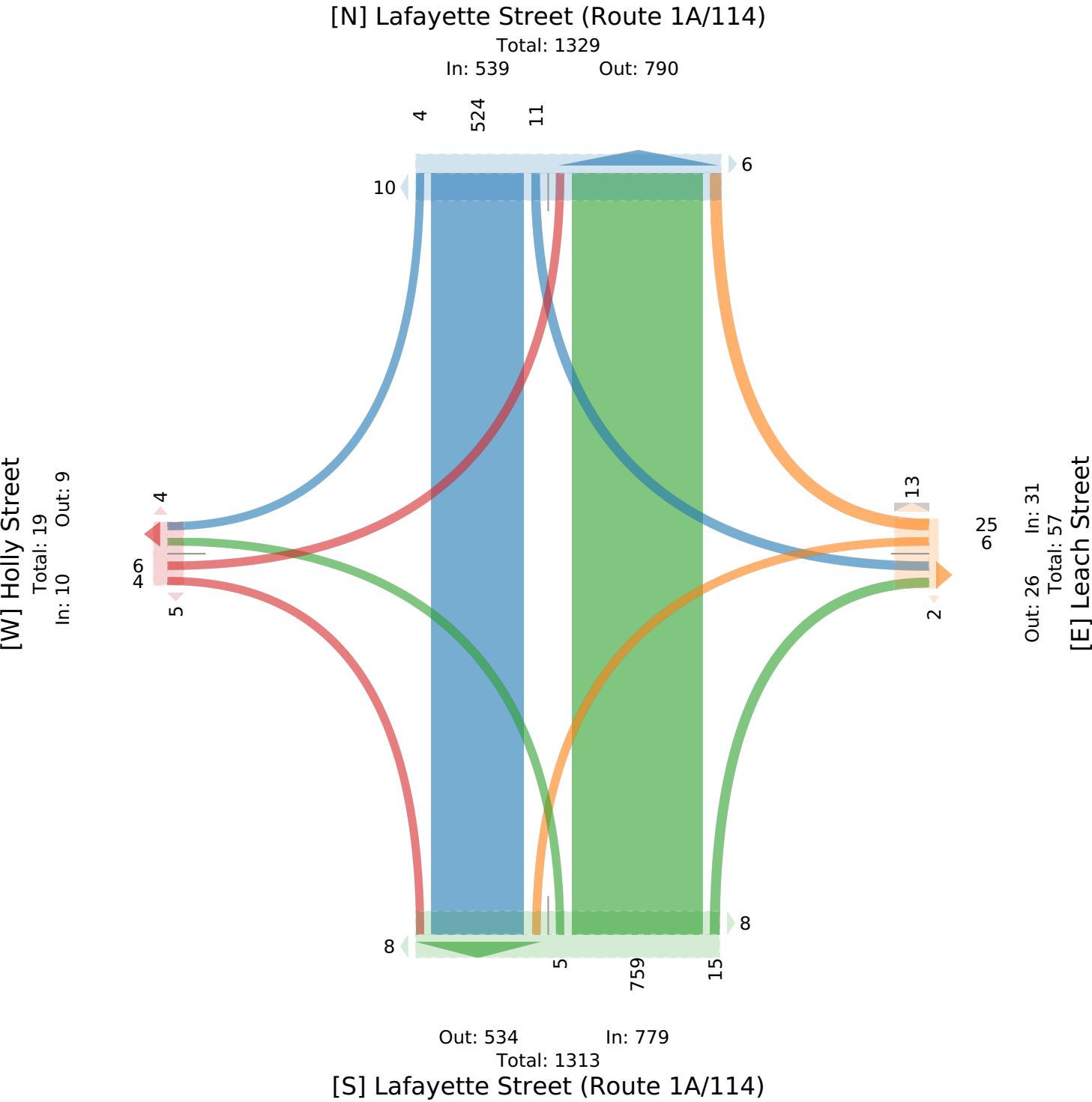
AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279744, Location: 42.511167, -70.891869

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 14 Lafayette St @ Holly St TMC - TMC

Thu Mar 27, 2025

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279744, Location: 42.511167, -70.891869

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Leach Street Westbound						Lafayette Street (Route 1A/114) Northbound						Holly Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 4:45PM	5	159	20	0	184	2	4	0	1	0	5	2	3	183	0	0	186	0	1	1	0	0	2	3	377
5:00PM	4	173	4	0	181	3	10	0	2	0	12	7	3	194	2	0	199	1	0	0	2	0	2	4	394
5:15PM	2	176	14	0	192	2	6	0	0	0	6	4	3	169	3	0	175	2	1	1	1	0	3	4	376
5:30PM	4	171	5	1	181	7	5	0	5	0	10	6	3	170	0	0	173	6	1	1	1	0	3	9	367
Total	15	679	43	1	738	14	25	0	8	0	33	19	12	716	5	0	733	9	3	3	4	0	10	20	1514
% Approach	2.0%	92.0%	5.8%	0.1%	-	-	75.8%	0%	24.2%	0%	-	-	1.6%	97.7%	0.7%	0%	-	-	30.0%	30.0%	40.0%	0%	-	-	-
% Total	1.0%	44.8%	2.8%	0.1%	48.7%	-	1.7%	0%	0.5%	0%	2.2%	-	0.8%	47.3%	0.3%	0%	48.4%	-	0.2%	0.2%	0.3%	0%	0.7%	-	-
PHF	0.750	0.960	0.538	0.250	0.957	-	0.625	-	0.400	-	0.688	-	1.000	0.930	0.417	-	0.928	-	0.750	0.750	0.500	-	0.833	-	0.967
Motorcycles	0	2	0	0	2	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	4
% Motorcycles	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.3%
Lights	14	665	43	1	723	-	25	0	8	0	33	-	12	694	5	0	711	-	2	3	4	0	9	-	1476
% Lights	93.3%	97.9%	100%	100%	98.0%	-	100%	0%	100%	0%	100%	-	100%	96.9%	100%	0%	97.0%	-	66.7%	100%	100%	0%	90.0%	-	97.5%
Single-Unit Trucks	1	4	0	0	5	-	0	0	0	0	0	-	0	9	0	0	9	-	1	0	0	0	1	-	15
% Single-Unit Trucks	6.7%	0.6%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0%	1.3%	0%	0%	1.2%	-	33.3%	0%	0%	0%	10.0%	-	1.0%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	3
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.2%
Buses	0	5	0	0	5	-	0	0	0	0	0	-	0	6	0	0	6	-	0	0	0	0	0	-	11
% Buses	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0%	0.8%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0.7%
Bicycles on Road	0	3	0	0	3	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	5
% Bicycles on Road	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.3%
Pedestrians	-	-	-	-	-	14	-	-	-	-	-	18	-	-	-	-	-	9	-	-	-	-	-	20	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	94.7%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	5.3%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 14 Lafayette St @ Holly St TMC - TMC

Thu Mar 27, 2025

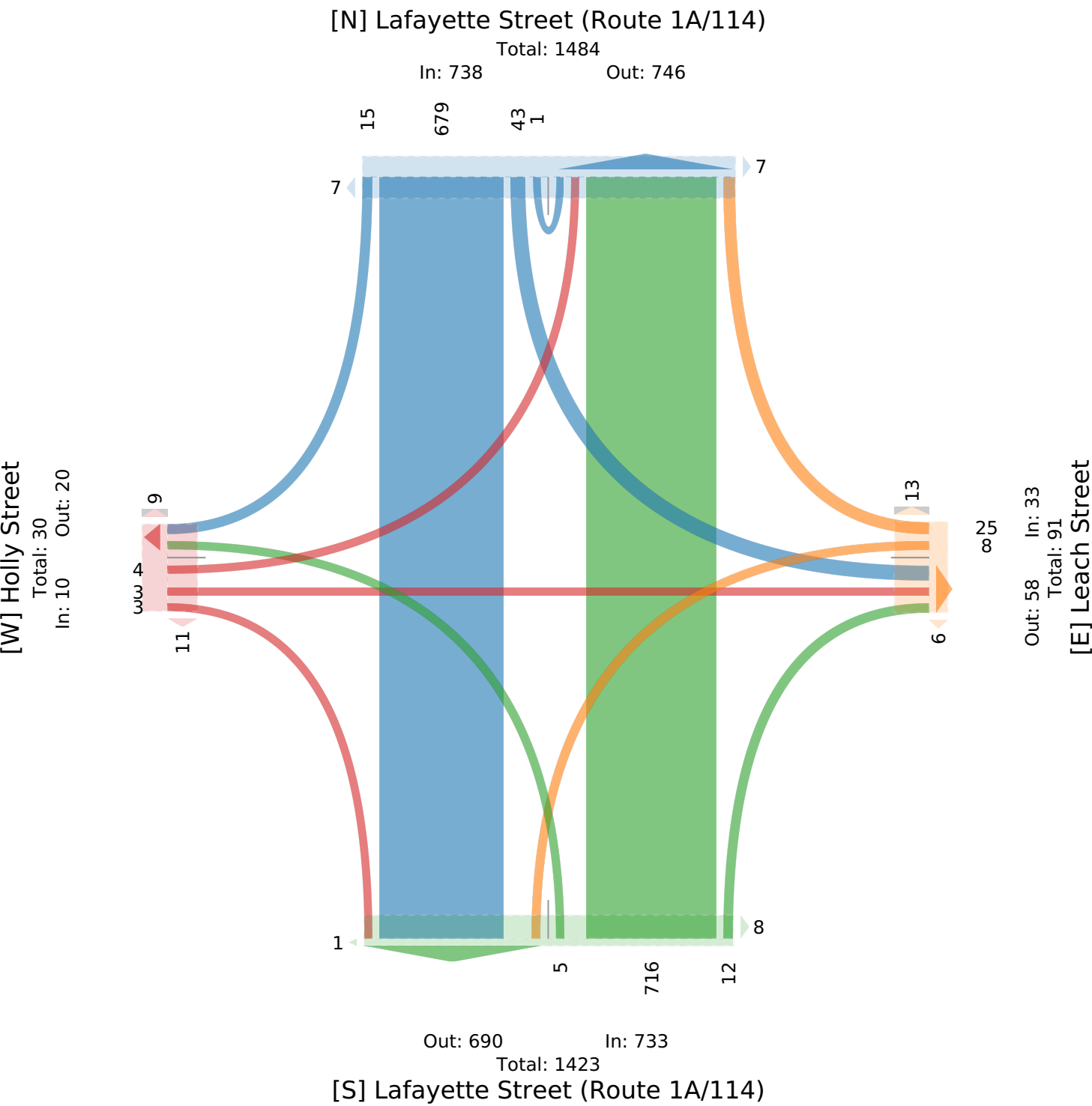
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279744, Location: 42.511167, -70.891869

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US





# 250511- 15 Lafayette St @ Ocean Ave TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279747, Location: 42.508325, -70.89133

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Ocean Avenue Westbound						Lafayette Street (Route 1A/114) Northbound						Ocean Avenue Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	0	38	0	0	38	0	0	2	1	0	3	0	1	43	1	0	45	1	1	0	1	0	2	0	88
6:15AM	1	37	1	0	39	0	3	0	0	0	3	1	0	78	2	0	80	0	2	0	0	0	2	0	124
6:30AM	3	90	2	0	95	1	5	2	0	0	7	0	1	102	3	0	106	1	0	2	4	0	6	0	214
6:45AM	5	111	0	0	116	0	3	0	0	0	3	0	3	109	3	0	115	2	3	1	4	0	8	1	242
Hourly Total	9	276	3	0	288	1	11	4	1	0	16	1	5	332	9	0	346	4	6	3	9	0	18	1	668
7:00AM	1	101	1	0	103	2	3	2	2	0	7	1	1	160	1	0	162	0	6	1	3	0	10	0	282
7:15AM	4	133	0	0	137	0	4	0	1	0	5	3	3	172	4	0	179	1	8	0	3	0	11	3	332
7:30AM	5	143	0	0	148	0	7	2	0	0	9	1	4	184	5	0	193	0	7	0	6	0	13	1	363
7:45AM	3	116	1	0	120	0	4	0	0	0	4	1	0	187	3	0	190	4	5	3	3	0	11	5	325
Hourly Total	13	493	2	0	508	2	18	4	3	0	25	6	8	703	13	0	724	5	26	4	15	0	45	9	1302
8:00AM	3	122	1	0	126	0	3	3	3	0	9	7	1	182	1	0	184	1	4	2	6	0	12	3	331
8:15AM	9	120	2	0	131	2	2	3	1	0	6	6	2	152	9	0	163	3	5	3	4	0	12	4	312
8:30AM	6	153	4	0	163	1	3	1	2	0	6	2	5	161	4	0	170	5	5	3	7	0	15	1	354
8:45AM	10	143	1	0	154	0	3	0	0	0	3	4	2	158	3	0	163	3	4	0	4	0	8	9	328
Hourly Total	28	538	8	0	574	3	11	7	6	0	24	19	10	653	17	0	680	12	18	8	21	0	47	17	1325
3:00PM	1	135	5	0	141	0	4	0	0	0	4	3	1	204	4	0	209	0	4	0	6	0	10	9	364
3:15PM	4	143	2	0	149	0	5	1	1	0	7	1	3	145	2	0	150	0	3	1	1	0	5	3	311
3:30PM	1	145	8	0	154	0	4	2	2	0	8	4	8	169	8	0	185	0	3	1	2	0	6	4	353
3:45PM	5	157	3	0	165	1	5	1	4	0	10	3	2	162	1	0	165	3	3	1	3	0	7	4	347
Hourly Total	11	580	18	0	609	1	18	4	7	0	29	11	14	680	15	0	709	3	13	3	12	0	28	20	1375
4:00PM	9	133	5	0	147	2	3	2	1	0	6	7	3	152	3	0	158	11	5	0	6	0	11	6	322
4:15PM	12	130	2	0	144	4	2	2	0	0	4	15	5	196	8	0	209	7	5	2	2	0	9	11	366
4:30PM	4	109	7	0	120	1	2	1	1	0	4	4	3	147	3	0	153	2	10	3	1	0	14	7	291
4:45PM	3	149	7	0	159	0	4	3	0	0	7	1	1	175	4	0	180	3	9	1	3	0	13	1	359
Hourly Total	28	521	21	0	570	7	11	8	2	0	21	27	12	670	18	0	700	23	29	6	12	0	47	25	1338
5:00PM	10	148	2	0	160	4	4	0	0	0	4	5	2	181	5	0	188	2	5	7	5	0	17	4	369
5:15PM	10	146	8	0	164	1	2	0	1	0	3	6	2	164	3	0	169	5	5	4	4	0	13	5	349
5:30PM	6	152	4	0	162	1	2	2	0	0	4	6	5	172	4	0	181	3	3	4	1	0	8	5	355
5:45PM	5	162	6	0	173	4	2	3	0	0	5	8	2	142	6	0	150	6	3	1	6	0	10	6	338
Hourly Total	31	608	20	0	659	10	10	5	1	0	16	25	11	659	18	0	688	16	16	16	16	0	48	20	1411
Total	120	3016	72	0	3208	24	79	32	20	0	131	89	60	3697	90	0	3847	63	108	40	85	0	233	92	7419
% Approach	3.7%	94.0%	2.2%	0%	-	-	60.3%	24.4%	15.3%	0%	-	-	1.6%	96.1%	2.3%	0%	-	-	46.4%	17.2%	36.5%	0%	-	-	-
% Total	1.6%	40.7%	1.0%	0%	43.2%	-	1.1%	0.4%	0.3%	0%	1.8%	-	0.8%	49.8%	1.2%	0%	51.9%	-	1.5%	0.5%	1.1%	0%	3.1%	-	-
Motorcycles	1	6	0	0	7	-	0	0	0	0	0	-	0	2	0	0	2	-	1	2	0	0	3	-	12
% Motorcycles	0.8%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0.9%	5.0%	0%	0%	1.3%	-	0.2%
Lights	118	2884	72	0	3074	-	79	30	20	0	129	-	58	3575	81	0	3714	-	104	37	83	0	224	-	7141
% Lights	98.3%	95.6%	100%	0%	95.8%	-	100%	93.8%	100%	0%	98.5%	-	96.7%	96.7%	90.0%	0%	96.5%	-	96.3%	92.5%	97.6%	0%	96.1%	-	96.3%
Single-Unit Trucks	1	67	0	0	68	-	0	0	0	0	0	-	1	63	3	0	67	-	2	0	2	0	4	-	139
% Single-Unit Trucks	0.8%	2.2%	0%	0%	2.1%	-	0%	0%	0%	0%	0%	-	1.7%	1.7%	3.3%	0%	1.7%	-	1.9%	0%	2.4%	0%	1.7%	-	1.9%
Articulated Trucks	0	11	0	0	11	-	0	0	0	0	0	-	0	10	2	0	12	-	0	0	0	0	0	-	23
% Articulated Trucks	0%	0.4%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0.3%	2.2%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.3%
Buses	0	44	0	0	44	-	0	2	0	0	2	-	0	39	4	0	43	-	1	1	0	0	2	-	91
% Buses	0%	1.5%	0%	0%	1.4%	-	0%	6.3%	0%	0%	1.5%	-	0%	1.1%	4.4%	0%	1.1%	-	0.9%	2.5%	0%	0%	0.9%	-	1.2%
Bicycles on Road	0	4	0	0	4	-	0	0	0	0	0	-	1	8	0	0	9	-	0	0	0	0	0	-	13
% Bicycles on Road	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	1.7%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	-	24	-	-	-	-	-	89	-	-	-	-	-	63	-	-	-	-	-	91	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	98.9%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	1.1%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 15 Lafayette St @ Ocean Ave TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279747, Location: 42.508325, -70.89133

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

## [N] Lafayette Street (Route 1A/114)

Total: 7069

In: 3208

Out: 3861

## [W] Ocean Avenue

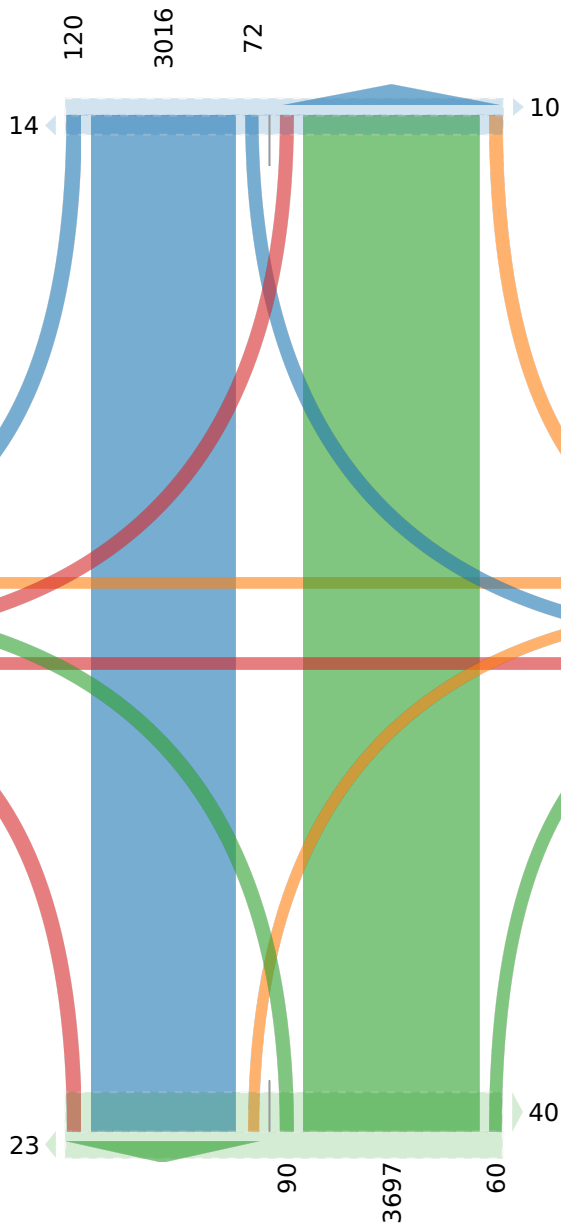
Total: 475

In: 233 Out: 242

85  
40  
108

49

43



Out: 3144

In: 3847

Total: 6991

## [S] Lafayette Street (Route 1A/114)

# 250511- 15 Lafayette St @ Ocean Ave TMC - TMC

Thu Mar 27, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279747, Location: 42.508325, -70.89133

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Ocean Avenue Westbound						Lafayette Street (Route 1A/114) Northbound						Ocean Avenue Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:15AM	4	133	0	0	137	0	4	0	1	0	5	3	3	172	4	0	179	1	8	0	3	0	11	3	332
7:30AM	5	143	0	0	148	0	7	2	0	0	9	1	4	184	5	0	193	0	7	0	6	0	13	1	363
7:45AM	3	116	1	0	120	0	4	0	0	0	4	1	0	187	3	0	190	4	5	3	3	0	11	5	325
8:00AM	3	122	1	0	126	0	3	3	3	0	9	7	1	182	1	0	184	1	4	2	6	0	12	3	331
Total	15	514	2	0	531	0	18	5	4	0	27	12	8	725	13	0	746	6	24	5	18	0	47	12	1351
% Approach	2.8%	96.8%	0.4%	0%	-	-	66.7%	18.5%	14.8%	0%	-	-	1.1%	97.2%	1.7%	0%	-	-	51.1%	10.6%	38.3%	0%	-	-	-
% Total	1.1%	38.0%	0.1%	0%	39.3%	-	1.3%	0.4%	0.3%	0%	2.0%	-	0.6%	53.7%	1.0%	0%	55.2%	-	1.8%	0.4%	1.3%	0%	3.5%	-	-
PHF	0.750	0.897	0.500	-	0.895	-	0.643	0.417	0.333	-	0.750	-	0.500	0.967	0.650	-	0.969	-	0.750	0.417	0.750	-	0.904	-	0.931
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Lights	15	480	2	0	497	-	18	5	4	0	27	-	7	690	11	0	708	-	22	5	17	0	44	-	1276
% Lights	100%	93.4%	100%	0%	93.6%	-	100%	100%	100%	0%	100%	-	87.5%	95.2%	84.6%	0%	94.9%	-	91.7%	100%	94.4%	0%	93.6%	-	94.4%
Single-Unit Trucks	0	19	0	0	19	-	0	0	0	0	0	-	1	24	1	0	26	-	2	0	1	0	3	-	48
% Single-Unit Trucks	0%	3.7%	0%	0%	3.6%	-	0%	0%	0%	0%	0%	-	12.5%	3.3%	7.7%	0%	3.5%	-	8.3%	0%	5.6%	0%	6.4%	-	3.6%
Articulated Trucks	0	4	0	0	4	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	4
% Articulated Trucks	0%	0.8%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.3%
Buses	0	10	0	0	10	-	0	0	0	0	0	-	0	9	1	0	10	-	0	0	0	0	0	-	20
% Buses	0%	1.9%	0%	0%	1.9%	-	0%	0%	0%	0%	0%	-	0%	1.2%	7.7%	0%	1.3%	-	0%	0%	0%	0%	0%	-	1.5%
Bicycles on Road	0	1	0	0	1	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	3
% Bicycles on Road	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	12	-	-	-	-	-	6	-	-	-	-	-	12	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 15 Lafayette St @ Ocean Ave TMC - TMC

Thu Mar 27, 2025

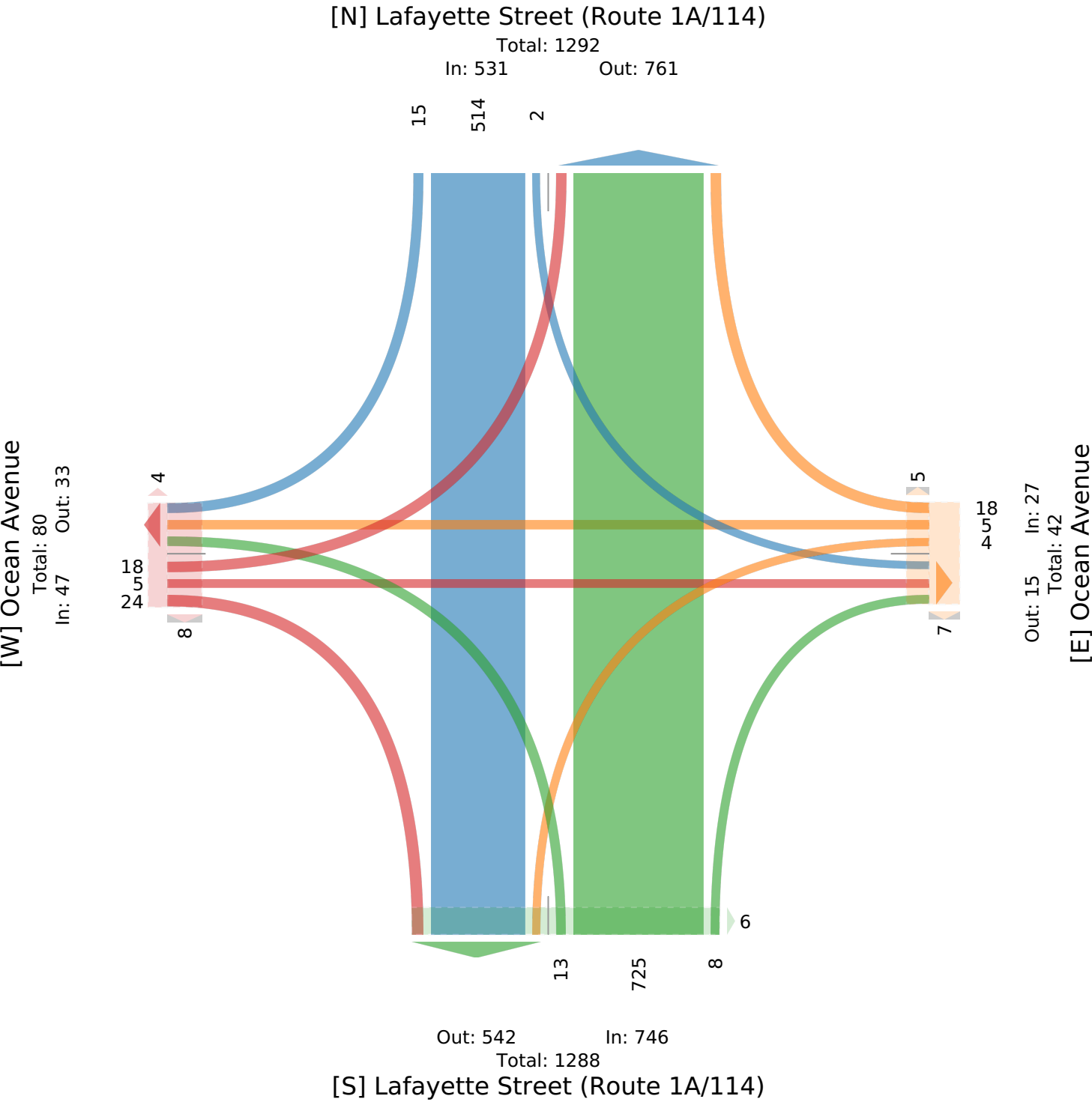
AM Peak (7:15 AM - 8:15 AM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279747, Location: 42.508325, -70.89133

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



## 250511- 15 Lafayette St @ Ocean Ave TMC - TMC

Thu Mar 27, 2025

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279747, Location: 42.508325, -70.89133

Provided by: Precision Data Industries,  
LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						Ocean Avenue Westbound						Lafayette Street (Route 1A/114) Northbound						Ocean Avenue Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 4:45PM	3	149	7	0	159	0	4	3	0	0	7	1	1	175	4	0	180	3	9	1	3	0	13	1	359
5:00PM	10	148	2	0	160	4	4	0	0	0	4	5	2	181	5	0	188	2	5	7	5	0	17	4	369
5:15PM	10	146	8	0	164	1	2	0	1	0	3	6	2	164	3	0	169	5	5	4	4	0	13	5	349
5:30PM	6	152	4	0	162	1	2	2	0	0	4	6	5	172	4	0	181	3	3	4	1	0	8	5	355
Total	29	595	21	0	645	6	12	5	1	0	18	18	10	692	16	0	718	13	22	16	13	0	51	15	1432
% Approach	4.5%	92.2%	3.3%	0%	-	-	66.7%	27.8%	5.6%	0%	-	-	1.4%	96.4%	2.2%	0%	-	-	43.1%	31.4%	25.5%	0%	-	-	-
% Total	2.0%	41.6%	1.5%	0%	45.0%	-	0.8%	0.3%	0.1%	0%	1.3%	-	0.7%	48.3%	1.1%	0%	50.1%	-	1.5%	1.1%	0.9%	0%	3.6%	-	-
PHF	0.725	0.977	0.656	-	0.982	-	0.750	0.417	0.250	-	0.643	-	0.500	0.964	0.800	-	0.962	-	0.611	0.571	0.650	-	0.750	-	0.976
Motorcycles	1	2	0	0	3	-	0	0	0	0	0	-	0	1	0	0	1	-	0	2	0	0	2	-	6
% Motorcycles	3.4%	0.3%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	12.5%	0%	0%	3.9%	-	0.4%
Lights	28	582	21	0	631	-	12	4	1	0	17	-	10	671	15	0	696	-	22	14	13	0	49	-	1393
% Lights	96.6%	97.8%	100%	0%	97.8%	-	100%	80.0%	100%	0%	94.4%	-	100%	97.0%	93.8%	0%	96.9%	-	100%	87.5%	100%	0%	96.1%	-	97.3%
Single-Unit Trucks	0	5	0	0	5	-	0	0	0	0	0	-	0	9	0	0	9	-	0	0	0	0	0	-	14
% Single-Unit Trucks	0%	0.8%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0%	1.3%	0%	0%	1.3%	-	0%	0%	0%	0%	0%	-	1.0%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	3	1	0	4	-	0	0	0	0	0	-	4
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.4%	6.3%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.3%
Buses	0	5	0	0	5	-	0	1	0	0	1	-	0	6	0	0	6	-	0	0	0	0	0	-	12
% Buses	0%	0.8%	0%	0%	0.8%	-	0%	20.0%	0%	0%	5.6%	-	0%	0.9%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0.8%
Bicycles on Road	0	1	0	0	1	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	3
% Bicycles on Road	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	18	-	-	-	-	-	13	-	-	-	-	-	15	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 15 Lafayette St @ Ocean Ave TMC - TMC

Thu Mar 27, 2025

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279747, Location: 42.508325, -70.89133

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

## [N] Lafayette Street (Route 1A/114)

Total: 1362

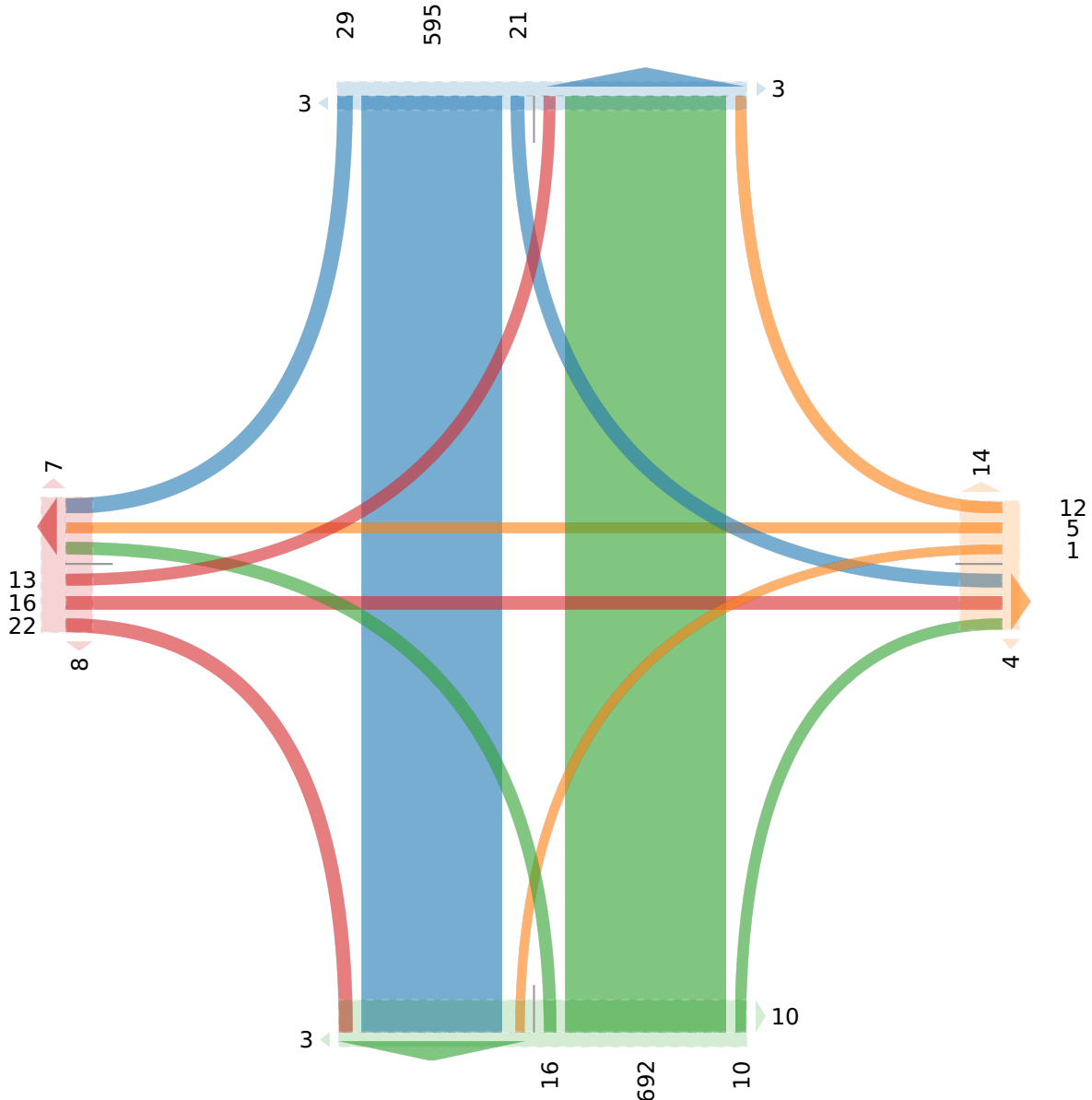
In: 645

Out: 717

## [W] Ocean Avenue

Total: 101

In: 51 Out: 50



## [S] Lafayette Street (Route 1A/114)

Total: 1336

Out: 618

In: 718

# 250511- 16 Lafayette St @ West Ave TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279748, Location: 42.505204, -70.890772

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114)						West Avenue						Lafayette Street (Route 114)						Loring Avenue (Route 1A)						
	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 6:00AM	19	22	1	0	42	0	1	2	1	0	4	1	0	38	9	0	47	1	0	2	7	0	9	0	102
6:15AM	18	21	1	0	40	0	6	6	1	0	13	0	0	61	12	0	73	2	0	1	13	0	14	0	140
6:30AM	38	54	0	0	92	1	2	6	2	0	10	2	3	92	15	0	110	3	6	5	12	0	23	0	235
6:45AM	31	72	2	0	105	0	2	2	2	0	6	0	1	94	23	0	118	1	17	0	22	0	39	0	268
Hourly Total	106	169	4	0	279	1	11	16	6	0	33	3	4	285	59	0	348	7	23	8	54	0	85	0	745
7:00AM	24	106	0	0	130	0	3	4	5	0	12	0	0	131	28	0	159	2	11	2	24	0	37	1	338
7:15AM	38	110	0	0	148	0	4	7	8	0	19	0	0	151	27	0	178	1	9	2	29	0	40	3	385
7:30AM	34	127	1	0	162	0	4	6	4	0	14	0	1	157	44	0	202	3	22	1	40	0	63	1	441
7:45AM	30	114	0	0	144	0	6	8	1	0	15	3	2	152	48	0	202	2	28	3	45	0	76	1	437
Hourly Total	126	457	1	0	584	0	17	25	18	0	60	3	3	591	147	0	741	8	70	8	138	0	216	6	1601
8:00AM	39	83	1	0	123	0	9	7	4	0	20	3	2	157	42	0	201	4	26	2	45	0	73	1	417
8:15AM	29	85	1	0	115	0	1	10	7	0	18	0	2	144	39	0	185	5	31	5	49	0	85	6	403
8:30AM	38	97	0	0	135	1	5	9	3	0	17	3	2	146	36	0	184	2	12	2	42	0	56	2	392
8:45AM	22	116	0	0	138	0	4	9	4	0	17	4	1	144	49	0	194	1	38	4	39	0	81	3	430
Hourly Total	128	381	2	0	511	1	19	35	18	0	72	10	7	591	166	0	764	12	107	13	175	0	295	12	1642
3:00PM	45	79	1	0	125	0	2	5	3	0	10	5	3	151	48	0	202	6	25	7	66	0	98	5	435
3:15PM	46	91	0	0	137	0	2	3	5	0	10	5	7	145	47	0	199	6	21	7	52	0	80	0	426
3:30PM	39	93	4	0	136	0	4	9	6	0	19	5	3	127	38	0	168	5	16	5	49	0	70	2	393
3:45PM	47	112	1	0	160	1	3	6	11	0	20	1	5	135	33	0	173	1	19	3	43	0	65	1	418
Hourly Total	177	375	6	0	558	1	11	23	25	0	59	16	18	558	166	0	742	18	81	22	210	0	313	8	1672
4:00PM	28	85	3	0	116	0	3	13	9	0	25	20	6	116	37	0	159	23	27	6	48	0	81	5	381
4:15PM	39	113	0	0	152	1	11	7	12	0	30	9	7	133	28	0	168	8	32	3	51	0	86	3	436
4:30PM	33	101	2	0	136	3	4	10	15	0	29	5	2	108	34	0	144	7	30	7	59	0	96	5	405
4:45PM	30	119	1	0	150	2	10	9	14	0	33	7	1	118	36	0	155	5	20	5	45	0	70	1	408
Hourly Total	130	418	6	0	554	6	28	39	50	0	117	41	16	475	135	0	626	43	109	21	203	0	333	14	1630
5:00PM	26	114	1	0	141	1	6	9	7	0	22	5	1	124	36	0	161	3	21	9	52	0	82	2	406
5:15PM	37	125	1	0	163	1	6	6	9	0	21	2	7	136	36	0	179	1	14	7	55	0	76	2	439
5:30PM	52	104	3	0	159	1	8	7	7	0	22	4	3	123	43	0	169	3	13	8	51	0	72	0	422
5:45PM	51	97	4	0	152	4	2	7	5	0	14	5	2	97	30	0	129	4	18	3	52	0	73	0	368
Hourly Total	166	440	9	0	615	7	22	29	28	0	79	16	13	480	145	0	638	11	66	27	210	0	303	4	1635
<b>Total</b>	833	2240	28	0	3101	16	108	167	145	0	420	89	61	2980	818	0	3859	99	456	99	990	0	1545	44	8925
<b>% Approach</b>	26.9%	72.2%	0.9%	0%	-	-	25.7%	39.8%	34.5%	0%	-	-	1.6%	77.2%	21.2%	0%	-	-	29.5%	6.4%	64.1%	0%	-	-	-
<b>% Total</b>	9.3%	25.1%	0.3%	0%	34.7%	-	1.2%	1.9%	1.6%	0%	4.7%	-	0.7%	33.4%	9.2%	0%	43.2%	-	5.1%	1.1%	11.1%	0%	17.3%	-	-
<b>Motorcycles</b>	2	2	0	0	4	-	0	0	0	0	0	-	0	2	0	0	2	-	1	0	2	0	3	-	9
<b>% Motorcycles</b>	0.2%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0.2%	0%	0.2%	0%	0.2%	-	0.1%
<b>Lights</b>	785	2157	27	0	2969	-	107	164	141	0	412	-	57	2901	803	0	3761	-	431	99	930	0	1460	-	8602
<b>% Lights</b>	94.2%	96.3%	96.4%	0%	95.7%	-	99.1%	98.2%	97.2%	0%	98.1%	-	93.4%	97.3%	98.2%	0%	97.5%	-	94.5%	100%	93.9%	0%	94.5%	-	96.4%
<b>Single-Unit Trucks</b>	17	50	1	0	68	-	0	2	2	0	4	-	1	45	11	0	57	-	11	0	17	0	28	-	157
<b>% Single-Unit Trucks</b>	2.0%	2.2%	3.6%	0%	2.2%	-	0%	1.2%	1.4%	0%	1.0%	-	1.6%	1.5%	1.3%	0%	1.5%	-	2.4%	0%	1.7%	0%	1.8%	-	1.8%
<b>Articulated Trucks</b>	0	12	0	0	12	-	0	0	0	0	0	-	0	13	2	0	15	-	2	0	4	0	6	-	33
<b>% Articulated Trucks</b>	0%	0.5%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0.2%	0%	0.4%	-	0.4%	0%	0.4%	0%	0.4%	-	0.4%
<b>Buses</b>	28	14	0	0	42	-	0	1	0	0	1	-	0	14	2	0	16	-	9	0	35	0	44	-	103
<b>% Buses</b>	3.4%	0.6%	0%	0%	1.4%	-	0%	0.6%	0%	0%	0.2%	-	0%	0.5%	0.2%	0%	0.4%	-	2.0%	0%	3.5%	0%	2.8%	-	1.2%
<b>Bicycles on Road</b>	1	5	0	0	6	-	1	0	2	0	3	-	3	5	0	0	8	-	2	0	2	0	4	-	21
<b>% Bicycles on Road</b>	0.1%	0.2%	0%	0%	0.2%	-	0.9%	0%	1.4%	0%	0.7%	-	4.9%	0.2%	0%	0%	0.2%	-	0.4%	0%	0.2%	0%	0.3%	-	0.2%
<b>Pedestrians</b>	-	-	-	-	-	16	-	-	-	-	-	89	-	-	-	-	-	99	-	-	-	-	-	44	-
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

# 250511- 16 Lafayette St @ West Ave TMC - TMC

Thu Mar 27, 2025

Full Length (6 AM-9 AM, 3 PM-6 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279748, Location: 42.505204, -70.890772

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

## [N] Lafayette Street (Route 1A/114)

Total: 7179

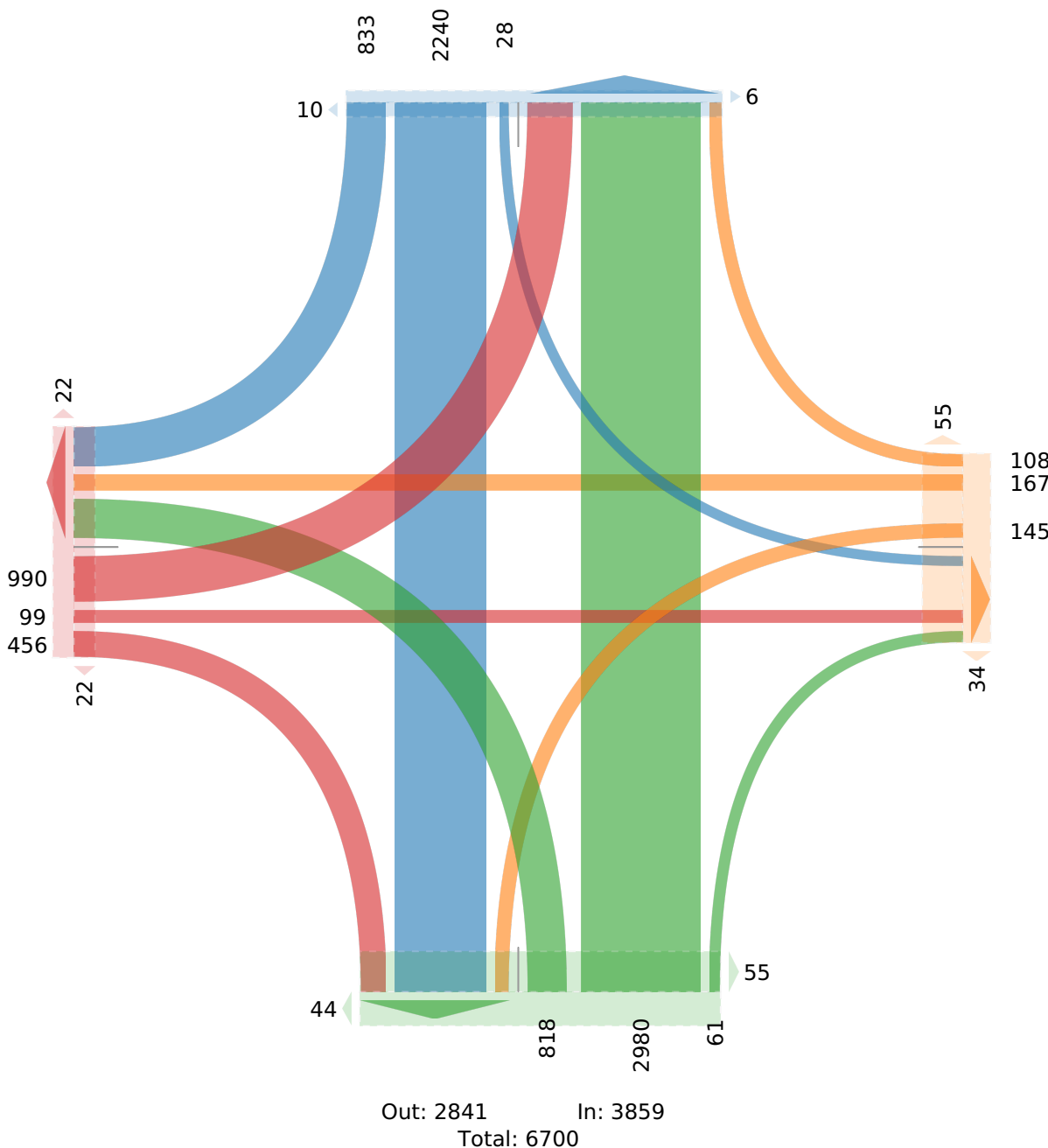
In: 3101

Out: 4078

## [W] Loring Avenue (Route 1A)

Total: 3363

In: 1545 Out: 1818



## [S] Lafayette Street (Route 114)



# 250511- 16 Lafayette St @ West Ave TMC - TMC

Thu Mar 27, 2025

AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279748, Location: 42.505204, -70.890772

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						West Avenue Westbound						Lafayette Street (Route 114) Northbound						Loring Avenue (Route 1A) Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 7:30AM	34	127	1	0	162	0	4	6	4	0	14	0	1	157	44	0	202	3	22	1	40	0	63	1	441
7:45AM	30	114	0	0	144	0	6	8	1	0	15	3	2	152	48	0	202	2	28	3	45	0	76	1	437
8:00AM	39	83	1	0	123	0	9	7	4	0	20	3	2	157	42	0	201	4	26	2	45	0	73	1	417
8:15AM	29	85	1	0	115	0	1	10	7	0	18	0	2	144	39	0	185	5	31	5	49	0	85	6	403
Total	132	409	3	0	544	0	20	31	16	0	67	6	7	610	173	0	790	14	107	11	179	0	297	9	1698
% Approach	24.3%	75.2%	0.6%	0%	-	-	29.9%	46.3%	23.9%	0%	-	-	0.9%	77.2%	21.9%	0%	-	-	36.0%	3.7%	60.3%	0%	-	-	-
% Total	7.8%	24.1%	0.2%	0%	32.0%	-	1.2%	1.8%	0.9%	0%	3.9%	-	0.4%	35.9%	10.2%	0%	46.5%	-	6.3%	0.6%	10.5%	0%	17.5%	-	-
PHF	0.846	0.803	0.750	-	0.838	-	0.556	0.775	0.536	-	0.868	-	0.875	0.971	0.901	-	0.978	-	0.863	0.550	0.913	-	0.874	-	0.961
Motorcycles	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Motorcycles	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Lights	121	390	2	0	513	-	20	30	15	0	65	-	7	595	169	0	771	-	102	11	160	0	273	-	1622
% Lights	91.7%	95.4%	66.7%	0%	94.3%	-	100%	96.8%	93.8%	0%	97.0%	-	100%	97.5%	97.7%	0%	97.6%	-	95.3%	100%	89.4%	0%	91.9%	-	95.5%
Single-Unit Trucks	3	14	1	0	18	-	0	1	0	0	1	-	0	10	2	0	12	-	1	0	7	0	8	-	39
% Single-Unit Trucks	2.3%	3.4%	33.3%	0%	3.3%	-	0%	3.2%	0%	0%	1.5%	-	0%	1.6%	1.2%	0%	1.5%	-	0.9%	0%	3.9%	0%	2.7%	-	2.3%
Articulated Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	2	1	0	3	-	0	0	0	0	0	-	4
% Articulated Trucks	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0.6%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.2%
Buses	8	3	0	0	11	-	0	0	0	0	0	-	0	3	1	0	4	-	4	0	12	0	16	-	31
% Buses	6.1%	0.7%	0%	0%	2.0%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0.6%	0%	0.5%	-	3.7%	0%	6.7%	0%	5.4%	-	1.8%
Bicycles on Road	0	1	0	0	1	-	0	0	1	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	2
% Bicycles on Road	0%	0.2%	0%	0%	0.2%	-	0%	0%	6.3%	0%	1.5%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	14	-	-	-	-	-	9	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 16 Lafayette St @ West Ave TMC - TMC

Thu Mar 27, 2025

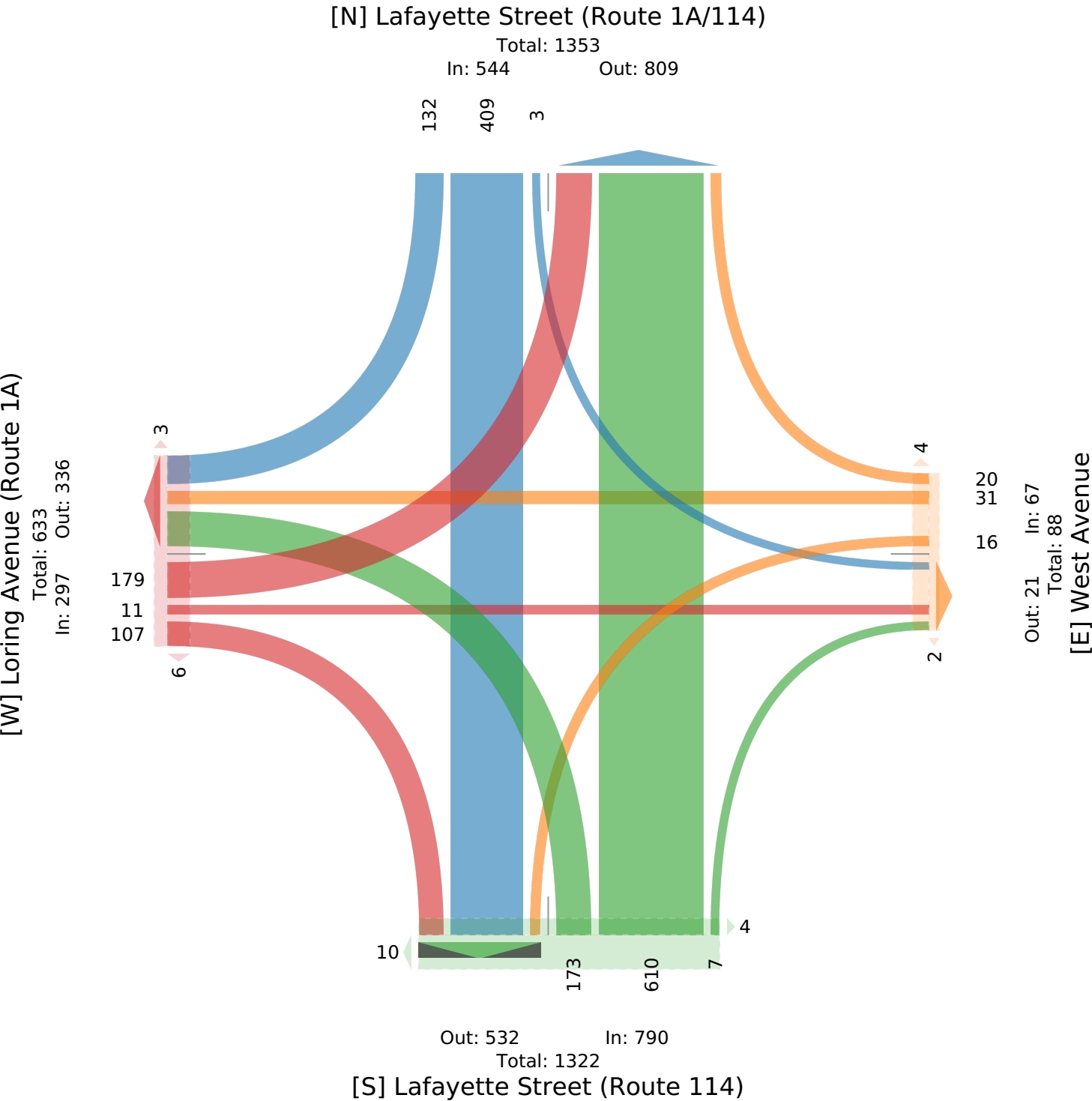
AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279748, Location: 42.505204, -70.890772

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



# 250511- 16 Lafayette St @ West Ave TMC - TMC

Thu Mar 27, 2025

PM Peak (3 PM - 4 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279748, Location: 42.505204, -70.890772

Provided by: Precision Data Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US

Leg Direction	Lafayette Street (Route 1A/114) Southbound						West Avenue Westbound						Lafayette Street (Route 114) Northbound						Loring Avenue (Route 1A) Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2025-03-27 3:00PM	45	79	1	0	125	0	2	5	3	0	10	5	3	151	48	0	202	6	25	7	66	0	98	5	435
3:15PM	46	91	0	0	137	0	2	3	5	0	10	5	7	145	47	0	199	6	21	7	52	0	80	0	426
3:30PM	39	93	4	0	136	0	4	9	6	0	19	5	3	127	38	0	168	5	16	5	49	0	70	2	393
3:45PM	47	112	1	0	160	1	3	6	11	0	20	1	5	135	33	0	173	1	19	3	43	0	65	1	418
<b>Total</b>	177	375	6	0	558	1	11	23	25	0	59	16	18	558	166	0	742	18	81	22	210	0	313	8	1672
<b>% Approach</b>	31.7%	67.2%	1.1%	0%	-	-	18.6%	39.0%	42.4%	0%	-	-	2.4%	75.2%	22.4%	0%	-	-	25.9%	7.0%	67.1%	0%	-	-	-
<b>% Total</b>	10.6%	22.4%	0.4%	0%	33.4%	-	0.7%	1.4%	1.5%	0%	3.5%	-	1.1%	33.4%	9.9%	0%	44.4%	-	4.8%	1.3%	12.6%	0%	18.7%	-	-
<b>PHF</b>	0.941	0.837	0.375	-	0.872	-	0.688	0.639	0.568	-	0.738	-	0.643	0.924	0.865	-	0.918	-	0.833	0.786	0.795	-	0.804	-	0.963
<b>Motorcycles</b>	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
<b>% Motorcycles</b>	0%	0.3%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
<b>Lights</b>	171	363	6	0	540	-	11	23	25	0	59	-	18	542	162	0	722	-	76	22	203	0	301	-	1622
<b>% Lights</b>	96.6%	96.8%	100%	0%	96.8%	-	100%	100%	100%	0%	100%	-	100%	97.1%	97.6%	0%	97.3%	-	93.8%	100%	96.7%	0%	96.2%	-	97.0%
<b>Single-Unit Trucks</b>	1	7	0	0	8	-	0	0	0	0	0	-	0	8	3	0	11	-	2	0	0	0	2	-	21
<b>% Single-Unit Trucks</b>	0.6%	1.9%	0%	0%	1.4%	-	0%	0%	0%	0%	0%	-	0%	1.4%	1.8%	0%	1.5%	-	2.5%	0%	0%	0%	0.6%	-	1.3%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	1
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.1%
<b>Buses</b>	5	4	0	0	9	-	0	0	0	0	0	-	0	7	1	0	8	-	2	0	7	0	9	-	26
<b>% Buses</b>	2.8%	1.1%	0%	0%	1.6%	-	0%	0%	0%	0%	0%	-	0%	1.3%	0.6%	0%	1.1%	-	2.5%	0%	3.3%	0%	2.9%	-	1.6%
<b>Bicycles on Road</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1	0	0	0	1	-	1
<b>% Bicycles on Road</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	1.2%	0%	0%	0%	0.3%	-	0.1%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	16	-	-	-	-	-	18	-	-	-	-	-	8	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

250511- 16 Lafayette St @ West Ave TMC - TMC

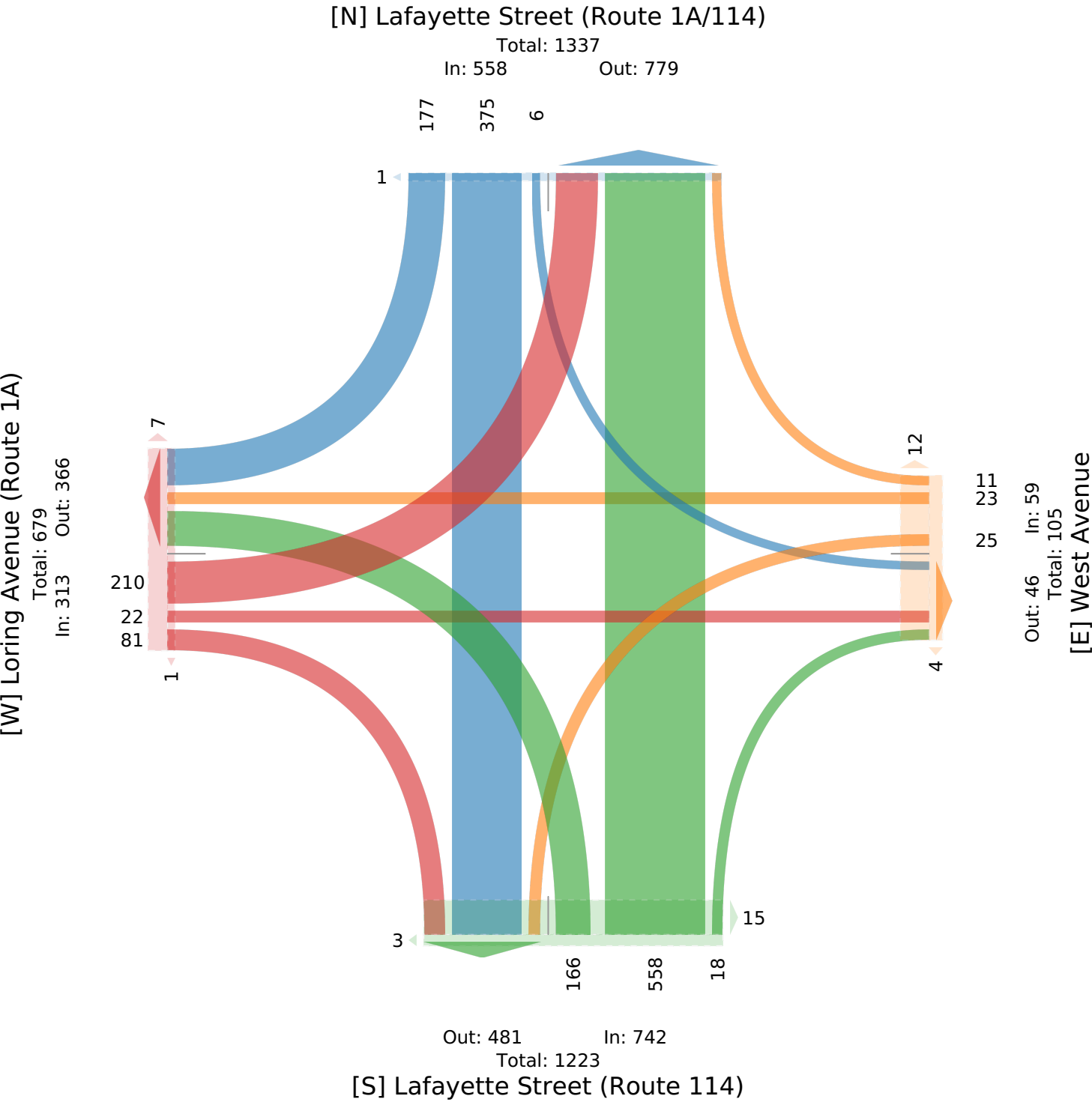
Thu Mar 27, 2025  
PM Peak (3 PM - 4 PM)

All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians,  
Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 1279748, Location: 42.505204, -70.890772

Provided by: Precision Data  
Industries, LLC (PDI)  
157 Washington Street, 2,  
Hudson, MA, 01749, US



## **Part 2: Speed Data**

Station #: 250010000057  
Site ID: 000000000103  
Location: Rt.114/N. St EB, E of Nursery St  
Direction: EAST  
Lane: 1

STA 1  
EB

File: D0325002.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
11:00	96	103	46	51	147	81	15	0	0	0	0	0	0	7	546
12:00	1	5	22	110	323	142	8	1	0	0	0	0	0	0	612
13:00	2	2	37	150	268	139	23	1	0	0	0	0	0	0	622
14:00	5	6	18	136	343	144	20	1	0	0	0	0	0	0	673
15:00	29	43	61	99	285	126	9	0	0	0	0	0	0	0	652
16:00	26	33	61	205	297	92	14	0	0	0	0	0	0	0	728
17:00	21	17	60	178	269	124	17	0	0	0	0	0	0	0	686
18:00	28	27	60	165	293	159	18	3	0	0	0	0	0	0	753
19:00	39	57	100	232	245	54	13	0	0	0	0	0	0	0	740
20:00	2	3	25	101	310	158	13	2	0	0	0	0	0	0	614
21:00	0	0	10	61	200	147	22	2	0	0	0	0	0	0	442
22:00	0	0	4	29	136	114	29	3	1	0	0	0	0	0	316
23:00	0	0	0	7	60	84	19	4	0	0	0	0	0	0	174
24:00	0	0	0	7	39	42	32	5	0	0	0	0	0	0	125
DAY TOTAL	249	296	504	1531	3215	1606	252	22	1	0	0	0	0	7	7683
PERCENTS	3.2%	3.9%	6.6%	19.9%	41.8%	20.9%	3.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	100.0%

Statistical Information...

15th Percentile Speed 21.0 mph	85th Percentile Speed 32.4 mph
Median Speed 27.2 mph	Average Speed 26.7 mph
10 MPH Pace Speed 20 mph to 30 mph 3215 vehicles in pace Representing 43.3% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Wed 3/26/2025

Station #: 250010000057  
Site ID: 000000000103  
Location: Rt.114/N. St EB, E of Nursery St  
Direction: EAST  
Lane: 1

File: D0325002.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	0	3	10	20	10	6	0	0	0	0	0	0	49
02:00	0	0	1	3	5	8	6	2	0	0	0	0	0	0	25
03:00	1	0	0	0	3	6	6	2	0	0	0	0	0	0	18
04:00	0	0	0	0	5	8	8	6	0	1	0	0	0	0	28
05:00	0	0	0	0	8	9	11	0	2	0	0	0	0	0	30
06:00	1	0	0	3	30	66	31	12	1	0	0	0	0	0	144
07:00	2	4	16	49	170	135	47	3	0	0	0	0	0	0	426
08:00	63	33	19	123	245	113	12	2	0	0	0	0	0	0	610
09:00	40	32	59	122	285	113	19	0	0	0	0	0	0	0	670
10:00	9	10	12	71	283	195	31	1	0	0	0	0	0	0	612
11:00	3	2	23	73	280	168	39	1	0	0	0	0	0	0	589
12:00	4	7	9	95	318	181	28	0	0	0	0	0	0	0	642
13:00	8	4	10	104	305	173	18	0	0	0	0	0	0	0	622
14:00	8	8	29	146	309	146	11	1	0	0	0	0	0	0	658
15:00	29	35	49	181	257	150	18	1	0	0	0	0	0	0	720
16:00	94	83	96	142	225	60	1	0	0	0	0	0	0	0	701
17:00	71	51	107	215	207	54	4	0	0	0	0	0	0	0	709
18:00	212	233	143	115	76	18	2	0	0	0	0	0	0	0	799
19:00	106	117	110	60	186	96	5	0	0	0	0	0	0	0	680
20:00	3	8	11	118	324	97	13	0	0	0	0	0	0	0	574
21:00	1	0	11	94	277	105	12	1	0	0	0	0	0	0	501
22:00	0	0	3	34	179	116	19	4	0	0	0	0	0	0	355
23:00	0	0	0	9	60	87	26	4	0	0	0	0	0	0	186
24:00	0	0	0	4	35	69	34	3	1	0	0	0	0	0	146
DAY TOTAL	655	627	708	1764	4082	2193	411	49	4	1	0	0	0	0	10494
PERCENTS	6.2%	6.0%	6.7%	16.8%	38.9%	20.9%	3.9%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 20.4 mph	85th Percentile Speed 32.7 mph
Median Speed 27.2 mph	Average Speed 26.6 mph
10 MPH Pace Speed 20 mph to 30 mph 4082 vehicles in pace Representing 41.5% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Thu 3/27/2025

Station #: 250010000057  
Site ID: 000000000103  
Location: Rt.114/N. St EB, E of Nursery St  
Direction: EAST  
Lane: 1

File: D0325002.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	3	3	9	18	9	3	0	0	0	0	0	0	45
02:00	0	0	0	4	7	15	3	0	1	0	0	0	0	0	30
03:00	0	0	0	0	1	5	9	0	0	0	0	0	0	0	15
04:00	0	0	0	2	4	6	9	1	1	0	0	0	0	0	23
05:00	0	0	1	1	3	15	9	2	0	0	0	0	0	0	31
06:00	0	0	0	4	45	53	28	9	1	0	0	0	0	0	140
07:00	1	0	3	48	144	146	28	2	0	0	0	0	0	0	372
08:00	25	19	44	183	216	98	12	0	0	0	0	0	0	0	597
09:00	211	147	122	91	50	21	6	0	0	0	0	0	0	0	648
10:00	9	10	48	271	285	87	11	0	0	0	0	0	0	0	721
11:00	39	47	63	141	270	104	13	1	0	0	0	0	0	0	678
12:00	8	22	9	120	354	119	6	2	0	1	0	0	0	0	641
13:00	12	17	28	110	369	149	16	2	0	0	0	0	0	0	703
14:00	45	55	63	149	271	98	9	1	0	0	0	0	0	0	691
15:00	77	68	127	211	194	63	5	0	0	0	0	0	0	0	745
16:00	65	57	83	146	246	102	19	1	0	0	0	0	0	0	719
17:00	144	84	125	143	173	57	8	0	0	0	0	0	0	0	734
18:00	153	167	129	72	97	60	7	1	0	0	0	0	0	0	686
19:00	92	68	72	112	250	110	18	0	0	0	0	0	0	0	722
20:00	6	14	38	167	279	126	12	1	0	0	0	0	0	0	643
21:00	3	4	11	63	252	154	30	1	0	0	0	0	0	0	518
22:00	1	3	2	50	167	125	28	1	2	0	0	0	0	0	379
23:00	0	0	0	14	96	111	38	1	0	0	0	0	0	0	260
24:00	0	0	0	4	34	63	30	2	1	0	0	0	0	0	134
DAY TOTAL	891	782	971	2109	3816	1905	363	31	6	1	0	0	0	0	10875
PERCENTS	8.2%	7.2%	8.9%	19.4%	35.1%	17.5%	3.3%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 18.7 mph	85th Percentile Speed 32.1 mph
Median Speed 26.5 mph	Average Speed 25.7 mph
10 MPH Pace Speed 20 mph to 30 mph 3816 vehicles in pace Representing 38.2% of the total vehicles	Vehicles > 65 MPH 0 0.0%



SPEED SUMMARY  
Fri 3/28/2025

Station #: 250010000057  
Site ID: 000000000103  
Location: Rt.114/N. St EB, E of Nursery St  
Direction: EAST  
Lane: 1

File: D0325002.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	1	0	0	1	15	28	17	2	0	1	0	0	0	0	65
02:00	0	0	0	2	5	13	7	1	1	0	0	0	0	0	29
03:00	0	0	0	1	10	5	4	3	0	0	0	0	0	0	23
04:00	0	0	0	0	2	8	4	1	0	0	0	0	0	0	15
05:00	0	0	0	2	9	15	8	5	2	0	0	0	0	0	41
06:00	0	0	2	1	29	70	33	7	0	0	0	0	0	0	142
07:00	2	0	11	39	127	139	45	7	0	0	0	0	0	0	370
08:00	22	38	38	155	206	80	17	0	0	0	0	0	0	0	556
09:00	16	25	26	138	289	129	15	1	0	1	0	0	0	1	641
10:00	8	9	21	87	302	162	25	3	0	0	0	0	0	0	617
DAY TOTAL	49	72	98	426	994	649	175	30	3	2	0	0	0	1	2499
PERCENTS	2.0%	2.9%	3.9%	17.0%	39.8%	26.0%	7.0%	1.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 22.3 mph	85th Percentile Speed 33.8 mph
Median Speed 28.2 mph	Average Speed 28.1 mph
10 MPH Pace Speed 20 mph to 30 mph 994 vehicles in pace Representing 40.6% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Tue 3/25/2025

STA 1  
WB

Station #: 250010000034  
Site ID: 000000000104  
Location: Rt.114/N. St WB, E of Nursery St  
Direction: WEST  
Lane: 1

File: D0325004 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
11:00	41	73	94	196	194	50	11	2	0	0	0	0	0	4	665
12:00	36	41	54	339	255	56	11	2	0	0	0	0	0	0	794
13:00	18	26	73	255	329	88	7	0	0	0	0	0	0	0	796
14:00	16	19	49	340	316	82	12	1	0	0	0	0	0	0	835
15:00	24	44	66	288	339	85	5	1	0	0	0	0	0	0	852
16:00	29	25	89	287	332	101	6	0	0	0	0	0	0	0	869
17:00	59	106	143	287	264	53	6	0	0	0	0	0	0	0	918
18:00	30	18	71	251	371	109	12	0	0	0	0	0	0	0	862
19:00	14	28	111	250	286	50	10	1	0	0	0	0	0	0	750
20:00	1	3	13	169	314	73	8	0	1	0	0	0	0	0	582
21:00	2	1	3	49	171	112	19	2	0	0	0	0	0	0	359
22:00	0	0	3	32	146	93	13	2	0	0	0	0	0	0	289
23:00	0	0	2	6	66	72	23	5	1	0	0	0	0	0	175
24:00	0	0	1	6	29	53	16	2	3	0	0	0	0	0	110
DAY TOTAL	270	384	772	2755	3412	1077	159	18	5	0	0	0	0	4	8856
PERCENTS	3.0%	4.3%	8.7%	31.1%	38.5%	12.2%	1.8%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 20.2 mph	85th Percentile Speed 30.0 mph
Median Speed 25.6 mph	Average Speed 25.2 mph
10 MPH Pace Speed 20 mph to 30 mph 3412 vehicles in pace Representing 39.8% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Wed 3/26/2025

Station #: 250010000034  
Site ID: 000000000104  
Location: Rt.114/N. St WB, E of Nursery St  
Direction: WEST  
Lane: 1

File: D0325004 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	1	7	13	17	11	4	2	1	0	0	0	0	56
02:00	0	0	0	0	6	9	7	1	0	0	0	0	0	0	23
03:00	0	1	0	1	2	8	3	3	0	0	0	0	0	0	18
04:00	0	0	0	0	5	9	14	3	3	0	0	0	0	0	34
05:00	0	0	2	5	10	34	31	13	2	0	0	0	1	0	98
06:00	1	0	1	10	81	146	96	11	4	1	0	0	0	0	351
07:00	12	16	29	115	317	162	40	3	0	0	0	0	0	0	694
08:00	46	57	106	253	321	117	13	1	0	1	0	0	0	0	915
09:00	48	47	73	269	395	101	12	0	0	0	0	0	0	0	945
10:00	1	6	19	176	489	115	22	1	0	0	0	0	0	0	829
11:00	11	12	21	234	379	135	17	0	0	0	0	0	0	0	809
12:00	4	12	30	254	340	127	9	1	0	0	0	0	0	0	777
13:00	8	5	53	262	337	100	13	1	0	0	0	0	0	0	779
14:00	15	38	80	255	337	82	7	1	0	0	0	0	0	0	815
15:00	18	22	56	242	354	135	7	1	0	0	0	0	0	0	835
16:00	46	60	89	327	256	72	5	0	0	0	0	0	0	0	855
17:00	59	78	100	302	287	65	4	1	0	0	0	0	0	0	896
18:00	19	33	172	319	257	47	7	0	0	0	1	0	0	0	855
19:00	25	11	73	271	305	68	7	0	0	0	0	0	0	0	760
20:00	0	6	23	136	277	65	5	1	0	0	0	0	0	0	513
21:00	3	2	7	96	227	60	12	0	0	0	0	0	0	0	407
22:00	0	0	3	43	161	72	13	2	0	0	0	0	0	0	294
23:00	0	0	2	21	84	52	13	2	0	0	0	0	0	0	174
24:00	0	0	0	9	29	46	16	5	0	0	0	1	0	0	106
DAY TOTAL	316	406	940	3607	5269	1844	384	55	11	3	1	1	1	0	12838
PERCENTS	2.5%	3.2%	7.3%	28.1%	41.0%	14.4%	3.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 20.7 mph	85th Percentile Speed 31.2 mph
Median Speed 26.3 mph	Average Speed 26.0 mph
10 MPH Pace Speed 20 mph to 30 mph 5269 vehicles in pace Representing 42.1% of the total vehicles	Vehicles > 65 MPH 1 0.0%

SPEED SUMMARY  
Thu 3/27/2025

Station #: 250010000034  
Site ID: 000000000104  
Location: Rt.114/N. St WB, E of Nursery St  
Direction: WEST  
Lane: 1

File: D0325004 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	2	3	20	23	8	2	2	0	0	0	0	0	60
02:00	0	0	0	1	8	11	4	1	1	0	0	0	0	0	26
03:00	0	0	0	2	8	8	3	1	0	0	0	0	0	0	22
04:00	0	0	0	0	7	11	14	2	0	0	0	0	0	0	34
05:00	0	0	2	4	2	35	29	12	4	1	0	0	0	0	89
06:00	0	0	2	17	52	182	72	13	2	0	0	0	0	0	340
07:00	9	8	42	107	324	170	37	8	1	0	0	0	0	0	706
08:00	63	80	123	341	300	50	9	0	0	0	0	0	0	0	966
09:00	24	43	139	385	234	60	6	0	0	0	0	0	0	0	891
10:00	3	17	62	313	326	71	8	0	0	0	0	0	0	0	800
11:00	10	15	63	282	304	82	11	0	0	0	0	0	0	0	767
12:00	20	20	93	316	354	60	3	1	0	0	0	0	0	0	867
13:00	9	17	53	330	384	65	8	0	0	0	0	0	0	0	866
14:00	15	21	87	316	331	69	5	1	0	0	0	0	0	0	845
15:00	2	9	82	380	338	61	7	0	0	0	0	0	0	0	879
16:00	7	11	68	273	362	88	19	2	0	0	0	0	0	0	830
17:00	38	43	133	384	265	42	2	0	0	0	0	0	0	0	907
18:00	48	66	127	413	221	36	2	1	0	0	0	0	0	0	914
19:00	9	12	112	247	296	58	11	0	0	0	0	0	0	0	745
20:00	10	13	50	264	240	53	7	0	0	0	0	0	0	0	637
21:00	0	0	7	128	222	56	6	0	0	0	0	0	0	0	419
22:00	0	1	2	55	172	85	17	2	0	0	0	0	0	0	334
23:00	0	0	1	28	95	73	15	3	0	0	0	0	0	0	215
24:00	0	0	0	14	43	72	26	5	1	1	0	0	0	0	162
DAY TOTAL	267	376	1250	4603	4908	1521	329	54	11	2	0	0	0	0	13321
PERCENTS	2.0%	2.8%	9.4%	34.6%	36.8%	11.4%	2.5%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 20.4 mph	85th Percentile Speed 30.0 mph
Median Speed 25.3 mph	Average Speed 25.3 mph
10 MPH Pace Speed 20 mph to 30 mph 4908 vehicles in pace Representing 37.6% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Fri 3/28/2025

Station #: 250010000034  
Site ID: 000000000104  
Location: Rt.114/N. St WB, E of Nursery St  
Direction: WEST  
Lane: 1

File: D0325004 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	1	0	2	2	12	28	13	6	0	0	0	0	1	0	65
02:00	0	0	0	1	7	16	7	0	1	0	0	0	0	0	32
03:00	0	0	1	2	10	7	10	3	0	0	0	0	0	0	33
04:00	0	0	0	0	2	7	3	2	2	0	0	0	0	0	16
05:00	1	0	0	7	15	36	21	13	3	0	0	0	0	0	96
06:00	0	0	1	5	70	145	83	20	1	0	1	0	0	0	326
07:00	16	12	24	123	317	123	33	1	0	0	0	0	0	0	649
08:00	49	55	123	313	318	69	4	2	1	0	0	0	0	0	934
09:00	20	11	44	219	399	143	15	2	0	0	0	0	0	0	853
10:00	12	17	27	309	330	123	14	0	0	0	0	0	0	0	832
DAY TOTAL	99	95	222	981	1480	697	203	49	8	0	1	0	1	0	3836
PERCENTS	2.6%	2.5%	5.8%	25.6%	38.6%	18.2%	5.3%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 21.3 mph	85th Percentile Speed 32.9 mph
Median Speed 26.9 mph	Average Speed 27.0 mph
10 MPH Pace Speed 20 mph to 30 mph 1480 vehicles in pace Representing 39.6% of the total vehicles	Vehicles > 65 MPH 1 0.0%

STA 8  
EB

Station #: 250010000109  
Site ID: 000000000803  
Location: Rt.114/N. St EB, S of Lynde St  
Direction: EAST  
Lane: 1

File: D0325016 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
13:00	92	48	106	138	71	9	1	0	0	0	0	0	0	0	465
14:00	59	79	110	183	100	18	7	1	3	0	0	0	0	2	562
15:00	90	75	120	131	130	15	5	0	0	0	0	0	0	0	566
16:00	151	176	166	98	43	8	2	1	0	0	0	0	0	0	645
17:00	111	97	174	167	84	13	4	0	0	0	0	0	0	0	650
18:00	117	131	198	122	43	15	1	0	0	0	0	0	0	0	627
19:00	117	102	141	134	84	25	3	0	0	0	0	0	0	0	606
20:00	50	68	90	148	118	30	3	1	0	0	0	0	0	3	511
21:00	49	40	74	106	98	24	4	0	0	0	0	0	0	2	397
22:00	2	4	15	54	126	53	13	1	0	0	0	0	0	2	270
23:00	0	1	9	44	66	25	9	1	0	0	0	0	0	0	155
24:00	0	0	3	14	39	36	11	0	0	0	0	0	0	2	105
DAY TOTAL	838	821	1206	1339	1002	271	63	5	3	0	0	0	0	11	5559
PERCENTS	15.1%	14.8%	21.7%	24.1%	18.0%	4.9%	1.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	100.0%

Statistical Information...

15th Percentile Speed 14.3 mph	85th Percentile Speed 28.2 mph
Median Speed 21.2 mph	Average Speed 21.4 mph
10 MPH Pace Speed 15 mph to 25 mph 1339 vehicles in pace Representing 28.4% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Wed 3/26/2025

Station #: 250010000109  
Site ID: 000000000803  
Location: Rt.114/N. St EB, S of Lynde St  
Direction: EAST  
Lane: 1

File: D0325016 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	4	3	27	9	6	0	0	0	0	0	0	0	49
02:00	0	0	3	1	6	8	3	0	0	0	0	0	0	0	21
03:00	0	0	1	3	7	6	1	0	0	0	0	0	0	0	18
04:00	0	0	0	2	6	12	1	1	0	0	0	0	0	0	22
05:00	0	1	2	4	8	10	2	1	0	0	0	0	0	0	28
06:00	0	0	2	14	50	44	16	3	1	0	0	0	0	0	130
07:00	19	20	62	97	122	54	9	1	0	0	0	0	0	0	384
08:00	66	72	77	163	124	34	8	1	0	0	0	0	0	0	545
09:00	60	77	134	174	100	19	2	1	0	0	0	0	0	0	567
10:00	84	74	124	135	77	17	3	0	0	0	0	0	0	0	514
11:00	69	68	116	155	76	20	8	1	0	0	0	0	0	2	515
12:00	53	72	109	166	105	17	3	1	0	0	0	0	0	0	526
13:00	115	95	109	95	63	11	1	0	0	0	0	0	0	0	489
14:00	79	75	129	163	69	20	4	0	0	0	0	0	0	0	539
15:00	112	109	102	175	82	14	5	2	0	0	0	0	0	0	601
16:00	114	129	162	133	63	19	3	0	0	0	0	0	0	0	623
17:00	127	169	171	102	43	5	0	0	0	0	0	0	0	0	617
18:00	89	65	157	203	83	17	3	0	0	0	0	0	0	0	617
19:00	73	98	129	167	63	21	2	0	0	0	0	0	0	0	553
20:00	32	48	73	141	98	32	3	0	0	0	0	0	0	0	427
21:00	12	17	41	115	188	35	7	1	0	0	0	0	0	0	416
22:00	0	1	23	77	144	45	13	0	0	0	0	0	0	0	303
23:00	0	0	4	38	75	29	10	4	0	0	0	0	0	0	160
24:00	0	0	1	17	45	37	16	2	0	0	0	0	0	0	118
DAY TOTAL	1104	1190	1735	2343	1724	535	129	19	1	0	0	0	0	2	8782
PERCENTS	12.6%	13.6%	19.8%	26.7%	19.6%	6.1%	1.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed	85th Percentile Speed
14.8 mph	28.7 mph
Median Speed	Average Speed
22.0 mph	22.0 mph
10 MPH Pace Speed	Vehicles > 65 MPH
15 mph to 25 mph	0
2343 vehicles in pace	0.0%
Representing 30.5% of the total vehicles	

SPEED SUMMARY  
Thu 3/27/2025

Station #: 250010000109  
Site ID: 000000000803  
Location: Rt.114/N. St EB, S of Lynde St  
Direction: EAST  
Lane: 1

File: D0325016 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	3	4	18	11	3	1	0	0	0	0	0	0	40
02:00	0	0	0	3	7	4	1	0	0	0	0	0	0	0	15
03:00	0	0	1	2	9	2	1	0	0	0	0	0	0	0	15
04:00	0	0	0	2	8	10	4	1	0	0	0	0	0	0	25
05:00	0	0	0	4	13	10	3	1	0	0	0	0	0	0	31
06:00	0	0	4	18	47	21	15	4	0	0	0	0	0	0	109
07:00	9	16	37	108	128	51	12	2	0	0	0	0	0	0	363
08:00	74	63	87	154	109	19	4	1	1	0	0	0	0	0	512
09:00	70	62	99	138	113	22	10	0	0	0	0	0	0	0	514
10:00	77	123	118	136	80	19	2	0	0	0	0	0	0	1	556
11:00	75	69	107	148	104	26	8	1	2	0	0	0	0	2	542
12:00	85	68	105	124	95	11	3	0	0	0	0	0	0	0	491
13:00	63	69	117	175	87	20	4	0	0	0	0	0	0	0	535
14:00	66	94	126	182	95	18	2	0	0	0	0	0	0	0	583
15:00	105	151	121	123	56	12	5	0	0	0	0	0	0	1	574
16:00	124	126	141	138	65	12	3	0	0	0	0	0	0	0	609
17:00	142	137	181	129	64	12	3	0	0	1	0	0	0	0	669
18:00	133	136	145	116	66	10	7	0	0	0	0	0	0	0	613
19:00	69	83	122	190	96	22	3	0	0	0	0	0	0	1	586
20:00	36	52	104	172	140	19	4	0	0	0	0	0	0	0	527
21:00	15	25	50	150	153	31	7	0	0	0	0	0	0	0	431
22:00	1	1	40	88	132	44	10	0	0	0	0	0	0	0	316
23:00	3	0	9	25	112	56	12	2	0	0	0	0	0	0	219
24:00	0	0	1	33	44	28	6	0	0	0	0	0	0	0	112
DAY TOTAL	1147	1275	1718	2362	1841	490	132	13	3	1	0	0	0	5	8987
PERCENTS	12.8%	14.2%	19.1%	26.3%	20.5%	5.5%	1.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	100.0%

Statistical Information...

15th Percentile Speed 14.6 mph	85th Percentile Speed 28.6 mph
Median Speed 22.0 mph	Average Speed 21.9 mph
10 MPH Pace Speed 15 mph to 25 mph 2362 vehicles in pace Representing 30.1% of the total vehicles	Vehicles > 65 MPH 0 0.0%



SPEED SUMMARY  
Fri 3/28/2025

Station #: 250010000109  
Site ID: 000000000803  
Location: Rt.114/N. St EB, S of Lynde St  
Direction: EAST  
Lane: 1

File: D0325016 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	2	9	23	16	1	1	0	0	0	0	0	0	52
02:00	0	0	1	5	8	9	2	1	0	0	0	0	0	0	26
03:00	0	0	1	2	12	10	1	0	0	0	0	0	0	0	26
04:00	0	0	0	0	11	8	2	0	0	0	0	0	0	0	21
05:00	0	0	0	5	11	6	5	0	0	0	0	0	0	0	27
06:00	1	0	1	9	46	48	7	1	1	0	0	0	0	0	114
07:00	19	11	36	91	154	30	6	3	0	0	0	0	0	0	350
08:00	45	38	81	173	133	32	3	1	0	0	0	0	0	0	506
09:00	87	87	119	169	79	14	4	0	0	0	0	0	0	0	559
10:00	70	69	83	133	115	33	5	3	0	0	0	0	0	2	513
11:00	55	68	119	167	109	28	4	1	1	0	0	0	0	0	552
DAY TOTAL	277	273	443	763	701	234	40	11	2	0	0	0	0	2	2746
PERCENTS	10.1%	9.9%	16.1%	27.8%	25.5%	8.5%	1.5%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	100.0%

Statistical Information...

15th Percentile Speed 16.1 mph	85th Percentile Speed 29.4 mph
Median Speed 23.4 mph	Average Speed 23.2 mph
10 MPH Pace Speed 15 mph to 25 mph 763 vehicles in pace Representing 30.9% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Tue 3/25/2025

STA 8  
WB

Station #: 250010000141  
Site ID: 000000000804  
Location: Rt.114/N. St WB, S of Lynde St  
Direction: WEST  
Lane: 1

File: D0325019 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
13:00	18	8	76	240	90	2	1	3	14	18	9	6	3	0	488
14:00	13	1	62	258	94	3	2	16	21	8	3	13	2	0	496
15:00	28	13	69	290	101	2	0	10	11	11	2	6	4	2	549
16:00	19	17	85	257	131	3	2	10	11	12	6	8	0	0	561
17:00	18	17	89	309	108	2	0	2	4	9	12	9	2	0	581
18:00	22	16	121	265	70	3	2	0	6	6	5	5	0	0	521
19:00	11	18	54	204	79	5	0	0	1	0	6	4	4	0	386
20:00	17	8	64	200	68	2	1	0	1	0	2	2	2	0	367
21:00	1	5	25	121	45	5	0	0	0	0	2	0	0	0	204
22:00	0	3	17	92	61	4	2	0	0	0	0	2	0	0	181
23:00	0	1	5	49	38	1	0	0	0	0	0	0	0	0	94
24:00	0	0	4	26	42	3	1	1	0	0	0	0	2	0	79
DAY TOTAL	147	107	671	2311	927	35	11	42	69	64	47	55	19	2	4507
PERCENTS	3.3%	2.4%	14.9%	51.3%	20.6%	0.8%	0.2%	0.9%	1.5%	1.4%	1.0%	1.2%	0.4%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 19.1 mph	85th Percentile Speed 28.3 mph
Median Speed 23.0 mph	Average Speed 24.8 mph
10 MPH Pace Speed 15 mph to 25 mph 2311 vehicles in pace Representing 53.0% of the total vehicles	Vehicles > 65 MPH 19 0.4%

SPEED SUMMARY  
Wed 3/26/2025

Station #: 250010000141  
Site ID: 000000000804  
Location: Rt.114/N. St WB, S of Lynde St  
Direction: WEST  
Lane: 1

File: D0325019 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	1	1	12	16	2	0	0	0	0	0	0	0	0	32
02:00	0	0	2	10	7	1	0	0	0	0	0	0	0	0	20
03:00	0	0	1	3	5	1	0	0	0	0	0	0	0	0	10
04:00	0	0	0	3	8	2	1	0	0	0	0	0	0	0	14
05:00	0	0	5	7	20	3	1	1	0	0	0	0	0	0	37
06:00	0	0	5	40	53	13	3	0	0	0	0	0	0	0	114
07:00	0	1	27	143	167	12	0	0	0	0	0	2	2	0	354
08:00	8	6	71	325	142	10	0	0	0	0	2	0	0	0	564
09:00	3	5	75	308	136	5	0	0	0	0	0	5	0	0	537
10:00	4	8	58	269	122	1	1	0	0	0	1	0	0	0	464
11:00	4	10	61	257	91	5	0	2	0	0	0	7	2	0	439
12:00	8	5	61	268	97	1	0	2	2	1	3	2	0	1	451
13:00	13	3	83	243	108	6	1	5	12	3	10	2	0	0	489
14:00	34	13	118	225	105	8	0	7	16	19	3	12	4	0	564
15:00	28	17	50	270	106	4	0	11	20	8	7	16	1	0	538
16:00	26	14	92	290	130	1	1	9	13	4	6	6	0	0	592
17:00	11	14	71	334	86	4	1	1	5	8	3	3	4	0	545
18:00	3	7	72	321	126	1	0	0	0	0	4	2	4	0	540
19:00	12	12	50	231	94	3	0	0	0	0	0	5	4	0	411
20:00	6	8	79	201	67	3	0	0	0	0	0	0	0	0	364
21:00	0	4	24	137	85	5	0	0	0	0	0	0	2	0	257
22:00	0	1	10	78	75	6	0	0	0	0	0	0	0	0	170
23:00	0	1	8	41	44	6	0	0	0	0	0	0	0	0	100
24:00	0	0	4	23	41	6	2	0	0	1	0	0	0	0	77
DAY TOTAL	160	130	1028	4039	1931	109	11	38	68	44	39	62	23	1	7683
PERCENTS	2.1%	1.7%	13.4%	52.6%	25.1%	1.4%	0.1%	0.5%	0.9%	0.6%	0.5%	0.8%	0.3%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 19.9 mph	85th Percentile Speed 28.1 mph
Median Speed 23.2 mph	Average Speed 24.3 mph
10 MPH Pace Speed 15 mph to 25 mph 4039 vehicles in pace Representing 53.7% of the total vehicles	Vehicles > 65 MPH 23 0.3%

SPEED SUMMARY  
Thu 3/27/2025

Station #: 250010000141  
Site ID: 000000000804  
Location: Rt.114/N. St WB, S of Lynde St  
Direction: WEST  
Lane: 1

File: D0325019 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	1	23	16	3	0	0	0	0	0	0	0	0	43
02:00	0	0	2	8	7	0	0	0	0	0	0	0	0	0	17
03:00	0	0	0	2	11	1	1	0	0	0	0	0	0	0	15
04:00	0	0	0	3	7	4	0	0	0	0	0	0	0	0	14
05:00	0	0	3	10	16	1	0	0	0	0	0	0	0	0	30
06:00	0	0	12	33	65	19	2	1	0	0	0	0	0	0	132
07:00	8	10	40	142	118	7	0	0	0	0	0	0	0	0	325
08:00	19	20	84	308	121	8	1	0	0	0	0	0	0	0	561
09:00	7	14	93	331	74	8	0	0	0	0	0	2	0	0	529
10:00	14	20	78	255	89	2	0	2	0	0	2	0	0	0	462
11:00	15	12	72	228	100	5	2	2	2	2	2	6	0	4	452
12:00	10	19	58	295	104	2	0	0	3	2	3	3	0	0	499
13:00	10	23	82	266	106	4	0	2	5	3	7	12	4	2	526
14:00	21	21	78	304	100	3	0	4	5	4	4	7	2	0	553
15:00	25	19	71	287	141	4	0	3	3	7	4	5	0	2	571
16:00	9	14	66	326	121	7	0	4	7	4	16	10	2	0	586
17:00	9	17	68	344	80	0	1	0	6	2	4	3	0	0	534
18:00	15	14	110	282	118	5	0	0	5	0	4	7	3	0	563
19:00	6	18	60	262	111	4	0	0	0	0	1	3	2	0	467
20:00	12	10	79	176	64	4	2	0	0	0	1	2	0	0	350
21:00	2	4	61	143	58	1	0	0	0	0	0	2	0	0	271
22:00	2	1	22	110	79	2	0	0	1	0	0	1	0	0	218
23:00	0	1	7	45	55	9	0	0	0	0	0	0	0	0	117
24:00	0	0	10	42	42	12	1	1	0	0	0	0	0	0	108
DAY TOTAL	184	237	1157	4225	1803	115	10	19	37	24	48	63	13	8	7943
PERCENTS	2.3%	3.0%	14.6%	53.2%	22.7%	1.4%	0.1%	0.2%	0.5%	0.3%	0.6%	0.8%	0.2%	0.1%	100.0%

Statistical Information...

15th Percentile Speed 19.0 mph	85th Percentile Speed 27.7 mph
Median Speed 22.9 mph	Average Speed 23.7 mph
10 MPH Pace Speed 15 mph to 25 mph 4225 vehicles in pace Representing 54.5% of the total vehicles	Vehicles > 65 MPH 13 0.2%

SPEED SUMMARY  
Fri 3/28/2025

Station #: 250010000141  
Site ID: 000000000804  
Location: Rt.114/N. St WB, S of Lynde St  
Direction: WEST  
Lane: 1

File: D0325019 (2).prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	4	17	10	4	1	0	0	0	0	0	0	0	36
02:00	0	0	0	9	9	0	1	0	0	0	0	0	0	0	19
03:00	0	0	1	8	8	0	0	0	0	0	0	0	0	0	17
04:00	0	0	1	4	4	3	0	0	0	0	0	0	0	0	12
05:00	1	1	2	3	20	3	0	0	0	0	0	0	0	0	30
06:00	0	0	2	37	54	16	0	0	0	0	0	0	0	0	109
07:00	0	0	22	121	174	16	3	0	0	0	1	0	0	0	337
08:00	32	27	68	277	144	5	0	0	0	0	1	0	0	2	556
09:00	20	24	72	303	95	5	0	0	0	2	0	0	0	0	521
10:00	13	19	74	286	82	1	1	2	2	1	0	2	2	2	487
11:00	14	13	74	244	115	5	0	2	7	15	2	4	2	2	499
DAY TOTAL	80	84	320	1309	715	58	6	4	9	18	4	6	4	6	2623
PERCENTS	3.0%	3.2%	12.2%	49.9%	27.3%	2.2%	0.2%	0.2%	0.3%	0.7%	0.2%	0.2%	0.2%	0.2%	100.0%

Statistical Information...

15th Percentile Speed 19.6 mph	85th Percentile Speed 28.1 mph
Median Speed 23.3 mph	Average Speed 23.8 mph
10 MPH Pace Speed 15 mph to 25 mph 1309 vehicles in pace Representing 51.6% of the total vehicles	Vehicles > 65 MPH 4 0.2%

STA 18  
NB

Station #: 250010000140  
Site ID: 000000001801  
Location: Rt.1A/Lafayette St NB, N of Lafayette Pl  
Direction: NORTH  
Lane: 1

File: D0325008.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
12:00	22	38	29	79	176	125	10	2	0	0	0	0	0	0	481
13:00	2	3	37	84	233	178	36	4	0	0	0	0	0	4	581
14:00	4	13	24	113	287	126	37	5	1	0	0	0	0	2	612
15:00	24	21	62	130	245	107	26	1	2	0	0	0	0	2	620
16:00	18	40	142	246	191	24	3	0	0	0	0	0	0	0	664
17:00	38	57	68	156	300	79	10	2	1	0	0	0	0	0	711
18:00	87	79	141	204	223	62	8	1	0	0	0	0	0	0	805
19:00	16	19	46	137	273	110	22	1	0	0	0	0	0	0	624
20:00	1	2	11	81	249	123	17	2	0	0	0	0	0	0	486
21:00	1	2	14	48	146	133	27	2	1	0	0	0	0	0	374
22:00	0	0	4	27	56	99	37	3	0	0	0	0	0	0	226
23:00	0	2	3	9	44	53	30	3	1	0	1	0	0	0	146
24:00	0	0	0	3	19	37	23	5	1	0	0	0	0	0	88
DAY TOTAL	213	276	581	1317	2442	1256	286	31	7	0	1	0	0	8	6418
PERCENTS	3.3%	4.3%	9.1%	20.5%	38.0%	19.6%	4.5%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	100.0%

Statistical Information...

15th Percentile Speed 20.3 mph	85th Percentile Speed 32.6 mph
Median Speed 26.9 mph	Average Speed 26.4 mph
10 MPH Pace Speed 20 mph to 30 mph 2442 vehicles in pace Representing 39.4% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Wed 3/26/2025

Station #: 250010000140  
Site ID: 000000001801  
Location: Rt.1A/Lafayette St NB, N of Lafayette Pl  
Direction: NORTH  
Lane: 1

File: D0325008.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	1	0	2	8	10	19	1	0	0	0	0	0	0	41
02:00	0	0	1	1	4	9	7	0	1	0	0	0	0	0	23
03:00	0	0	0	0	0	4	4	1	0	0	0	0	0	0	9
04:00	0	0	0	2	0	8	4	2	0	0	0	0	0	0	16
05:00	1	0	0	1	3	8	3	5	3	0	0	0	0	0	24
06:00	0	0	0	6	10	33	21	5	3	0	0	0	0	0	78
07:00	0	0	7	10	94	131	42	9	0	0	0	0	0	0	293
08:00	9	7	20	121	196	155	30	0	0	0	0	0	0	0	538
09:00	12	30	49	180	253	70	10	4	0	0	0	0	0	0	608
10:00	7	5	13	99	271	159	46	3	0	0	0	0	0	0	603
11:00	3	7	19	72	264	160	32	5	0	0	0	0	0	0	562
12:00	0	5	22	101	229	147	31	2	0	0	0	0	0	0	537
13:00	0	5	20	88	251	157	27	4	2	2	0	0	0	0	556
14:00	4	6	24	124	262	119	33	3	0	0	0	0	0	0	575
15:00	12	16	41	108	256	136	31	2	0	0	0	0	0	0	602
16:00	17	42	102	258	192	66	8	2	0	0	0	0	0	0	687
17:00	195	123	83	118	163	51	8	0	0	0	0	0	1	0	742
18:00	4	4	26	126	354	195	31	3	0	0	0	0	0	0	743
19:00	3	10	26	117	282	171	47	2	0	0	0	0	0	0	658
20:00	0	0	14	55	210	173	29	2	0	0	0	0	0	0	483
21:00	1	2	14	69	212	133	24	3	0	0	0	0	0	0	458
22:00	2	0	3	25	132	122	36	3	1	0	0	0	0	0	324
23:00	0	1	3	11	47	63	32	2	3	0	0	0	0	0	162
24:00	0	0	1	8	23	42	24	0	1	0	0	0	0	0	99
DAY TOTAL	270	264	488	1702	3716	2322	579	63	14	2	0	0	1	0	9421
PERCENTS	2.9%	2.8%	5.2%	18.1%	39.4%	24.6%	6.1%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 21.8 mph	85th Percentile Speed 33.5 mph
Median Speed 27.9 mph	Average Speed 27.7 mph
10 MPH Pace Speed 20 mph to 30 mph 3716 vehicles in pace Representing 40.6% of the total vehicles	Vehicles > 65 MPH 1 0.0%

SPEED SUMMARY  
Thu 3/27/2025

Station #: 250010000140  
Site ID: 000000001801  
Location: Rt.1A/Lafayette St NB, N of Lafayette Pl  
Direction: NORTH  
Lane: 1

File: D0325008.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	2	4	7	18	12	2	0	0	0	0	0	0	45
02:00	0	0	1	2	2	3	4	2	0	1	0	0	0	0	15
03:00	0	0	0	1	1	4	6	1	1	0	0	0	0	0	14
04:00	0	0	0	1	0	4	11	2	0	0	0	0	0	0	18
05:00	0	0	1	2	5	5	11	4	0	0	0	0	0	0	28
06:00	0	0	1	6	17	30	10	5	0	0	0	0	0	0	69
07:00	1	2	3	13	86	113	50	10	2	1	0	0	0	0	281
08:00	0	7	23	93	182	169	32	4	0	0	0	0	0	0	510
09:00	17	23	60	181	228	90	19	0	1	0	0	0	0	0	619
10:00	2	6	21	72	221	189	57	3	2	0	0	0	0	4	577
11:00	0	0	13	62	230	207	49	5	1	0	0	0	0	2	569
12:00	0	2	10	101	300	132	29	3	0	0	0	0	0	0	577
13:00	1	13	33	114	309	120	27	5	0	0	0	0	0	0	622
14:00	2	0	26	146	285	130	21	2	0	0	0	0	0	0	612
15:00	11	10	41	127	252	153	28	3	0	0	0	0	0	0	625
16:00	12	20	136	255	159	48	11	1	0	0	0	0	0	0	642
17:00	166	127	149	103	148	71	10	1	0	0	0	0	0	0	775
18:00	16	21	55	202	344	109	22	2	0	0	0	0	0	0	771
19:00	1	2	18	125	222	192	40	4	0	0	0	0	0	0	604
20:00	4	7	16	82	229	131	33	2	0	0	0	0	0	0	504
21:00	0	1	4	74	180	153	29	1	0	0	0	0	0	0	442
22:00	0	1	10	34	146	111	34	3	2	0	0	0	0	0	341
23:00	0	0	9	12	57	115	28	8	0	0	0	2	0	0	231
24:00	0	1	4	5	39	53	22	2	0	0	0	0	0	0	126
DAY TOTAL	233	243	636	1817	3649	2350	595	75	9	2	0	2	0	6	9617
PERCENTS	2.4%	2.5%	6.6%	18.9%	37.9%	24.4%	6.2%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	100.0%

Statistical Information...

15th Percentile Speed 21.5 mph	85th Percentile Speed 33.5 mph
Median Speed 27.7 mph	Average Speed 27.5 mph
10 MPH Pace Speed 20 mph to 30 mph 3649 vehicles in pace Representing 38.9% of the total vehicles	Vehicles > 65 MPH 0 0.0%



SPEED SUMMARY  
Fri 3/28/2025

Station #: 250010000140  
Site ID: 000000001801  
Location: Rt.1A/Lafayette St NB, N of Lafayette Pl  
Direction: NORTH  
Lane: 1

File: D0325008.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	0	6	18	16	15	2	1	1	0	0	0	0	59
02:00	0	0	3	1	4	5	12	2	0	0	0	0	0	0	27
03:00	0	0	1	0	2	4	8	4	1	1	0	0	0	0	21
04:00	0	0	0	0	1	7	4	4	3	0	0	0	0	1	20
05:00	0	2	0	1	4	5	8	1	1	0	0	0	0	0	22
06:00	0	0	1	6	15	22	28	4	0	0	0	0	0	0	76
07:00	0	0	4	18	92	122	48	11	0	0	0	0	0	0	295
08:00	13	14	25	107	187	144	35	4	0	0	0	0	0	0	529
09:00	3	9	50	184	204	82	25	0	0	0	0	0	0	0	557
10:00	3	1	21	81	217	171	45	4	0	0	0	0	0	2	545
11:00	6	24	36	122	195	147	35	6	0	0	0	0	0	0	571
DAY TOTAL	25	50	141	526	939	725	263	42	6	2	0	0	0	3	2722
PERCENTS	0.9%	1.8%	5.2%	19.3%	34.5%	26.6%	9.7%	1.5%	0.2%	0.1%	0.0%	0.0%	0.0%	0.1%	100.0%

Statistical Information...

15th Percentile Speed 22.0 mph	85th Percentile Speed 34.4 mph
Median Speed 28.4 mph	Average Speed 28.4 mph
10 MPH Pace Speed 20 mph to 30 mph 939 vehicles in pace Representing 34.9% of the total vehicles	Vehicles > 65 MPH 0 0.0%

Station #: 250010000071  
Site ID: 000000001802  
Location: Rt.1A/Lafayette St SB, N of Lafayette Pl  
Direction: SOUTH  
Lane: 1

STA 18  
SB

File: D0325010.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
12:00	56	40	27	80	179	104	12	1	1	0	0	0	0	1	501
13:00	15	33	35	130	292	121	19	0	0	0	0	0	0	0	645
14:00	10	14	40	155	281	129	20	3	0	0	0	0	0	3	655
15:00	13	28	61	172	223	131	12	4	1	0	0	0	0	0	645
16:00	174	156	107	171	109	29	2	0	0	0	0	0	0	0	748
17:00	15	35	44	200	309	82	8	1	0	0	0	0	0	4	698
18:00	26	32	85	212	255	98	8	0	0	0	0	0	0	0	716
19:00	9	13	29	101	224	127	16	0	0	0	0	0	0	2	521
20:00	2	1	11	63	196	117	12	1	0	0	0	0	0	0	403
21:00	1	3	2	18	119	82	18	1	0	1	0	0	0	0	245
22:00	1	0	1	14	44	68	17	1	0	0	0	0	0	0	146
23:00	0	0	0	5	35	36	14	0	0	0	0	0	0	0	90
24:00	0	0	0	3	29	23	9	1	0	0	0	0	0	0	65
DAY TOTAL	322	355	442	1324	2295	1147	167	13	2	1	0	0	0	10	6078
PERCENTS	5.3%	5.8%	7.3%	21.8%	37.8%	18.9%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	100.0%

Statistical Information...

15th Percentile Speed 20.3 mph	85th Percentile Speed 32.1 mph
Median Speed 26.6 mph	Average Speed 26.0 mph
10 MPH Pace Speed 20 mph to 30 mph 2295 vehicles in pace Representing 39.9% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Wed 3/26/2025

Station #: 250010000071  
Site ID: 000000001802  
Location: Rt.1A/Lafayette St SB, N of Lafayette Pl  
Direction: SOUTH  
Lane: 1

File: D0325010.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	1	0	0	1	12	13	5	1	1	0	0	0	0	0	34
02:00	0	0	0	3	4	3	1	1	0	0	0	0	0	0	12
03:00	0	0	0	1	4	1	1	1	0	0	0	0	0	0	8
04:00	0	0	1	1	3	3	3	2	2	0	0	0	0	0	15
05:00	1	1	1	3	4	9	13	5	1	0	0	0	0	0	38
06:00	0	0	3	4	22	71	41	14	1	0	0	0	0	0	156
07:00	1	3	5	27	106	212	69	4	0	0	0	0	0	0	427
08:00	32	43	73	191	294	129	16	2	0	0	0	0	0	0	780
09:00	170	139	105	106	202	49	6	0	2	0	0	0	0	0	779
10:00	16	12	31	130	257	168	34	1	0	0	0	0	0	2	651
11:00	15	27	18	87	270	175	32	2	0	0	0	0	0	0	626
12:00	5	9	31	90	268	136	18	1	1	0	0	0	0	6	565
13:00	1	14	23	96	268	160	31	0	1	0	0	0	0	2	596
14:00	6	11	43	108	319	145	22	1	1	0	0	0	0	2	658
15:00	18	46	52	125	242	138	28	2	0	0	0	0	0	1	652
16:00	131	79	106	140	161	50	9	1	2	0	0	0	0	2	681
17:00	17	28	79	219	299	81	7	1	0	0	0	0	0	0	731
18:00	13	10	24	149	393	152	11	0	1	0	0	0	0	2	755
19:00	1	6	11	96	273	176	32	2	0	0	0	0	0	0	597
20:00	3	6	5	65	173	105	13	0	0	0	0	0	0	0	370
21:00	1	0	7	20	100	120	26	0	0	0	0	0	0	0	274
22:00	1	0	6	10	81	81	29	3	0	1	0	0	0	0	212
23:00	1	2	2	6	33	56	13	2	0	1	0	0	0	0	116
24:00	0	0	2	4	11	27	7	1	0	0	0	0	0	0	52
DAY TOTAL	434	436	628	1682	3799	2260	467	47	13	2	0	0	0	17	9785
PERCENTS	4.4%	4.5%	6.4%	17.2%	38.8%	23.1%	4.8%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	100.0%

Statistical Information...

15th Percentile Speed 21.0 mph	85th Percentile Speed 33.1 mph
Median Speed 27.5 mph	Average Speed 27.1 mph
10 MPH Pace Speed 20 mph to 30 mph 3799 vehicles in pace Representing 40.7% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Thu 3/27/2025

Station #: 250010000071  
Site ID: 000000001802  
Location: Rt.1A/Lafayette St SB, N of Lafayette Pl  
Direction: SOUTH  
Lane: 1

File: D0325010.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	1	0	0	3	10	12	5	2	0	0	0	0	0	0	33
02:00	0	0	1	2	4	6	2	0	1	0	0	0	0	0	16
03:00	0	0	2	0	1	4	3	1	0	0	0	0	0	0	11
04:00	0	0	1	0	2	3	6	3	0	0	0	0	0	0	15
05:00	0	1	0	3	1	13	14	10	0	0	0	0	0	0	42
06:00	0	0	3	3	37	61	38	4	0	0	0	0	0	0	146
07:00	2	6	9	29	123	160	75	8	2	0	0	0	0	0	414
08:00	37	66	69	166	312	108	13	1	0	0	0	0	0	0	772
09:00	144	120	59	128	193	99	7	0	0	0	0	0	0	0	750
10:00	2	29	14	118	310	172	24	2	0	0	0	0	0	0	671
11:00	13	13	42	108	289	179	16	0	0	0	0	0	0	0	660
12:00	4	9	37	129	285	141	26	2	0	0	0	0	0	2	635
13:00	5	5	30	145	276	144	29	0	0	1	0	0	0	0	635
14:00	6	14	55	166	283	118	15	0	0	0	0	0	1	0	658
15:00	11	34	26	136	295	126	18	2	0	0	0	0	0	0	648
16:00	189	111	90	169	160	38	10	1	0	0	0	0	0	0	768
17:00	11	12	48	175	302	153	6	0	0	0	0	0	0	5	712
18:00	20	25	50	206	323	88	5	2	0	0	0	1	0	0	720
19:00	3	0	13	80	288	163	31	2	0	0	0	0	0	0	580
20:00	3	5	11	80	200	102	24	0	0	0	0	0	0	2	427
21:00	0	0	6	20	152	116	30	1	0	0	0	0	0	0	325
22:00	1	0	2	14	95	94	27	2	0	0	0	0	0	0	235
23:00	0	0	1	12	50	52	12	3	0	0	0	0	0	0	130
24:00	0	0	1	7	27	37	13	2	0	0	0	0	0	0	87
DAY TOTAL	452	450	570	1899	4018	2189	449	48	3	1	0	1	1	9	10090
PERCENTS	4.5%	4.5%	5.6%	18.8%	39.8%	21.7%	4.4%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	100.0%

Statistical Information...

15th Percentile Speed 21.1 mph	85th Percentile Speed 32.9 mph
Median Speed 27.4 mph	Average Speed 26.9 mph
10 MPH Pace Speed 20 mph to 30 mph 4018 vehicles in pace Representing 41.7% of the total vehicles	Vehicles > 65 MPH 1 0.0%

SPEED SUMMARY  
Fri 3/28/2025

Station #: 250010000071  
Site ID: 000000001802  
Location: Rt.1A/Lafayette St SB, N of Lafayette Pl  
Direction: SOUTH  
Lane: 1

File: D0325010.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	1	0	1	11	23	15	2	0	0	0	0	0	0	53
02:00	0	0	1	2	4	7	10	2	0	0	0	0	0	0	26
03:00	0	0	0	1	1	5	3	2	0	0	0	0	0	0	12
04:00	0	0	1	4	2	5	2	2	0	1	0	0	0	0	17
05:00	0	1	0	1	4	10	15	6	0	0	0	0	0	0	37
06:00	1	0	0	11	31	64	53	12	0	0	0	0	0	0	172
07:00	8	14	10	25	88	163	60	6	0	0	0	0	0	2	376
08:00	37	42	73	144	264	125	24	0	0	0	0	0	0	1	710
09:00	208	104	84	113	139	69	11	1	0	0	0	0	0	0	729
10:00	10	14	29	131	380	132	25	1	0	0	0	0	0	0	722
11:00	7	12	43	118	273	180	24	0	0	0	0	0	0	4	661
DAY TOTAL	271	188	241	551	1197	783	242	34	0	1	0	0	0	7	3515
PERCENTS	7.7%	5.3%	6.9%	15.7%	34.1%	22.3%	6.9%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	100.0%

Statistical Information...

15th Percentile Speed 20.5 mph	85th Percentile Speed 33.7 mph
Median Speed 27.7 mph	Average Speed 27.2 mph
10 MPH Pace Speed 20 mph to 30 mph 1197 vehicles in pace Representing 37.0% of the total vehicles	Vehicles > 65 MPH 0 0.0%

Station #: 250010000096  
Site ID: 000000002403  
Location: Rt.114/Lafayette St EB,W of Rosedale Ave  
Direction: EAST  
Lane: 1

STA 24  
EB

File: D0325016.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
12:00	6	0	2	17	115	279	110	16	0	1	0	0	3	12	561
13:00	4	0	11	20	122	277	130	7	1	0	0	1	0	14	587
14:00	3	0	5	11	72	266	140	6	0	1	0	2	4	8	518
15:00	7	0	6	14	103	264	166	10	1	0	2	1	3	15	592
16:00	3	0	7	54	165	295	169	4	1	2	0	0	5	12	717
17:00	6	0	4	18	104	275	182	14	1	0	0	4	6	6	620
18:00	5	1	21	39	78	270	149	17	0	0	0	3	6	25	614
19:00	2	0	5	30	71	160	98	13	0	0	0	2	1	3	385
20:00	0	0	0	3	39	140	73	10	0	0	0	0	0	2	267
21:00	0	0	0	0	25	65	53	11	1	0	0	0	2	2	159
22:00	1	0	1	0	13	44	32	1	1	0	0	0	0	1	94
23:00	0	0	0	3	9	16	20	6	0	0	0	0	0	0	54
24:00	0	0	0	0	3	14	13	6	1	0	0	0	0	0	37
DAY TOTAL	37	1	62	209	919	2365	1335	121	7	4	2	13	30	100	5205
PERCENTS	0.7%	0.0%	1.2%	4.0%	17.7%	45.4%	25.6%	2.3%	0.1%	0.1%	0.0%	0.2%	0.6%	1.9%	100.0%

Statistical Information...

15th Percentile Speed 27.7 mph	85th Percentile Speed 37.8 mph
Median Speed 32.8 mph	Average Speed 32.9 mph
10 MPH Pace Speed 25 mph to 35 mph 2365 vehicles in pace Representing 46.7% of the total vehicles	Vehicles > 65 MPH 30 0.6%

SPEED SUMMARY  
Wed 3/26/2025

Station #: 250010000096  
Site ID: 000000002403  
Location: Rt.114/Lafayette St EB,W of Rosedale Ave  
Direction: EAST  
Lane: 1

File: D0325016.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	1	0	1	6	4	3	1	0	0	0	0	0	16
02:00	0	0	0	0	0	3	1	2	1	0	0	0	0	0	7
03:00	0	0	0	0	2	2	0	1	0	0	0	0	0	0	5
04:00	0	0	0	2	0	2	3	2	0	1	0	0	0	0	10
05:00	0	0	0	0	1	6	10	6	0	1	0	0	0	0	24
06:00	0	0	0	2	6	36	57	26	5	0	0	0	0	0	132
07:00	0	0	0	2	18	148	147	30	1	0	0	0	0	0	346
08:00	3	1	3	16	122	385	177	11	0	1	0	1	0	2	722
09:00	3	0	8	21	141	394	173	8	1	0	0	2	2	1	754
10:00	2	0	7	27	118	294	125	10	0	0	0	3	0	7	593
11:00	2	0	1	12	84	284	175	5	0	0	0	2	3	5	573
12:00	3	0	1	17	128	239	121	12	1	0	0	2	1	8	533
13:00	5	1	10	20	97	244	139	5	2	0	0	1	2	12	538
14:00	2	1	8	27	103	255	135	15	0	1	0	4	2	5	558
15:00	4	0	11	32	82	295	138	11	0	0	0	6	2	14	595
16:00	6	1	9	20	116	301	153	14	0	0	2	0	5	12	639
17:00	6	0	8	21	125	285	193	15	0	0	0	1	11	14	679
18:00	2	0	4	46	154	275	139	13	0	0	0	2	0	10	645
19:00	0	0	10	21	81	192	124	11	0	0	0	0	0	2	441
20:00	2	0	1	10	49	115	85	5	0	0	0	0	1	3	271
21:00	0	0	0	1	23	76	38	10	1	0	0	0	2	4	155
22:00	0	0	0	1	22	54	48	9	2	0	0	0	0	2	138
23:00	0	0	0	1	2	28	25	8	0	0	0	0	0	0	64
24:00	0	0	0	2	0	14	12	7	1	0	0	0	0	0	36
DAY TOTAL	40	4	82	301	1475	3933	2222	239	16	4	2	24	31	101	8474
PERCENTS	0.5%	0.0%	1.0%	3.6%	17.4%	46.4%	26.2%	2.8%	0.2%	0.0%	0.0%	0.3%	0.4%	1.2%	100.0%

Statistical Information...

15th Percentile Speed 27.9 mph	85th Percentile Speed 37.9 mph
Median Speed 32.9 mph	Average Speed 33.0 mph
10 MPH Pace Speed 25 mph to 35 mph 3933 vehicles in pace Representing 47.2% of the total vehicles	Vehicles > 65 MPH 31 0.4%

SPEED SUMMARY  
Thu 3/27/2025

Station #: 250010000096  
Site ID: 000000002403  
Location: Rt.114/Lafayette St EB,W of Rosedale Ave  
Direction: EAST  
Lane: 1

File: D0325016.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	0	1	3	5	3	1	0	0	0	0	0	0	13
02:00	0	0	0	0	0	3	8	1	0	0	0	0	0	0	12
03:00	0	0	0	0	0	4	2	0	0	0	0	0	0	0	6
04:00	0	0	0	1	0	0	4	3	0	0	0	0	0	0	8
05:00	0	0	0	1	2	10	11	7	1	0	0	0	0	0	32
06:00	0	0	0	1	5	23	52	12	3	0	0	0	0	0	96
07:00	0	0	1	5	29	135	146	26	1	1	0	0	0	0	344
08:00	0	1	4	26	70	323	267	26	0	0	0	0	0	2	719
09:00	3	0	2	16	135	366	211	12	0	0	0	0	1	4	750
10:00	9	1	6	19	84	249	168	19	0	2	0	1	1	11	570
11:00	1	0	0	14	145	301	131	15	0	0	0	0	0	9	616
12:00	2	0	1	13	126	274	138	11	0	1	0	0	0	8	574
13:00	5	0	4	17	124	259	142	7	0	1	0	2	7	4	572
14:00	3	0	6	28	96	266	111	15	0	0	0	2	8	14	549
15:00	2	0	5	39	110	246	158	17	0	0	0	0	6	6	589
16:00	5	0	11	38	170	324	136	5	0	0	0	4	1	7	701
17:00	5	1	7	33	96	272	170	11	0	0	0	1	6	10	612
18:00	2	0	13	48	104	248	180	21	0	0	0	4	0	20	640
19:00	6	0	7	12	75	211	132	13	3	0	0	5	4	9	477
20:00	0	0	1	8	63	131	74	15	1	0	0	0	0	6	299
21:00	0	0	0	2	22	86	67	8	0	0	2	0	0	2	189
22:00	0	0	2	2	16	69	35	11	0	0	0	0	0	0	135
23:00	0	0	0	2	19	21	29	5	1	0	0	0	0	0	77
24:00	0	0	0	0	7	16	21	5	1	0	0	0	0	0	50
DAY TOTAL	43	3	70	326	1501	3842	2396	266	11	5	2	19	34	112	8630
PERCENTS	0.5%	0.0%	0.8%	3.8%	17.4%	44.5%	27.8%	3.1%	0.1%	0.1%	0.0%	0.2%	0.4%	1.3%	100.0%

Statistical Information...

15th Percentile Speed 27.9 mph	85th Percentile Speed 38.1 mph
Median Speed 33.1 mph	Average Speed 33.1 mph
10 MPH Pace Speed 25 mph to 35 mph 3842 vehicles in pace Representing 45.3% of the total vehicles	Vehicles > 65 MPH 34 0.4%



SPEED SUMMARY  
Fri 3/28/2025

Station #: 250010000096  
Site ID: 000000002403  
Location: Rt.114/Lafayette St EB,W of Rosedale Ave  
Direction: EAST  
Lane: 1

File: D0325016.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	0	0	3	13	8	3	0	1	0	0	0	0	28
02:00	0	0	0	0	1	4	6	1	1	1	0	0	0	1	15
03:00	0	0	0	0	0	1	5	1	0	0	0	0	0	0	7
04:00	0	0	0	0	4	1	2	0	0	0	0	0	0	0	7
05:00	0	0	0	0	0	4	14	8	0	0	0	0	0	0	26
06:00	0	0	0	1	3	19	42	30	9	0	0	0	0	0	104
07:00	0	0	0	0	33	147	125	34	1	0	0	0	0	2	342
08:00	1	0	7	27	105	352	191	14	2	0	0	0	2	3	704
09:00	3	0	0	27	147	298	160	13	0	0	1	1	0	9	659
10:00	2	0	0	7	75	374	178	13	0	0	0	2	4	14	669
DAY TOTAL	6	0	7	62	371	1213	731	117	13	2	1	3	6	29	2561
PERCENTS	0.2%	0.0%	0.3%	2.4%	14.5%	47.4%	28.5%	4.6%	0.5%	0.1%	0.0%	0.1%	0.2%	1.1%	100.0%

Statistical Information...

15th Percentile Speed 29.2 mph	85th Percentile Speed 38.4 mph
Median Speed 33.4 mph	Average Speed 33.6 mph
10 MPH Pace Speed 25 mph to 35 mph 1213 vehicles in pace Representing 48.0% of the total vehicles	Vehicles > 65 MPH 6 0.2%

STA 24  
WB

Station #: 250010000045  
Site ID: 000000002404  
Location: Rt.114/Lafayette St WB,W of Rosedale Ave  
Direction: WEST  
Lane: 1

File: D0325018.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
12:00	7	1	7	32	77	201	142	34	4	0	0	0	0	0	505
13:00	8	11	13	24	79	247	183	40	4	0	0	0	0	0	609
14:00	12	6	15	19	77	201	154	30	4	1	0	0	0	0	519
15:00	8	4	11	32	71	206	197	54	2	1	0	0	0	0	586
16:00	16	12	17	22	80	254	231	40	6	0	0	0	0	0	678
17:00	12	14	16	22	77	285	275	58	4	0	0	0	0	0	763
18:00	17	13	15	31	99	267	240	50	3	0	0	0	0	0	735
19:00	14	18	15	56	46	192	179	41	1	0	0	0	0	0	562
20:00	3	4	5	14	40	111	122	30	3	0	0	0	0	0	332
21:00	0	0	0	0	26	101	118	14	3	1	0	0	0	0	263
22:00	0	0	0	0	8	59	70	18	2	0	0	0	0	0	157
23:00	0	0	0	2	4	18	48	19	1	0	2	1	0	0	95
24:00	0	0	0	2	3	11	20	9	5	0	0	0	0	0	50
DAY TOTAL	97	83	114	256	687	2153	1979	437	42	3	2	1	0	0	5854
PERCENTS	1.7%	1.4%	1.9%	4.4%	11.7%	36.8%	33.8%	7.5%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 28.0 mph	85th Percentile Speed 39.1 mph
Median Speed 34.0 mph	Average Speed 33.5 mph
10 MPH Pace Speed 25 mph to 35 mph 2153 vehicles in pace Representing 37.4% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Wed 3/26/2025

Station #: 250010000045  
Site ID: 000000002404  
Location: Rt.114/Lafayette St WB,W of Rosedale Ave  
Direction: WEST  
Lane: 1

File: D0325018.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	1	0	1	3	6	8	1	0	0	1	0	1	22
02:00	0	0	0	0	0	4	2	4	0	0	0	0	0	0	10
03:00	0	0	0	0	1	1	0	3	1	0	0	0	0	0	6
04:00	0	0	0	0	2	1	5	3	0	0	0	0	0	0	11
05:00	0	0	0	0	2	2	10	3	0	0	0	0	0	0	17
06:00	0	1	0	1	3	10	28	18	1	1	0	0	0	0	63
07:00	0	0	0	0	22	66	122	40	3	0	1	0	0	0	254
08:00	4	6	6	27	90	206	245	43	6	0	0	0	0	0	633
09:00	7	3	7	14	48	196	220	52	8	0	1	0	0	0	556
10:00	6	1	5	14	51	205	210	39	5	1	0	0	0	0	537
11:00	4	2	8	27	40	175	182	33	2	0	0	0	0	0	473
12:00	10	2	12	18	72	197	183	39	4	1	1	0	0	0	539
13:00	9	5	11	24	59	168	185	39	4	1	0	0	0	0	505
14:00	11	7	2	17	70	211	181	27	1	0	0	0	0	0	527
15:00	21	11	19	25	91	223	161	43	4	1	0	0	0	0	599
16:00	29	13	24	41	81	244	236	36	4	0	0	0	0	0	708
17:00	15	8	19	36	78	262	257	39	3	1	0	0	0	0	718
18:00	10	15	27	32	73	258	280	39	0	1	0	0	0	0	735
19:00	13	9	9	35	49	194	176	46	4	0	0	0	0	0	535
20:00	1	4	3	6	29	156	153	31	4	0	1	0	0	0	388
21:00	0	0	0	1	24	123	154	30	0	0	0	0	0	0	332
22:00	0	0	0	1	20	60	87	38	1	0	0	0	0	0	207
23:00	0	0	0	1	7	24	42	21	3	0	0	1	0	0	99
24:00	0	0	1	1	1	14	25	13	5	1	0	0	0	0	61
DAY TOTAL	140	87	154	321	914	3003	3150	687	64	8	4	2	0	1	8535
PERCENTS	1.6%	1.0%	1.8%	3.8%	10.7%	35.2%	36.9%	8.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 28.8 mph	85th Percentile Speed 39.2 mph
Median Speed 34.5 mph	Average Speed 33.9 mph
10 MPH Pace Speed 30 mph to 40 mph 3150 vehicles in pace Representing 37.5% of the total vehicles	Vehicles > 65 MPH 0 0.0%

SPEED SUMMARY  
Thu 3/27/2025

Station #: 250010000045  
Site ID: 000000002404  
Location: Rt.114/Lafayette St WB,W of Rosedale Ave  
Direction: WEST  
Lane: 1

File: D0325018.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	1	0	0	1	2	4	8	4	2	1	0	0	0	0	23
02:00	0	0	0	0	0	2	3	3	0	0	0	0	0	0	8
03:00	0	0	0	0	1	0	2	4	3	0	0	0	0	0	10
04:00	0	0	0	0	1	2	3	4	1	0	0	0	0	0	11
05:00	0	1	0	0	3	2	5	4	0	0	0	0	0	0	15
06:00	0	0	1	0	3	16	24	9	3	0	0	0	0	0	56
07:00	1	2	0	5	15	77	89	39	10	0	0	0	0	0	238
08:00	6	4	14	26	59	207	227	58	13	1	0	0	0	0	615
09:00	7	3	2	25	38	157	211	75	7	0	0	0	0	0	525
10:00	4	0	6	8	62	173	181	51	4	0	1	0	0	0	490
11:00	8	2	0	7	57	189	179	44	4	1	1	0	0	0	492
12:00	5	8	4	10	51	195	183	44	6	0	0	0	0	0	506
13:00	4	3	11	33	88	210	201	34	3	0	1	0	0	0	588
14:00	15	5	9	14	57	192	199	34	7	0	0	0	0	0	532
15:00	12	8	10	33	84	203	199	43	6	0	0	0	0	0	598
16:00	18	5	12	22	95	215	229	49	1	2	0	0	0	0	648
17:00	30	20	39	28	83	267	220	59	3	2	0	0	0	0	751
18:00	32	18	28	55	98	228	197	51	9	0	0	0	0	0	716
19:00	6	1	7	9	43	187	229	46	4	0	0	0	0	0	532
20:00	4	0	2	26	53	149	133	33	1	0	0	0	0	0	401
21:00	0	0	0	1	10	110	142	26	5	1	2	0	0	0	297
22:00	0	0	0	4	28	73	93	25	6	1	0	1	0	0	231
23:00	0	0	0	1	4	27	69	22	3	0	0	0	0	0	126
24:00	0	0	0	3	3	21	21	10	2	0	0	0	1	0	61
DAY TOTAL	153	80	145	311	938	2906	3047	771	103	9	5	1	1	0	8470
PERCENTS	1.8%	0.9%	1.7%	3.7%	11.1%	34.3%	36.0%	9.1%	1.2%	0.1%	0.1%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed 28.8 mph	85th Percentile Speed 39.4 mph
Median Speed 34.6 mph	Average Speed 34.1 mph
10 MPH Pace Speed 30 mph to 40 mph 3047 vehicles in pace Representing 36.6% of the total vehicles	Vehicles > 65 MPH 1 0.0%

SPEED SUMMARY  
Fri 3/28/2025

Station #: 250010000045  
Site ID: 000000002404  
Location: Rt.114/Lafayette St WB,W of Rosedale Ave  
Direction: WEST  
Lane: 1

File: D0325018.prn  
City: Salem  
County: Speed

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
01:00	0	0	0	3	4	7	13	4	2	0	0	0	1	0	34
02:00	0	0	0	0	0	1	11	2	0	0	1	0	0	1	16
03:00	0	0	0	0	0	1	2	4	1	0	0	1	0	0	9
04:00	0	0	0	0	0	3	5	3	0	2	0	0	0	0	13
05:00	0	0	0	0	0	5	3	4	1	0	0	0	0	0	13
06:00	0	0	1	1	1	10	22	13	1	0	0	0	0	0	49
07:00	4	0	0	1	22	74	113	34	8	2	1	0	0	0	259
08:00	7	12	17	21	77	209	249	45	3	0	0	0	0	0	640
09:00	8	0	4	12	71	194	223	38	8	1	0	0	0	0	559
10:00	4	2	2	5	27	135	209	61	11	0	0	0	0	0	456
DAY TOTAL	23	14	24	43	202	639	850	208	35	5	2	1	1	1	2048
PERCENTS	1.1%	0.7%	1.2%	2.1%	9.9%	31.2%	41.5%	10.2%	1.7%	0.2%	0.1%	0.0%	0.0%	0.0%	100.0%



















Statistical Information...

15th Percentile Speed 30.2 mph	85th Percentile Speed 39.7 mph
Median Speed 35.5 mph	Average Speed 35.0 mph
10 MPH Pace Speed 30 mph to 40 mph 850 vehicles in pace Representing 42.0% of the total vehicles	Vehicles > 65 MPH 1 0.0%

**Appendix C**  
**Traffic Safety Data**





SYMBOLS			TYPES OF CRASH		CRASH INDEX AND SEVERITY		<div>FIGURE 1</div> <div>Collision Diagram:</div> <div>North Street from Liberty Hill Avenue to School Street</div> <div>Crash Reports 2019-24</div>	
 Moving Vehicle	 Parked Vehicle		 Head On / Front to Front	 Property Damage Only Crash Index Number				
 Backing Vehicle	 Fixed Object		 Angle	 Injury Crash Index Number				
 Non-Involved Vehicle	 Bicycle		 Rear End / Front to End	 Fatal Crash Index Number				
 Pedestrian	 Animal		 Sideswipe, Same Direction	  Dark condition Crash Index Number				
			 Sideswipe, Opposite Direction					
BOSTON REGION MPO							Route 114 Corridor Study Salem, Massachusetts	



# Collision Diagram

## North Street from Liberty Hill Avenue to School Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
1	4649970	01/12/2019	Property damage only	No injury	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
2	4651130	01/14/2019	Non-fatal injury	Non-fatal injury - Possible	Rear-end	Daylight	Clear/Clear	Dry
3	4665031	02/16/2019	Property damage only	No injury	Rear-end	Daylight	Clear/Reported bu	Dry
4	4674727	03/11/2019	Property damage only	No injury	Angle	Daylight	Other/Other	Ice
5	4687856	04/05/2019	Property damage only	No injury	Angle	Daylight	Clear/Clear	Dry
6	4686078	04/07/2019	Property damage only	No injury	Rear-end	Daylight	Clear/Clear	Dry
7	4689569	04/16/2019	Unknown	Non-fatal injury - Possible	Angle	Dark - lighted roadway	Clear/Clear	Dry
8	4692145	04/22/2019	Property damage only	No injury	Rear-end	Dark - lighted roadway	Rain/Rain	Wet
9	4695218	04/29/2019	Property damage only	No injury	Angle	Daylight	Clear/Clear	Dry
10	4714106	06/18/2019	Property damage only	No injury	Rear-end	Dusk	Clear/Clear	Dry
11	4726173	07/01/2019	Property damage only	No injury	Rear-end	Daylight	Clear/Clear	
12	4722626	07/10/2019	Property damage only	No injury	Rear-end	Daylight	Clear/Clear	Dry
13	4723981	07/15/2019	Property damage only	No injury	Angle	Daylight	Clear/Clear	
14	4729546	07/27/2019	Property damage only	No injury	Angle	Dark - lighted roadway	Clear/Clear	
15	4730064	07/29/2019	Property damage only	No injury	Angle	Daylight	Clear/Clear	
16	4746346	09/03/2019	Property damage only	No Apparent Injury (O)	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
17	4752535	09/23/2019	Property damage only	No Apparent Injury (O)	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
18	4754677	09/29/2019	Property damage only	No Apparent Injury (O)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
19	4762549	10/15/2019	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Cloudy/Clear	Dry
20	4768657	10/31/2019	Property damage only	No Apparent Injury (O)	Angle	Daylight	Rain/Rain	Wet
21	4781446	11/29/2019	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
22	4787997	12/13/2019	Property damage only	No Apparent Injury (O)	Head-on	Dark - lighted roadway	Rain/Rain	Wet
23	4820013	02/23/2020	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
24	4820655	02/24/2020	Non-fatal injury	Suspected Minor Injury (B)	Angle	Daylight	Clear/Clear	Dry
25	4844798	05/12/2020	Non-fatal injury	Possible Injury (C)	Rear-end	Daylight	Clear/Clear	Dry
26	4848893	06/03/2020	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Clear/Clear	Dry
27	4862424	07/24/2020	Unknown	Unknown	Front to Rear	Daylight	Clear/Clear	Dry
28	4864441	07/29/2020	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
29	4869919	08/13/2020	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Clear/Clear	Dry
30	4887527	10/18/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry



# Collision Diagram

## North Street from Liberty Hill Avenue to School Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
31	4889604	10/24/2020	Non-fatal injury	Possible Injury (C)	Angle	Dark - lighted roadway	Clear/Clear	Dry
32	4889606	10/25/2020	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
33	4907292	12/11/2020	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Clear/Clear	Dry
34	4907873	12/13/2020	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Cloudy/Clear	Dry
35	4910455	12/20/2020	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Rain/Rain	Wet
36	4928168	02/07/2021	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Snow/Snow	Snow
37	4936023	02/25/2021	Property damage only	No Apparent Injury (O)	Sideswipe, or	Dark - lighted roadway	Clear/Clear	Dry
38	4823012	02/27/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Rain/Rain	Wet
39	4940900	03/15/2021	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Clear/Clear	Dry
40	4942334	03/19/2021	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear	Dry
41	4946869	03/26/2021	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
42	4945377	03/27/2021	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
43	4959307	05/10/2021	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
44	4964261	05/18/2021	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
45	4963707	05/20/2021	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
46	5055756	08/15/2021	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
47	5068366	10/30/2021	Property damage only	No Apparent Injury (O)	Sideswipe, se	Dark - lighted roadway	Rain/Rain	Wet
48	5068348	10/31/2021	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Wet
49	5068453	12/20/2021	Property damage only	No Apparent Injury (O)	Rear-end	Dark - lighted roadway	Clear	Dry
50	5068576	01/10/2022	Property damage only	No Apparent Injury (O)	Rear-end	Dawn	Clear/Clear	Dry
51	5068786	01/14/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
52	5068588	01/20/2022	Non-fatal injury	Possible Injury (C)	Angle	Dark - lighted roadway	Clear/Clear	Dry
53	5068385	01/23/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
54	5072645	02/21/2022	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
55	5086161	03/29/2022	Property damage only	No Apparent Injury (O)	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
56	5090046	04/06/2022	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Rain/Rain	Wet
57	5113311	06/10/2022	Property damage only	No Apparent Injury (O)	Sideswipe, se	Daylight	Clear/Clear	Dry
58	5130350	06/18/2022	Property damage only	No Apparent Injury (O)	Sideswipe, se	Daylight	Clear	Dry
59	5142569	08/25/2022	Non-fatal injury	Possible Injury (C)	Front to Front	Daylight	Clear/Clear	Dry
60	5156752	09/27/2022	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry

# Collision Diagram

## North Street from Liberty Hill Avenue to School Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
61	5156113	09/29/2022	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Clear/Clear	Dry
62	5174195	11/10/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
63	5201130	01/11/2023	Non-fatal injury	Possible Injury (C)	Rear-end	Daylight	Clear/Clear	Dry
64	5249453	04/14/2023	Property damage only	Unknown	Sideswipe, s2	Daylight	Clear/Clear	Dry
65	5245605	04/21/2023	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Clear/Clear	Dry
66	5274802	07/12/2023	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
67	5323916	09/21/2023	Unknown	Not reported	Sideswipe, s2	Dark - lighted roadway	Clear/Clear	Dry
68	5327378	11/28/2023	Property damage only	Unknown	Angle	Dark - lighted roadway	Clear/Clear	Dry
69	5333571	12/08/2023	Non-fatal injury	Possible Injury (C)	Rear-end	Dark - lighted roadway	Clear	Dry
70	5347819	01/12/2024	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
71	5386428	04/24/2024	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
72	5422748	08/06/2024	Unknown	Unknown	Angle	Daylight	Clear/Clear	Dry





SYMBOLS		TYPES OF CRASH	CRASH INDEX AND SEVERITY		<b>FIGURE 2</b> <b>Collision Diagram:</b> <b>North Street from Osborne Street to Franklin Street</b> <b>Crash Reports 2019-24</b>
	Moving Vehicle		#	Property Damage Only Crash Index Number	
	Backing Vehicle		#	Injury Crash Index Number	BOSTON REGION MPO
	Non-Involved Vehicle		#	Fatal Crash Index Number	
	Pedestrian		#	Dark condition Crash Index Number	
	Parked Vehicle				Route 114 Corridor Study Salem, Massachusetts
	Fixed Object				
	Bicycle				
	Animal				



Collision Diagram  
North Street from Osborne Street to Franklin Street: Crash Reports 2019-24

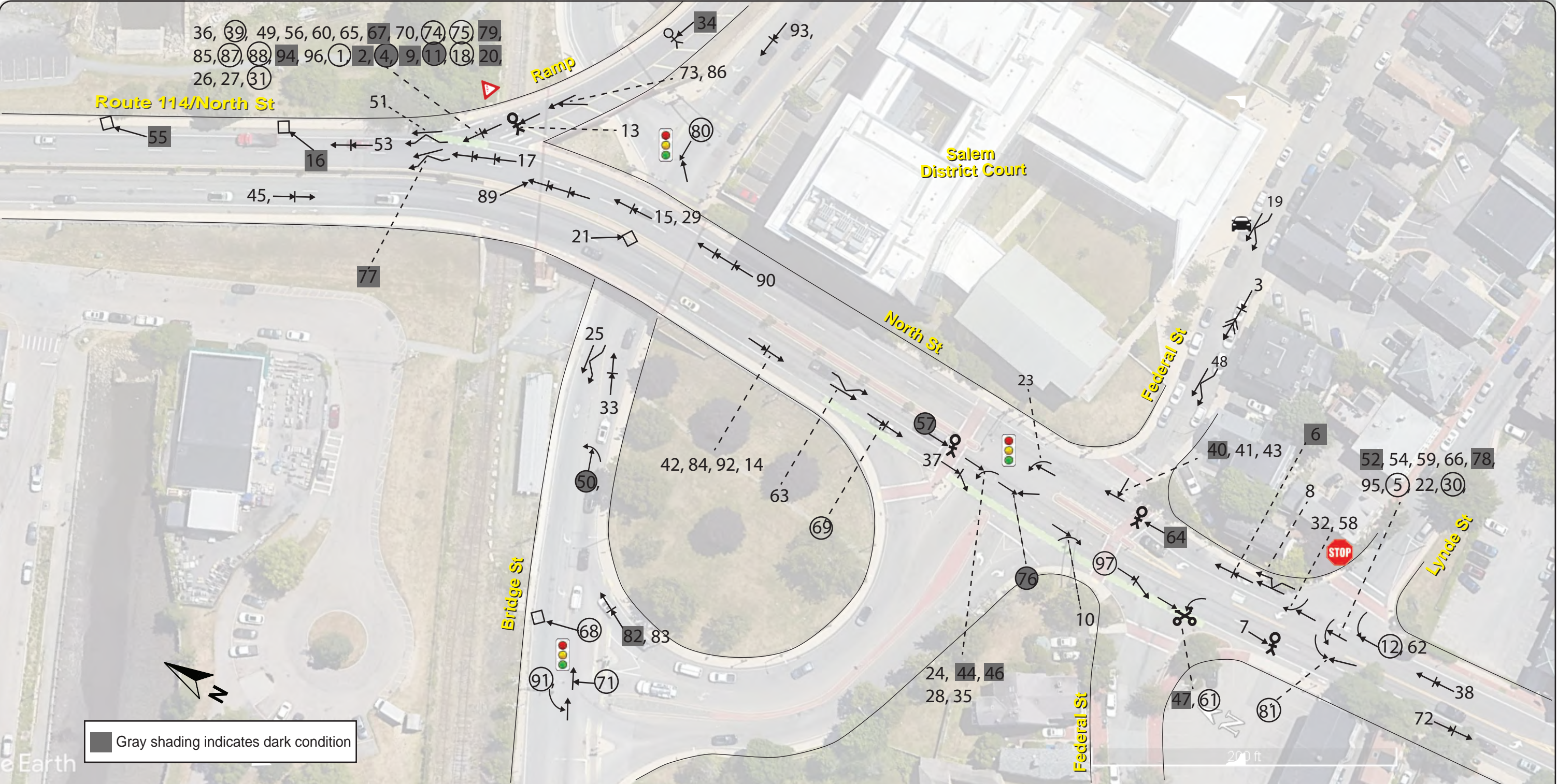
REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
1	4657987	01/28/2019	Property damage only	No injury	Rear-end	Daylight	Clear/Clear	Dry
2	4657398	01/30/2019	Property damage only	No injury	Angle	Daylight	Clear/Clear	Dry
3	4665254	02/19/2019	Non-fatal injury	Non-fatal injury - Possible	Angle	Dark - lighted road	Clear/Clear	Dry
4	4689047	04/05/2019	Non-fatal injury	Non-fatal injury - Non-incapacitating	Rear-end	Daylight	Clear/Clear	Dry
5	4695305	04/29/2019	Property damage only	No injury	Angle	Daylight	Clear/Clear	Dry
6	4695884	05/01/2019	Property damage only	No injury	Single vehicle crash	Daylight	Clear/Clear	Dry
7	4699081	05/11/2019	Property damage only	No injury	Sideswipe, same direction	Daylight	Clear/Clear	Dry
8	4735942	08/12/2019	Property damage only	No injury	Angle	Daylight	Clear/Reported but invalid	Dry
9	4760261	10/08/2019	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
10	4772479	11/08/2019	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
11	4815717	02/10/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Dark - lighted road	Cloudy/Cloudy	Dry
12	4817811	02/12/2020	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
13	4828557	03/13/2020	Property damage only	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Rain/Rain	Wet
14	4854903	07/01/2020	Property damage only	No Apparent Injury (O)	Angle	Daylight	Cloudy/Cloudy	Other
15	4864114	07/18/2020	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Clear/Clear	Dry
16	4868430	08/11/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Dark - lighted road	Clear/Clear	Dry
17	4877025	09/12/2020	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted road	Clear/Clear	Dry
18	4878727	09/15/2020	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Clear/Clear	Dry
19	4885465	10/09/2020	Property damage only	No Apparent Injury (O)	Single vehicle crash	Daylight	Clear/Clear	Dry
20	4885432	10/10/2020	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
21	4893672	10/12/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
22	4889602	10/23/2020	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Cloudy	Dry
23	4900946	11/24/2020	Non-fatal injury	Possible Injury (C)	Angle	Dark - lighted road	Clear/Clear	Dry
24	4906649	12/09/2020	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted road	Clear/Clear	Dry
25	4927750	02/05/2021	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
26	4929148	02/10/2021	Property damage only	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
27	4931907	02/16/2021	Property damage only	No Apparent Injury (O)	Rear-end	Dark - lighted road	Rain	Wet
28	4967401	06/01/2021	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
29	4969864	06/04/2021	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
30	4969865	06/04/2021	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
31	5068379	12/14/2021	Property damage only	No Apparent Injury (O)	Front to Rear	Dusk	Clear	Dry
32	5068362	01/20/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
33	5068424	02/01/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
34	5087975	04/02/2022	Property damage only	No Apparent Injury (O)	Rear-end	Dark - lighted road	Clear/Clear	Dry
35	5096010	04/24/2022	Property damage only	No Apparent Injury (O)	Sideswipe, same direction	Dark - lighted road	Clear/Clear	Dry
36	5122446	07/06/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
37	5183816	12/05/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
38	5189900	12/17/2022	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
39	5207964	01/15/2023	Property damage only	No Apparent Injury (O)	Angle	Daylight	Snow/Snow	Snow
40	5259289	05/09/2023	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
41	5260187	05/30/2023	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
42	5261169	06/02/2023	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
43	5262314	06/03/2023	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
44	5270028	06/23/2023	Non-fatal injury	Suspected Minor Injury (B)	Angle	Daylight	Clear	Dry
45	5323824	08/04/2023	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
46	5323897	08/21/2023	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
47	5323924	09/01/2023	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
48	5323886	09/15/2023	Non-fatal injury	Suspected Minor Injury (B)	Unknown	Dark - lighted road	Clear/Clear	Dry
49	5323896	09/21/2023	Non-fatal injury	Suspected Minor Injury (B)	Unknown	Daylight	Clear/Clear	Dry

















# Collision Diagram

## North Street from Osbourne Street to Franklin Street: Crash Reports 2019-24

CRASH								
REFERENCE ID	NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
50	5323934	10/09/2023	Non-fatal injury	Suspected Minor Injury (B)	Angle	Daylight	Clear/Clear	Dry
51	5380276	04/05/2024	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Wet
52	5387300	04/30/2024	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear	Dry
53	5398559	05/30/2024	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Wet
54	5398583	05/31/2024	Non-fatal injury	Suspected Minor Injury (B)	Angle	Daylight	Clear/Clear	Dry
55	5401852	06/08/2024	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
56	5412874	07/07/2024	Unknown	Unknown	Sideswipe, same direction	Dark - lighted road	Clear/Clear	Dry
57	5420612	07/10/2024	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
58	5424534	08/12/2024	Property damage only	Unknown	Front to Front	Daylight	Clear/Clear	Dry
59	5431902	08/29/2024	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
60	5434585	09/06/2024	Property damage only	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry





SYMBOLS				TYPES OF CRASH		CRASH INDEX AND SEVERITY		<div>FIGURE 3</div> <div>Collision Diagram:</div> <div>North Street from Franklin Street to Lynde Street</div> <div>Crash Reports 2019-24</div>	
	Moving Vehicle		Parked Vehicle		Head On / Front to Front	#	Property Damage Only Crash Index Number		
	Backing Vehicle		Fixed Object		Angle		Injury Crash Index Number		
	Non-Involved Vehicle		Bicycle		Rear End / Front to Rear		Fatal Crash Index Number		
	Pedestrian		Animal		Sideswipe, Same Direction		Dark condition Crash Index Number		
					Sideswipe, Opposite Direction				



# Collision Diagram

## North Street from Franklin Street to Lynde Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
1	4651489	01/16/2019	Non-fatal injury	Non-fatal injury - Possible	Rear-end	Daylight	Clear/Clear	Dry
2	4651491	01/16/2019	Property damage only	No injury	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
3	4670839	02/27/2019	Property damage only	No injury	Rear-end	Daylight	Clear/Clear	Dry
4	4676484	03/17/2019	Non-fatal injury	Non-fatal injury - Possible	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
5	4678793	03/21/2019	Non-fatal injury	Non-fatal injury - Possible	Angle	Daylight	Clear/Clear	Dry
6	4687857	04/10/2019	Property damage only	No injury	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
7	4688946	04/12/2019	Property damage only	No injury	Single vehicle crash	Daylight	Cloudy/Cloudy	Dry
8	4692640	04/23/2019	Property damage only	No injury	Sideswipe, same direction	Daylight	Rain/Cloudy	Wet
9	4707499	05/30/2019	Property damage only	No injury	Rear-end	Dawn	Clear/Clear	Dry
10	4711930	06/11/2019	Property damage only	No injury	Angle	Daylight	Rain/Cloudy	Wet
11	4720683	07/06/2019	Non-fatal injury	No injury	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
12	4744015	09/02/2019	Non-fatal injury	Possible Injury (C)	Front to Front	Daylight	Clear/Clear	Dry
13	4762000	10/17/2019	Property damage only	No Apparent Injury (O)	Single vehicle crash	Daylight	Clear/Clear	Dry
14	4763242	10/20/2019	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
15	4767041	10/28/2019	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Cloudy/Cloudy	Wet
16	4781449	12/02/2019	Property damage only	No Apparent Injury (O)	Single vehicle crash	Dark - lighted roadway	Snow/Snow	Snow
17	4787995	12/13/2019	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Cloudy/Cloudy	Dry
18	4799166	01/07/2020	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Clear/Clear	Dry
19	4805385	01/07/2020	Property damage only	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
20	4800734	01/10/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
21	4811245	01/24/2020	Unknown	Unknown	Head-on	Daylight	Clear/Clear	Dry
22	4816176	02/11/2020	Property damage only	No Apparent Injury (O)	Angle	Daylight	Cloudy/Rain	Water (standing, moving)
23	4822410	02/27/2020	Property damage only	No Apparent Injury (O)	Angle	Daylight	Rain/Rain	Wet
24	4827885	03/11/2020	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
25	4847141	05/28/2020	Property damage only	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
26	4848895	06/09/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
27	4850750	06/11/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
28	4851729	06/19/2020	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
29	4874119	08/31/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
30	4876674	09/07/2020	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
31	4879345	09/13/2020	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Clear/Clear	Dry
32	4887523	10/16/2020	Property damage only	No Apparent Injury (O)	Angle	Daylight	Cloudy/Cloudy	Wet
33	4890458	10/21/2020	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Cloudy/Rain	Wet
34	4891714	10/31/2020	Property damage only	No Apparent Injury (O)	Head-on	Dark - lighted roadway	Cloudy/Cloudy	Slush
35	4906784	12/10/2020	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
36	4916922	01/06/2021	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
37	4929147	02/09/2021	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Snow/Snow	Slush
38	4939349	03/10/2021	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
39	4951376	04/17/2021	Non-fatal injury	Possible Injury (C)	Rear-end	Daylight	Cloudy/Cloudy	Dry
40	4961048	05/13/2021	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Clear/Clear	Dry
41	4964265	05/24/2021	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
42	4971153	06/14/2021	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
43	5055893	06/26/2021	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
44	5066236	10/05/2021	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Clear/Clear	Dry
45	5066564	10/10/2021	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
46	5068485	11/26/2021	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Snow	Wet
47	5068598	11/26/2021	Property damage only	No Apparent Injury (O)	Single vehicle crash	Dark - lighted roadway	Rain/Rain	Wet
48	5068417	12/16/2021	Property damage only	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry

# Collision Diagram

## North Street from Franklin Street to Lynde Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
49	5068483	12/18/2021	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
50	5068438	12/20/2021	Non-fatal injury	Suspected Minor Injury (B)	Angle	Dark - lighted roadway	Clear/Clear	Dry
51	5068622	12/25/2021	Property damage only	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Rain/Sleet, hail (freezing)	Ice
52	5068255	01/13/2022	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Clear/Clear	Dry
53	5068488	01/13/2022	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear	Dry
54	5074241	02/23/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
55	5080323	03/10/2022	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Clear/Clear	Ice
56	5087070	03/31/2022	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
57	5092040	04/12/2022	Non-fatal injury	Deceased not caused by crash	Head-on	Dark - lighted roadway	Clear/Clear	Dry
58	5104808	05/13/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear	Dry
59	5103899	05/17/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
60	5120324	06/24/2022	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear	Dry
61	5129510	07/21/2022	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
62	5145642	09/02/2022	Property damage only	No Apparent Injury (O)	Front to Front	Daylight	Clear/Clear	Dry
63	5148935	09/12/2022	Property damage only	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
64	5170404	10/31/2022	Unknown	Not reported	Unknown	Dark - lighted roadway	Clear/Clear	Dry
65	5184247	12/05/2022	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
66	5188156	12/13/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
67	5189899	12/17/2022	Unknown	Unknown	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
68	5193172	12/23/2022	Non-fatal injury	Possible Injury (C)	Head-on	Daylight	Rain/Rain	Water (standing, moving)
69	5227108	02/21/2023	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Cloudy/Cloudy	Dry
70	5227107	02/22/2023	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
71	5250889	05/05/2023	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Rain	Wet
72	5251362	05/08/2023	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
73	5264077	06/10/2023	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
74	5275255	07/07/2023	Non-fatal injury	Possible Injury (C)	Rear-end	Daylight	Clear/Clear	Dry
75	5280632	07/27/2023	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Clear/Clear	Dry
76	5323986	09/30/2023	Non-fatal injury	Suspected Minor Injury (B)	Front to Front	Dark - lighted roadway	Rain/Rain	Wet
77	5323971	10/29/2023	Unknown	Unknown	Sideswipe, same direction	Dark - lighted roadway	Rain/Rain	Wet
78	5323991	11/09/2023	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Rain	Wet
79	5325781	11/21/2023	Property damage only	No Apparent Injury (O)	Rear-end	Dark - lighted roadway	Clear	Dry
80	5325415	11/22/2023	Non-fatal injury	Suspected Minor Injury (B)	Front to Front	Daylight	Rain/Rain	Wet
81	5345042	12/27/2023	Non-fatal injury	Possible Injury (C)	Front to Front	Daylight	Clear/Clear	Dry
82	5350772	01/12/2024	Property damage only	No Apparent Injury (O)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
83	5348430	01/14/2024	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Cloudy/Clear	Dry
84	5351626	01/18/2024	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
85	5360144	02/06/2024	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
86	5367008	02/16/2024	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
87	5375630	03/27/2024	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Rain/Rain	Wet
88	5376371	03/30/2024	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Clear/Clear	Dry
89	5378267	04/03/2024	Unknown	Unknown	Head-on	Daylight	Rain/Rain	Wet
90	5387704	05/02/2024	Unknown	Unknown	Rear-end	Daylight	Clear/Clear	Dry
91	5409526	07/01/2024	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
92	5414446	07/12/2024	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
93	5415928	07/17/2024	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear	Dry
94	5421024	07/31/2024	Unknown	Unknown	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
95	5421023	08/01/2024	Property damage only	Unknown	Angle	Daylight	Clear/Clear	Dry
96	5424532	08/12/2024	Unknown	Unknown	Front to Rear	Daylight	Clear/Clear	Dry

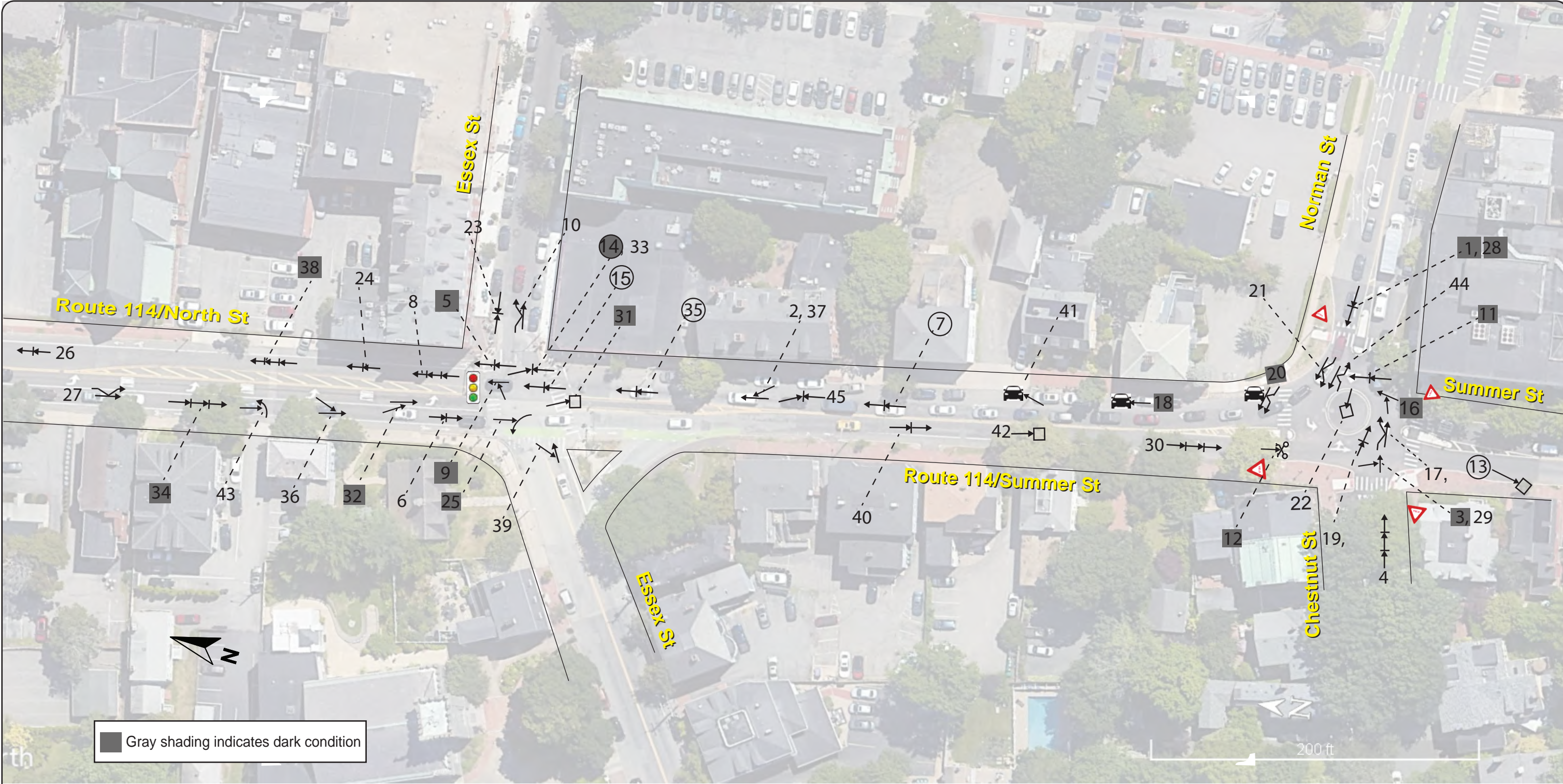


Collision Diagram

North Street from Franklin Street to Lynde Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
97	5429849	08/27/2024	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Clear/Clear	Dry





SYMBOLS		TYPES OF CRASH	CRASH INDEX AND SEVERITY		<b>FIGURE 4</b> <b>Collision Diagram:</b> <b>North Street from Essex Street to Norman Street</b> <b>Crash Reports 2019-24</b>	
	Moving Vehicle		Parked Vehicle	#	Property Damage Only Crash Index Number	BOSTON REGION MPO
	Backing Vehicle		Fixed Object	(#)	Injury Crash Index Number	
	Non-Involved Vehicle		Bicycle	#	Fatal Crash Index Number	
	Pedestrian		Animal	#	Dark condition Crash Index Number	



# Collision Diagram

## North Street from Essex Street to Norman Street: Crash Reports 2019-24

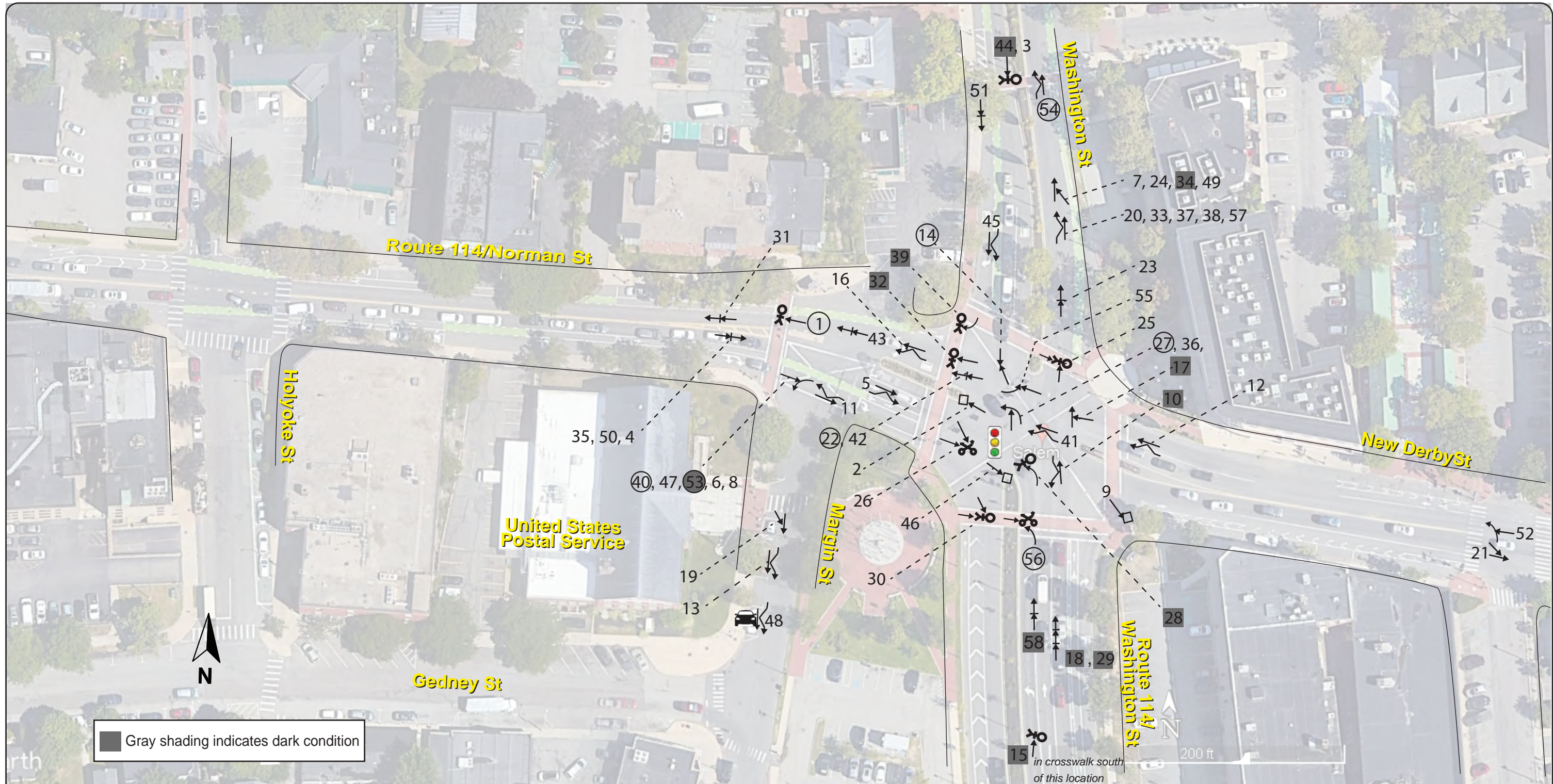
REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
1	4661808	02/03/2019	Property damage only ( No injury		Rear-end	Dusk	Clear/Clear	Dry
2	4673936	03/08/2019	Property damage only ( No injury		Angle	Daylight	Clear/Clear	Dry
3	4694096	04/27/2019	Property damage only ( No injury		Angle	Dark - lighted roadway	Clear/Clear	Dry
4	4702718	05/20/2019	Property damage only ( No injury		Rear-end	Daylight	Clear/Clear	Dry
5	4723636	07/12/2019	Property damage only ( No injury		Front to Rear	Dark - lighted roadway	Clear/Clear	
6	4731141	07/31/2019	Property damage only ( No injury		Rear-end	Daylight	Clear/Clear	
7	4735334	08/10/2019	Non-fatal injury	Non-fatal injury - Possible	Rear-end	Daylight	Clear/Clear	Dry
8	4748986	09/13/2019	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Clear/Clear	Dry
9	4761996	10/16/2019	Property damage only ( No Apparent Injury (O)		Angle	Dark - lighted roadway	Clear/Clear	Dry
10	4764326	10/17/2019	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
11	4765282	10/22/2019	Property damage only ( No Apparent Injury (O)		Front to Rear	Dusk	Rain/Rain	Wet
12	4790909	12/19/2019	Property damage only ( No Apparent Injury (O)		Head-on	Dark - lighted roadway	Clear/Clear	Dry
13	4808326	12/24/2019	Non-fatal injury	Suspected Minor Injury (B)	Head-on	Daylight	Clear/Clear	Dry
14	4804531	01/13/2020	Non-fatal injury	Suspected Minor Injury (B)	Front to Front	Dark - lighted roadway	Clear/Clear	Dry
15	4805390	01/18/2020	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Clear/Clear	Dry
16	4927755	02/07/2021	Property damage only ( No Apparent Injury (O)		Angle	Dark - lighted roadway	Snow/Snow	Snow
17	4930462	02/13/2021	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
18	4936024	02/28/2021	Property damage only ( No Apparent Injury (O)		Rear-end	Dark - lighted roadway	Clear/Clear	Dry
19	4962094	05/18/2021	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
20	4963712	05/22/2021	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Dark - lighted roadway	Clear/Clear	Dry
21	5055808	08/04/2021	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Cloudy/Cloudy	Dry
22	5068418	09/08/2021	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Daylight	Clear/Clear	Dry
23	5068384	10/15/2021	Property damage only ( No Apparent Injury (O)		Front to Front	Daylight	Clear/Clear	Dry
24	5068619	10/19/2021	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Clear/Clear	Dry
25	5068575	11/06/2021	Property damage only ( No Apparent Injury (O)		Angle	Dark - lighted roadway	Clear/Clear	Dry
26	5068639	11/20/2021	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
27	5068504	12/04/2021	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
28	5068490	01/05/2022	Property damage only ( No Apparent Injury (O)		Rear-end	Dawn	Cloudy/Sleet, hail	Wet
29	5068249	01/31/2022	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Snow
30	5069463	02/11/2022	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Clear/Clear	Dry
31	5071777	02/16/2022	Property damage only ( No Apparent Injury (O)		Head-on	Dark - lighted roadway	Clear/Clear	Dry
32	5086780	03/30/2022	Property damage only ( No Apparent Injury (O)		Angle	Dusk	Clear/Clear	Dry
33	5093390	04/08/2022	Property damage only ( No Apparent Injury (O)		Front to Front	Daylight	Clear/Clear	Dry
34	5116290	06/12/2022	Property damage only ( No Apparent Injury (O)		Front to Rear	Dark - lighted roadway	Clear	Dry
35	5124145	07/05/2022	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Clear/Clear	Dry
36	5129512	07/21/2022	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
37	5134854	08/08/2022	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear	Dry
38	5160312	10/06/2022	Unknown	Unknown	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
39	5172744	11/07/2022	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
40	5185600	12/07/2022	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Rain/Cloudy	Wet
41	5261194	05/23/2023	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
42	5323944	10/22/2023	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Unknown	Unknown/Unknown	Unknown

# Collision Diagram

## North Street from Essex Street to Norman Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
43	5367024	02/22/2024	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
44	5410340	06/28/2024	Property damage only ( No Apparent Injury (O)		Sideswipe, opposite direction	Daylight	Clear/Clear	Dry
45	5414554	07/13/2024	Property damage only ( No Apparent Injury (O)		Front to Front	Daylight	Clear	Dry





**FIGURE 5**  
**Collision Diagram:**  
**Norman Street from Holyoke Street to Washington Street**  
**Crash Reports 2019-24**

BOSTON  
 REGION  
 MPO

Route 114 Corridor Study  
 Salem, Massachusetts

SYMBOLS		TYPES OF CRASH		CRASH INDEX AND SEVERITY	
→	Moving Vehicle	→→→	Head On / Front to Front	#	Property Damage Only Crash Index Number
↔	Backing Vehicle	→↔	Angle	(#)	Injury Crash Index Number
---	Non-Involved Vehicle	→→	Rear End / Front to Rear	(#)	Fatal Crash Index Number
⊗	Pedestrian	↔↔	Sideswipe, Same Direction	#	Dark condition Crash Index Number
🚗	Parked Vehicle	↔↔	Sideswipe, Opposite Direction		
📏	Fixed Object				
🚲	Bicycle				
🐾	Animal				



Collision Diagram  
Norman Street from Holyoke Street to Washington Street: Crash Reports 2019-24

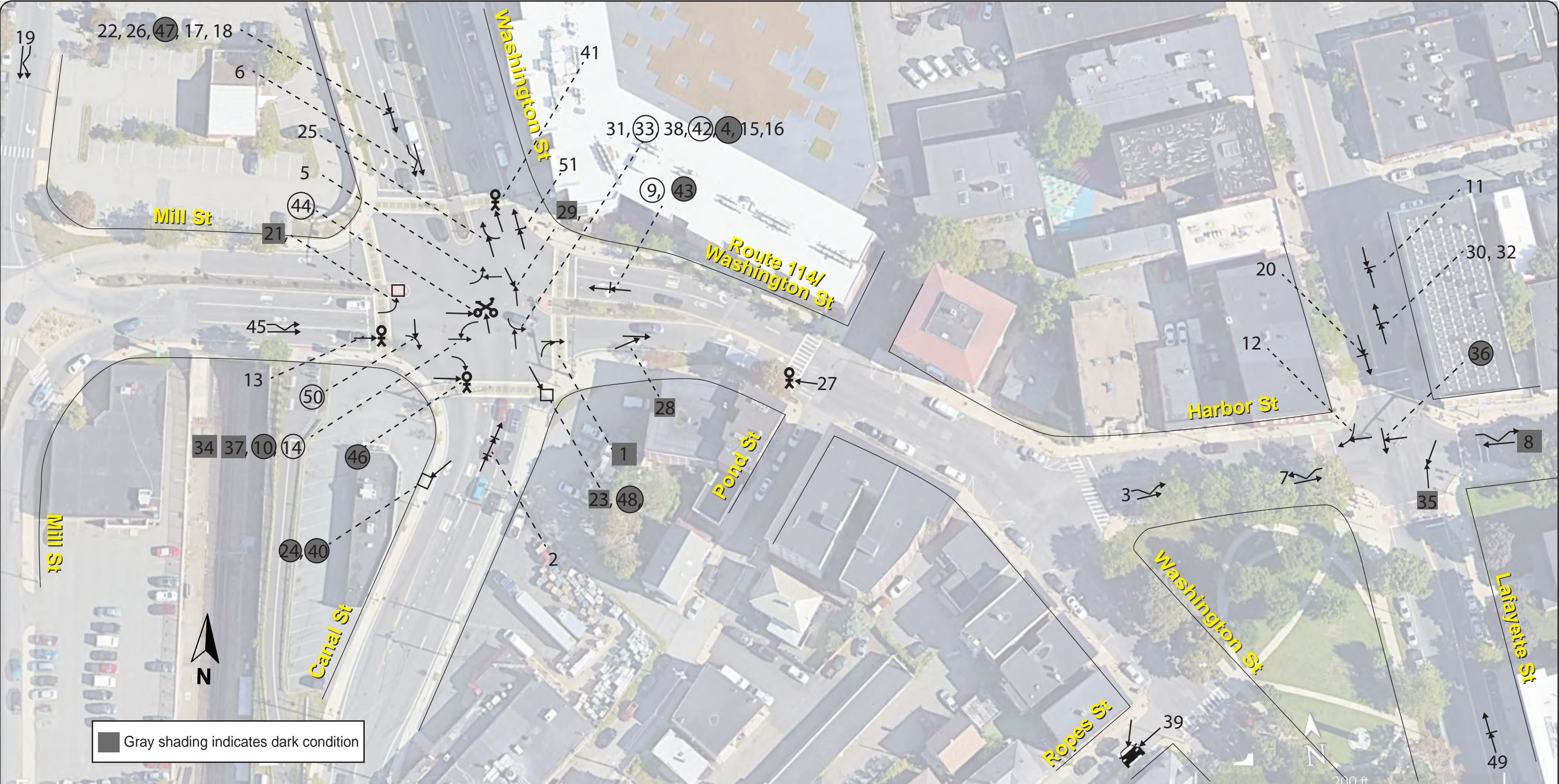
REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
1	4646447	01/04/2019	Non-fatal injury	Non-fatal injury - Non-incapacitating	Head-on	Daylight	Clear/Clear	Dry
2	4679189	03/22/2019	Property damage only ( No injury		Head-on	Daylight	Rain/Cloudy	Wet
3	4689200	04/11/2019	Property damage only ( No injury		Head-on	Daylight	Clear/Clear	Dry
4	4694093	04/27/2019	Property damage only ( No injury		Rear-end	Daylight	Cloudy/Clear	Dry
5	4701496	05/15/2019	Property damage only ( No injury		Sideswipe, same direction	Daylight	Clear/Reported but invalid	Dry
6	4713922	06/18/2019	Property damage only ( No injury		Angle	Daylight	Rain/Rain	Wet
7	4731137	07/30/2019	Property damage only ( No injury		Angle	Daylight	Clear/Clear	
8	4731138	07/31/2019	Property damage only ( No injury		Angle	Daylight	Clear/Clear	
9	4769174	11/01/2019	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Daylight	Clear/Clear	Dry
10	4797347	01/02/2020	Property damage only ( No Apparent Injury (O)		Sideswipe, opposite direction	Dark - lighted roadway	Clear/Clear	Dry
11	4804034	01/12/2020	Property damage only ( No Apparent Injury (O)		Sideswipe, opposite direction	Daylight	Clear/Clear	Dry
12	4824194	03/01/2020	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
13	4832788	03/27/2020	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
14	4842642	05/13/2020	Non-fatal injury	Suspected Minor Injury (B)	Front to Front	Daylight	Clear/Clear	Dry
15	4889979	10/26/2020	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Dark - lighted roadway	Rain/Rain	Wet
16	4904302	12/04/2020	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Cloudy	Dry
17	4938521	03/04/2021	Property damage only ( No Apparent Injury (O)		Angle	Dark - lighted roadway	Clear/Clear	Dry
18	4947701	04/02/2021	Property damage only ( No Apparent Injury (O)		Rear-end	Dark - lighted roadway	Clear/Clear	Dry
19	4948966	04/06/2021	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
20	4954288	04/07/2021	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
21	4956529	05/01/2021	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
22	4975059	06/24/2021	Non-fatal injury	Suspected Minor Injury (B)	Front to Rear	Daylight	Clear/Clear	Dry
23	5055739	06/24/2021	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Clear/Clear	Dry
24	5055743	08/26/2021	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
25	5055759	09/03/2021	Property damage only ( No Apparent Injury (O)		Front to Front	Daylight	Clear/Clear	Dry
26	5060215	09/27/2021	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
27	5066565	10/07/2021	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
28	5068463	10/29/2021	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Dark - lighted roadway	Clear/Clear	Dry
29	5068775	01/08/2022	Property damage only ( No Apparent Injury (O)		Rear-end	Dark - lighted roadway	Clear	Dry
30	5068427	02/03/2022	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Wet
31	5068370	02/05/2022	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Sleet, hail (freezing rain or	Slush
32	5077673	03/05/2022	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Dark - lighted roadway	Clear/Clear	Dry
33	5083222	03/21/2022	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
34	5098089	04/09/2022	Property damage only ( No Apparent Injury (O)		Angle	Dark - lighted roadway	Clear	Dry

# Collision Diagram

## Norman Street from Holyoke Street to Washington Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
35	5095681	04/23/2022	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
36	5114411	06/13/2022	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
37	5119118	06/27/2022	Unknown	Unknown	Sideswipe, same direction	Daylight	Rain/Rain	Wet
38	5136517	07/28/2022	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
39	5143649	08/23/2022	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Dawn	Clear/Cloudy	Dry
40	5142249	08/24/2022	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
41	5143926	08/28/2022	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
42	5146341	09/06/2022	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Rain/Rain	Water (standing, movir
43	5178193	11/17/2022	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
44	5180351	11/27/2022	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Dark - roadway not lighte	Rain/Rain	Wet
45	5184246	12/06/2022	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Cloudy/Clear	Dry
46	5227748	02/27/2023	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Daylight	Clear/Clear	Dry
47	5258574	05/26/2023	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
48	5260179	05/31/2023	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
49	5323850	08/02/2023	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
50	5323822	08/03/2023	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Clear/Clear	Dry
51	5323894	08/29/2023	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Clear	Dry
52	5323931	10/04/2023	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
53	5325377	11/12/2023	Non-fatal injury	Possible Injury (C)	Angle	Dark - lighted roadway	Clear/Clear	Dry
54	5387207	04/30/2024	Non-fatal injury	Possible Injury (C)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
55	5393423	05/18/2024	Property damage only ( No Apparent Injury (O)		Front to Front	Daylight	Rain/Rain	Wet
56	5397681	05/29/2024	Non-fatal injury	Suspected Serious Injury (A)	Angle	Daylight	Clear/Clear	Dry
57	5415469	06/14/2024	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
58	5426517	08/18/2024	Property damage only ( No Apparent Injury (O)		Front to Rear	Dark - lighted roadway	Fog, smog, smoke/Cloudy	Dry





SYMBOLS		TYPES OF CRASH	CRASH INDEX AND SEVERITY		<b>FIGURE 6</b> <b>Collision Diagram:</b> <b>Washington Street from Mill Street to Lafayette Street</b> <b>Crash Reports 2019-24</b>	
	Moving Vehicle		#	Property Damage Only Crash Index Number		
	Backing Vehicle		#	Injury Crash Index Number	<b>BOSTON</b> <b>REGION</b> <b>MPO</b>	
	Non-Involved Vehicle		#	Fatal Crash Index Number		
	Pedestrian		#	Dark condition Crash Index Number		
	Parked Vehicle				<i>Route 114 Corridor Study</i> <i>Salem, Massachusetts</i>	
	Fixed Object					
	Bicycle					
	Animal					



# Collision Diagram

## Washington Street from Mill Street to Lafayette Street: Crash Reports 2019-24

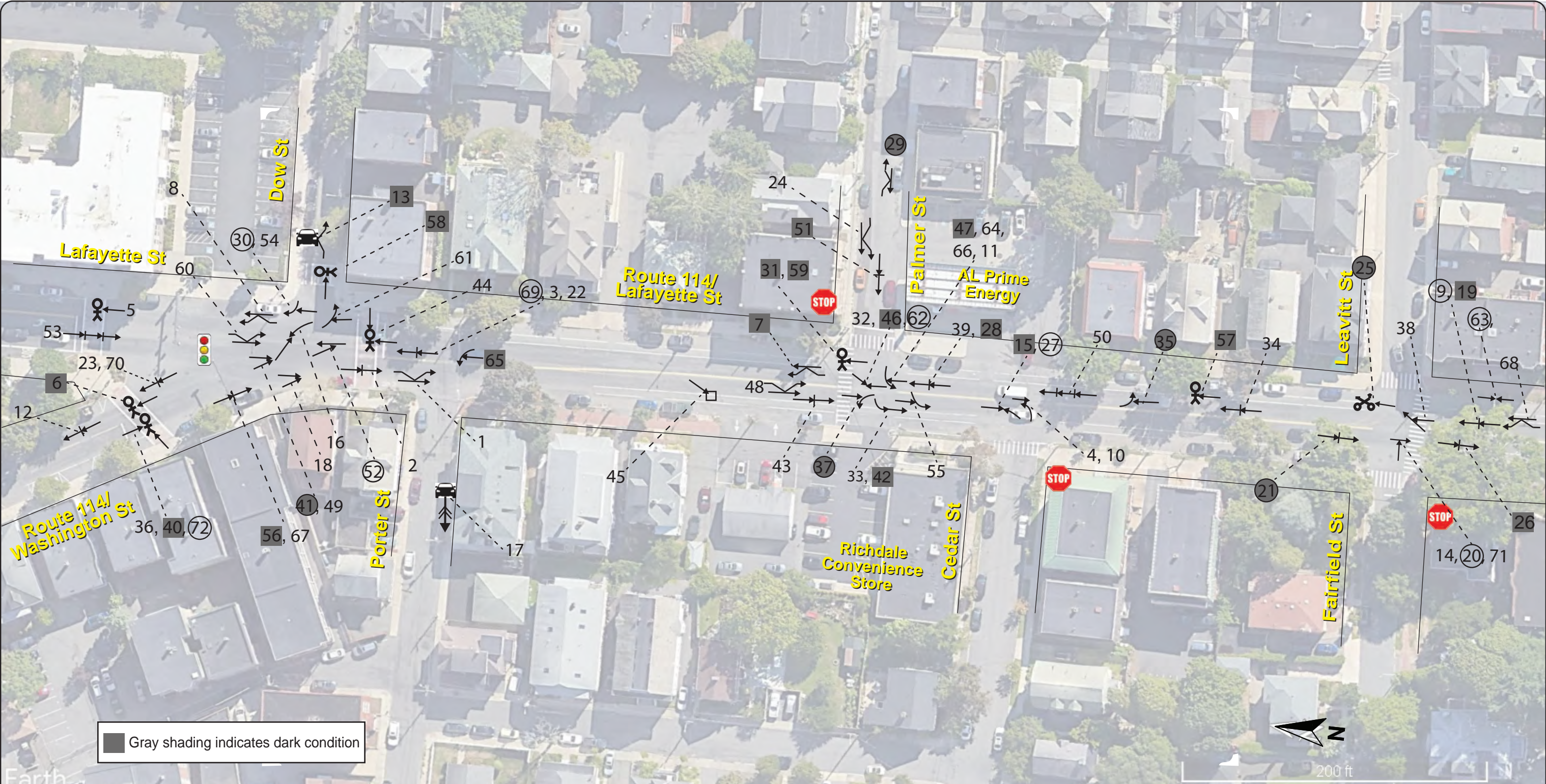
REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
1	4670844	03/03/2019	Property damage only ( No injury		Angle	Dark - lighted roadway	Clear/Clear	Wet
2	4674728	03/11/2019	Property damage only ( No injury		Rear-end	Daylight	Clear/Clear	Dry
3	4699077	04/25/2019	Property damage only ( No injury		Sideswipe, same direction	Daylight	Clear/Clear	Dry
4	4713433	06/15/2019	Non-fatal injury	No injury	Angle	Dark - lighted roadway	Clear/Clear	Dry
5	4745271	09/01/2019	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
6	4748987	09/14/2019	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Cloudy/Cloudy	Dry
7	4751603	09/17/2019	Property damage only ( No Apparent Injury (O)		Sideswipe, opposite direction	Daylight	Clear/Clear	Dry
8	4755911	09/25/2019	Unknown	Not reported	Sideswipe, opposite direction	Dark - lighted roadway	Clear/Clear	Dry
9	4755125	09/28/2019	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Clear/Clear	Dry
10	4775182	11/15/2019	Non-fatal injury	Suspected Minor Injury (B)	Angle	Dark - lighted roadway	Clear/Clear	Dry
11	4775184	11/16/2019	Property damage only ( No Apparent Injury (O)		Front to Front	Daylight	Clear/Clear	Dry
12	4828556	03/11/2020	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
13	4832789	03/27/2020	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Daylight	Clear/Clear	Dry
14	4835075	04/07/2020	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
15	4843291	05/14/2020	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
16	4854904	07/01/2020	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
17	4885464	10/09/2020	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Clear/Clear	Dry
18	4885430	10/10/2020	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
19	4889597	10/18/2020	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
20	4888578	10/20/2020	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
21	4955609	04/28/2021	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Dark - lighted roadway	Rain/Rain	Wet
22	4967836	06/03/2021	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Clear/Cloudy	Dry
23	5055746	07/17/2021	Property damage only ( No Apparent Injury (O)		Head-on	Dark - lighted roadway	Clear/Clear	Dry
24	5068355	07/23/2021	Non-fatal injury	Suspected Minor Injury (B)	Single vehicle crash	Dark - lighted roadway	Clear/Clear	Dry
25	5055901	08/18/2021	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
26	5055737	09/01/2021	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Rain/Cloudy	Wet
27	5066235	10/06/2021	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Daylight	Clear/Clear	Dry
28	5068611	12/09/2021	Property damage only ( No Apparent Injury (O)		Angle	Dark - lighted roadway	Clear/Clear	Dry
29	5068414	12/15/2021	Property damage only ( No Apparent Injury (O)		Front to Front	Dark - lighted roadway	Cloudy/Clear	Wet
30	5068392	12/17/2021	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
31	5068442	01/12/2022	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
32	5069465	02/12/2022	Property damage only ( No Apparent Injury (O)		Rear-end	Daylight	Clear/Clear	Dry
33	5074240	02/22/2022	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Cloudy/Cloudy	Dry

# Collision Diagram

## Washington Street from Mill Street to Lafayette Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
34	5083665	03/22/2022	Property damage only ( No Apparent Injury (O)		Angle	Dark - lighted roadway	Clear/Clear	Dry
35	5095192	04/16/2022	Property damage only ( No Apparent Injury (O)		Front to Front	Dark - lighted roadway	Rain	Wet
36	5098945	05/03/2022	Non-fatal injury	Suspected Minor Injury (B)	Angle	Dark - lighted roadway	Clear/Clear	Dry
37	5113313	06/12/2022	Property damage only ( No Apparent Injury (O)		Angle	Dark - lighted roadway	Clear/Clear	Dry
38	5121330	07/04/2022	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
39	5155530	08/18/2022	Property damage only ( No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
40	5145077	08/19/2022	Non-fatal injury	Suspected Minor Injury (B)	Front to Front	Dark - lighted roadway	Clear/Clear	Dry
41	5178194	11/16/2022	Property damage only ( No Apparent Injury (O)		Single vehicle crash	Daylight	Clear/Cloudy	Dry
42	5178658	11/16/2022	Non-fatal injury	Suspected Minor Injury (B)	Angle	Daylight	Rain/Rain	Wet
43	5270434	07/01/2023	Non-fatal injury	Suspected Minor Injury (B)	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
44	5323870	08/21/2023	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
45	5323922	09/21/2023	Property damage only ( No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
46	5344419	01/03/2024	Non-fatal injury	Suspected Minor Injury (B)	Angle	Dark - lighted roadway	Clear/Clear	Dry
47	5355833	01/31/2024	Non-fatal injury	Possible Injury (C)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
48	5369907	02/29/2024	Non-fatal injury	Possible Injury (C)	Single vehicle crash	Dusk	Clear/Clear	Dry
49	5377460	03/28/2024	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Rain/Rain	Wet
50	5385286	04/24/2024	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
51	5421945	07/08/2024	Property damage only ( No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry





SYMBOLS		TYPES OF CRASH	CRASH INDEX AND SEVERITY		<b>FIGURE 7</b> <b>Collision Diagram:</b> <b>Lafayette Street from Washington Street to Leavitt Street</b> <b>Crash Reports 2019-24</b>	
	Moving Vehicle		#	Property Damage Only Crash Index Number		
	Backing Vehicle		#	Injury Crash Index Number	BOSTON REGION MPO	
	Non-Involved Vehicle		#	Fatal Crash Index Number		
	Pedestrian		#	Dark condition Crash Index Number		
	Parked Vehicle				Route 114 Corridor Study Salem, Massachusetts	
	Fixed Object					
	Bicycle					
	Animal					



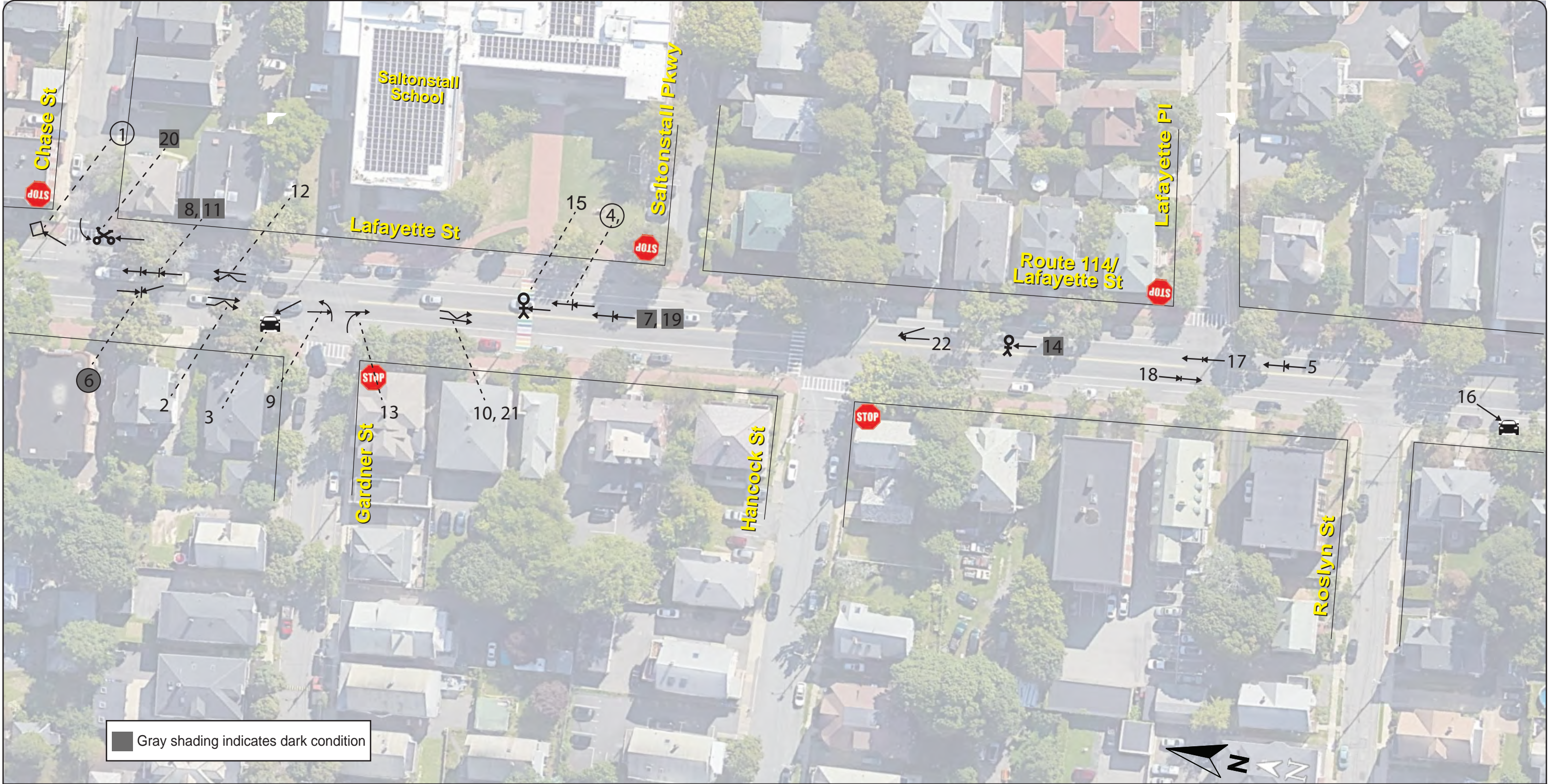
Collision Diagram  
Lafayette Street from Washington Street to Leavitt Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
1	4648625	01/07/2019	Not Reported	Not Applicable	Sideswipe, same direction	Daylight	Clear/Reported but invalid	Dry
2	4652564	01/17/2019	Property damage only (I	No injury	Rear-end	Daylight	Clear/Clear	Dry
3	4661650	02/10/2019	Property damage only (I	No injury	Rear-end	Daylight	Clear/Clear	Dry
4	4699078	05/06/2019	Property damage only (I	No injury	Angle	Daylight	Clear/Reported but invalid	Dry
5	4703606	05/21/2019	Property damage only (I	No injury	Head-on	Daylight	Clear/Clear	Dry
6	4706562	05/26/2019	Property damage only (I	No injury	Single vehicle crash	Dark - lighted roadway	Clear/Clear	Dry
7	4705348	05/27/2019	Not Reported	Not reported	Sideswipe, same direction	Dark - lighted roadway	Clear/Clear	Dry
8	4715449	06/22/2019	Property damage only (I	No injury	Sideswipe, same direction	Daylight	Clear/Clear	Dry
9	4722965	07/09/2019	Non-fatal injury	Non-fatal injury - Non-incapacitating	Rear-end	Daylight	Clear/Clear	
10	4722967	07/11/2019	Property damage only (I	No injury	Angle	Daylight	Clear/Clear	
11	4723639	07/13/2019	Property damage only (I	No injury	Angle	Daylight	Clear/Clear	
12	4732124	07/26/2019	Property damage only (I	No injury	Rear-end	Daylight	Clear/Clear	
13	4752538	09/24/2019	Not Reported	Not reported	Sideswipe, same direction	Dark - lighted roadway	Clear/Clear	Dry
14	4759636	10/08/2019	Property damage only (I	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
15	4772480	11/08/2019	Property damage only (I	No Apparent Injury (O)	Head-on	Dark - lighted roadway	Clear/Clear	Dry
16	4787364	12/11/2019	Property damage only (I	No Apparent Injury (O)	Front to Front	Daylight	Snow/Snow	Wet
17	4811246	01/30/2020	Property damage only (I	No Apparent Injury (O)	Front to Rear	Daylight	Clear	Dry
18	4817870	02/15/2020	Property damage only (I	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
19	4832790	03/28/2020	Property damage only (I	No Apparent Injury (O)	Front to Rear	Dark - lighted roadway	Clear	Dry
20	4861496	07/21/2020	Non-fatal injury	Suspected Minor Injury (B)	Angle	Daylight	Clear/Clear	Dry
21	4867177	08/07/2020	Non-fatal injury	Suspected Minor Injury (B)	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
22	4869920	08/18/2020	Property damage only (I	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
23	4875246	09/05/2020	Property damage only (I	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
24	4878726	09/13/2020	Property damage only (I	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
25	4881189	09/28/2020	Property damage only (I	No Apparent Injury (O)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
26	4895241	11/04/2020	Property damage only (I	No Apparent Injury (O)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
27	4897800	11/16/2020	Non-fatal injury	Possible Injury (C)	Front to Front	Daylight	Clear/Clear	Dry
28	4903939	12/03/2020	Property damage only (I	No Apparent Injury (O)	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
29	4948478	03/18/2021	Unknown	Not reported	Sideswipe, opposite direction	Dark - lighted roadway	Clear	Dry
30	4948480	04/06/2021	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
31	4954291	04/24/2021	Property damage only (I	No Apparent Injury (O)	Head-on	Dark - lighted roadway	Clear/Clear	Dry
32	4957571	05/04/2021	Property damage only (I	No Apparent Injury (O)	Head-on	Daylight	Rain/Rain	Wet
33	4958863	05/03/2021	Property damage only (I	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
34	4972416	06/16/2021	Property damage only (I	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
35	5055870	07/01/2021	Non-fatal injury	Suspected Minor Injury (B)	Angle	Dark - lighted roadway	Rain/Rain	Wet
36	5055861	07/03/2021	Property damage only (I	No Apparent Injury (O)	Angle	Daylight	Cloudy/Rain	Wet

Collision Diagram  
Lafayette Street from Washington Street to Leavitt Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
37	5037125	07/25/2021	Non-fatal injury	Possible Injury (C)	Angle	Dark - unknown roadway li	Clear/Clear	Dry
38	5055879	08/24/2021	Property damage only (i	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Blowing sand, snow/Clear	Dry
39	5068467	09/18/2021	Property damage only (i	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
40	5068393	11/12/2021	Property damage only (i	No Apparent Injury (O)	Front to Front	Dark - lighted roadway	Rain/Rain	Wet
41	5068405	12/08/2021	Non-fatal injury	Suspected Minor Injury (B)	Angle	Dark - lighted roadway	Cloudy/Cloudy	Other
42	5068620	12/17/2021	Property damage only (i	No Apparent Injury (O)	Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
43	5068395	01/12/2022	Property damage only (i	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
44	5068422	01/12/2022	Property damage only (i	No Apparent Injury (O)	Angle	Daylight	Cloudy/Cloudy	Dry
45	5068354	01/24/2022	Unknown	Unknown	Single vehicle crash	Daylight	Cloudy/Cloudy	Ice
46	5069952	02/08/2022	Property damage only (i	No Apparent Injury (O)	Front to Front	Dark - lighted roadway	Clear/Clear	Dry
47	5086160	03/09/2022	Property damage only (i	No Apparent Injury (O)	Angle	Dark - unknown roadway li	Clear/Clear	Dry
48	5096494	04/26/2022	Property damage only (i	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
49	5099987	04/29/2022	Property damage only (i	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
50	5101317	05/10/2022	Property damage only (i	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
51	5114412	06/15/2022	Property damage only (i	No Apparent Injury (O)	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
52	5140547	08/18/2022	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
53	5150220	09/15/2022	Property damage only (i	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
54	5158452	10/04/2022	Property damage only (i	No Apparent Injury (O)	Angle	Daylight	Rain/Rain	Wet
55	5164919	10/13/2022	Property damage only (i	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
56	5199082	11/15/2022	Property damage only (i	No Apparent Injury (O)	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
57	5189898	12/06/2022	Property damage only (i	No Apparent Injury (O)	Single vehicle crash	Dark - lighted roadway	Clear/Clear	Dry
58	5189286	12/16/2022	Property damage only (i	No Apparent Injury (O)	Head-on	Dark - lighted roadway	Rain/Rain	Wet
59	5202132	01/15/2023	Property damage only (i	No Apparent Injury (O)	Head-on	Dark - lighted roadway	Clear/Clear	Dry
60	5232917	03/03/2023	Property damage only (i	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
61	5242029	04/11/2023	Property damage only (i	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
62	5264687	06/09/2023	Non-fatal injury	Possible Injury (C)	Front to Front	Daylight	Cloudy/Cloudy	Dry
63	5280580	07/22/2023	Non-fatal injury	Suspected Minor Injury (B)	Front to Front	Daylight	Clear	Dry
64	5280829	07/27/2023	Property damage only (i	No Apparent Injury (O)	Unknown	Daylight	Cloudy/Cloudy	Dry
65	5323882	09/10/2023	Property damage only (i	No Apparent Injury (O)	Angle	Dark - lighted roadway	Clear/Clear	Dry
66	5344844	01/02/2024	Property damage only (i	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
67	5412274	03/05/2024	Property damage only (i	No Apparent Injury (O)	Rear-end	Daylight	Rain/Rain	Wet
68	5374640	03/22/2024	Property damage only (i	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
69	5396338	05/27/2024	Non-fatal injury	Possible Injury (C)	Rear-end	Daylight	Clear/Clear	Dry
70	5403838	06/13/2024	Property damage only (i	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
71	5425284	08/05/2024	Property damage only (i	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
72	5435317	09/11/2024	Non-fatal injury	Suspected Minor Injury (B)	Single vehicle crash	Daylight	Clear	Dry





Gray shading indicates dark condition

SYMBOLS		TYPES OF CRASH	CRASH INDEX AND SEVERITY
→	Moving Vehicle	↔↔ Head On / Front to Front	# Property Damage Only Crash Index Number
↔	Backing Vehicle	↘↙ Angle	Ⓢ Injury Crash Index Number
⋯→	Non-Involved Vehicle	→↔ Rear End / Front to Rear	Ⓢ Fatal Crash Index Number
🚲	Bicycle	↔↔ Sideswipe, Same Direction	Ⓢ Dark condition Crash Index Number
🚶	Pedestrian	↔↔ Sideswipe, Opposite Direction	
🚗	Parked Vehicle		
◻	Fixed Object		
🦌	Animal		

**FIGURE 8**  
**Collision Diagram:**  
**Lafayette Street from Chase Street to Roslyn Street**  
**Crash Reports 2019-24**

BOSTON  
 REGION  
 MPO

Route 114 Corridor Study  
 Salem, Massachusetts

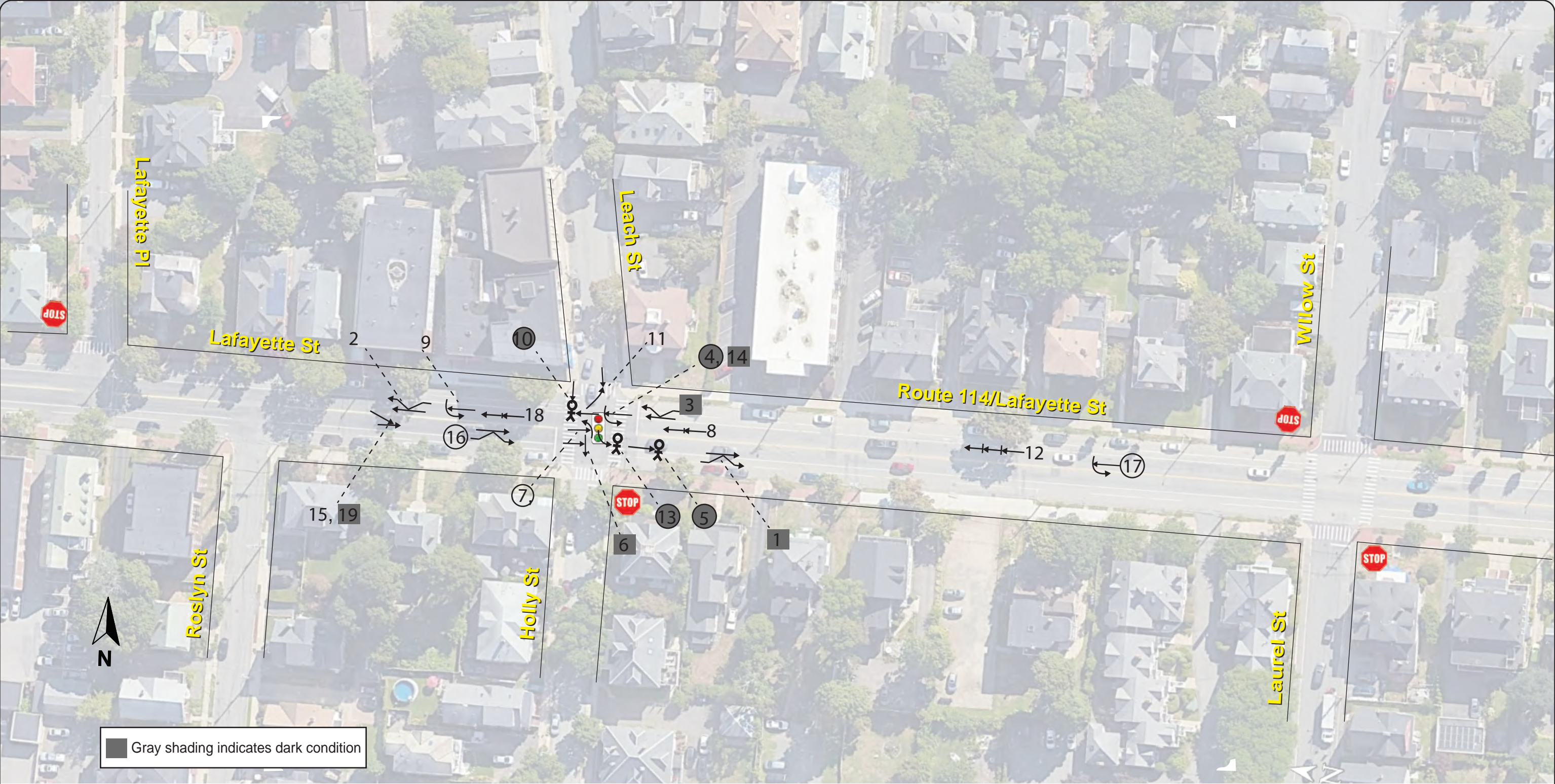



















# Collision Diagram

## Lafayette Street from Chase Street to Roslyn Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
1	4678792	03/21/2019	Non-fatal injury	Non-fatal injury - Possible	Head-on	Daylight	Clear/Reported but invalid	Dry
2	4682388	03/28/2019	Property damage only (	No injury	Sideswipe, same direction	Daylight	Clear/Clear	Dry
3	4704170	05/22/2019	Not Reported	No injury	Angle	Daylight	Clear/Reported but invalid	Dry
4	4704968	05/25/2019	Non-fatal injury	No injury	Rear-end	Daylight	Clear/Clear	Dry
5	4743613	08/26/2019	Property damage only (	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
6	4755297	09/30/2019	Non-fatal injury	Possible Injury (C)	Head-on	Dark - lighted roadway	Clear/Clear	Dry
7	4794187	12/27/2019	Property damage only (	No Apparent Injury (O)	Front to Rear	Dark - lighted roadway	Clear/Clear	Wet
8	4815716	02/10/2020	Property damage only (	No Apparent Injury (O)	Rear-end	Dark - roadway not lighted	Clear/Clear	Wet
9	4877022	09/10/2020	Property damage only (	No Apparent Injury (O)	Angle	Daylight	Cloudy/Cloudy	Dry
10	4909764	12/18/2020	Property damage only (	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Snow
11	4917827	01/11/2021	Property damage only (	No Apparent Injury (O)	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
12	5068400	08/13/2021	Property damage only (	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry
13	5068458	11/01/2021	Property damage only (	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
14	5068440	11/19/2021	Property damage only (	No Apparent Injury (O)	Head-on	Dark - lighted roadway	Clear/Clear	Dry
15	5068509	12/09/2021	Property damage only (	No Apparent Injury (O)	Single vehicle crash	Daylight	Clear/Clear	Wet
16	5094459	04/20/2022	Property damage only (	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
17	5123983	07/10/2022	Property damage only (	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
18	5276834	07/18/2023	Property damage only (	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
19	5403847	06/14/2024	Property damage only (	No Apparent Injury (O)	Front to Rear	Dusk	Clear/Clear	Dry
20	5419148	07/27/2024	Property damage only (	No Apparent Injury (O)	Head-on	Dark - lighted roadway	Clear/Clear	Dry
21	5426905	08/13/2024	Property damage only (	No Apparent Injury (O)	Sideswipe, same direction	Daylight	Clear/Clear	Dry





SYMBOLS				TYPES OF CRASH		CRASH INDEX AND SEVERITY		<b>FIGURE 9</b> <b>Collision Diagram:</b> <b>Lafayette Street from Roslyn Street to Laurel Street</b> <b>Crash Reports 2019-24</b>	
	Moving Vehicle		Parked Vehicle		Head On / Front to Front	#	Property Damage Only Crash Index Number		
	Backing Vehicle		Fixed Object		Angle		Injury Crash Index Number	BOSTON REGION MPO	<i>Route 114 Corridor Study</i> <i>Salem, Massachusetts</i>
	Non-Involved Vehicle		Bicycle		Rear End / Front to Rear		Fatal Crash Index Number		
	Pedestrian		Animal		Sideswipe, Same Direction				
					Sideswipe, Opposite Direction				



# Collision Diagram

## Lafayette Street from Roslyn Street to Laurel Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
1	4652036	01/12/2019	Property damage only	No injury	Sideswipe, same direction	Dark - lighted roadway	Clear/Clear	Dry
2	4684951	04/03/2019	Property damage only	No injury	Sideswipe, same direction	Daylight	Clear/Clear	Dry
3	4689203	04/15/2019	Property damage only	No injury	Sideswipe, same direction	Dark - lighted roadway	Clear/Clear	Dry
4	4767042	10/28/2019	Non-fatal injury	Suspected Minor Injury (B)	Angle	Dark - lighted roadway	Rain/Rain	Wet
5	4809663	01/28/2020	Property damage only	No Apparent Injury (O)	Front to Front	Dark - lighted roadway	Clear	Dry
6	4869591	08/16/2020	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Clear/Clear	Dry
7	5068605	11/10/2021	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
8	5068469	01/18/2022	Property damage only	No Apparent Injury (O)	Front to Rear	Daylight	Clear/Clear	Dry
9	5116296	06/20/2022	Property damage only	No Apparent Injury (O)	Angle	Daylight	Clear/Clear	Dry
10	5145641	09/02/2022	Non-fatal injury	Suspected Minor Injury (B)	Angle	Dark - roadway not lighted	Clear/Clear	Dry
11	5225967	02/09/2023	Property damage only	No Apparent Injury (O)	Front to Front	Daylight	Clear/Clear	Dry
12	5324009	11/14/2023	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
13	5331505	12/06/2023	Non-fatal injury	Suspected Minor Injury (B)	Single vehicle crash	Dark - roadway not lighted	Clear/Clear	Dry
14	5341603	12/27/2023	Property damage only	No Apparent Injury (O)	Angle	Dark - lighted roadway	Rain/Rain	Wet
15	5352877	01/23/2024	Property damage only	No Apparent Injury (O)	Angle	Daylight	Cloudy/Cloudy	Dry
16	5354201	01/27/2024	Non-fatal injury	Possible Injury (C)	Sideswipe, same direction	Daylight	Cloudy/Cloudy	Dry
17	5374635	02/21/2024	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
18	5398670	05/29/2024	Property damage only	No Apparent Injury (O)	Rear-end	Daylight	Clear/Clear	Dry
19	5432897	09/05/2024	Property damage only	Not reported	Angle	Dark - lighted roadway	Clear/Clear	Dry





SYMBOLS		TYPES OF CRASH		CRASH INDEX AND SEVERITY	
→	Moving Vehicle	Parked Vehicle	↔↔ Head On / Front to Front	#	Property Damage Only Crash Index Number
↔	Backing Vehicle	□ Fixed Object	↘↙ Angle	Ⓝ	Injury Crash Index Number
····→	Non-Involved Vehicle	Bicycle	→↔ Rear End / Front to Rear	Ⓢ	Fatal Crash Index Number
	Pedestrian	Animal	↔↔ Sideswipe, Same Direction	■ #	Dark condition Crash Index Number
			↔↔ Sideswipe, Opposite Direction		

**FIGURE 10**  
**Collision Diagram:**  
**Lafayette Street from Ocean Avenue to West Street**  
**Crash Reports 2019-24**

BOSTON  
 REGION  
 MPO

*Route 114 Corridor Study  
 Salem, Massachusetts*



Collision Diagram  
Lafayette Street from Ocean Avenue to West Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFACE
1	4649334	01/09/2019	Non-fatal injury	Non-fatal injury - Non-incapacitating	Angle	Dark - lighted roadway	Rain/Clear	Dry
2	4666565	02/19/2019	Property damage on No injury		Sideswipe, opposite direction	Daylight	Clear/Clear	Ice
3	4666566	02/20/2019	Property damage on No injury		Angle	Daylight	Cloudy/Cloudy	Dry
4	4675178	03/11/2019	Property damage on No injury		Sideswipe, opposite direction	Dark - lighted roadway	Sleet, hail (freezing rain or	Ice
5	4687855	04/05/2019	Property damage on No injury		Sideswipe, same direction	Daylight	Clear/Clear	Dry
6	4690093	04/17/2019	Property damage on No injury		Rear-end	Daylight	Clear/Clear	Dry
7	4704967	05/25/2019	Non-fatal injury	Non-fatal injury - Non-incapacitating	Rear-end	Daylight	Clear/Reported but invalid	Dry
8	4710419	06/04/2019	Non-fatal injury	Suspected Serious Injury (A)	Head-on	Daylight	Clear/Reported but invalid	Dry
9	4711156	06/12/2019	Property damage on No injury		Angle	Daylight	Clear/Reported but invalid	Dry
10	4714107	06/19/2019	Property damage on No injury		Rear-end	Daylight	Clear/Reported but invalid	Dry
11	4717706	06/27/2019	Non-fatal injury	Non-fatal injury - Possible	Rear-end	Dark - lighted roadway	Clear/Clear	Dry
12	4729645	07/27/2019	Property damage on No injury		Front to Rear	Daylight	Clear/Clear	
13	4738679	08/14/2019	Non-fatal injury	Possible Injury (C)	Front to Front	Daylight	Clear/Clear	Dry
14	4747485	09/10/2019	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
15	4751604	09/19/2019	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
16	4755126	09/24/2019	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
17	4762551	10/18/2019	Non-fatal injury	Suspected Minor Injury (B)	Angle	Daylight	Cloudy/Clear	Dry
18	4773511	11/05/2019	Property damage on No Apparent Injury (O)		Rear-end	Dark - lighted roadway	Rain/Rain	Wet
19	4775186	11/16/2019	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
20	4784079	11/30/2019	Non-fatal injury	Possible Injury (C)	Sideswipe, opposite direction	Dusk	Clear/Clear	Dry
21	4806519	01/21/2020	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
22	4829820	01/24/2020	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
23	4870885	04/27/2020	Property damage on No Apparent Injury (O)		Angle	Daylight	Rain/Rain	Wet
24	4846877	06/01/2020	Non-fatal injury	Suspected Minor Injury (B)	Front to Front	Daylight	Clear/Clear	Dry
25	4853670	06/27/2020	Non-fatal injury	Possible Injury (C)	Angle	Daylight	Clear/Clear	Dry
26	4864438	08/01/2020	Property damage on No Apparent Injury (O)		Front to Front	Dark - lighted roadway	Clear/Clear	Dry
27	4867983	08/10/2020	Non-fatal injury	Possible Injury (C)	Front to Rear	Daylight	Clear/Clear	Dry
28	4871120	08/18/2020	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear	Dry
29	4883198	10/03/2020	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear	Dry
30	4895941	11/11/2020	Property damage on No Apparent Injury (O)		Front to Front	Dark - lighted roadway	Clear/Clear	Dry
31	4903711	12/01/2020	Property damage on No Apparent Injury (O)		Rear-to-rear	Daylight	Clear/Clear	Dry
32	4947702	04/03/2021	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
33	4953195	04/20/2021	Property damage on No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
34	4963718	05/23/2021	Property damage on No Apparent Injury (O)		Front to Front	Dusk	Clear/Clear	Dry
35	4965182	05/25/2021	Property damage on No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
36	5056509	09/17/2021	Property damage on No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
37	5060217	09/27/2021	Property damage on No Apparent Injury (O)		Rear-end	Dark - lighted roadway	Clear/Clear	Dry
38	5068572	09/30/2021	Property damage on No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Dry
39	5068482	11/03/2021	Unknown	Not reported	Sideswipe, same direction	Dark - lighted roadway	Clear/Clear	Dry
40	5068563	11/23/2021	Property damage on No Apparent Injury (O)		Single vehicle crash	Daylight	Clear/Clear	Dry
41	5068491	12/23/2021	Property damage on No Apparent Injury (O)		Sideswipe, same direction	Daylight	Clear	Dry
42	5068437	02/03/2022	Non-fatal injury	Suspected Minor Injury (B)	Single vehicle crash	Dark - lighted roadway	Rain	Wet
43	5068451	02/09/2022	Non-fatal injury	Suspected Minor Injury (B)	Angle	Daylight	Clear/Clear	Dry
44	5075248	02/28/2022	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
45	5113314	06/09/2022	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry

# Collision Diagram

## Lafayette Street from Ocean Avenue to West Street: Crash Reports 2019-24

REFERENCE ID	CRASH NUMBER	CRASH DATE	CRASH SEVERITY	MAX INJURY SEVERITY	MANNER OF COLLISION	AMBIENT LIGHT	WEATHER CONDITION	ROAD SURFURE
46	5134113	08/05/2022	Property damage on No Apparent Injury (O)		Front to Rear	Daylight	Clear/Clear	Wet
47	5142250	08/24/2022	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
48	5153861	09/23/2022	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear	Dry
49	5157165	10/01/2022	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
50	5162545	10/13/2022	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
51	5163288	10/14/2022	Property damage on No Apparent Injury (O)		Front to Rear	Dark - lighted roadway	Clear/Clear	Dry
52	5182473	11/30/2022	Non-fatal injury Suspected Minor Injury (B)		Front to Front	Dark - lighted roadway	Rain/Rain	Wet
53	5185030	12/03/2022	Property damage on No Apparent Injury (O)		Front to Front	Daylight	Clear/Clear	Dry
54	5185033	12/07/2022	Property damage on No Apparent Injury (O)		Rear-end	Daylight	Rain/Rain	Wet
55	5188155	12/14/2022	Property damage on No Apparent Injury (O)		Sideswipe, opposite direction	Daylight	Clear/Clear	Dry
56	5201523	01/13/2023	Non-fatal injury Possible Injury (C)		Front to Rear	Dark - roadway not light	Clear/Clear	Dry
57	5226425	02/21/2023	Property damage on No Apparent Injury (O)		Front to Rear	Daylight	Rain/Rain	Wet
58	5323854	08/14/2023	Non-fatal injury Suspected Minor Injury (B)		Angle	Daylight	Clear/Clear	Dry
59	5323939	10/13/2023	Property damage on No Apparent Injury (O)		Sideswipe, same direction	Dark - lighted roadway	Clear/Clear	Dry
60	5331500	12/06/2023	Property damage on No Apparent Injury (O)		Rear-end	Dark - lighted roadway	Clear/Clear	Dry
61	5358579	02/06/2024	Non-fatal injury Possible Injury (C)		Rear-end	Daylight	Clear/Clear	Dry
62	5372747	03/17/2024	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
63	5383858	04/09/2024	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
64	5389321	05/04/2024	Non-fatal injury Possible Injury (C)		Sideswipe, same direction	Daylight	Clear/Clear	Dry
65	5398575	05/31/2024	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry
66	5419567	07/21/2024	Property damage on No Apparent Injury (O)		Angle	Dark - lighted roadway	Clear/Clear	Dry
67	5426370	08/17/2024	Property damage on No Apparent Injury (O)		Angle	Daylight	Clear/Clear	Dry

## **Appendix D**



















### **Intersection Level of Service Analysis**

1. 2025 Existing Conditions: Weekday AM Peak-Hour LOS and Delays
2. 2025 Existing Conditions: Weekday PM Peak-Hour LOS and Delays
3. 2040 No Build Conditions: Weekday AM Peak-Hour LOS and Delays
4. 2040 No Build Conditions: Weekday PM Peak-Hour LOS and Delays
5. 2040 Build Conditions: Weekday AM Peak-Hour LOS and Delays
6. 2040 Build Conditions: Weekday PM Peak-Hour LOS and Delays
7. Traffic Signal Warrant Analysis

## **Part 1: 2025 Existing Conditions: Weekday AM Peak-Hour LOS and Delays**

2: School St/Orne St & North St  
Seth

2025 Existing AM  
10/07/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	5	530	10	15	740	50	60	85	20	120	75	35	
Future Volume (vph)	5	530	10	15	740	50	60	85	20	120	75	35	
Satd. Flow (prot)	1662	1525	0	1694	1543	0	0	1487	0	0	1688	0	
Flt Permitted	0.063			0.267				0.982			0.975		
Satd. Flow (perm)	110	1525	0	476	1543	0	0	1487	0	0	1688	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	5	556	0	16	858	0	0	201	0	0	307	0	
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA		
Protected Phases		4			8		2	2		6	6		9
Permitted Phases	4			8									
Total Split (s)	69.0	69.0		69.0	69.0		28.0	28.0		28.0	28.0		25.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0			6.0		
Act Effct Green (s)	63.6	63.6		63.6	63.6			21.3			22.2		
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.16			0.17		
v/c Ratio	0.10	0.77		0.07	1.18			0.85			1.10		
Control Delay (s/veh)	31.4	40.3		25.1	125.8			86.3			134.7		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay (s/veh)	31.4	40.3		25.1	125.8			86.3			134.7		
LOS	C	D		C	F			F			F		
Approach Delay (s/veh)		40.2			123.9			86.3			134.7		
Approach LOS		D			F			F			F		
Queue Length 50th (ft)	2	340		6	~789			157			~266		
Queue Length 95th (ft)	15	#711		27	#1341			#302			#431		
Internal Link Dist (ft)		541			1292			401			319		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	52	722		225	730			246			279		
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	0.10	0.77		0.07	1.18			0.82			1.10		

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 134.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay (s/veh): 97.6

Intersection LOS: F

Intersection Capacity Utilization 71.5%

ICU Level of Service C

Analysis Period (min) 15






~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 2: School St/Orne St & North St

 Ø2	 Ø6	 Ø4	 Ø9
28 s	28 s	69 s	25 s
		 Ø8	
		69 s	

3: Mason St & North St  
Seth

2025 Existing AM  
10/07/2025

							Ø4	Ø9
Lane Group	SET	SER	NWL	NWT	NEL	NER	Ø4	Ø9
Lane Configurations								
Traffic Volume (vph)	715	30	295	740	0	175		
Future Volume (vph)	715	30	295	740	0	175		
Satd. Flow (prot)	1463	0	1413	1487	0	1286		
Flt Permitted			0.950					
Satd. Flow (perm)	1463	0	1413	1487	0	1236		
Satd. Flow (RTOR)								
Lane Group Flow (vph)	776	0	321	804	0	219		
Turn Type	NA		Prot	NA		pm+ov		
Protected Phases	6		5	2		5	4	9
Permitted Phases						4		
Total Split (s)	35.0		25.0	60.0		25.0	23.0	26.0
Total Lost Time (s)	4.0		5.0	4.0		5.0		
Act Effct Green (s)	32.0		20.6	60.6		20.6		
Actuated g/C Ratio	0.45		0.29	0.86		0.29		
v/c Ratio	1.17		0.78	0.63		0.58		
Control Delay (s/veh)	115.0		42.1	10.1		32.8		
Queue Delay	0.0		0.0	0.0		0.0		
Total Delay (s/veh)	115.0		42.1	10.1		32.8		
LOS	F		D	B		C		
Approach Delay (s/veh)	115.0			19.2	32.8			
Approach LOS	F			B	C			
Queue Length 50th (ft)	~280		98	0		62		
Queue Length 95th (ft)	#799		#338	#582		#167		
Internal Link Dist (ft)	1292			252	419			
Turn Bay Length (ft)								
Base Capacity (vph)	664		414	1279		376		
Starvation Cap Reductn	0		0	0		0		
Spillback Cap Reductn	0		0	0		0		
Storage Cap Reductn	0		0	0		0		
Reduced v/c Ratio	1.17		0.78	0.63		0.58		

### Intersection Summary

Cycle Length: 109

Actuated Cycle Length: 70.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay (s/veh): 55.7

Intersection LOS: E

Intersection Capacity Utilization 83.3%

ICU Level of Service E

Analysis Period (min) 15

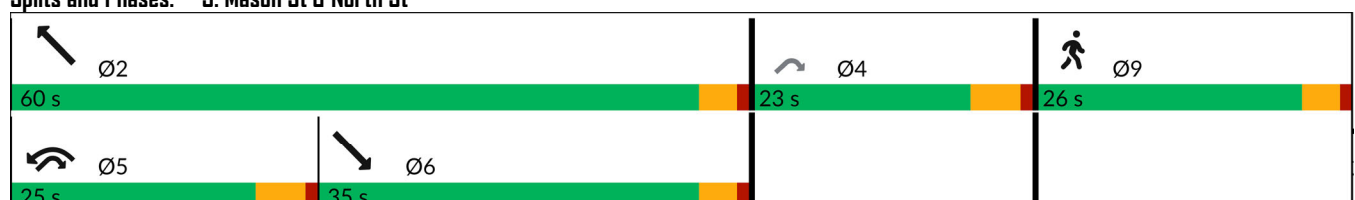
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.


















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

Queue shown is maximum after two cycles.

### Splits and Phases: 3: Mason St & North St





													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	100	120	35	0	0	0	0	550	35	110	480	55	
Future Volume (vph)	100	120	35	0	0	0	0	550	35	110	480	55	
Satd. Flow (prot)	0	1365	1356	0	0	0	0	1382	0	1501	1356	0	
Flt Permitted		0.978								0.217			
Satd. Flow (perm)	0	1365	1270	0	0	0	0	1382	0	343	1356	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	242	38	0	0	0	0	597	0	111	541	0	
Turn Type	Split	NA	Perm					NA		pm+pt	NA		
Protected Phases	4	4						2		1	6		9
Permitted Phases			4							6			
Total Split (s)	25.0	25.0	25.0					50.0		20.0	70.0		35.0
Total Lost Time (s)		5.0	5.0					5.0		4.0	5.0		
Act Effct Green (s)		20.0	20.0					62.1		77.8	76.8		
Actuated g/C Ratio		0.15	0.15					0.48		0.60	0.59		
v/c Ratio		1.15	0.19					0.91		0.37	0.68		
Control Delay (s/veh)		157.5	51.0					53.1		20.1	24.2		
Queue Delay		0.0	0.0					1.5		0.0	0.0		
Total Delay (s/veh)		157.5	51.0					54.6		20.1	24.2		
LOS		F	D					D		C	C		
Approach Delay (s/veh)		143.0						54.6			23.5		
Approach LOS		F						D			C		
Queue Length 50th (ft)		~240	28					490		23	143		
Queue Length 95th (ft)		#410	63					#798		m54	314		
Internal Link Dist (ft)		473			358			431			307		
Turn Bay Length (ft)			75										
Base Capacity (vph)		210	195					659		347	801		
Starvation Cap Reductn		0	0					0		0	0		
Spillback Cap Reductn		0	0					14		0	0		
Storage Cap Reductn		0	0					0		0	0		
Reduced v/c Ratio		1.15	0.19					0.93		0.32	0.68		

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay (s/veh): 57.5

Intersection LOS: E

Intersection Capacity Utilization 73.2%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

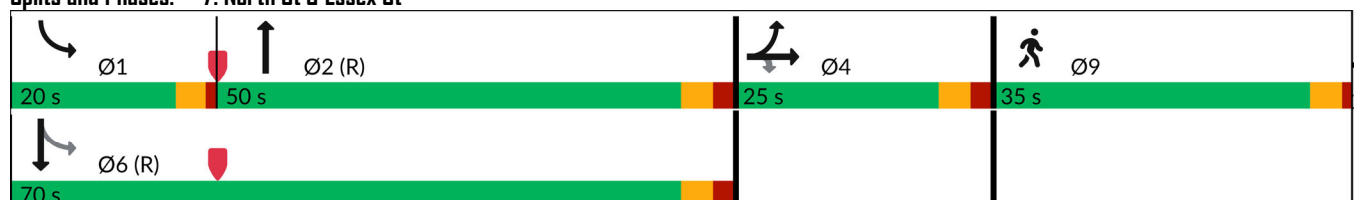
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.
























m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 7: North St & Essex St



9: Washington St & Norman St/New Derby St  
Seth

2025 Existing AM  
10/07/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	30	185	190	65	225	75	250	600	165	65	200	70	
Future Volume (vph)	30	185	190	65	225	75	250	600	165	65	200	70	
Satd. Flow (prot)	1662	1749	1487	1501	1504	0	1516	3031	1356	1678	1766	1501	
Flt Permitted	0.950			0.950			0.950			0.950			
Satd. Flow (perm)	1662	1749	1416	1501	1504	0	1516	3031	1269	1678	1766	1381	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	35	218	224	76	349	0	278	667	183	71	217	76	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	7	4		3	8		5	2		1	6		9
Permitted Phases			4						2			6	
Total Split (s)	20.0	35.0	35.0	20.0	35.0		30.0	45.0	45.0	20.0	35.0	35.0	30.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	8.7	29.9	29.9	11.4	32.4		25.3	40.7	40.7	10.9	22.3	22.3	
Actuated g/C Ratio	0.07	0.23	0.23	0.09	0.25		0.19	0.31	0.31	0.08	0.17	0.17	
v/c Ratio	0.32	0.55	0.70	0.59	0.95		0.96	0.71	0.47	0.52	0.73	0.33	
Control Delay (s/veh)	73.7	57.5	65.7	82.9	87.9		99.6	51.2	49.3	78.0	69.4	56.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	73.7	57.5	65.7	82.9	87.9		99.6	51.2	49.3	78.0	69.4	56.3	
LOS	E	E	E	F	F		F	D	D	E	E	E	
Approach Delay (s/veh)		62.5			87.0			62.8			68.3		
Approach LOS		E			F			E			E		
Queue Length 50th (ft)	33	192	206	71	~352		~303	316	150	66	195	64	
Queue Length 95th (ft)	68	273	#317	124	#555		#507	408	242	122	291	116	
Internal Link Dist (ft)		193			332			528			749		
Turn Bay Length (ft)	100		150				200		200	200		200	
Base Capacity (vph)	185	404	327	167	368		290	959	401	187	408	319	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.54	0.69	0.46	0.95		0.96	0.70	0.46	0.38	0.53	0.24	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 132.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay (s/veh): 67.9

Intersection LOS: E

Intersection Capacity Utilization 69.8%

ICU Level of Service C

Analysis Period (min) 15










~ Volume exceeds capacity, queue is theoretically infinite.























Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 9: Washington St & Norman St/New Derby St

 Ø1	 Ø2	 Ø3	 Ø4	 Ø9
20 s	45 s	20 s	35 s	30 s
 Ø5	 Ø6	 Ø7	 Ø8	
30 s	35 s	20 s	35 s	

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	145	255	260	20	190	270	135	580	20	145	285	35	
Future Volume (vph)	145	255	260	20	190	270	135	580	20	145	285	35	
Satd. Flow (prot)	1694	1783	1516	0	1774	1516	1711	3396	0	1694	1783	1516	
Flt Permitted	0.950				0.931		0.950			0.950			
Satd. Flow (perm)	1694	1783	1436	0	1660	1445	1711	3396	0	1694	1783	1430	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	167	293	299	0	226	290	147	652	0	161	317	39	
Turn Type	Prot	NA	pm+ov	Perm	NA	pm+ov	Prot	NA		Prot	NA	pm+ov	
Protected Phases	7	4	5		8	1	5	2		1	6	7	9
Permitted Phases			4	8		8						6	
Total Split (s)	20.0	45.0	15.0	25.0	25.0	15.0	15.0	35.0		15.0	35.0	20.0	35.0
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0	
Act Effct Green (s)	13.4	39.0	47.2		18.5	26.7	8.2	26.3		8.2	26.3	39.6	
Actuated g/C Ratio	0.11	0.32	0.39		0.15	0.22	0.07	0.22		0.07	0.22	0.33	
v/c Ratio	0.90	0.51	0.53		0.90	0.90	1.27	0.89		1.40	0.82	0.08	
Control Delay (s/veh)	99.9	40.6	25.2		88.7	62.4	220.0	62.3		268.0	65.0	27.5	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	99.9	40.6	25.2		88.7	62.4	220.0	62.3		268.0	65.0	27.5	
LOS	F	D	C		F	E	F	E		F	E	C	
Approach Delay (s/veh)		47.6			73.9			91.3			125.4		
Approach LOS		D			E			F			F		
Queue Length 50th (ft)	143	209	114		193	158	~165	283		~191	257	21	
Queue Length 95th (ft)	#277	292	191		#359	#343	#305	#387		#336	#406	47	
Internal Link Dist (ft)		253			828			250			528		
Turn Bay Length (ft)						300	300						
Base Capacity (vph)	186	574	565		252	323	116	805		115	423	477	
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Reduced v/c Ratio	0.90	0.51	0.53		0.90	0.90	1.27	0.81		1.40	0.75	0.08	

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 121.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.40

Intersection Signal Delay (s/veh): 81.8

Intersection LOS: F

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.





















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 10: Canal St & Mill St & Washington St

	Ø1		Ø2		Ø4		Ø9
15 s		35 s		45 s		35 s	
	Ø5		Ø6		Ø7		Ø8
15 s		35 s		20 s		25 s	

														
Lane Group	NBL	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SER	SWL2	SWL	SWR	SWR2	Ø9
Lane Configurations														
Traffic Volume (vph)	355	305	5	35	5	10	290	5	335	5	5	5	5	
Future Volume (vph)	355	305	5	35	5	10	290	5	335	5	5	5	5	
Satd. Flow (prot)	1678	1513	0	0	0	1646	1511	0	1528	0	1621	0	0	
Flt Permitted	0.324					0.950					0.976			
Satd. Flow (perm)	572	1513	0	0	0	1646	1511	0	1431	0	1621	0	0	
Satd. Flow (RTOR)									*100					
Lane Group Flow (vph)	394	384	0	0	0	18	347	0	409	0	20	0	0	
Turn Type	pm+pt	NA			Prot	Prot	NA		Perm	Prot	Prot			
Protected Phases	5	2			1	1	6			7	7			9
Permitted Phases	2								4					
Total Split (s)	22.0	40.0			16.0	16.0	34.0		23.0	13.0	13.0			24.0
Total Lost Time (s)	4.0	8.0				8.0	8.0		5.0		7.5			
Act Effct Green (s)	53.6	44.0				8.2	26.8		18.6		5.7			
Actuated g/C Ratio	0.54	0.45				0.08	0.27		0.19		0.06			
v/c Ratio	0.76	0.57				0.13	0.85		1.17		0.22			
Control Delay (s/veh)	30.3	32.4				51.6	57.6		132.0		57.3			
Queue Delay	0.0	0.0				0.0	0.0		0.0		0.0			
Total Delay (s/veh)	30.3	32.4				51.6	57.6		132.0		57.3			
LOS	C	C				D	E		F		E			
Approach Delay (s/veh)		31.3					57.3				57.3			
Approach LOS		C					E				E			
Queue Length 50th (ft)	161	175				11	222		~277		13			
Queue Length 95th (ft)	#338	#466				35	#421		#456		41			
Internal Link Dist (ft)		285					738				98			
Turn Bay Length (ft)	200					200								
Base Capacity (vph)	519	675				137	410		350		92			
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	0.76	0.57				0.13	0.85		1.17		0.22			

#### Intersection Summary

Cycle Length: 116

Actuated Cycle Length: 98.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay (s/veh): 63.9

Intersection LOS: E

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Analysis Period (min) 15

\* User Entered Value



~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 11: Lafayette St & Dow St & Washington St

	Ø1		Ø2		Ø4		Ø7		Ø9
16 s		40 s		23 s		13 s		24 s	
	Ø5		Ø6						
22 s		34 s							

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	5	25	5	5	20	15	725	10	5	515	15
Future Volume (vph)	20	5	25	5	5	20	15	725	10	5	515	15
Satd. Flow (prot)	0	1353	0	0	1380	0	0	1525	0	0	1506	0
Flt Permitted		0.906			0.965			0.988			0.994	
Satd. Flow (perm)	0	1239	0	0	1337	0	0	1508	0	0	1499	0
Satd. Flow (RTOR)								2			5	
Lane Group Flow (vph)	0	56	0	0	41	0	0	772	0	0	595	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	18.0	18.0		18.0	18.0		42.0	42.0		42.0	42.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Act Effct Green (s)		13.3			13.3			30.9			30.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.18			0.12			0.87			0.67	
Control Delay (s/veh)		19.9			19.1			21.1			11.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		19.9			19.1			21.1			11.2	
LOS		B			B			C			B	
Approach Delay (s/veh)		19.9			19.1			21.1			11.2	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)		15			11			165			102	
Queue Length 95th (ft)		43			27			#406			186	
Internal Link Dist (ft)		657			627			413			957	
Turn Bay Length (ft)												
Base Capacity (vph)		338			365			1119			1113	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.17			0.11			0.69			0.53	

#### Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 52.3

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 17.0

Intersection LOS: B

Intersection Capacity Utilization 65.7%

ICU Level of Service C

Analysis Period (min) 15





















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

Queue shown is maximum after two cycles.

#### Splits and Phases: 15: Lafayette St & Ocean St

Ø2 42 s	Ø4 18 s
Ø6 42 s	Ø8 18 s

Existing Conditions  
Seth

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	180	10	110	15	30	20	175	610	10	5	410	135	
Future Volume (vph)	180	10	110	15	30	20	175	610	10	5	410	135	
Satd. Flow (prot)	0	1421	1446	0	1535	1516	1711	1572	0	0	1515	1473	
Flt Permitted		0.700			0.984		0.950				0.993		
Satd. Flow (perm)	0	1042	1446	0	1535	1516	1711	1572	0	0	1506	1473	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	218	126	0	51	23	179	632	0	0	494	161	
Turn Type	Perm	NA	pt+ov	Split	NA	Prot	Prot	NA		Perm	NA	custom	
Protected Phases		4	4 5	3	3	3	5	2			6	4	9
Permitted Phases	4									6		6	
Total Split (s)	28.0	28.0		15.0	15.0	15.0	19.0	69.0		50.0	50.0	28.0	28.0
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0			5.0	5.0	
Act Effct Green (s)		23.6	40.3		8.7	8.7	14.3	65.5			46.0	70.9	
Actuated g/C Ratio		0.19	0.32		0.07	0.07	0.11	0.52			0.37	0.57	
v/c Ratio		1.11	0.27		0.48	0.22	0.91	0.77			0.89	0.19	
Control Delay (s/veh)		146.3	24.8		76.6	65.8	102.8	36.1			60.5	11.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0	
Total Delay (s/veh)		146.3	24.8		76.6	65.8	102.8	36.1			60.5	11.3	
LOS		F	C		E	E	F	D			E	B	
Approach Delay (s/veh)		101.8			73.2			50.8			48.4		
Approach LOS		F			E			D			D		
Queue Length 50th (ft)		~250	61		45	20	~177	514			~476	58	
Queue Length 95th (ft)		#399	98		89	49	#333	#753			#620	84	
Internal Link Dist (ft)		770			537			1056			584		
Turn Bay Length (ft)			300			300	300					300	
Base Capacity (vph)		196	465		125	124	196	822			554	833	
Starvation Cap Reductn		0	0		0	0	0	0			0	0	
Spillback Cap Reductn		0	0		0	0	0	0			0	0	
Storage Cap Reductn		0	0		0	0	0	0			0	0	
Reduced v/c Ratio		1.11	0.27		0.41	0.19	0.91	0.77			0.89	0.19	

#### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 125.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay (s/veh): 60.2

Intersection LOS: E

Intersection Capacity Utilization 84.2%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.




















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 16: Lafayette St & Loring Ave/West St

Ø2 69 s		Ø3 15 s	Ø4 28 s	Ø9 28 s
Ø5 19 s	Ø6 50 s			

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	20	0	70	10	25	115	85	610	0	0	590	290	
Future Volume (vph)	20	0	70	10	25	115	85	610	0	0	590	290	
Satd. Flow (prot)	1516	0	1356	0	1366	0	1516	1595	0	0	2844	0	
Flt Permitted	0.950				0.997		0.155						
Satd. Flow (perm)	1516	0	1296	0	1366	0	247	1595	0	0	2844	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	22	0	76	0	163	0	88	629	0	0	910	0	
Turn Type	Prot		pm+ov	Split	NA		pm+pt	NA			NA		
Protected Phases	7		5	8	8		5	2			6		9
Permitted Phases			7				2						
Total Split (s)	20.0		20.0	20.0	20.0		20.0	63.0			43.0		27.0
Total Lost Time (s)	6.0		6.0		6.0		6.0	6.0			6.0		
Act Effct Green (s)	7.9		15.6		22.1		71.0	71.0			54.5		
Actuated g/C Ratio	0.06		0.12		0.17		0.55	0.55			0.42		
v/c Ratio	0.24		0.48		0.71		0.37	0.72			0.76		
Control Delay (s/veh)	64.0		40.7		69.0		29.5	31.0			41.1		
Queue Delay	0.0		0.0		0.0		0.0	0.1			0.0		
Total Delay (s/veh)	64.0		40.7		69.0		29.5	31.1			41.1		
LOS	E		D		E		C	C			D		
Approach Delay (s/veh)		45.9			69.0			30.9			41.1		
Approach LOS		D			E			C			D		
Queue Length 50th (ft)	18		30		133		41	304			~412		
Queue Length 95th (ft)	47		54		#267		m51	m357			#594		
Internal Link Dist (ft)		297			159			120			231		
Turn Bay Length (ft)			100										
Base Capacity (vph)	163		197		231		271	870			1192		
Starvation Cap Reductn	0		0		0		0	10			0		
Spillback Cap Reductn	0		0		0		0	0			0		
Storage Cap Reductn	0		0		0		0	0			0		
Reduced v/c Ratio	0.13		0.39		0.71		0.32	0.73			0.76		

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay (s/veh): 39.9

Intersection LOS: D

Intersection Capacity Utilization 67.9%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 22: North St & Rte 107 ramp to Rte 114/Federal St

	Ø2 (R)			Ø7		Ø8		Ø9
63 s			20 s		20 s		27 s	
	Ø5			Ø6 (R)				
20 s			43 s					




Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	55	550	15	0	850	25	0	0	0	15	40	130
Future Vol, veh/h	55	550	15	0	850	25	0	0	0	15	40	130
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	95	95	95	92	92	92	90	90	90
Heavy Vehicles, %	5	5	5	3	3	3	2	2	2	1	1	1
Mvmt Flow	59	591	16	0	895	26	0	0	0	17	44	144

Major/Minor	Major1		Major2				Minor2		
Conflicting Flow All	931	0	0	618	0	0	1638	1654	928
Stage 1	-	-	-	-	-	-	918	918	-
Stage 2	-	-	-	-	-	-	720	736	-
Critical Hdwy	4.15	-	-	4.13	-	-	6.41	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	5.41	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.41	5.51	-
Follow-up Hdwy	2.245	-	-	2.227	-	-	3.509	4.009	3.309
Pot Cap-1 Maneuver	723	-	-	958	-	-	111	99	326
Stage 1	-	-	-	-	-	-	391	352	-
Stage 2	-	-	-	-	-	-	484	427	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	716	-	-	958	-	-	96	0	321
Mov Cap-2 Maneuver	-	-	-	-	-	-	96	0	-
Stage 1	-	-	-	-	-	-	339	0	-
Stage 2	-	-	-	-	-	-	480	0	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.93	0	57.53
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	159	-	-	958	-	-	258
HCM Lane V/C Ratio	0.083	-	-	-	-	-	0.797
HCM Ctrl Dly (s/v)	10.5	0	-	0	-	-	57.5
HCM Lane LOS	B	A	-	A	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	0	-	-	6.1







Intersection										
Int Delay, s/veh	1.3									
Movement	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	0	20	20	852	20	40	1000	160	0	0
Future Vol, veh/h	0	20	20	852	20	40	1000	160	0	0
Conflicting Peds, #/hr	0	5	20	0	10	0	0	20	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	92	92	91	91	91	92	92	92	92	92
Heavy Vehicles, %	2	2	3	3	3	3	3	3	3	3
Mvmt Flow	0	22	22	936	22	43	1087	174	0	0

Major/Minor	Minor1		Major1		Major2			Minor2	
Conflicting Flow All	1652	962	1281	0	0	968	0	0	670
Stage 1	1001	-	-	-	-	-	-	-	-
Stage 2	650	-	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.23	4.145	-	-	4.145	-	-	6.945
Critical Hdwy Stg 1	6.13	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.53	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.2285	-	-	2.2285	-	-	3.3285
Pot Cap-1 Maneuver	71	309	535	-	-	704	-	-	398
Stage 1	292	-	-	-	-	-	-	-	0
Stage 2	425	-	-	-	-	-	-	-	0
Platoon blocked, %				-	-	-	-		
Mov Cap-1 Maneuver	54	305	526	-	-	698	-	-	384
Mov Cap-2 Maneuver	54	-	-	-	-	-	-	-	-
Stage 1	263	-	-	-	-	-	-	-	-
Stage 2	356	-	-	-	-	-	-	-	-

Approach	EB	SE	NW	SW
HCM Ctrl Dly, s/v	32.46	0.27	1.14	14.93
HCM LOS	D			B

Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	SEL	SET	SER	SWLn1
Capacity (veh/h)	101	-	-	158	40	-	-	384
HCM Lane V/C Ratio	0.062	-	-	0.172	0.042	-	-	0.057
HCM Ctrl Dly (s/v)	10.5	0.9	-	32.5	12.1	0	-	14.9
HCM Lane LOS	B	A	-	D	B	A	-	B
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.1	-	-	0.2

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	5	10	5	70	0	635	0	0	630	5
Future Vol, veh/h	5	0	5	10	5	70	0	635	0	0	630	5
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
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	84	84	84	84	84	84	97	97	97	94	94	94
Heavy Vehicles, %	4	4	4	2	2	2	3	3	3	4	4	4
Mvmt Flow	6	0	6	12	6	83	0	655	0	0	670	5





Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1350	1338	358	1000	1340	665	686	0	-	-	-	0
Stage 1	683	683	-	655	655	-	-	-	-	-	-	-
Stage 2	668	655	-	345	686	-	-	-	-	-	-	-
Critical Hdwy	7.36	6.56	6.96	7.33	6.53	6.23	4.145	-	-	-	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.538	4.038	3.338	3.519	4.019	3.319	2.2285	-	-	-	-	-
Pot Cap-1 Maneuver	116	150	635	209	152	459	900	-	0	0	-	-
Stage 1	402	444	-	454	462	-	-	-	0	0	-	-
Stage 2	443	458	-	644	447	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	90	149	624	206	151	455	892	-	-	-	-	-
Mov Cap-2 Maneuver	90	149	-	206	151	-	-	-	-	-	-	-
Stage 1	399	441	-	454	462	-	-	-	-	-	-	-
Stage 2	354	458	-	633	443	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	29.86		18.82		0		0	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR
Capacity (veh/h)	892	-	157	361	-	-
HCM Lane V/C Ratio	-	-	0.076	0.28	-	-
HCM Ctrl Dly (s/v)	0	-	29.9	18.8	-	-
HCM Lane LOS	A	-	D	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	1.1	-	-

Intersection												
Int Delay, s/veh	18											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	5	75	0	90	5	665	0	0	590	5
Future Vol, veh/h	5	0	5	75	0	90	5	665	0	0	590	5
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	92	92	92	88	92	88	92	87	87	89	89	92
Heavy Vehicles, %	2	2	2	4	4	4	2	4	4	5	5	2
Mvmt Flow	5	0	5	85	0	102	5	764	0	0	663	5




Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1481	1461	706	1458	1464	784	688	0	-	-	-	0
Stage 1	686	686	-	775	775	-	-	-	-	-	-	-
Stage 2	795	775	-	683	688	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.14	6.54	6.24	4.12	-	-	-	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.536	4.036	3.336	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	104	129	436	106	127	390	906	-	0	0	-	-
Stage 1	438	448	-	388	405	-	-	-	0	0	-	-
Stage 2	381	408	-	436	444	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	72	125	421	102	124	383	890	-	-	-	-	-
Mov Cap-2 Maneuver	72	125	-	102	124	-	-	-	-	-	-	-
Stage 1	430	440	-	384	401	-	-	-	-	-	-	-
Stage 2	271	403	-	423	436	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	36.9		154.45		0.06		0	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR
Capacity (veh/h)	13	-	124	170	-	-
HCM Lane V/C Ratio	0.006	-	0.088	1.103	-	-
HCM Ctrl Dly (s/v)	9.1	0	36.9	154.5	-	-
HCM Lane LOS	A	A	E	F	-	-
HCM 95th %tile Q(veh)	0	-	0.3	9.6	-	-

Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕						↕			↕		
Traffic Vol, veh/h	5	30	5	0	0	0	5	570	250	110	610	10	
Future Vol, veh/h	5	30	5	0	0	0	5	570	250	110	610	10	
Conflicting Peds, #/hr	10	0	10	10	0	10	20	0	50	50	0	20	
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	82	82	82	92	92	92	95	95	95	91	91	91	
Heavy Vehicles, %	4	4	4	0	0	0	3	3	3	5	5	5	
Mvmt Flow	6	37	6	0	0	0	5	600	263	121	670	11	
Major/Minor	Minor2						Major1		Major2				
Conflicting Flow All	1558	1861	706				701	0	0	913	0	0	
Stage 1	938	938	-				-	-	-	-	-	-	
Stage 2	621	924	-				-	-	-	-	-	-	
Critical Hdwy	6.44	6.54	6.24				4.13	-	-	4.15	-	-	
Critical Hdwy Stg 1	5.44	5.54	-				-	-	-	-	-	-	
Critical Hdwy Stg 2	5.44	5.54	-				-	-	-	-	-	-	
Follow-up Hdwy	3.536	4.036	3.336				2.227	-	-	2.245	-	-	
Pot Cap-1 Maneuver	122	72	433				891	-	-	734	-	-	
Stage 1	378	341	-				-	-	-	-	-	-	
Stage 2	532	346	-				-	-	-	-	-	-	
Platoon blocked, %								-	-	-			-
Mov Cap-1 Maneuver	86	0	421				876	-	-	734	-	-	
Mov Cap-2 Maneuver	86	0	-				-	-	-	-	-	-	
Stage 1	367	0	-				-	-	-	-	-	-	
Stage 2	384	0	-				-	-	-	-	-	-	
Approach	EB						NB		SB				
HCM Ctrl Dly, s/v	42.86						0.06		1.64				
HCM LOS	E												
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	SBL	SBT	SBR						
Capacity (veh/h)	10	-	-	143	270	-	-						
HCM Lane V/C Ratio	0.006	-	-	0.342	0.165	-	-						
HCM Ctrl Dly (s/v)	9.1	0	-	42.9	10.9	0	-						
HCM Lane LOS	A	A	-	E	B	A	-						
HCM 95th %tile Q(veh)	0	-	-	1.4	0.6	-	-						



















Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
Future Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	78	78	78	94	94	94	95	95	95
Heavy Vehicles, %	10	10	10	0	0	0	4	4	4	6	6	6
Mvmt Flow	6	0	6	6	0	32	5	809	16	11	553	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1435	1451	595	1441	1446	856	578	0	0	844	0	0
Stage 1	596	596	-	847	847	-	-	-	-	-	-	-
Stage 2	839	855	-	594	599	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.1	6.5	6.2	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.5	4	3.3	2.236	-	-	2.254	-	-
Pot Cap-1 Maneuver	107	126	489	112	133	360	986	-	-	775	-	-
Stage 1	476	479	-	359	381	-	-	-	-	-	-	-
Stage 2	349	364	-	495	494	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	91	118	473	103	124	348	969	-	-	761	-	-
Mov Cap-2 Maneuver	91	118	-	103	124	-	-	-	-	-	-	-
Stage 1	459	461	-	349	370	-	-	-	-	-	-	-
Stage 2	308	354	-	471	475	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	30.65		22.06		0.06		0.18					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	11	-	-	152	249	33	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.079	0.154	0.014	-	-				
HCM Ctrl Dly (s/v)	8.7	0	-	30.6	22.1	9.8	0	-				
HCM Lane LOS	A	A	-	D	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0	-	-				

Intersection						
Int Delay, s/veh	6.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	455	745	0	0	875
Future Vol, veh/h	0	455	745	0	0	875
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	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	474	776	0	0	911
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	388	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	608	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	608	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	28.72	0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	WBLnI	SBT			
Capacity (veh/h)	-	608	-			
HCM Lane V/C Ratio	-	0.78	-			
HCM Ctrl Dly (s/v)	-	28.7	-			
HCM Lane LOS	-	D	-			
HCM 95th %tile Q(veh)	-	7.4	-			

## **Part 2: 2025 Existing Conditions: Weekday PM Peak-Hour LOS and Delays**

2: School St/Orne St & North St  
Seth

2025 Existing PM  
10/07/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	10	610	25	15	705	35	70	60	30	135	130	20	
Future Volume (vph)	10	610	25	15	705	35	70	60	30	135	130	20	
Satd. Flow (prot)	1711	1564	0	1711	1562	0	0	1495	0	0	1753	0	
Flt Permitted	0.065			0.131				0.979			0.977		
Satd. Flow (perm)	117	1564	0	236	1562	0	0	1495	0	0	1753	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	11	690	0	16	779	0	0	188	0	0	324	0	
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA		
Protected Phases		4			8		2	2		6	6		9
Permitted Phases	4			8									
Total Split (s)	67.0	67.0		67.0	67.0		29.0	29.0		29.0	29.0		25.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0			6.0		
Act Effct Green (s)	61.8	61.8		61.8	61.8			20.4			23.3		
Actuated g/C Ratio	0.45	0.45		0.45	0.45			0.15			0.17		
v/c Ratio	0.21	0.98		0.15	1.11			0.85			1.09		
Control Delay (s/veh)	42.3	68.7		32.7	104.6			90.3			131.7		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay (s/veh)	42.3	68.7		32.7	104.6			90.3			131.7		
LOS	D	E		C	F			F			F		
Approach Delay (s/veh)		68.3			103.2			90.3			131.7		
Approach LOS		E			F			F			F		
Queue Length 50th (ft)	7	~755		10	~936			181			~385		
Queue Length 95th (ft)	28	#1002		30	#1190			#281			#565		
Internal Link Dist (ft)		541			1292			401			319		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	52	703		105	702			253			297		
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	0.21	0.98		0.15	1.11			0.74			1.09		

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 137.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay (s/veh): 94.4

Intersection LOS: F

Intersection Capacity Utilization 69.8%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 2: School St/Orne St & North St

Ø2	Ø6	Ø4	Ø9
29 s	29 s	67 s	25 s
		Ø8	
		67 s	



3: Mason St & North St  
Seth

2025 Existing PM  
10/07/2025

							Ø4	Ø9
Lane Group	SET	SER	NWL	NWT	NEL	NER	Ø4	Ø9
Lane Configurations								
Traffic Volume (vph)	750	30	445	715	0	170		
Future Volume (vph)	750	30	445	715	0	170		
Satd. Flow (prot)	1506	0	1441	1516	0	1312		
Flt Permitted			0.950					
Satd. Flow (perm)	1506	0	1441	1516	0	1260		
Satd. Flow (RTOR)								
Lane Group Flow (vph)	848	0	468	753	0	200		
Turn Type	NA		Prot	NA		pm+ov		
Protected Phases	6		5	2		5	4	9
Permitted Phases						4		
Total Split (s)	35.0		25.0	60.0		25.0	23.0	26.0
Total Lost Time (s)	4.0		5.0	4.0		5.0		
Act Effct Green (s)	32.0		20.6	60.6		20.6		
Actuated g/C Ratio	0.45		0.29	0.86		0.29		
v/c Ratio	1.24		1.11	0.58		0.52		
Control Delay (s/veh)	143.3		105.7	8.5		30.4		
Queue Delay	0.0		0.0	0.0		0.0		
Total Delay (s/veh)	143.3		105.7	8.5		30.4		
LOS	F		F	A		C		
Approach Delay (s/veh)	143.3			45.7	30.4			
Approach LOS	F			D	C			
Queue Length 50th (ft)	~357		164	0		56		
Queue Length 95th (ft)	#878		#525	413		161		
Internal Link Dist (ft)	1292			252	419			
Turn Bay Length (ft)								
Base Capacity (vph)	684		422	1304		384		
Starvation Cap Reductn	0		0	0		0		
Spillback Cap Reductn	0		0	0		0		
Storage Cap Reductn	0		0	0		0		
Reduced v/c Ratio	1.24		1.11	0.58		0.52		

### Intersection Summary

Cycle Length: 109

Actuated Cycle Length: 70.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.24

Intersection Signal Delay (s/veh): 80.9

Intersection LOS: F

Intersection Capacity Utilization 95.4%

ICU Level of Service F

Analysis Period (min) 15

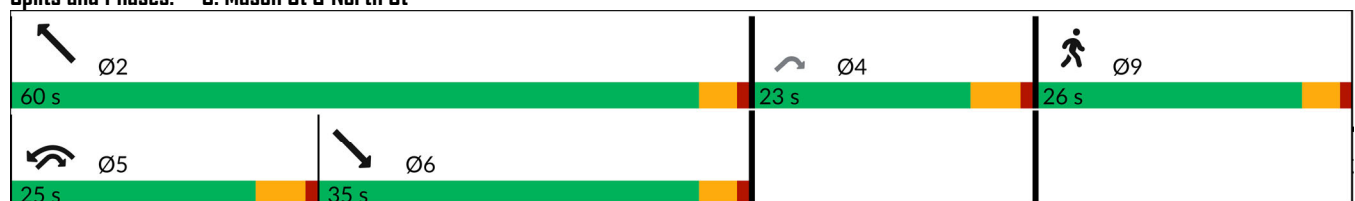
~ Volume exceeds capacity, queue is theoretically infinite.


















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

### Splits and Phases: 3: Mason St & North St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	105	100	40	0	0	0	0	485	45	135	580	70	
Future Volume (vph)	105	100	40	0	0	0	0	485	45	135	580	70	
Satd. Flow (prot)	0	1374	1369	0	0	0	0	1403	0	1531	1382	0	
Flt Permitted		0.975								0.195			
Satd. Flow (perm)	0	1374	1294	0	0	0	0	1403	0	314	1382	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	230	45	0	0	0	0	570	0	145	699	0	
Turn Type	Split	NA	Perm					NA		pm+pt	NA		
Protected Phases	4	4						2		1	6		9
Permitted Phases			4							6			
Total Split (s)	30.0	30.0	30.0					45.0		20.0	65.0		35.0
Total Lost Time (s)		5.0	5.0					5.0		4.0	5.0		
Act Effct Green (s)		23.9	23.9					56.1		73.9	72.9		
Actuated g/C Ratio		0.18	0.18					0.43		0.57	0.56		
v/c Ratio		0.91	0.19					0.94		0.49	0.90		
Control Delay (s/veh)		89.4	46.5					63.7		32.2	42.5		
Queue Delay		0.0	0.0					1.0		0.0	0.0		
Total Delay (s/veh)		89.4	46.5					64.7		32.2	42.5		
LOS		F	D					E		C	D		
Approach Delay (s/veh)		82.4						64.7			40.8		
Approach LOS		F						E			D		
Queue Length 50th (ft)		190	32					~526		58	369		
Queue Length 95th (ft)		#331	68					#821		m88	m#721		
Internal Link Dist (ft)		473			358			431			307		
Turn Bay Length (ft)			75										
Base Capacity (vph)		264	248					605		334	774		
Starvation Cap Reductn		0	0					0		0	0		
Spillback Cap Reductn		0	0					5		0	0		
Storage Cap Reductn		0	0					0		0	0		
Reduced v/c Ratio		0.87	0.18					0.95		0.43	0.90		

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay (s/veh): 55.6

Intersection LOS: E

Intersection Capacity Utilization 70.7%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.
























m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 7: North St & Essex St



9: Washington St & Norman St/New Derby St  
Seth

2025 Existing PM  
10/07/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	40	215	210	90	310	55	190	440	160	80	255	70	
Future Volume (vph)	40	215	210	90	310	55	190	440	160	80	255	70	
Satd. Flow (prot)	1711	1801	1531	1531	1566	0	1531	3061	1369	1711	1801	1531	
Flt Permitted	0.950			0.950			0.950			0.950			
Satd. Flow (perm)	1711	1801	1465	1531	1566	0	1531	3061	1263	1711	1801	1411	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	45	242	236	99	401	0	200	463	168	88	280	77	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	7	4		3	8		5	2		1	6		9
Permitted Phases			4						2			6	
Total Split (s)	18.0	40.0	40.0	18.0	40.0		26.0	36.0	36.0	26.0	36.0	36.0	30.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	9.1	29.6	29.6	11.6	35.9		20.6	37.1	37.1	12.5	25.0	25.0	
Actuated g/C Ratio	0.07	0.22	0.22	0.09	0.27		0.15	0.28	0.28	0.09	0.19	0.19	
v/c Ratio	0.39	0.61	0.73	0.75	0.96		0.85	0.55	0.48	0.55	0.84	0.29	
Control Delay (s/veh)	75.6	57.0	65.6	96.8	86.3		89.2	50.0	53.8	76.2	76.3	54.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	75.6	57.0	65.6	96.8	86.3		89.2	50.0	53.8	76.2	76.3	54.1	
LOS	E	E	E	F	F		F	D	D	E	E	D	
Approach Delay (s/veh)		62.5			88.4			60.2			72.4		
Approach LOS		E			F			E			E		
Queue Length 50th (ft)	42	210	211	94	~428		191	207	140	82	256	63	
Queue Length 95th (ft)	85	305	313	#202	#666		#367	288	237	142	#393	116	
Internal Link Dist (ft)		193			332			528			749		
Turn Bay Length (ft)	100		150				200		200	200		200	
Base Capacity (vph)	160	479	390	143	419		239	848	349	267	422	331	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio	0.28	0.51	0.61	0.69	0.96		0.84	0.55	0.48	0.33	0.66	0.23	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 134

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay (s/veh): 69.2

Intersection LOS: E

Intersection Capacity Utilization 72.4%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.























Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 9: Washington St & Norman St/New Derby St

	Ø1		Ø2		Ø3		Ø4		Ø9
26 s		36 s		18 s		40 s		30 s	
	Ø5		Ø6		Ø7		Ø8		
26 s		36 s		18 s		40 s			

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	155	260	370	15	200	250	130	445	45	140	370	30	
Future Volume (vph)	155	260	370	15	200	250	130	445	45	140	370	30	
Satd. Flow (prot)	1711	1801	1531	0	1761	1501	1694	3316	0	1728	1818	1546	
Flt Permitted	0.950				0.955		0.950			0.950			
Satd. Flow (perm)	1711	1801	1453	0	1687	1436	1694	3316	0	1728	1818	1454	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	161	271	385	0	250	291	148	557	0	152	402	33	
Turn Type	Prot	NA	pm+av	Perm	NA	pm+av	Prot	NA		Prot	NA	pm+av	
Protected Phases	7	4	5		8	1	5	2		1	6	7	9
Permitted Phases			4	8		8						6	
Total Split (s)	20.0	45.0	18.0	25.0	25.0	18.0	18.0	32.0		18.0	32.0	20.0	35.0
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0	
Act Effct Green (s)	13.2	38.6	49.8		18.3	29.5	11.2	25.4		11.2	25.4	38.6	
Actuated g/C Ratio	0.11	0.31	0.40		0.15	0.24	0.09	0.21		0.09	0.21	0.31	
v/c Ratio	0.88	0.48	0.65		1.00	0.83	0.96	0.81		0.97	1.07	0.07	
Control Delay (s/veh)	97.0	40.1	27.2		110.9	48.1	121.4	58.9		122.1	114.7	29.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	97.0	40.1	27.2		110.9	48.1	121.4	58.9		122.1	114.7	29.3	
LOS	F	D	C		F	D	F	E		F	F	C	
Approach Delay (s/veh)		45.2			77.1			72.1			111.8		
Approach LOS		D			E			E			F		
Queue Length 50th (ft)	137	191	146		~233	133	~134	242		~138	~398	19	
Queue Length 95th (ft)	#277	281	255		#379	#260	#265	#323		#280	#601	43	
Internal Link Dist (ft)		253			828			250			528		
Turn Bay Length (ft)						300	300						
Base Capacity (vph)	184	565	595		250	349	154	684		157	375	466	
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Reduced v/c Ratio	0.88	0.48	0.65		1.00	0.83	0.96	0.81		0.97	1.07	0.07	

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 123

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay (s/veh): 73.6

Intersection LOS: E

Intersection Capacity Utilization 75.0%

ICU Level of Service D

Analysis Period (min) 15








~ Volume exceeds capacity, queue is theoretically infinite.





















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 10: Canal St & Mill St & Washington St

			
Ø1	Ø2	Ø4	Ø9
18 s	32 s	45 s	35 s
			
Ø5	Ø6	Ø7	Ø8
18 s	32 s	20 s	25 s

														
Lane Group	NBL	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SER	SWL2	SWL	SWR	SWR2	Ø9
Lane Configurations														
Traffic Volume (vph)	330	280	10	30	25	40	420	10	345	5	10	5	5	
Future Volume (vph)	330	280	10	30	25	40	420	10	345	5	10	5	5	
Satd. Flow (prot)	1678	1511	0	0	0	1728	1584	0	1558	0	1578	0	0	
Flt Permitted	0.175					0.950					0.971			
Satd. Flow (perm)	309	1511	0	0	0	1728	1584	0	1455	0	1578	0	0	
Satd. Flow (RTOR)									*100					
Lane Group Flow (vph)	351	341	0	0	0	68	453	0	401	0	25	0	0	
Turn Type	pm+pt	NA			Prot	Prot	NA		Perm	Prot	Prot			
Protected Phases	5	2			1	1	6			7	7			9
Permitted Phases	2								4					
Total Split (s)	22.0	44.0			16.0	16.0	38.0		23.0	17.0	17.0			24.0
Total Lost Time (s)	6.0	8.0				8.0	8.0		5.0		7.5			
Act Effct Green (s)	56.0	41.5				8.3	31.1		18.7		7.3			
Actuated g/C Ratio	0.52	0.39				0.08	0.29		0.17		0.07			
v/c Ratio	0.94	0.58				0.51	0.98		1.19		0.23			
Control Delay (s/veh)	58.8	38.1				67.5	79.6		143.4		58.6			
Queue Delay	0.0	0.0				0.0	0.0		0.0		0.0			
Total Delay (s/veh)	58.8	38.1				67.5	79.6		143.4		58.6			
LOS	E	D				E	E		F		E			
Approach Delay (s/veh)		48.6					78.0				58.6			
Approach LOS		D					E				E			
Queue Length 50th (ft)	~235	244				53	~422		~341		19			
Queue Length 95th (ft)	#439	#393				#119	#644		#513		49			
Internal Link Dist (ft)		285					738				98			
Turn Bay Length (ft)	200					200								
Base Capacity (vph)	374	585				134	461		336		145			
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	0.94	0.58				0.51	0.98		1.19		0.17			

#### Intersection Summary

Cycle Length: 124

Actuated Cycle Length: 106.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.19

Intersection Signal Delay (s/veh): 81.3

Intersection LOS: F

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15

\* User Entered Value








~ Volume exceeds capacity, queue is theoretically infinite.





















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 11: Lafayette St & Dow St & Washington St

	Ø1		Ø2		Ø4		Ø7		Ø9
16 s		44 s		23 s		17 s		24 s	
	Ø5		Ø6						
22 s		38 s							

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	210	25	80	25	25	10	165	560	20	5	375	180	
Future Volume (vph)	210	25	80	25	25	10	165	560	20	5	375	180	
Satd. Flow (prot)	0	1479	1501	0	1569	1561	1694	1552	0	0	1559	1516	
Flt Permitted		0.700			0.976		0.950				0.991		
Satd. Flow (perm)	0	1082	1501	0	1569	1561	1694	1552	0	0	1546	1516	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	294	100	0	68	14	179	631	0	0	437	207	
Turn Type	Perm	NA	pt+ov	Split	NA	Prot	Prot	NA		Perm	NA	custom	
Protected Phases		4	4 5	3	3	3	5	2			6	4	9
Permitted Phases	4									6		6	
Total Split (s)	34.0	34.0		16.0	16.0	16.0	17.0	62.0		45.0	45.0	34.0	28.0
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0			5.0	5.0	
Act Effct Green (s)		30.0	44.9		9.5	9.5	12.4	57.0			39.4	70.8	
Actuated g/C Ratio		0.24	0.36		0.08	0.08	0.10	0.46			0.32	0.57	
v/c Ratio		1.12	0.18		0.57	0.12	1.05	0.88			0.89	0.24	
Control Delay (s/veh)		137.3	21.4		79.0	62.0	139.4	49.7			64.2	11.1	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0	
Total Delay (s/veh)		137.3	21.4		79.0	62.0	139.4	49.7			64.2	11.1	
LOS		F	C		E	E	F	D			E	B	
Approach Delay (s/veh)		107.9			76.1			69.5			47.1		
Approach LOS		F			E			E			D		
Queue Length 50th (ft)		~344	45		61	12	~201	569			398	73	
Queue Length 95th (ft)		#450	68		92	29	#358	#833			#588	107	
Internal Link Dist (ft)		770			537			1056			584		
Turn Bay Length (ft)			300			300	300					300	
Base Capacity (vph)		262	544		144	143	170	738			516	867	
Starvation Cap Reductn		0	0		0	0	0	0			0	0	
Spillback Cap Reductn		0	0		0	0	0	0			0	0	
Storage Cap Reductn		0	0		0	0	0	0			0	0	
Reduced v/c Ratio		1.12	0.18		0.47	0.10	1.05	0.86			0.85	0.24	

#### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 123.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay (s/veh): 70.1

Intersection LOS: E

Intersection Capacity Utilization 82.8%

ICU Level of Service E

Analysis Period (min) 15







~ Volume exceeds capacity, queue is theoretically infinite.




















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 16: Lafayette St & Loring Ave/West St

 62 s		 16 s	 34 s	 28 s
 17 s	 45 s			

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations											 		
Traffic Volume (vph)	45	0	105	10	20	90	100	555	0	0	690	220	
Future Volume (vph)	45	0	105	10	20	90	100	555	0	0	690	220	
Satd. Flow (prot)	1501	0	1343	0	1384	0	1546	1627	0	0	2924	0	
Flt Permitted	0.950				0.996		0.097						
Satd. Flow (perm)	1501	0	1284	0	1384	0	158	1627	0	0	2924	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	51	0	118	0	223	0	106	590	0	0	1034	0	
Turn Type	Prot		pm+ov	Split	NA		pm+pt	NA			NA		
Protected Phases	7		5	8	8		5	2			6		9
Permitted Phases			7				2						
Total Split (s)	20.0		20.0	20.0	20.0		20.0	63.0			43.0		27.0
Total Lost Time (s)	6.0		6.0		6.0		6.0	6.0			6.0		
Act Effct Green (s)	10.0		19.7		20.6		67.8	67.8			50.8		
Actuated g/C Ratio	0.08		0.15		0.16		0.52	0.52			0.39		
v/c Ratio	0.44		0.59		1.02		0.53	0.70			0.91		
Control Delay (s/veh)	68.4		40.4		120.7		44.8	30.9			51.1		
Queue Delay	0.0		0.0		0.0		0.0	0.1			0.0		
Total Delay (s/veh)	68.4		40.4		120.7		44.8	31.1			51.1		
LOS	E		D		F		D	C			D		
Approach Delay (s/veh)		48.8			120.7			33.2			51.1		
Approach LOS		D			F			C			D		
Queue Length 50th (ft)	42		46		~221		58	286			~538		
Queue Length 95th (ft)	83		72		#200		m82	m345			#681		
Internal Link Dist (ft)		297			159			120			231		
Turn Bay Length (ft)			100										
Base Capacity (vph)	161		229		218		231	848			1142		
Starvation Cap Reductn	0		0		0		0	16			0		
Spillback Cap Reductn	0		0		0		0	0			0		
Storage Cap Reductn	0		0		0		0	0			0		
Reduced v/c Ratio	0.32		0.52		1.02		0.46	0.71			0.91		

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay (s/veh): 52.4

Intersection LOS: D

Intersection Capacity Utilization 66.7%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.







Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.




m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 22: North St & Rte 107 ramp to Rte 114/Federal St

 Ø2 (R)	 Ø7	 Ø8	 Ø9
63 s	20 s	20 s	27 s
 Ø5			
20 s			
	 Ø6 (R)		
	43 s		

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	30	610	35	10	800	10	0	0	0	15	30	150
Future Vol, veh/h	30	610	35	10	800	10	0	0	0	15	30	150
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	93	93	93	92	92	92	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	1	1	1
Mvmt Flow	34	701	40	11	860	11	0	0	0	18	36	181
Major/Minor	Major1		Major2				Minor2					
Conflicting Flow All	881	0	0	751	0	0				1677	1717	886
Stage 1	-	-	-	-	-	-				897	897	-
Stage 2	-	-	-	-	-	-				780	820	-
Critical Hdwy	4.12	-	-	4.12	-	-				6.41	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-				5.41	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.41	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-				3.509	4.009	3.309
Pot Cap-1 Maneuver	767	-	-	858	-	-				105	90	345
Stage 1	-	-	-	-	-	-				400	360	-
Stage 2	-	-	-	-	-	-				454	390	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	761	-	-	858	-	-				93	0	339
Mov Cap-2 Maneuver	-	-	-	-	-	-				93	0	-
Stage 1	-	-	-	-	-	-				365	0	-
Stage 2	-	-	-	-	-	-				439	0	-
Approach	EB			WB			SB					
HCM Ctrl Dly, s/v	0.44			0.11			64.61					
HCM LOS	F											
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	79	-	-	22	-	-	273					
HCM Lane V/C Ratio	0.045	-	-	0.013	-	-	0.859					
HCM Ctrl Dly (s/v)	10	0	-	9.2	0	-	64.6					
HCM Lane LOS	A	A	-	A	A	-	F					
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-	7.3					











Intersection										
Int Delay, s/veh	4.5									
Movement	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	5	25	15	910	15	20	1100	125	0	0
Future Vol, veh/h	5	25	15	910	15	20	1100	125	0	0
Conflicting Peds, #/hr	0	5	20	0	10	0	0	20	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	67	67	91	91	91	91	91	91	71	71
Heavy Vehicles, %	8	8	2	2	2	2	2	2	5	5
Mvmt Flow	7	37	16	1000	16	22	1209	137	0	0

Major/Minor	Minor1		Major1		Major2			Minor2		
Conflicting Flow All	1720	1023	1366	0	0	1026	0	0	-	713
Stage 1	1051	-	-	-	-	-	-	-	-	-
Stage 2	668	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.42	6.32	4.13	-	-	4.13	-	-	-	6.975
Critical Hdwy Stg 1	6.22	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.62	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2	2	2.219	-	-	2.219	-	-	-	3.3475
Pot Cap-1 Maneuver	81	392	501	-	-	674	-	-	0	370
Stage 1	386	-	-	-	-	-	-	-	0	-
Stage 2	630	-	-	-	-	-	-	-	0	-
Platoon blocked, %				-	-		-	-		
Mov Cap-1 Maneuver	63	386	492	-	-	668	-	-	-	357
Mov Cap-2 Maneuver	63	-	-	-	-	-	-	-	-	-
Stage 1	354	-	-	-	-	-	-	-	-	-
Stage 2	540	-	-	-	-	-	-	-	-	-

Approach	EB		SE		NW			SW		
HCM Ctrl Dly, s/v	129.33		0.2		0.65			15.96		
HCM LOS	F							C		

Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	SEL	SET	SER	SWLn1
Capacity (veh/h)	51	-	-	92	29	-	-	357
HCM Lane V/C Ratio	0.033	-	-	0.814	0.034	-	-	0.079
HCM Ctrl Dly (s/v)	10.6	0.5	-	129.3	12.6	0	-	16
HCM Lane LOS	B	A	-	F	B	A	-	C
HCM 95th %tile Q(veh)	0.1	-	-	4.3	0.1	-	-	0.3

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	0	115	0	590	0	0	760	5
Future Vol, veh/h	0	0	0	20	0	115	0	590	0	0	760	5
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
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	84	84	84	77	77	77	93	93	93	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	2	2	2
Mvmt Flow	0	0	0	26	0	149	0	634	0	0	844	6
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1502	1492	445	1067	1494	644	860	0	-	-	-	0
Stage 1	857	857	-	634	634	-	-	-	-	-	-	-
Stage 2	644	634	-	432	860	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.315	6.515	6.215	4.115	-	-	-	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.115	5.515	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.515	5.515	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5095	4.0095	3.3095	2.2095	-	-	-	-	-
Pot Cap-1 Maneuver	93	125	566	189	123	474	785	-	0	0	-	-
Stage 1	322	377	-	468	474	-	-	-	0	0	-	-
Stage 2	465	476	-	575	374	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	62	124	556	187	122	470	778	-	-	-	-	-
Mov Cap-2 Maneuver	62	124	-	187	122	-	-	-	-	-	-	-
Stage 1	320	373	-	468	474	-	-	-	-	-	-	-
Stage 2	314	476	-	570	370	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			22.02			0			0		
HCM LOS	A			C								
Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR						
Capacity (veh/h)	778	-	-	384	-	-						
HCM Lane V/C Ratio	-	-	-	0.457	-	-						
HCM Ctrl Dly (s/v)	0	-	0	22	-	-						
HCM Lane LOS	A	-	A	C	-	-						
HCM 95th %tile Q(veh)	0	-	-	2.3	-	-						

Intersection												
Int Delay, s/veh	24.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	10	160	0	90	5	585	0	0	730	10
Future Vol, veh/h	5	0	10	160	0	90	5	585	0	0	730	10
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	63	63	63	94	94	94	86	86	86	94	94	94
Heavy Vehicles, %	0	0	0	4	4	4	2	2	2	2	2	2
Mvmt Flow	8	0	16	170	0	96	6	680	0	0	777	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1514	1494	822	1488	1499	700	807	0	-	-	-	0
Stage 1	802	802	-	692	692	-	-	-	-	-	-	-
Stage 2	712	692	-	797	807	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	6.5	6.54	6.24	4.12	-	-	-	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2	2	2	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	99	124	377	180	174	645	818	-	0	0	-	-
Stage 1	381	399	-	666	748	-	-	-	0	0	-	-
Stage 2	427	448	-	573	645	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	80	121	364	~ 167	169	634	804	-	-	-	-	-
Mov Cap-2 Maneuver	80	121	-	~ 167	169	-	-	-	-	-	-	-
Stage 1	374	392	-	658	739	-	-	-	-	-	-	-
Stage 2	352	443	-	538	634	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	30.06	157.65	0.08	0
HCM LOS	D	F		




Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR
Capacity (veh/h)	15	-	167	228	-	-
HCM Lane V/C Ratio	0.007	-	0.142	1.169	-	-
HCM Ctrl Dly (s/v)	9.5	0	30.1	157.6	-	-
HCM Lane LOS	A	A	D	F	-	-
HCM 95th %tile Q(veh)	0	-	0.5	12.7	-	-

Notes	
~: Volume exceeds capacity	\$. Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection													
Int Delay, s/veh	2.7												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕						↕			↕		
Traffic Vol, veh/h	10	15	5	0	0	0	10	575	210	90	770	10	
Future Vol, veh/h	10	15	5	0	0	0	10	575	210	90	770	10	
Conflicting Peds, #/hr	10	0	10	10	0	10	20	0	50	50	0	20	
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	61	61	61	92	92	92	88	88	88	93	93	93	
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	3	3	3	
Mvmt Flow	16	25	8	0	0	0	11	653	239	97	828	11	
Major/Minor	Minor2						Major1		Major2				
Conflicting Flow All	1733	2012	863				859	0	0	942	0	0	
Stage 1	1047	1047	-				-	-	-	-	-	-	
Stage 2	686	965	-				-	-	-	-	-	-	
Critical Hdwy	6.4	6.5	6.2				4.12	-	-	4.13	-	-	
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-	
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-	
Follow-up Hdwy	3.5	4	3.3				2.218	-	-	2.227	-	-	
Pot Cap-1 Maneuver	98	60	357				782	-	-	724	-	-	
Stage 1	341	308	-				-	-	-	-	-	-	
Stage 2	504	336	-				-	-	-	-	-	-	
Platoon blocked, %								-	-	-			-
Mov Cap-1 Maneuver	68	0	348				769	-	-	724	-	-	
Mov Cap-2 Maneuver	68	0	-				-	-	-	-	-	-	
Stage 1	325	0	-				-	-	-	-	-	-	
Stage 2	371	0	-				-	-	-	-	-	-	
Approach	EB						NB		SB				
HCM Ctrl Dly, s/v	80						0.12		1.11				
HCM LOS	F												
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	SBL	SBT	SBR						
Capacity (veh/h)	21	-	-	93	186	-	-						
HCM Lane V/C Ratio	0.015	-	-	0.526	0.134	-	-						
HCM Ctrl Dly (s/v)	9.8	0	-	80	10.7	0	-						
HCM Lane LOS	A	A	-	F	B	A	-						
HCM 95th %tile Q(veh)	0	-	-	2.3	0.5	-	-						




















Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	5	10	0	25	5	715	10	45	680	15
Future Vol, veh/h	5	5	5	10	0	25	5	715	10	45	680	15
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	69	69	69	93	93	93	96	96	96
Heavy Vehicles, %	10	10	10	0	0	0	3	3	3	2	2	2
Mvmt Flow	6	6	6	14	0	36	5	769	11	47	708	16
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1629	1640	756	1630	1643	814	744	0	0	800	0	0
Stage 1	830	830	-	805	805	-	-	-	-	-	-	-
Stage 2	800	810	-	825	838	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	78	96	395	82	101	381	859	-	-	823	-	-
Stage 1	353	374	-	379	398	-	-	-	-	-	-	-
Stage 2	367	382	-	370	385	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	83	382	65	87	368	844	-	-	809	-	-
Mov Cap-2 Maneuver	61	83	-	65	87	-	-	-	-	-	-	-
Stage 1	313	332	-	368	387	-	-	-	-	-	-	-
Stage 2	322	371	-	317	341	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	50.95		38.14		0.06		0.59					
HCM LOS	F		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	12	-	-	96	158	109	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.188	0.321	0.058	-	-				
HCM Ctrl Dly (s/v)	9.3	0	-	50.9	38.1	9.7	0	-				
HCM Lane LOS	A	A	-	F	E	A	A	-				
HCM 95th %tile D(veh)	0	-	-	0.7	1.3	0.2	-	-				

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	15	25	5	5	10	15	695	10	20	595	30
Future Vol, veh/h	15	15	25	5	5	10	15	695	10	20	595	30
Conflicting Peds, #/hr	10	0	10	10	0	10	12	0	12	12	0	12
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	75	75	75	64	64	64	96	96	96	98	98	98
Heavy Vehicles, %	4	4	4	6	6	6	3	3	3	2	2	2
Mvmt Flow	20	20	33	8	8	16	16	724	10	20	607	31
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1444	1453	644	1440	1463	751	650	0	0	746	0	0
Stage 1	675	675	-	772	772	-	-	-	-	-	-	-
Stage 2	769	778	-	668	691	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.16	6.56	6.26	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.554	4.054	3.354	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	109	129	469	108	126	404	932	-	-	862	-	-
Stage 1	440	450	-	386	403	-	-	-	-	-	-	-
Stage 2	391	404	-	441	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	90	118	460	77	115	396	922	-	-	853	-	-
Mov Cap-2 Maneuver	90	118	-	77	115	-	-	-	-	-	-	-
Stage 1	419	429	-	371	388	-	-	-	-	-	-	-
Stage 2	354	388	-	372	419	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	46.24		35.18		0.19		0.29					
HCM LOS	E		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	37	-	-	158	150	55	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.465	0.208	0.024	-	-				
HCM Ctrl Dly (s/v)	9	0	-	46.2	35.2	9.3	0	-				
HCM Lane LOS	A	A	-	E	E	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	2.2	0.8	0.1	-	-				

Intersection						
Int Delay, s/veh	12.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	585	655	0	0	875
Future Vol, veh/h	0	585	655	0	0	875
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	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	609	682	0	0	911
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	341	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	652	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	652	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Ctrl Dly, s/v	46.24	0	0			
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	WBLnl	SBT			
Capacity (veh/h)	-	652	-			
HCM Lane V/C Ratio	-	0.935	-			
HCM Ctrl Dly (s/v)	-	46.2	-			
HCM Lane LOS	-	E	-			
HCM 95th %tile Q(veh)	-	12.7	-			

### **Part 3: 2040 No Build Conditions: Weekday AM Peak-Hour LOS and Delays**



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	5	530	10	15	740	50	60	85	20	120	75	35	
Future Volume (vph)	5	530	10	15	740	50	60	85	20	120	75	35	
Satd. Flow (prot)	1662	1525	0	1694	1543	0	0	1487	0	0	1688	0	
Flt Permitted	0.063			0.267				0.982			0.975		
Satd. Flow (perm)	110	1525	0	476	1543	0	0	1487	0	0	1688	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	5	556	0	16	858	0	0	201	0	0	307	0	
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA		
Protected Phases		4			8		2	2		6	6		9
Permitted Phases	4			8									
Total Split (s)	69.0	69.0		69.0	69.0		28.0	28.0		28.0	28.0		25.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0			6.0		
Act Effct Green (s)	63.6	63.6		63.6	63.6			21.3			22.2		
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.16			0.17		
v/c Ratio	0.10	0.77		0.07	1.18			0.85			1.10		
Control Delay (s/veh)	31.4	40.3		25.1	125.8			86.3			134.7		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay (s/veh)	31.4	40.3		25.1	125.8			86.3			134.7		
LOS	C	D		C	F			F			F		
Approach Delay (s/veh)		40.2			123.9			86.3			134.7		
Approach LOS		D			F			F			F		
Queue Length 50th (ft)	2	340		6	~789			157			~266		
Queue Length 95th (ft)	15	#711		27	#1341			#302			#431		
Internal Link Dist (ft)		541			1292			401			319		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	52	722		225	730			246			279		
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	0.10	0.77		0.07	1.18			0.82			1.10		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 134.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay (s/veh): 97.6

Intersection LOS: F

Intersection Capacity Utilization 71.5%

ICU Level of Service C

Analysis Period (min) 15






~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 2: School St/Orne St & North St

 Ø2	 Ø6	 Ø4	 Ø9
28 s	28 s	69 s	25 s
		 Ø8	
		69 s	

3: Mason St & North St  
Seth

2040 No Build AM  
10/05/2025

Lane Group	SET	SER	NWL	NWT	NEL	NER	Ø4	Ø9
Lane Configurations								
Traffic Volume (vph)	715	30	295	740	0	175		
Future Volume (vph)	715	30	295	740	0	175		
Satd. Flow (prot)	1463	0	1413	1487	0	1286		
Flt Permitted			0.950					
Satd. Flow (perm)	1463	0	1413	1487	0	1236		
Satd. Flow (RTOR)								
Lane Group Flow (vph)	776	0	321	804	0	219		
Turn Type	NA		Prot	NA		pm+ov		
Protected Phases	6		5	2		5	4	9
Permitted Phases						4		
Total Split (s)	35.0		25.0	60.0		25.0	23.0	26.0
Total Lost Time (s)	4.0		5.0	4.0		5.0		
Act Effct Green (s)	32.0		20.6	60.6		20.6		
Actuated g/C Ratio	0.45		0.29	0.86		0.29		
v/c Ratio	1.17		0.78	0.63		0.58		
Control Delay (s/veh)	115.0		42.1	10.1		32.8		
Queue Delay	0.0		0.0	0.0		0.0		
Total Delay (s/veh)	115.0		42.1	10.1		32.8		
LOS	F		D	B		C		
Approach Delay (s/veh)	115.0			19.2	32.8			
Approach LOS	F			B	C			
Queue Length 50th (ft)	~280		98	0		62		
Queue Length 95th (ft)	#799		#338	#582		#167		
Internal Link Dist (ft)	1292			252	419			
Turn Bay Length (ft)								
Base Capacity (vph)	664		414	1279		376		
Starvation Cap Reductn	0		0	0		0		
Spillback Cap Reductn	0		0	0		0		
Storage Cap Reductn	0		0	0		0		
Reduced v/c Ratio	1.17		0.78	0.63		0.58		

### Intersection Summary

Cycle Length: 109

Actuated Cycle Length: 70.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay (s/veh): 55.7

Intersection LOS: E

Intersection Capacity Utilization 83.3%

ICU Level of Service E

Analysis Period (min) 15

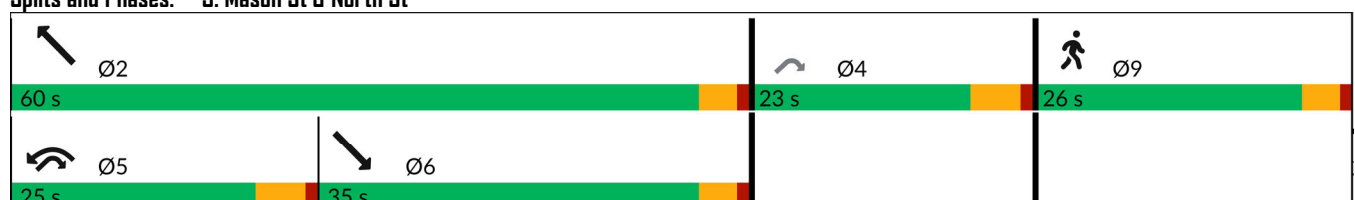
~ Volume exceeds capacity, queue is theoretically infinite.


















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

### Splits and Phases: 3: Mason St & North St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	100	120	35	0	0	0	0	550	35	110	480	55	
Future Volume (vph)	100	120	35	0	0	0	0	550	35	110	480	55	
Satd. Flow (prot)	0	1365	1356	0	0	0	0	1382	0	1501	1356	0	
Flt Permitted		0.978								0.217			
Satd. Flow (perm)	0	1365	1270	0	0	0	0	1382	0	343	1356	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	242	38	0	0	0	0	597	0	111	541	0	
Turn Type	Split	NA	Perm					NA		pm+pt	NA		
Protected Phases	4	4						2		1	6		9
Permitted Phases			4							6			
Total Split (s)	25.0	25.0	25.0					50.0		20.0	70.0		35.0
Total Lost Time (s)		5.0	5.0					5.0		4.0	5.0		
Act Effct Green (s)		20.0	20.0					62.1		77.8	76.8		
Actuated g/C Ratio		0.15	0.15					0.48		0.60	0.59		
v/c Ratio		1.15	0.19					0.91		0.37	0.68		
Control Delay (s/veh)		157.5	51.0					53.1		20.1	24.2		
Queue Delay		0.0	0.0					1.5		0.0	0.0		
Total Delay (s/veh)		157.5	51.0					54.6		20.1	24.2		
LOS		F	D					D		C	C		
Approach Delay (s/veh)		143.0						54.6			23.5		
Approach LOS		F						D			C		
Queue Length 50th (ft)		~240	28					490		23	143		
Queue Length 95th (ft)		#410	63					#798		m54	314		
Internal Link Dist (ft)		473			358			431			307		
Turn Bay Length (ft)			75										
Base Capacity (vph)		210	195					659		347	801		
Starvation Cap Reductn		0	0					0		0	0		
Spillback Cap Reductn		0	0					14		0	0		
Storage Cap Reductn		0	0					0		0	0		
Reduced v/c Ratio		1.15	0.19					0.93		0.32	0.68		

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay (s/veh): 57.5

Intersection LOS: E

Intersection Capacity Utilization 73.2%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.
























m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 7: North St & Essex St

Ø1 20 s	Ø2 (R) 50 s	Ø4 25 s	Ø9 35 s
Ø6 (R) 70 s			

9: Washington St & Norman St/New Derby St  
Seth

2040 No Build AM  
10/05/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	30	185	190	65	225	75	250	600	165	65	200	70	
Future Volume (vph)	30	185	190	65	225	75	250	600	165	65	200	70	
Satd. Flow (prot)	1662	1749	1487	1501	1504	0	1516	3031	1356	1678	1766	1501	
Flt Permitted	0.950			0.950			0.950			0.950			
Satd. Flow (perm)	1662	1749	1416	1501	1504	0	1516	3031	1269	1678	1766	1381	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	35	218	224	76	349	0	278	667	183	71	217	76	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	7	4		3	8		5	2		1	6		9
Permitted Phases			4						2			6	
Total Split (s)	20.0	35.0	35.0	20.0	35.0		30.0	45.0	45.0	20.0	35.0	35.0	30.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	8.7	29.9	29.9	11.4	32.4		25.3	40.7	40.7	10.9	22.3	22.3	
Actuated g/C Ratio	0.07	0.23	0.23	0.09	0.25		0.19	0.31	0.31	0.08	0.17	0.17	
v/c Ratio	0.32	0.55	0.70	0.59	0.95		0.96	0.71	0.47	0.52	0.73	0.33	
Control Delay (s/veh)	73.7	57.5	65.7	82.9	87.9		99.6	51.2	49.3	78.0	69.4	56.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	73.7	57.5	65.7	82.9	87.9		99.6	51.2	49.3	78.0	69.4	56.3	
LOS	E	E	E	F	F		F	D	D	E	E	E	
Approach Delay (s/veh)		62.5			87.0			62.8			68.3		
Approach LOS		E			F			E			E		
Queue Length 50th (ft)	33	192	206	71	~352		~303	316	150	66	195	64	
Queue Length 95th (ft)	68	273	#317	124	#555		#507	408	242	122	291	116	
Internal Link Dist (ft)		193			332			528			749		
Turn Bay Length (ft)	100		150				200		200	200		200	
Base Capacity (vph)	185	404	327	167	368		290	959	401	187	408	319	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.54	0.69	0.46	0.95		0.96	0.70	0.46	0.38	0.53	0.24	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 132.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay (s/veh): 67.9

Intersection LOS: E

Intersection Capacity Utilization 69.8%

ICU Level of Service C

Analysis Period (min) 15










~ Volume exceeds capacity, queue is theoretically infinite.























Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 9: Washington St & Norman St/New Derby St

 Ø1	 Ø2	 Ø3	 Ø4	 Ø9
20 s	45 s	20 s	35 s	30 s
 Ø5	 Ø6	 Ø7	 Ø8	
30 s	35 s	20 s	35 s	

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	145	255	260	20	190	270	135	580	20	145	285	35	
Future Volume (vph)	145	255	260	20	190	270	135	580	20	145	285	35	
Satd. Flow (prot)	1694	1783	1516	0	1774	1516	1711	3396	0	1694	1783	1516	
Flt Permitted	0.950				0.931		0.950			0.950			
Satd. Flow (perm)	1694	1783	1436	0	1660	1445	1711	3396	0	1694	1783	1430	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	167	293	299	0	226	290	147	652	0	161	317	39	
Turn Type	Prot	NA	pm+ov	Perm	NA	pm+ov	Prot	NA		Prot	NA	pm+ov	
Protected Phases	7	4	5		8	1	5	2		1	6	7	9
Permitted Phases			4	8		8						6	
Total Split (s)	20.0	45.0	15.0	25.0	25.0	15.0	15.0	35.0		15.0	35.0	20.0	35.0
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0	
Act Effct Green (s)	13.4	39.0	47.2		18.5	26.7	8.2	26.3		8.2	26.3	39.6	
Actuated g/C Ratio	0.11	0.32	0.39		0.15	0.22	0.07	0.22		0.07	0.22	0.33	
v/c Ratio	0.90	0.51	0.53		0.90	0.90	1.27	0.89		1.40	0.82	0.08	
Control Delay (s/veh)	99.9	40.6	25.2		88.7	62.4	220.0	62.3		268.0	65.0	27.5	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	99.9	40.6	25.2		88.7	62.4	220.0	62.3		268.0	65.0	27.5	
LOS	F	D	C		F	E	F	E		F	E	C	
Approach Delay (s/veh)		47.6			73.9			91.3			125.4		
Approach LOS		D			E			F			F		
Queue Length 50th (ft)	143	209	114		193	158	~165	283		~191	257	21	
Queue Length 95th (ft)	#277	292	191		#359	#343	#305	#387		#336	#406	47	
Internal Link Dist (ft)		253			828			250			528		
Turn Bay Length (ft)						300	300						
Base Capacity (vph)	186	574	565		252	323	116	805		115	423	477	
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Reduced v/c Ratio	0.90	0.51	0.53		0.90	0.90	1.27	0.81		1.40	0.75	0.08	

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 121.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.40

Intersection Signal Delay (s/veh): 81.8

Intersection LOS: F

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15









~ Volume exceeds capacity, queue is theoretically infinite.





















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 10: Canal St & Mill St & Washington St

			
Ø1	Ø2	Ø4	Ø9
15 s	35 s	45 s	35 s
			
Ø5	Ø6	Ø7	Ø8
15 s	35 s	20 s	25 s

														
Lane Group	NBL	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SER	SWL2	SWL	SWR	SWR2	Ø9
Lane Configurations														
Traffic Volume (vph)	355	305	5	35	5	10	290	5	335	5	5	5	5	
Future Volume (vph)	355	305	5	35	5	10	290	5	335	5	5	5	5	
Satd. Flow (prot)	1678	1513	0	0	0	1646	1511	0	1528	0	1621	0	0	
Flt Permitted	0.324					0.950					0.976			
Satd. Flow (perm)	572	1513	0	0	0	1646	1511	0	1431	0	1621	0	0	
Satd. Flow (RTOR)									*100					
Lane Group Flow (vph)	394	384	0	0	0	18	347	0	409	0	20	0	0	
Turn Type	pm+pt	NA			Prot	Prot	NA		Perm	Prot	Prot			
Protected Phases	5	2			1	1	6			7	7			9
Permitted Phases	2								4					
Total Split (s)	22.0	40.0			16.0	16.0	34.0		23.0	13.0	13.0			24.0
Total Lost Time (s)	4.0	8.0				8.0	8.0		5.0		7.5			
Act Effct Green (s)	53.6	44.0				8.2	26.8		18.6		5.7			
Actuated g/C Ratio	0.54	0.45				0.08	0.27		0.19		0.06			
v/c Ratio	0.76	0.57				0.13	0.85		1.17		0.22			
Control Delay (s/veh)	30.3	32.4				51.6	57.6		132.0		57.3			
Queue Delay	0.0	0.0				0.0	0.0		0.0		0.0			
Total Delay (s/veh)	30.3	32.4				51.6	57.6		132.0		57.3			
LOS	C	C				D	E		F		E			
Approach Delay (s/veh)		31.3					57.3				57.3			
Approach LOS		C					E				E			
Queue Length 50th (ft)	161	175				11	222		~277		13			
Queue Length 95th (ft)	#338	#466				35	#421		#456		41			
Internal Link Dist (ft)		285					738				98			
Turn Bay Length (ft)	200					200								
Base Capacity (vph)	519	675				137	410		350		92			
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	0.76	0.57				0.13	0.85		1.17		0.22			

#### Intersection Summary

Cycle Length: 116

Actuated Cycle Length: 98.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay (s/veh): 63.9

Intersection LOS: E

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Analysis Period (min) 15

\* User Entered Value





~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 11: Lafayette St & Dow St & Washington St

	Ø1		Ø2		Ø4		Ø7		Ø9
16 s		40 s		23 s		13 s		24 s	
	Ø5		Ø6						
22 s		34 s							

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	5	25	5	5	20	15	725	10	5	515	15
Future Volume (vph)	20	5	25	5	5	20	15	725	10	5	515	15
Satd. Flow (prot)	0	1353	0	0	1380	0	0	1525	0	0	1506	0
Flt Permitted		0.906			0.965			0.988			0.994	
Satd. Flow (perm)	0	1239	0	0	1337	0	0	1508	0	0	1499	0
Satd. Flow (RTOR)								2			5	
Lane Group Flow (vph)	0	56	0	0	41	0	0	772	0	0	595	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	18.0	18.0		18.0	18.0		42.0	42.0		42.0	42.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Act Effct Green (s)		13.3			13.3			30.9			30.9	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
v/c Ratio		0.18			0.12			0.87			0.67	
Control Delay (s/veh)		19.9			19.1			21.1			11.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		19.9			19.1			21.1			11.2	
LOS		B			B			C			B	
Approach Delay (s/veh)		19.9			19.1			21.1			11.2	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)		15			11			165			102	
Queue Length 95th (ft)		43			27			#406			186	
Internal Link Dist (ft)		657			627			413			957	
Turn Bay Length (ft)												
Base Capacity (vph)		338			365			1119			1113	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.17			0.11			0.69			0.53	

#### Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 52.3

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 17.0

Intersection LOS: B

Intersection Capacity Utilization 65.7%

ICU Level of Service C

Analysis Period (min) 15





















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

Queue shown is maximum after two cycles.

#### Splits and Phases: 15: Lafayette St & Ocean St

Ø2 42 s	Ø4 18 s
Ø6 42 s	Ø8 18 s

No Growth  
Seth

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	180	10	110	15	30	20	175	610	10	5	410	135	
Future Volume (vph)	180	10	110	15	30	20	175	610	10	5	410	135	
Satd. Flow (prot)	0	1421	1446	0	1535	1516	1711	1572	0	0	1515	1473	
Flt Permitted		0.700			0.984		0.950				0.993		
Satd. Flow (perm)	0	1042	1446	0	1535	1516	1711	1572	0	0	1506	1473	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	218	126	0	51	23	179	632	0	0	494	161	
Turn Type	Perm	NA	pt+ov	Split	NA	Prot	Prot	NA		Perm	NA	custom	
Protected Phases		4	4 5	3	3	3	5	2			6	4	9
Permitted Phases	4									6		6	
Total Split (s)	28.0	28.0		15.0	15.0	15.0	19.0	69.0		50.0	50.0	28.0	28.0
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0			5.0	5.0	
Act Effct Green (s)		23.6	40.3		8.7	8.7	14.3	65.5			46.0	70.9	
Actuated g/C Ratio		0.19	0.32		0.07	0.07	0.11	0.52			0.37	0.57	
v/c Ratio		1.11	0.27		0.48	0.22	0.91	0.77			0.89	0.19	
Control Delay (s/veh)		146.3	24.8		76.6	65.8	102.8	36.1			60.5	11.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0	
Total Delay (s/veh)		146.3	24.8		76.6	65.8	102.8	36.1			60.5	11.3	
LOS		F	C		E	E	F	D			E	B	
Approach Delay (s/veh)		101.8			73.2			50.8			48.4		
Approach LOS		F			E			D			D		
Queue Length 50th (ft)		~250	61		45	20	~177	514			~476	58	
Queue Length 95th (ft)		#399	98		89	49	#333	#753			#620	84	
Internal Link Dist (ft)		770			537			1056			584		
Turn Bay Length (ft)			300			300	300					300	
Base Capacity (vph)		196	465		125	124	196	822			554	833	
Starvation Cap Reductn		0	0		0	0	0	0			0	0	
Spillback Cap Reductn		0	0		0	0	0	0			0	0	
Storage Cap Reductn		0	0		0	0	0	0			0	0	
Reduced v/c Ratio		1.11	0.27		0.41	0.19	0.91	0.77			0.89	0.19	

#### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 125.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay (s/veh): 60.2

Intersection LOS: E

Intersection Capacity Utilization 84.2%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.




















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

Queue shown is maximum after two cycles.

#### Splits and Phases: 16: Lafayette St & Loring Ave/West St

69 s		15 s		28 s		28 s	
19 s		50 s					



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations											 		
Traffic Volume (vph)	20	0	70	10	25	115	85	610	0	0	590	290	
Future Volume (vph)	20	0	70	10	25	115	85	610	0	0	590	290	
Satd. Flow (prot)	1516	0	1356	0	1366	0	1516	1595	0	0	2844	0	
Flt Permitted	0.950				0.997		0.155						
Satd. Flow (perm)	1516	0	1296	0	1366	0	247	1595	0	0	2844	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	22	0	76	0	163	0	88	629	0	0	910	0	
Turn Type	Prot		pm+av	Split	NA		pm+pt	NA			NA		
Protected Phases	7		5	8	8		5	2			6		9
Permitted Phases			7				2						
Total Split (s)	20.0		20.0	20.0	20.0		20.0	63.0			43.0		27.0
Total Lost Time (s)	6.0		6.0		6.0		6.0	6.0			6.0		
Act Effct Green (s)	7.9		15.6		22.1		71.0	71.0			54.5		
Actuated g/C Ratio	0.06		0.12		0.17		0.55	0.55			0.42		
v/c Ratio	0.24		0.48		0.71		0.37	0.72			0.76		
Control Delay (s/veh)	64.0		40.7		69.0		29.5	31.0			41.1		
Queue Delay	0.0		0.0		0.0		0.0	0.1			0.0		
Total Delay (s/veh)	64.0		40.7		69.0		29.5	31.1			41.1		
LOS	E		D		E		C	C			D		
Approach Delay (s/veh)		45.9			69.0			30.9			41.1		
Approach LOS		D			E			C			D		
Queue Length 50th (ft)	18		30		133		41	304			~412		
Queue Length 95th (ft)	47		54		#267		m51	m357			#594		
Internal Link Dist (ft)		297			159			120			231		
Turn Bay Length (ft)			100										
Base Capacity (vph)	163		197		231		271	870			1192		
Starvation Cap Reductn	0		0		0		0	10			0		
Spillback Cap Reductn	0		0		0		0	0			0		
Storage Cap Reductn	0		0		0		0	0			0		
Reduced v/c Ratio	0.13		0.39		0.71		0.32	0.73			0.76		

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay (s/veh): 39.9

Intersection LOS: D

Intersection Capacity Utilization 67.9%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.







Queue shown is maximum after two cycles.

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




Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 22: North St & Rte 107 ramp to Rte 114/Federal St

 Ø2 (R)	 Ø7	 Ø8	 Ø9
63 s	20 s	20 s	27 s
 Ø5			
20 s			
	 Ø6 (R)		
	43 s		





Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕						↕		
Traffic Vol, veh/h	55	550	15	0	850	25	0	0	0	15	40	130
Future Vol, veh/h	55	550	15	0	850	25	0	0	0	15	40	130
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	95	95	95	92	92	92	90	90	90
Heavy Vehicles, %	5	5	5	3	3	3	2	2	2	1	1	1
Mvmt Flow	59	591	16	0	895	26	0	0	0	17	44	144
Major/Minor	Major1		Major2				Minor2					
Conflicting Flow All	931	0	0	618	0	0				1638	1654	928
Stage 1	-	-	-	-	-	-				918	918	-
Stage 2	-	-	-	-	-	-				720	736	-
Critical Hdwy	4.15	-	-	4.13	-	-				6.41	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-				5.41	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.41	5.51	-
Follow-up Hdwy	2.245	-	-	2.227	-	-				3.509	4.009	3.309
Pot Cap-1 Maneuver	723	-	-	958	-	-				111	99	326
Stage 1	-	-	-	-	-	-				391	352	-
Stage 2	-	-	-	-	-	-				484	427	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	716	-	-	958	-	-				96	0	321
Mov Cap-2 Maneuver	-	-	-	-	-	-				96	0	-
Stage 1	-	-	-	-	-	-				339	0	-
Stage 2	-	-	-	-	-	-				480	0	-
Approach	EB			WB			SB					
HCM Ctrl Dly, s/v	0.93			0			57.53					
HCM LOS							F					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	159	-	-	958	-	-	258					
HCM Lane V/C Ratio	0.083	-	-	-	-	-	0.797					
HCM Ctrl Dly (s/v)	10.5	0	-	0	-	-	57.5					
HCM Lane LOS	B	A	-	A	-	-	F					
HCM 95th %tile Q(veh)	0.3	-	-	0	-	-	6.1					

Intersection										
Int Delay, s/veh	1.3									
Movement	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	0	20	20	852	20	40	1000	160	0	0
Future Vol, veh/h	0	20	20	852	20	40	1000	160	0	0
Conflicting Peds, #/hr	0	5	20	0	10	0	0	20	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	92	92	91	91	91	92	92	92	92	92
Heavy Vehicles, %	2	2	3	3	3	3	3	3	3	3
Mvmt Flow	0	22	22	936	22	43	1087	174	0	0

Major/Minor	Minor1		Major1		Major2			Minor2	
Conflicting Flow All	1652	962	1281	0	0	968	0	0	670
Stage 1	1001	-	-	-	-	-	-	-	-
Stage 2	650	-	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.23	4.145	-	-	4.145	-	-	6.945
Critical Hdwy Stg 1	6.13	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.53	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.2285	-	-	2.2285	-	-	3.3285
Pot Cap-1 Maneuver	71	309	535	-	-	704	-	-	398
Stage 1	292	-	-	-	-	-	-	-	0
Stage 2	425	-	-	-	-	-	-	-	0
Platoon blocked, %				-	-		-	-	
Mov Cap-1 Maneuver	54	305	526	-	-	698	-	-	384
Mov Cap-2 Maneuver	54	-	-	-	-	-	-	-	-
Stage 1	263	-	-	-	-	-	-	-	-
Stage 2	356	-	-	-	-	-	-	-	-

Approach	EB	SE	NW	SW
HCM Ctrl Dly, s/v	32.46	0.27	1.14	14.93
HCM LOS	D			B

Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	SEL	SET	SER	SWLn1
Capacity (veh/h)	101	-	-	158	40	-	-	384
HCM Lane V/C Ratio	0.062	-	-	0.172	0.042	-	-	0.057
HCM Ctrl Dly (s/v)	10.5	0.9	-	32.5	12.1	0	-	14.9
HCM Lane LOS	B	A	-	D	B	A	-	B
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.1	-	-	0.2

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	5	10	5	70	0	635	0	0	630	5
Future Vol, veh/h	5	0	5	10	5	70	0	635	0	0	630	5
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
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	84	84	84	84	84	84	97	97	97	94	94	94
Heavy Vehicles, %	4	4	4	2	2	2	3	3	3	4	4	4
Mvmt Flow	6	0	6	12	6	83	0	655	0	0	670	5





Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1350	1338	358	1000	1340	665	686	0	-	-	-	0
Stage 1	683	683	-	655	655	-	-	-	-	-	-	-
Stage 2	668	655	-	345	686	-	-	-	-	-	-	-
Critical Hdwy	7.36	6.56	6.96	7.33	6.53	6.23	4.145	-	-	-	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.538	4.038	3.338	3.519	4.019	3.319	2.2285	-	-	-	-	-
Pot Cap-1 Maneuver	116	150	635	209	152	459	900	-	0	0	-	-
Stage 1	402	444	-	454	462	-	-	-	0	0	-	-
Stage 2	443	458	-	644	447	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	90	149	624	206	151	455	892	-	-	-	-	-
Mov Cap-2 Maneuver	90	149	-	206	151	-	-	-	-	-	-	-
Stage 1	399	441	-	454	462	-	-	-	-	-	-	-
Stage 2	354	458	-	633	443	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	29.86		18.82		0		0	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR
Capacity (veh/h)	892	-	157	361	-	-
HCM Lane V/C Ratio	-	-	0.076	0.28	-	-
HCM Ctrl Dly (s/v)	0	-	29.9	18.8	-	-
HCM Lane LOS	A	-	D	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	1.1	-	-

Intersection												
Int Delay, s/veh	18											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	5	75	0	90	5	665	0	0	590	5
Future Vol, veh/h	5	0	5	75	0	90	5	665	0	0	590	5
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	92	92	92	88	92	88	92	87	87	89	89	92
Heavy Vehicles, %	2	2	2	4	4	4	2	4	4	5	5	2
Mvmt Flow	5	0	5	85	0	102	5	764	0	0	663	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1481	1461	706	1458	1464	784	688	0	-	-	-	0
Stage 1	686	686	-	775	775	-	-	-	-	-	-	-
Stage 2	795	775	-	683	688	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.14	6.54	6.24	4.12	-	-	-	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.536	4.036	3.336	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	104	129	436	106	127	390	906	-	0	0	-	-
Stage 1	438	448	-	388	405	-	-	-	0	0	-	-
Stage 2	381	408	-	436	444	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	72	125	421	102	124	383	890	-	-	-	-	-
Mov Cap-2 Maneuver	72	125	-	102	124	-	-	-	-	-	-	-
Stage 1	430	440	-	384	401	-	-	-	-	-	-	-
Stage 2	271	403	-	423	436	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	36.9	154.45	0.06	0
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR
Capacity (veh/h)	13	-	124	170	-	-
HCM Lane V/C Ratio	0.006	-	0.088	1.103	-	-
HCM Ctrl Dly (s/v)	9.1	0	36.9	154.5	-	-
HCM Lane LOS	A	A	E	F	-	-
HCM 95th %tile Q(veh)	0	-	0.3	9.6	-	-




Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕						↕			↕		
Traffic Vol, veh/h	5	30	5	0	0	0	5	570	250	110	610	10	
Future Vol, veh/h	5	30	5	0	0	0	5	570	250	110	610	10	
Conflicting Peds, #/hr	10	0	10	10	0	10	20	0	50	50	0	20	
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	82	82	82	92	92	92	95	95	95	91	91	91	
Heavy Vehicles, %	4	4	4	0	0	0	3	3	3	5	5	5	
Mvmt Flow	6	37	6	0	0	0	5	600	263	121	670	11	
Major/Minor	Minor2						Major1		Major2				
Conflicting Flow All	1558	1861	706				701	0	0	913	0	0	
Stage 1	938	938	-				-	-	-	-	-	-	
Stage 2	621	924	-				-	-	-	-	-	-	
Critical Hdwy	6.44	6.54	6.24				4.13	-	-	4.15	-	-	
Critical Hdwy Stg 1	5.44	5.54	-				-	-	-	-	-	-	
Critical Hdwy Stg 2	5.44	5.54	-				-	-	-	-	-	-	
Follow-up Hdwy	3.536	4.036	3.336				2.227	-	-	2.245	-	-	
Pot Cap-1 Maneuver	122	72	433				891	-	-	734	-	-	
Stage 1	378	341	-				-	-	-	-	-	-	
Stage 2	532	346	-				-	-	-	-	-	-	
Platoon blocked, %								-	-	-			-
Mov Cap-1 Maneuver	86	0	421				876	-	-	734	-	-	
Mov Cap-2 Maneuver	86	0	-				-	-	-	-	-	-	
Stage 1	367	0	-				-	-	-	-	-	-	
Stage 2	384	0	-				-	-	-	-	-	-	
Approach	EB						NB		SB				
HCM Ctrl Dly, s/v	42.86						0.06		1.64				
HCM LOS	E												
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	SBL	SBT	SBR						
Capacity (veh/h)	10	-	-	143	270	-	-						
HCM Lane V/C Ratio	0.006	-	-	0.342	0.165	-	-						
HCM Ctrl Dly (s/v)	9.1	0	-	42.9	10.9	0	-						
HCM Lane LOS	A	A	-	E	B	A	-						
HCM 95th %tile Q(veh)	0	-	-	1.4	0.6	-	-						

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
Future Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	78	78	78	94	94	94	95	95	95
Heavy Vehicles, %	10	10	10	0	0	0	4	4	4	6	6	6
Mvmt Flow	6	0	6	6	0	32	5	809	16	11	553	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1435	1451	595	1441	1446	856	578	0	0	844	0	0
Stage 1	596	596	-	847	847	-	-	-	-	-	-	-
Stage 2	839	855	-	594	599	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.1	6.5	6.2	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.5	4	3.3	2.236	-	-	2.254	-	-
Pot Cap-1 Maneuver	107	126	489	112	133	360	986	-	-	775	-	-
Stage 1	476	479	-	359	381	-	-	-	-	-	-	-
Stage 2	349	364	-	495	494	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	91	118	473	103	124	348	969	-	-	761	-	-
Mov Cap-2 Maneuver	91	118	-	103	124	-	-	-	-	-	-	-
Stage 1	459	461	-	349	370	-	-	-	-	-	-	-
Stage 2	308	354	-	471	475	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	30.65		22.06		0.06		0.18	
HCM LOS	D		C					




















Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR
Capacity (veh/h)	11	-	-	152	249	33	-	-
HCM Lane V/C Ratio	0.005	-	-	0.079	0.154	0.014	-	-
HCM Ctrl Dly (s/v)	8.7	0	-	30.6	22.1	9.8	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0	-	-

Intersection						
Int Delay, s/veh	6.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	455	745	0	0	875
Future Vol, veh/h	0	455	745	0	0	875
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	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	474	776	0	0	911
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	388	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	608	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	608	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	28.72	0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	WBLn1	SBT			
Capacity (veh/h)	-	608	-			
HCM Lane V/C Ratio	-	0.78	-			
HCM Ctrl Dly (s/v)	-	28.7	-			
HCM Lane LOS	-	D	-			
HCM 95th %tile Q(veh)	-	7.4	-			



Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
Future Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
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	78	78	78	94	94	94	95	95	95
Heavy Vehicles, %	10	10	10	0	0	0	4	4	4	6	6	6
Mvmt Flow	6	0	6	6	0	32	5	809	16	11	553	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1395	1411	555	1401	1406	816	558	0	0	824	0	0
Stage 1	576	576	-	827	827	-	-	-	-	-	-	-
Stage 2	819	835	-	574	579	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.1	6.5	6.2	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.5	4	3.3	2.236	-	-	2.254	-	-
Pot Cap-1 Maneuver	114	133	516	119	140	380	1003	-	-	789	-	-
Stage 1	489	489	-	369	389	-	-	-	-	-	-	-
Stage 2	358	372	-	508	504	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	101	129	516	114	136	380	1003	-	-	789	-	-
Mov Cap-2 Maneuver	101	129	-	114	136	-	-	-	-	-	-	-
Stage 1	479	480	-	365	385	-	-	-	-	-	-	-
Stage 2	325	368	-	492	494	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	27.87		20.3		0.06		0.18					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	11	-	-	169	274	33	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.071	0.141	0.013	-	-				
HCM Ctrl Dly (s/v)	8.6	0	-	27.9	20.3	9.6	0	-				
HCM Lane LOS	A	A	-	D	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0	-	-				

## **Part 4: 2040 No Build Conditions: Weekday PM Peak-Hour LOS and Delays**

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	10	610	25	15	705	35	70	60	30	135	130	20	
Future Volume (vph)	10	610	25	15	705	35	70	60	30	135	130	20	
Satd. Flow (prot)	1711	1564	0	1711	1562	0	0	1495	0	0	1753	0	
Flt Permitted	0.065			0.131				0.979			0.977		
Satd. Flow (perm)	117	1564	0	236	1562	0	0	1495	0	0	1753	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	11	690	0	16	779	0	0	188	0	0	324	0	
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA		
Protected Phases		4			8		2	2		6	6		9
Permitted Phases	4			8									
Total Split (s)	67.0	67.0		67.0	67.0		29.0	29.0		29.0	29.0		25.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0			6.0		
Act Effct Green (s)	61.8	61.8		61.8	61.8			20.4			23.3		
Actuated g/C Ratio	0.45	0.45		0.45	0.45			0.15			0.17		
v/c Ratio	0.21	0.98		0.15	1.11			0.85			1.09		
Control Delay (s/veh)	42.3	68.7		32.7	104.6			90.3			131.7		
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0		
Total Delay (s/veh)	42.3	68.7		32.7	104.6			90.3			131.7		
LOS	D	E		C	F			F			F		
Approach Delay (s/veh)		68.3			103.2			90.3			131.7		
Approach LOS		E			F			F			F		
Queue Length 50th (ft)	7	~755		10	~936			181			~385		
Queue Length 95th (ft)	28	#1002		30	#1190			#281			#565		
Internal Link Dist (ft)		541			1292			401			319		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	52	703		105	702			253			297		
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	0.21	0.98		0.15	1.11			0.74			1.09		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 137.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay (s/veh): 94.4

Intersection LOS: F

Intersection Capacity Utilization 69.8%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 2: School St/Orne St & North St

 Ø2	 Ø6	 Ø4	 Ø9
29 s	29 s	67 s	25 s
		 Ø8	
		67 s	

3: Mason St & North St  
Seth

2040 No Build PM  
10/05/2025

Lane Group	SET	SER	NWL	NWT	NEL	NER	Ø4	Ø9
Lane Configurations								
Traffic Volume (vph)	750	30	445	715	0	170		
Future Volume (vph)	750	30	445	715	0	170		
Satd. Flow (prot)	1506	0	1441	1516	0	1312		
Flt Permitted			0.950					
Satd. Flow (perm)	1506	0	1441	1516	0	1260		
Satd. Flow (RTOR)								
Lane Group Flow (vph)	848	0	468	753	0	200		
Turn Type	NA		Prot	NA		pm+ov		
Protected Phases	6		5	2		5	4	9
Permitted Phases						4		
Total Split (s)	35.0		25.0	60.0		25.0	23.0	26.0
Total Lost Time (s)	4.0		5.0	4.0		5.0		
Act Effct Green (s)	32.0		20.6	60.6		20.6		
Actuated g/C Ratio	0.45		0.29	0.86		0.29		
v/c Ratio	1.24		1.11	0.58		0.52		
Control Delay (s/veh)	143.3		105.7	8.5		30.4		
Queue Delay	0.0		0.0	0.0		0.0		
Total Delay (s/veh)	143.3		105.7	8.5		30.4		
LOS	F		F	A		C		
Approach Delay (s/veh)	143.3			45.7	30.4			
Approach LOS	F			D	C			
Queue Length 50th (ft)	~357		164	0		56		
Queue Length 95th (ft)	#878		#525	413		161		
Internal Link Dist (ft)	1292			252	419			
Turn Bay Length (ft)								
Base Capacity (vph)	684		422	1304		384		
Starvation Cap Reductn	0		0	0		0		
Spillback Cap Reductn	0		0	0		0		
Storage Cap Reductn	0		0	0		0		
Reduced v/c Ratio	1.24		1.11	0.58		0.52		

### Intersection Summary

Cycle Length: 109

Actuated Cycle Length: 70.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.24

Intersection Signal Delay (s/veh): 80.9

Intersection LOS: F

Intersection Capacity Utilization 95.4%

ICU Level of Service F

Analysis Period (min) 15

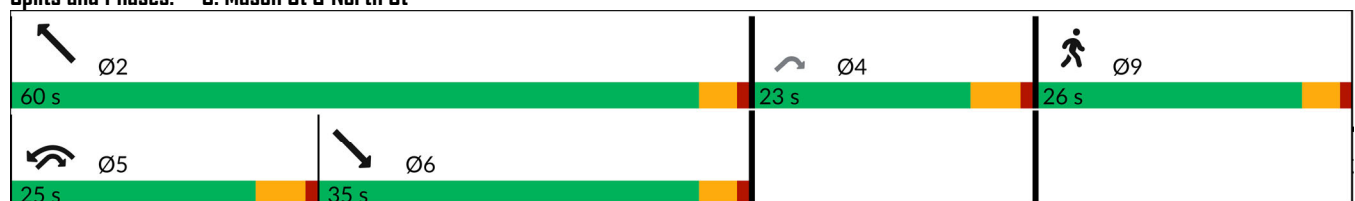
~ Volume exceeds capacity, queue is theoretically infinite.


















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

### Splits and Phases: 3: Mason St & North St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	105	100	40	0	0	0	0	485	45	135	580	70	
Future Volume (vph)	105	100	40	0	0	0	0	485	45	135	580	70	
Satd. Flow (prot)	0	1374	1369	0	0	0	0	1403	0	1531	1382	0	
Flt Permitted		0.975								0.195			
Satd. Flow (perm)	0	1374	1294	0	0	0	0	1403	0	314	1382	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	230	45	0	0	0	0	570	0	145	699	0	
Turn Type	Split	NA	Perm					NA		pm+pt	NA		
Protected Phases	4	4						2		1	6		9
Permitted Phases			4							6			
Total Split (s)	30.0	30.0	30.0					45.0		20.0	65.0		35.0
Total Lost Time (s)		5.0	5.0					5.0		4.0	5.0		
Act Effct Green (s)		23.9	23.9					56.1		73.9	72.9		
Actuated g/C Ratio		0.18	0.18					0.43		0.57	0.56		
v/c Ratio		0.91	0.19					0.94		0.49	0.90		
Control Delay (s/veh)		89.4	46.5					63.7		32.2	42.5		
Queue Delay		0.0	0.0					1.0		0.0	0.0		
Total Delay (s/veh)		89.4	46.5					64.7		32.2	42.5		
LOS		F	D					E		C	D		
Approach Delay (s/veh)		82.4						64.7			40.8		
Approach LOS		F						E			D		
Queue Length 50th (ft)		190	32					~526		58	369		
Queue Length 95th (ft)		#331	68					#821		m88	m#721		
Internal Link Dist (ft)		473			358			431			307		
Turn Bay Length (ft)			75										
Base Capacity (vph)		264	248					605		334	774		
Starvation Cap Reductn		0	0					0		0	0		
Spillback Cap Reductn		0	0					5		0	0		
Storage Cap Reductn		0	0					0		0	0		
Reduced v/c Ratio		0.87	0.18					0.95		0.43	0.90		

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay (s/veh): 55.6

Intersection LOS: E

Intersection Capacity Utilization 70.7%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.


Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.
























m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 7: North St & Essex St

	Ø1		Ø2 (R)		Ø4		Ø9
20 s		45 s		30 s		35 s	
	Ø6 (R)						
65 s							

9: Washington St & Norman St/New Derby St  
Seth

2040 No Build PM  
10/05/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	40	215	210	90	310	55	190	440	160	80	255	70	
Future Volume (vph)	40	215	210	90	310	55	190	440	160	80	255	70	
Satd. Flow (prot)	1711	1801	1531	1531	1566	0	1531	3061	1369	1711	1801	1531	
Flt Permitted	0.950			0.950			0.950			0.950			
Satd. Flow (perm)	1711	1801	1465	1531	1566	0	1531	3061	1263	1711	1801	1411	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	45	242	236	99	401	0	200	463	168	88	280	77	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	7	4		3	8		5	2		1	6		9
Permitted Phases			4						2			6	
Total Split (s)	18.0	40.0	40.0	18.0	40.0		26.0	36.0	36.0	26.0	36.0	36.0	30.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	9.1	29.6	29.6	11.6	35.9		20.6	37.1	37.1	12.5	25.0	25.0	
Actuated g/C Ratio	0.07	0.22	0.22	0.09	0.27		0.15	0.28	0.28	0.09	0.19	0.19	
v/c Ratio	0.39	0.61	0.73	0.75	0.96		0.85	0.55	0.48	0.55	0.84	0.29	
Control Delay (s/veh)	75.6	57.0	65.6	96.8	86.3		89.2	50.0	53.8	76.2	76.3	54.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	75.6	57.0	65.6	96.8	86.3		89.2	50.0	53.8	76.2	76.3	54.1	
LOS	E	E	E	F	F		F	D	D	E	E	D	
Approach Delay (s/veh)		62.5			88.4			60.2			72.4		
Approach LOS		E			F			E			E		
Queue Length 50th (ft)	42	210	211	94	~428		191	207	140	82	256	63	
Queue Length 95th (ft)	85	305	313	#202	#666		#367	288	237	142	#393	116	
Internal Link Dist (ft)		193			332			528			749		
Turn Bay Length (ft)	100		150				200		200	200		200	
Base Capacity (vph)	160	479	390	143	419		239	848	349	267	422	331	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio	0.28	0.51	0.61	0.69	0.96		0.84	0.55	0.48	0.33	0.66	0.23	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 134

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay (s/veh): 69.2

Intersection LOS: E

Intersection Capacity Utilization 72.4%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.























Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 9: Washington St & Norman St/New Derby St

	Ø1		Ø2		Ø3		Ø4		Ø9
26 s		36 s		18 s		40 s		30 s	
	Ø5		Ø6		Ø7		Ø8		
26 s		36 s		18 s		40 s			

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	155	260	370	15	200	250	130	445	45	140	370	30	
Future Volume (vph)	155	260	370	15	200	250	130	445	45	140	370	30	
Satd. Flow (prot)	1711	1801	1531	0	1761	1501	1694	3316	0	1728	1818	1546	
Flt Permitted	0.950				0.955		0.950			0.950			
Satd. Flow (perm)	1711	1801	1453	0	1687	1436	1694	3316	0	1728	1818	1454	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	161	271	385	0	250	291	148	557	0	152	402	33	
Turn Type	Prot	NA	pm+av	Perm	NA	pm+av	Prot	NA		Prot	NA	pm+av	
Protected Phases	7	4	5		8	1	5	2		1	6	7	9
Permitted Phases			4	8		8						6	
Total Split (s)	20.0	45.0	18.0	25.0	25.0	18.0	18.0	32.0		18.0	32.0	20.0	35.0
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0	
Act Effct Green (s)	13.2	38.6	49.8		18.3	29.5	11.2	25.4		11.2	25.4	38.6	
Actuated g/C Ratio	0.11	0.31	0.40		0.15	0.24	0.09	0.21		0.09	0.21	0.31	
v/c Ratio	0.88	0.48	0.65		1.00	0.83	0.96	0.81		0.97	1.07	0.07	
Control Delay (s/veh)	97.0	40.1	27.2		110.9	48.1	121.4	58.9		122.1	114.7	29.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	97.0	40.1	27.2		110.9	48.1	121.4	58.9		122.1	114.7	29.3	
LOS	F	D	C		F	D	F	E		F	F	C	
Approach Delay (s/veh)		45.2			77.1			72.1			111.8		
Approach LOS		D			E			E			F		
Queue Length 50th (ft)	137	191	146		~233	133	~134	242		~138	~398	19	
Queue Length 95th (ft)	#277	281	255		#379	#260	#265	#323		#280	#601	43	
Internal Link Dist (ft)		253			828			250			528		
Turn Bay Length (ft)						300	300						
Base Capacity (vph)	184	565	595		250	349	154	684		157	375	466	
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Reduced v/c Ratio	0.88	0.48	0.65		1.00	0.83	0.96	0.81		0.97	1.07	0.07	

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 123

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay (s/veh): 73.6

Intersection LOS: E

Intersection Capacity Utilization 75.0%

ICU Level of Service D

Analysis Period (min) 15








~ Volume exceeds capacity, queue is theoretically infinite.





















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 10: Canal St & Mill St & Washington St

			
Ø1	Ø2	Ø4	Ø9
18 s	32 s	45 s	35 s
			
Ø5	Ø6	Ø7	Ø8
18 s	32 s	20 s	25 s

														
Lane Group	NBL	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SER	SWL2	SWL	SWR	SWR2	Ø9
Lane Configurations														
Traffic Volume (vph)	330	280	10	30	25	40	420	10	345	5	10	5	5	
Future Volume (vph)	330	280	10	30	25	40	420	10	345	5	10	5	5	
Satd. Flow (prot)	1678	1511	0	0	0	1728	1584	0	1558	0	1578	0	0	
Flt Permitted	0.175					0.950					0.971			
Satd. Flow (perm)	309	1511	0	0	0	1728	1584	0	1455	0	1578	0	0	
Satd. Flow (RTOR)									*100					
Lane Group Flow (vph)	351	341	0	0	0	68	453	0	401	0	25	0	0	
Turn Type	pm+pt	NA			Prot	Prot	NA		Perm	Prot	Prot			
Protected Phases	5	2			1	1	6			7	7			9
Permitted Phases	2								4					
Total Split (s)	22.0	44.0			16.0	16.0	38.0		23.0	17.0	17.0			24.0
Total Lost Time (s)	6.0	8.0				8.0	8.0		5.0		7.5			
Act Effct Green (s)	56.0	41.5				8.3	31.1		18.7		7.3			
Actuated g/C Ratio	0.52	0.39				0.08	0.29		0.17		0.07			
v/c Ratio	0.94	0.58				0.51	0.98		1.19		0.23			
Control Delay (s/veh)	58.8	38.1				67.5	79.6		143.4		58.6			
Queue Delay	0.0	0.0				0.0	0.0		0.0		0.0			
Total Delay (s/veh)	58.8	38.1				67.5	79.6		143.4		58.6			
LOS	E	D				E	E		F		E			
Approach Delay (s/veh)		48.6					78.0				58.6			
Approach LOS		D					E				E			
Queue Length 50th (ft)	~235	244				53	~422		~341		19			
Queue Length 95th (ft)	#439	#393				#119	#644		#513		49			
Internal Link Dist (ft)		285					738				98			
Turn Bay Length (ft)	200					200								
Base Capacity (vph)	374	585				134	461		336		145			
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	0.94	0.58				0.51	0.98		1.19		0.17			

#### Intersection Summary

Cycle Length: 124

Actuated Cycle Length: 106.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.19

Intersection Signal Delay (s/veh): 81.3

Intersection LOS: F

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15

\* User Entered Value








~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.





















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

Queue shown is maximum after two cycles.

#### Splits and Phases: 11: Lafayette St & Dow St & Washington St

	Ø1		Ø2		Ø4		Ø7		Ø9
16 s		44 s		23 s		17 s		24 s	
	Ø5		Ø6						
22 s		38 s							



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	210	25	80	25	25	10	165	560	20	5	375	180	
Future Volume (vph)	210	25	80	25	25	10	165	560	20	5	375	180	
Satd. Flow (prot)	0	1479	1501	0	1569	1561	1694	1552	0	0	1559	1516	
Flt Permitted		0.700			0.976		0.950				0.991		
Satd. Flow (perm)	0	1082	1501	0	1569	1561	1694	1552	0	0	1546	1516	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	294	100	0	68	14	179	631	0	0	437	207	
Turn Type	Perm	NA	pt+ov	Split	NA	Prot	Prot	NA		Perm	NA	custom	
Protected Phases		4	4 5	3	3	3	5	2			6	4	9
Permitted Phases	4									6		6	
Total Split (s)	34.0	34.0		16.0	16.0	16.0	17.0	62.0		45.0	45.0	34.0	28.0
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0			5.0	5.0	
Act Effct Green (s)		30.0	44.9		9.5	9.5	12.4	57.0			39.4	70.8	
Actuated g/C Ratio		0.24	0.36		0.08	0.08	0.10	0.46			0.32	0.57	
v/c Ratio		1.12	0.18		0.57	0.12	1.05	0.88			0.89	0.24	
Control Delay (s/veh)		137.3	21.4		79.0	62.0	139.4	49.7			64.2	11.1	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0	
Total Delay (s/veh)		137.3	21.4		79.0	62.0	139.4	49.7			64.2	11.1	
LOS		F	C		E	E	F	D			E	B	
Approach Delay (s/veh)		107.9			76.1			69.5			47.1		
Approach LOS		F			E			E			D		
Queue Length 50th (ft)		~344	45		61	12	~201	569			398	73	
Queue Length 95th (ft)		#450	68		92	29	#358	#833			#588	107	
Internal Link Dist (ft)		770			537			1056			584		
Turn Bay Length (ft)			300			300	300					300	
Base Capacity (vph)		262	544		144	143	170	738			516	867	
Starvation Cap Reductn		0	0		0	0	0	0			0	0	
Spillback Cap Reductn		0	0		0	0	0	0			0	0	
Storage Cap Reductn		0	0		0	0	0	0			0	0	
Reduced v/c Ratio		1.12	0.18		0.47	0.10	1.05	0.86			0.85	0.24	

#### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 123.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay (s/veh): 70.1

Intersection LOS: E

Intersection Capacity Utilization 82.8%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.




















Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 16: Lafayette St & Loring Ave/West St

Ø2 62 s		Ø3 16 s	Ø4 34 s	Ø9 28 s
Ø5 17 s	Ø6 45 s			

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	45	0	105	10	20	90	100	555	0	0	690	220	
Future Volume (vph)	45	0	105	10	20	90	100	555	0	0	690	220	
Satd. Flow (prot)	1501	0	1343	0	1384	0	1546	1627	0	0	2924	0	
Flt Permitted	0.950				0.996		0.097						
Satd. Flow (perm)	1501	0	1284	0	1384	0	158	1627	0	0	2924	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	51	0	118	0	223	0	106	590	0	0	1034	0	
Turn Type	Prot		pm+ov	Split	NA		pm+pt	NA			NA		
Protected Phases	7		5	8	8		5	2			6		9
Permitted Phases			7				2						
Total Split (s)	20.0		20.0	20.0	20.0		20.0	63.0			43.0		27.0
Total Lost Time (s)	6.0		6.0		6.0		6.0	6.0			6.0		
Act Effct Green (s)	10.0		19.7		20.6		67.8	67.8			50.8		
Actuated g/C Ratio	0.08		0.15		0.16		0.52	0.52			0.39		
v/c Ratio	0.44		0.59		1.02		0.53	0.70			0.91		
Control Delay (s/veh)	68.4		40.4		120.7		44.8	30.9			51.1		
Queue Delay	0.0		0.0		0.0		0.0	0.1			0.0		
Total Delay (s/veh)	68.4		40.4		120.7		44.8	31.1			51.1		
LOS	E		D		F		D	C			D		
Approach Delay (s/veh)		48.8			120.7			33.2			51.1		
Approach LOS		D			F			C			D		
Queue Length 50th (ft)	42		46		~221		58	286			~538		
Queue Length 95th (ft)	83		72		#200		m82	m345			#681		
Internal Link Dist (ft)		297			159			120			231		
Turn Bay Length (ft)			100										
Base Capacity (vph)	161		229		218		231	848			1142		
Starvation Cap Reductn	0		0		0		0	16			0		
Spillback Cap Reductn	0		0		0		0	0			0		
Storage Cap Reductn	0		0		0		0	0			0		
Reduced v/c Ratio	0.32		0.52		1.02		0.46	0.71			0.91		

#### Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay (s/veh): 52.4

Intersection LOS: D

Intersection Capacity Utilization 66.7%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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




Queue shown is maximum after two cycles.





m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 22: North St & Rte 107 ramp to Rte 114/Federal St

	Ø2 (R)			Ø7		Ø8		Ø9
63 s			20 s		20 s		27 s	
	Ø5							
20 s			43 s					

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕					↕		
Traffic Vol, veh/h	30	610	35	10	800	10	0	0	0	15	30	150
Future Vol, veh/h	30	610	35	10	800	10	0	0	0	15	30	150
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	93	93	93	92	92	92	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	1	1	1
Mvmt Flow	34	701	40	11	860	11	0	0	0	18	36	181
Major/Minor	Major1		Major2				Minor2					
Conflicting Flow All	881	0	0	751	0	0				1677	1717	886
Stage 1	-	-	-	-	-	-				897	897	-
Stage 2	-	-	-	-	-	-				780	820	-
Critical Hdwy	4.12	-	-	4.12	-	-				6.41	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-				5.41	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.41	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-				3.509	4.009	3.309
Pot Cap-1 Maneuver	767	-	-	858	-	-				105	90	345
Stage 1	-	-	-	-	-	-				400	360	-
Stage 2	-	-	-	-	-	-				454	390	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	761	-	-	858	-	-				93	0	339
Mov Cap-2 Maneuver	-	-	-	-	-	-				93	0	-
Stage 1	-	-	-	-	-	-				365	0	-
Stage 2	-	-	-	-	-	-				439	0	-
Approach	EB			WB			SB					
HCM Ctrl Dly, s/v	0.44			0.11			64.61					
HCM LOS	F											
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	79	-	-	22	-	-	273					
HCM Lane V/C Ratio	0.045	-	-	0.013	-	-	0.859					
HCM Ctrl Dly (s/v)	10	0	-	9.2	0	-	64.6					
HCM Lane LOS	A	A	-	A	A	-	F					
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-	7.3					

Intersection										
Int Delay, s/veh	4.5									
Movement	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	5	25	15	910	15	20	1100	125	0	0
Future Vol, veh/h	5	25	15	910	15	20	1100	125	0	0
Conflicting Peds, #/hr	0	5	20	0	10	0	0	20	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	67	67	91	91	91	91	91	91	71	71
Heavy Vehicles, %	8	8	2	2	2	2	2	2	5	5
Mvmt Flow	7	37	16	1000	16	22	1209	137	0	0
Major/Minor	Minor1		Major1		Major2			Minor2		
Conflicting Flow All	1720	1023	1366	0	0	1026	0	0	-	713
Stage 1	1051	-	-	-	-	-	-	-	-	-
Stage 2	668	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.42	6.32	4.13	-	-	4.13	-	-	-	6.975
Critical Hdwy Stg 1	6.22	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.62	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2	2	2.219	-	-	2.219	-	-	-	3.3475
Pot Cap-1 Maneuver	81	392	501	-	-	674	-	-	0	370
Stage 1	386	-	-	-	-	-	-	-	0	-
Stage 2	630	-	-	-	-	-	-	-	0	-
Platoon blocked, %				-	-		-	-		
Mov Cap-1 Maneuver	63	386	492	-	-	668	-	-	-	357
Mov Cap-2 Maneuver	63	-	-	-	-	-	-	-	-	-
Stage 1	354	-	-	-	-	-	-	-	-	-
Stage 2	540	-	-	-	-	-	-	-	-	-
Approach	EB		SE		NW			SW		
HCM Ctrl Dly, s/v	129.33		0.2		0.65			15.96		
HCM LOS	F							C		
Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	SEL	SET	SER	SWLn1		
Capacity (veh/h)	51	-	-	92	29	-	-	357		
HCM Lane V/C Ratio	0.033	-	-	0.814	0.034	-	-	0.079		
HCM Ctrl Dly (s/v)	10.6	0.5	-	129.3	12.6	0	-	16		
HCM Lane LOS	B	A	-	F	B	A	-	C		
HCM 95th %tile Q(veh)	0.1	-	-	4.3	0.1	-	-	0.3		

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	0	115	0	590	0	0	760	5
Future Vol, veh/h	0	0	0	20	0	115	0	590	0	0	760	5
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
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	84	84	84	77	77	77	93	93	93	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	2	2	2
Mvmt Flow	0	0	0	26	0	149	0	634	0	0	844	6





Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1502	1492	445	1067	1494	644	860	0	-	-	-	0
Stage 1	857	857	-	634	634	-	-	-	-	-	-	-
Stage 2	644	634	-	432	860	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.315	6.515	6.215	4.115	-	-	-	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.115	5.515	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.515	5.515	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5095	4.0095	3.3095	2.2095	-	-	-	-	-
Pot Cap-1 Maneuver	93	125	566	189	123	474	785	-	0	0	-	-
Stage 1	322	377	-	468	474	-	-	-	0	0	-	-
Stage 2	465	476	-	575	374	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	62	124	556	187	122	470	778	-	-	-	-	-
Mov Cap-2 Maneuver	62	124	-	187	122	-	-	-	-	-	-	-
Stage 1	320	373	-	468	474	-	-	-	-	-	-	-
Stage 2	314	476	-	570	370	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0		22.02		0		0	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR
Capacity (veh/h)	778	-	-	384	-	-
HCM Lane V/C Ratio	-	-	-	0.457	-	-
HCM Ctrl Dly (s/v)	0	-	0	22	-	-
HCM Lane LOS	A	-	A	C	-	-
HCM 95th %tile Q(veh)	0	-	-	2.3	-	-

Intersection												
Int Delay, s/veh	24.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	10	160	0	90	5	585	0	0	730	10
Future Vol, veh/h	5	0	10	160	0	90	5	585	0	0	730	10
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	63	63	63	94	94	94	86	86	86	94	94	94
Heavy Vehicles, %	0	0	0	4	4	4	2	2	2	2	2	2
Mvmt Flow	8	0	16	170	0	96	6	680	0	0	777	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1514	1494	822	1488	1499	700	807	0	-	-	-	0
Stage 1	802	802	-	692	692	-	-	-	-	-	-	-
Stage 2	712	692	-	797	807	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	6.5	6.54	6.24	4.12	-	-	-	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2	2	2	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	99	124	377	180	174	645	818	-	0	0	-	-
Stage 1	381	399	-	666	748	-	-	-	0	0	-	-
Stage 2	427	448	-	573	645	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	80	121	364	~ 167	169	634	804	-	-	-	-	-
Mov Cap-2 Maneuver	80	121	-	~ 167	169	-	-	-	-	-	-	-
Stage 1	374	392	-	658	739	-	-	-	-	-	-	-
Stage 2	352	443	-	538	634	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	30.06	157.65	0.08	0
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR
Capacity (veh/h)	15	-	167	228	-	-
HCM Lane V/C Ratio	0.007	-	0.142	1.169	-	-
HCM Ctrl Dly (s/v)	9.5	0	30.1	157.6	-	-
HCM Lane LOS	A	A	D	F	-	-
HCM 95th %tile Q(veh)	0	-	0.5	12.7	-	-




Notes	
~: Volume exceeds capacity	\$. Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection													
Int Delay, s/veh	2.7												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕						↕			↕		
Traffic Vol, veh/h	10	15	5	0	0	0	10	575	210	90	770	10	
Future Vol, veh/h	10	15	5	0	0	0	10	575	210	90	770	10	
Conflicting Peds, #/hr	10	0	10	10	0	10	20	0	50	50	0	20	
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	61	61	61	92	92	92	88	88	88	93	93	93	
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	3	3	3	
Mvmt Flow	16	25	8	0	0	0	11	653	239	97	828	11	
Major/Minor	Minor2						Major1		Major2				
Conflicting Flow All	1733	2012	863				859	0	0	942	0	0	
Stage 1	1047	1047	-				-	-	-	-	-	-	
Stage 2	686	965	-				-	-	-	-	-	-	
Critical Hdwy	6.4	6.5	6.2				4.12	-	-	4.13	-	-	
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-	
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-	
Follow-up Hdwy	3.5	4	3.3				2.218	-	-	2.227	-	-	
Pot Cap-1 Maneuver	98	60	357				782	-	-	724	-	-	
Stage 1	341	308	-				-	-	-	-	-	-	
Stage 2	504	336	-				-	-	-	-	-	-	
Platoon blocked, %								-	-	-			-
Mov Cap-1 Maneuver	68	0	348				769	-	-	724	-	-	
Mov Cap-2 Maneuver	68	0	-				-	-	-	-	-	-	
Stage 1	325	0	-				-	-	-	-	-	-	
Stage 2	371	0	-				-	-	-	-	-	-	
Approach	EB						NB		SB				
HCM Ctrl Dly, s/v	80						0.12		1.11				
HCM LOS	F												
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	SBL	SBT	SBR						
Capacity (veh/h)	21	-	-	93	186	-	-						
HCM Lane V/C Ratio	0.015	-	-	0.526	0.134	-	-						
HCM Ctrl Dly (s/v)	9.8	0	-	80	10.7	0	-						
HCM Lane LOS	A	A	-	F	B	A	-						
HCM 95th %tile Q(veh)	0	-	-	2.3	0.5	-	-						

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	5	10	0	25	5	715	10	45	680	15
Future Vol, veh/h	5	5	5	10	0	25	5	715	10	45	680	15
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	69	69	69	93	93	93	96	96	96
Heavy Vehicles, %	10	10	10	0	0	0	3	3	3	2	2	2
Mvmt Flow	6	6	6	14	0	36	5	769	11	47	708	16
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1629	1640	756	1630	1643	814	744	0	0	800	0	0
Stage 1	830	830	-	805	805	-	-	-	-	-	-	-
Stage 2	800	810	-	825	838	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	78	96	395	82	101	381	859	-	-	823	-	-
Stage 1	353	374	-	379	398	-	-	-	-	-	-	-
Stage 2	367	382	-	370	385	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	83	382	65	87	368	844	-	-	809	-	-
Mov Cap-2 Maneuver	61	83	-	65	87	-	-	-	-	-	-	-
Stage 1	313	332	-	368	387	-	-	-	-	-	-	-
Stage 2	322	371	-	317	341	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	50.95		38.14		0.06		0.59					
HCM LOS	F		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	12	-	-	96	158	109	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.188	0.321	0.058	-	-				
HCM Ctrl Dly (s/v)	9.3	0	-	50.9	38.1	9.7	0	-				
HCM Lane LOS	A	A	-	F	E	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.7	1.3	0.2	-	-				


















Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	15	25	5	5	10	15	695	10	20	595	30
Future Vol, veh/h	15	15	25	5	5	10	15	695	10	20	595	30
Conflicting Peds, #/hr	10	0	10	10	0	10	12	0	12	12	0	12
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	75	75	75	64	64	64	96	96	96	98	98	98
Heavy Vehicles, %	4	4	4	6	6	6	3	3	3	2	2	2
Mvmt Flow	20	20	33	8	8	16	16	724	10	20	607	31
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1444	1453	644	1440	1463	751	650	0	0	746	0	0
Stage 1	675	675	-	772	772	-	-	-	-	-	-	-
Stage 2	769	778	-	668	691	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.16	6.56	6.26	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.554	4.054	3.354	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	109	129	469	108	126	404	932	-	-	862	-	-
Stage 1	440	450	-	386	403	-	-	-	-	-	-	-
Stage 2	391	404	-	441	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	90	118	460	77	115	396	922	-	-	853	-	-
Mov Cap-2 Maneuver	90	118	-	77	115	-	-	-	-	-	-	-
Stage 1	419	429	-	371	388	-	-	-	-	-	-	-
Stage 2	354	388	-	372	419	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	46.24		35.18		0.19		0.29					
HCM LOS	E		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	37	-	-	158	150	55	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.465	0.208	0.024	-	-				
HCM Ctrl Dly (s/v)	9	0	-	46.2	35.2	9.3	0	-				
HCM Lane LOS	A	A	-	E	E	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	2.2	0.8	0.1	-	-				

Intersection						
Int Delay, s/veh	12.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	585	655	0	0	875
Future Vol, veh/h	0	585	655	0	0	875
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	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	609	682	0	0	911
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	341	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	652	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	652	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Ctrl Dly, s/v	46.24	0	0			
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	WBLnI	SBT			
Capacity (veh/h)	-	652	-			
HCM Lane V/C Ratio	-	0.935	-			
HCM Ctrl Dly (s/v)	-	46.2	-			
HCM Lane LOS	-	E	-			
HCM 95th %tile Q(veh)	-	12.7	-			

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	5	10	0	25	5	715	10	45	680	15
Future Vol, veh/h	5	5	5	10	0	25	5	715	10	45	680	15
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	69	69	69	93	93	93	96	96	96
Heavy Vehicles, %	10	10	10	0	0	0	3	3	3	2	2	2
Mvmt Flow	6	6	6	14	0	36	5	769	11	47	708	16
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1589	1600	716	1590	1603	774	724	0	0	780	0	0
Stage 1	810	810	-	785	785	-	-	-	-	-	-	-
Stage 2	780	790	-	805	818	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	83	102	417	88	107	402	874	-	-	838	-	-
Stage 1	362	382	-	389	407	-	-	-	-	-	-	-
Stage 2	377	390	-	379	393	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	68	91	417	73	96	402	874	-	-	838	-	-
Mov Cap-2 Maneuver	68	91	-	73	96	-	-	-	-	-	-	-
Stage 1	328	346	-	385	402	-	-	-	-	-	-	-
Stage 2	339	386	-	333	356	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	45.49		33.63		0.06		0.58					
HCM LOS	E		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	12	-	-	107	176	109	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.169	0.289	0.056	-	-				
HCM Ctrl Dly (s/v)	9.1	0	-	45.5	33.6	9.6	0	-				
HCM Lane LOS	A	A	-	E	D	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.6	1.1	0.2	-	-				

## **Part 5: 2040 Build Conditions: Weekday AM Peak-Hour LOS and Delays**

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	55	550	15	0	850	25	0	0	0	15	40	130	
Future Volume (vph)	55	550	15	0	850	25	0	0	0	15	40	130	
Satd. Flow (prot)	0	1519	0	0	1553	0	0	0	0	0	1493	0	
Flt Permitted		*0.900									0.996		
Satd. Flow (perm)	0	1372	0	0	1553	0	0	0	0	0	1488	0	
Satd. Flow (RTOR)											64		
Lane Group Flow (vph)	0	666	0	0	921	0	0	0	0	0	205	0	
Turn Type	Perm	NA			NA					Split	NA		
Protected Phases		4			8					6	6		9
Permitted Phases	4			8									
Total Split (s)	102.0	102.0		102.0	102.0					23.0	23.0		25.0
Total Lost Time (s)		5.0			5.0						5.0		
Act Effct Green (s)		112.1			112.1						18.3		
Actuated g/C Ratio		0.75			0.75						0.12		
v/c Ratio		0.65			0.79						0.86		
Control Delay (s/veh)		16.1			13.2						74.7		
Queue Delay		0.1			0.6						0.2		
Total Delay (s/veh)		16.2			13.8						74.9		
LOS		B			B						E		
Approach Delay (s/veh)		16.2			13.8						74.9		
Approach LOS		B			B						E		
Queue Length 50th (ft)		236			179						135		
Queue Length 95th (ft)		604			m65						#279		
Internal Link Dist (ft)		2078			541			113			384		
Turn Bay Length (ft)													
Base Capacity (vph)		1025			1160						248		
Starvation Cap Reductn		0			55						0		
Spillback Cap Reductn		24			0						1		
Storage Cap Reductn		0			0						0		
Reduced v/c Ratio		0.67			0.83						0.83		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 123 (82%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay (s/veh): 21.7

Intersection LOS: C

Intersection Capacity Utilization 102.4%

ICU Level of Service G

Analysis Period (min) 15

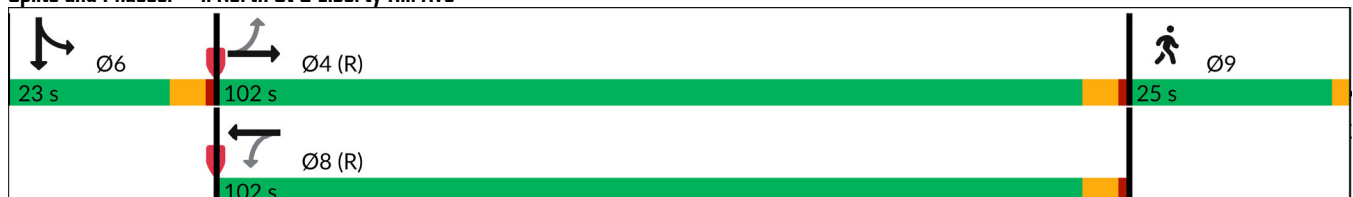
\* User Entered Value



















# 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: 1: North St & Liberty Hill Ave



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	5	530	10	15	740	50	60	85	20	120	75	35	
Future Volume (vph)	5	530	10	15	740	50	60	85	20	120	75	35	
Satd. Flow (prot)	1662	1525	0	1694	1543	0	0	1487	0	0	1688	0	
Flt Permitted	*0.900			*0.900				0.982			0.975		
Satd. Flow (perm)	1574	1525	0	1605	1543	0	0	1487	0	0	1688	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	5	556	0	16	858	0	0	201	0	0	307	0	
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA		
Protected Phases		4			8		2	2		6	6		9
Permitted Phases	4			8									
Total Split (s)	74.0	74.0		74.0	74.0		23.0	23.0		28.0	28.0		25.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0			6.0		
Act Effct Green (s)	68.0	68.0		68.0	68.0			27.4			26.6		
Actuated g/C Ratio	0.45	0.45		0.45	0.45			0.18			0.18		
v/c Ratio	0.01	0.80		0.02	1.23			0.74			1.03		
Control Delay (s/veh)	15.8	33.4		16.0	142.9			74.6			117.1		
Queue Delay	0.0	1.9		0.0	0.0			0.0			0.0		
Total Delay (s/veh)	15.8	35.3		16.0	142.9			74.6			117.1		
LOS	B	D		B	F			E			F		
Approach Delay (s/veh)		35.2			140.6			74.6			117.1		
Approach LOS		D			F			E			F		
Queue Length 50th (ft)	2	466		5	~1042			182			290		
Queue Length 95th (ft)	m2	492		m10	#1277			#352			#431		
Internal Link Dist (ft)		541			1292			401			319		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	713	691		727	699			271			299		
Starvation Cap Reductn	0	49		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	0.01	0.87		0.02	1.23			0.74			1.03		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 138 (92%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.23

Intersection Signal Delay (s/veh): 99.6

Intersection LOS: F

Intersection Capacity Utilization 71.5%

ICU Level of Service C

Analysis Period (min) 15

\* User Entered Value

~ Volume exceeds capacity, queue is theoretically infinite.

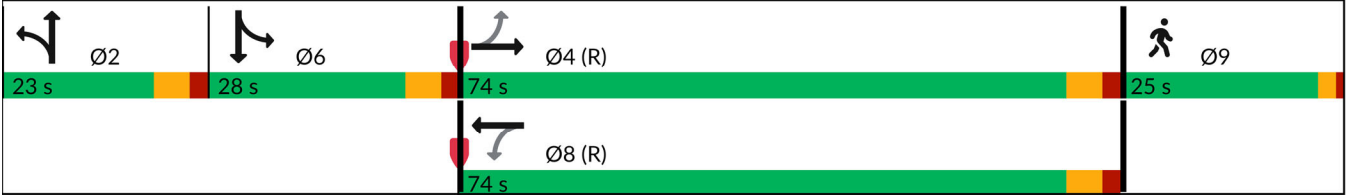
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: School St/Orne St & North St



Lane Group	SET	SER	NWL	NWT	NEL	NER	Ø4	Ø9
Lane Configurations								
Traffic Volume (vph)	715	30	295	740	0	175		
Future Volume (vph)	715	30	295	740	0	175		
Satd. Flow (prot)	1738	0	1678	1766	0	1528		
Flt Permitted			0.950					
Satd. Flow (perm)	1738	0	1678	1766	0	1464		
Satd. Flow (RTOR)								
Lane Group Flow (vph)	776	0	321	804	0	219		
Turn Type	NA		Prot	NA		pm+ov		
Protected Phases	6		5	2		5	4	9
Permitted Phases						4		
Total Split (s)	68.0		33.0	101.0		33.0	23.0	26.0
Total Lost Time (s)	4.0		5.0	4.0		5.0		
Act Effct Green (s)	86.7		38.7	132.0		38.7		
Actuated g/C Ratio	0.58		0.26	0.88		0.26		
v/c Ratio	0.77		0.74	0.52		0.56		
Control Delay (s/veh)	13.8		55.2	9.5		54.0		
Queue Delay	0.0		0.0	0.0		0.0		
Total Delay (s/veh)	13.8		55.2	9.5		54.0		
LOS	B		E	A		D		
Approach Delay (s/veh)	13.8			22.6	54.0			
Approach LOS	B			C	D			
Queue Length 50th (ft)	461		278	388		188		
Queue Length 95th (ft)	m#898		396	654		232		
Internal Link Dist (ft)	1292			252	419			
Turn Bay Length (ft)								
Base Capacity (vph)	1004		433	1554		394		
Starvation Cap Reductn	0		0	0		0		
Spillback Cap Reductn	0		0	0		0		
Storage Cap Reductn	0		0	0		0		
Reduced v/c Ratio	0.77		0.74	0.52		0.56		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 22 (15%), Referenced to phase 2:NWT and 6:SET, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay (s/veh): 22.6

Intersection LOS: C

Intersection Capacity Utilization 72.8%

ICU Level of Service C

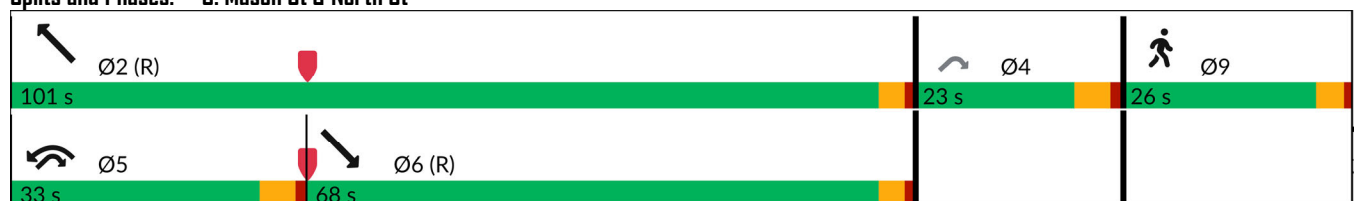
Analysis Period (min) 15

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




















Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 3: Mason St & North St





													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations											 		
Traffic Volume (vph)	20	0	70	10	25	115	85	610	0	0	590	290	
Future Volume (vph)	20	0	70	10	25	115	85	610	0	0	590	290	
Satd. Flow (prot)	1694	0	1516	0	1552	0	1694	1783	0	0	3183	0	
Flt Permitted	0.950				0.997		*0.950						
Satd. Flow (perm)	1694	0	1405	0	1552	0	1694	1783	0	0	3183	0	
Satd. Flow (RTOR)					*30								
Lane Group Flow (vph)	22	0	76	0	163	0	88	629	0	0	910	0	
Turn Type	Prot		pm+ov	Split	NA		pm+pt	NA			NA		
Protected Phases	7		5	8	8		5	2			6		9
Permitted Phases			7				2						
Total Split (s)	13.0		16.0	32.0	32.0		16.0	78.0			62.0		27.0
Total Lost Time (s)	6.0		6.0		6.0		6.0	6.0			6.0		
Act Effct Green (s)	7.4		14.6		18.4		95.3	95.3			79.3		
Actuated g/C Ratio	0.05		0.10		0.12		0.64	0.64			0.53		
v/c Ratio	0.27		0.53		0.75		0.08	0.56			0.54		
Control Delay (s/veh)	76.9		57.6		72.3		12.0	13.3			17.1		
Queue Delay	0.0		0.0		0.0		0.0	0.3			0.0		
Total Delay (s/veh)	76.9		57.6		72.3		12.0	13.6			17.1		
LOS	E		E		E		B	B			B		
Approach Delay (s/veh)		61.9			72.3			13.4			17.1		
Approach LOS		E			E			B			B		
Queue Length 50th (ft)	21		53		128		21	157			290		
Queue Length 95th (ft)	53		89		201		m31	m220			410		
Internal Link Dist (ft)		297			159			120			231		
Turn Bay Length (ft)			100										
Base Capacity (vph)	83		143		293		1076	1132			1682		
Starvation Cap Reductn	0		0		0		0	119			0		
Spillback Cap Reductn	0		0		0		0	0			0		
Storage Cap Reductn	0		0		0		0	0			0		
Reduced v/c Ratio	0.27		0.53		0.56		0.08	0.62			0.54		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 54 (36%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay (s/veh): 22.8

Intersection LOS: C

Intersection Capacity Utilization 63.9%

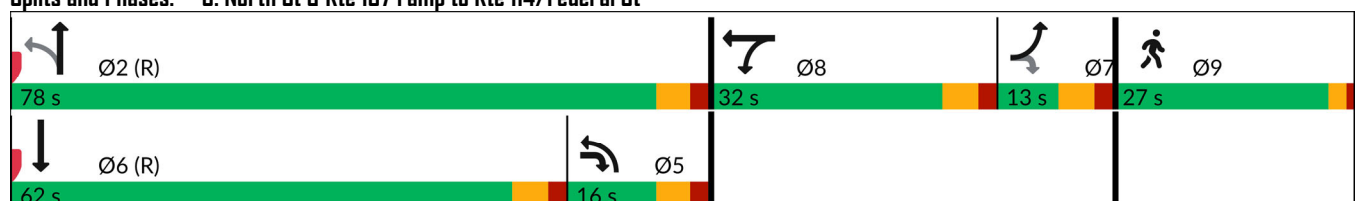
ICU Level of Service B


















Analysis Period (min) 15

\* User Entered Value

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 5: North St & Rte 107 ramp to Rte 114/Federal St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	100	120	35	0	0	0	0	550	35	110	480	55	
Future Volume (vph)	100	120	35	0	0	0	0	550	35	110	480	55	
Satd. Flow (prot)	0	1365	1356	0	0	0	0	1382	0	1501	1356	0	
Flt Permitted		0.978								0.236			
Satd. Flow (perm)	0	1365	1279	0	0	0	0	1382	0	373	1356	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	242	38	0	0	0	0	597	0	111	541	0	
Turn Type	Split	NA	Perm					NA		pm+pt	NA		
Protected Phases	4	4						2		1	6		9
Permitted Phases			4							6			
Total Split (s)	32.0	32.0	32.0					72.0		11.0	83.0		35.0
Total Lost Time (s)		5.0	5.0					5.0		4.0	5.0		
Act Effct Green (s)		27.0	27.0					75.4		90.8	89.8		
Actuated g/C Ratio		0.18	0.18					0.50		0.61	0.60		
v/c Ratio		0.99	0.17					0.86		0.37	0.67		
Control Delay (s/veh)		114.7	54.3					47.5		14.5	19.7		
Queue Delay		0.0	0.0					6.0		0.0	0.3		
Total Delay (s/veh)		114.7	54.3					53.6		14.5	20.1		
LOS		F	D					D		B	C		
Approach Delay (s/veh)		106.5						53.6			19.1		
Approach LOS		F						D			B		
Queue Length 50th (ft)		239	32					553		20	100		
Queue Length 95th (ft)		#420	68					#831		53	234		
Internal Link Dist (ft)		473			358			431			307		
Turn Bay Length (ft)			75										
Base Capacity (vph)		245	230					694		304	811		
Starvation Cap Reductn		0	0					63		0	0		
Spillback Cap Reductn		0	0					0		0	44		
Storage Cap Reductn		0	0					0		0	0		
Reduced v/c Ratio		0.99	0.17					0.95		0.37	0.71		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 50 (33%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay (s/veh): 48.6

Intersection LOS: D

Intersection Capacity Utilization 73.2%

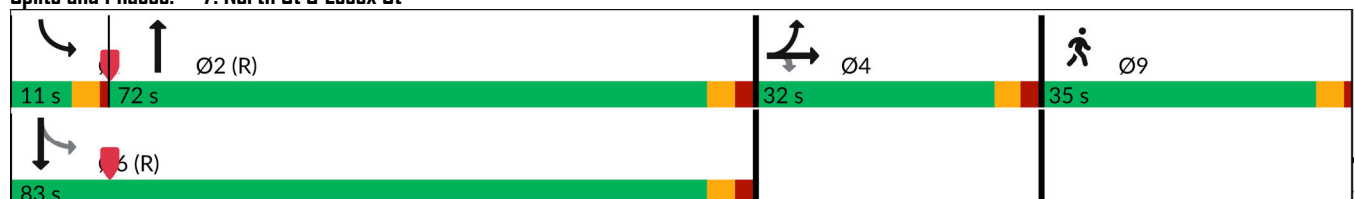
ICU Level of Service D

















Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

#### Splits and Phases: 7: North St & Essex St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	10	90	15	20	0	340	0	235	40	345	165	0	
Future Volume (vph)	10	90	15	20	0	340	0	235	40	345	165	0	
Satd. Flow (prot)	0	1511	0	0	1269	0	0	1520	0	0	1480	0	
Flt Permitted		*0.900			0.952						0.596		
Satd. Flow (perm)	0	1361	0	0	1210	0	0	1520	0	0	906	0	
Satd. Flow (RTOR)					362								
Lane Group Flow (vph)	0	146	0	0	383	0	0	316	0	0	554	0	
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA		
Protected Phases		4			8			2			6		9
Permitted Phases	4			8						6			
Total Split (s)	35.0	35.0		35.0	35.0			90.0		90.0	90.0		25.0
Total Lost Time (s)		5.0			5.0			5.0			5.0		
Act Effct Green (s)		21.4			21.4			109.8			109.8		
Actuated g/C Ratio		0.14			0.14			0.73			0.73		
v/c Ratio		0.75			0.79			0.28			0.84		
Control Delay (s/veh)		84.0			19.0			10.3			25.2		
Queue Delay		0.0			2.7			0.2			0.0		
Total Delay (s/veh)		84.0			21.7			10.5			25.2		
LOS		F			C			B			C		
Approach Delay (s/veh)		84.0			21.7			10.5			25.2		
Approach LOS		F			C			B			C		
Queue Length 50th (ft)		139			93			70			192		
Queue Length 95th (ft)		177			m113			210			#815		
Internal Link Dist (ft)		246			238			211			431		
Turn Bay Length (ft)													
Base Capacity (vph)		272			531			1112			662		
Starvation Cap Reductn		0			0			0			0		
Spillback Cap Reductn		0			69			295			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.54			0.83			0.39			0.84		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 43 (29%), Referenced to phase 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 27.1

Intersection LOS: C

Intersection Capacity Utilization 83.6%

ICU Level of Service E

Analysis Period (min) 15






\* User Entered Value
























# 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: Summer St/North St & Chestnut St/Norman St

 Ø2 90 s	 Ø4 35 s	 Ø9 25 s
 Ø6 (R) 90 s	 Ø8 35 s	

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	30	185	190	65	225	75	250	600	165	65	200	70	
Future Volume (vph)	30	185	190	65	225	75	250	600	165	65	200	70	
Satd. Flow (prot)	1662	1749	1487	1678	1684	0	1694	3388	1516	1678	1766	1501	
Flt Permitted	0.950			0.950			0.950			0.950			
Satd. Flow (perm)	1662	1749	1423	1678	1684	0	1694	3388	1420	1678	1766	1358	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	35	218	224	76	349	0	278	667	183	71	217	76	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	7	4		3	8		5	2		1	6		9
Permitted Phases			4						2			6	
Total Split (s)	12.0	40.0	40.0	15.0	43.0		36.0	46.0	46.0	19.0	29.0	29.0	30.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	6.3	30.5	30.5	8.8	35.5		27.7	49.7	49.7	13.0	35.0	35.0	
Actuated g/C Ratio	0.04	0.20	0.20	0.06	0.24		0.18	0.33	0.33	0.09	0.23	0.23	
v/c Ratio	0.51	0.61	0.78	0.78	0.88		0.89	0.60	0.39	0.49	0.53	0.24	
Control Delay (s/veh)	95.3	64.6	74.3	112.8	78.1		64.6	31.5	29.1	77.4	61.0	56.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	95.3	64.6	74.3	112.8	78.1		64.6	31.5	29.1	77.4	61.0	56.9	
LDS	F	E	E	F	E		E	C	C	E	E	E	
Approach Delay (s/veh)		71.4			84.3			39.3			63.3		
Approach LDS		E			F			D			E		
Queue Length 50th (ft)	34	198	204	75	327		277	325	149	67	208	68	
Queue Length 95th (ft)	m47	m225	m243	#154	#451		m#384	m385	m214	123	#338	122	
Internal Link Dist (ft)		193			332			528			749		
Turn Bay Length (ft)	100		150				200		200	200		200	
Base Capacity (vph)	69	396	322	100	415		338	1121	470	145	411	316	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio	0.51	0.55	0.70	0.76	0.84		0.82	0.60	0.39	0.49	0.53	0.24	

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay (s/veh): 57.3

Intersection LDS: E

Intersection Capacity Utilization 66.3%

ICU Level of Service C

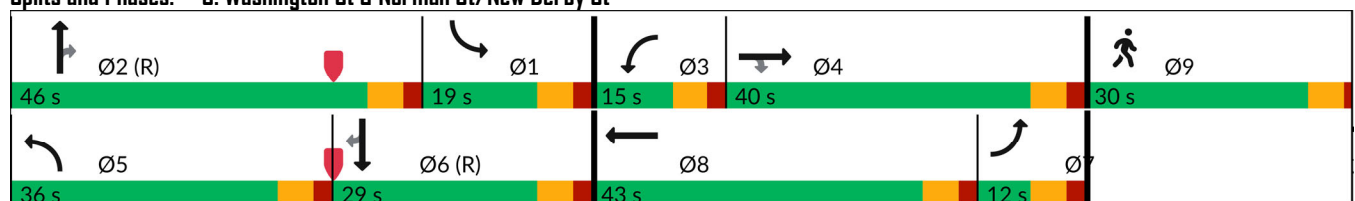
Analysis Period (min) 15























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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 9: Washington St & Norman St/New Derby St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	145	255	260	20	190	270	135	580	20	145	285	35	
Future Volume (vph)	145	255	260	20	190	270	135	580	20	145	285	35	
Satd. Flow (prot)	1694	1783	1516	0	1774	1516	1711	3396	0	1694	1783	1516	
Flt Permitted	0.950				0.531		0.950			0.950			
Satd. Flow (perm)	1694	1783	1442	0	947	1456	1711	3396	0	1694	1783	1432	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	167	293	299	0	226	290	147	652	0	161	317	39	
Turn Type	Prot	NA	pm+av	Perm	NA	pm+av	Prot	NA		Prot	NA	pm+av	
Protected Phases	7	4	5		8	1	5	2		1	6	7	9
Permitted Phases			4	8		8						6	
Total Split (s)	23.0	53.0	22.0	30.0	30.0	22.0	22.0	40.0		22.0	40.0	23.0	35.0
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0	
Act Effct Green (s)	16.0	46.0	61.0		23.0	38.3	15.0	39.7		15.3	40.0	56.0	
Actuated g/C Ratio	0.11	0.31	0.41		0.15	0.26	0.10	0.26		0.10	0.27	0.37	
v/c Ratio	0.93	0.54	0.50		1.56	0.77	0.86	0.73		0.93	0.67	0.07	
Control Delay (s/veh)	115.8	47.5	33.2		322.0	45.1	105.5	57.8		88.4	36.1	12.1	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	115.8	47.5	33.2		322.0	45.1	105.5	57.8		88.4	36.1	12.1	
LDS	F	D	C		F	D	F	E		F	D	B	
Approach Delay (s/veh)		56.9			166.4			66.5			50.6		
Approach LDS		E			F			E			D		
Queue Length 50th (ft)	165	239	197		~311	147	144	327		140	322	17	
Queue Length 95th (ft)	#295	323	269		#486	#224	#275	#425		m#294	#456	m30	
Internal Link Dist (ft)		253			828			250			528		
Turn Bay Length (ft)						300	300						
Base Capacity (vph)	180	546	593		145	378	171	898		173	475	543	
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Reduced v/c Ratio	0.93	0.54	0.50		1.56	0.77	0.86	0.73		0.93	0.67	0.07	

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 86 (57%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.56

Intersection Signal Delay (s/veh): 80.4

Intersection LDS: F

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

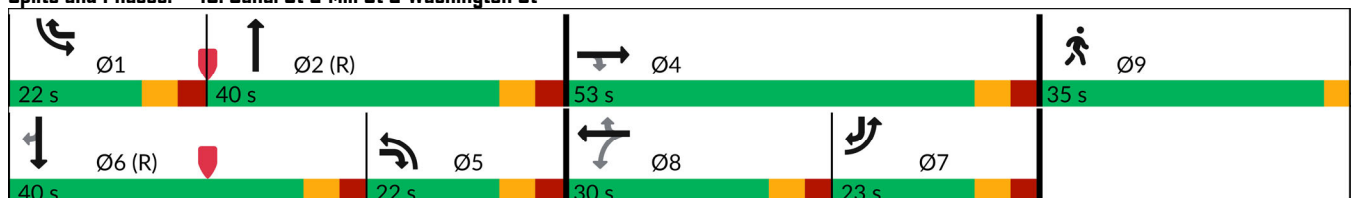
Queue shown is maximum after two cycles.





















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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 10: Canal St & Mill St & Washington St



													
Lane Group	NBL	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SER	SWL2	SWL	SWR	SWR2
Lane Configurations													
Traffic Volume (vph)	355	305	5	35	5	10	290	5	335	5	5	5	5
Future Volume (vph)	355	305	5	35	5	10	290	5	335	5	5	5	5
Satd. Flow (prot)	1678	1513	0	0	0	1646	1511	0	1528	0	1617	0	0
Flt Permitted	0.380					0.950					0.976		
Satd. Flow (perm)	671	1513	0	0	0	1646	1511	0	1446	0	1617	0	0
Satd. Flow (RTOR)									*100				
Lane Group Flow (vph)	394	384	0	0	0	18	347	0	409	0	20	0	0
Turn Type	pm+pt	NA			Prot	Prot	NA		Perm	Prot	Prot		
Protected Phases	5	2			1	1	6			7	7		
Permitted Phases	2								4				
Total Split (s)	19.0	38.5			16.0	16.0	35.5		29.0	12.5	12.5		24.0
Total Lost Time (s)	4.0	8.0				8.0	8.0		5.0		7.5		
Act Effct Green (s)	67.2	57.2				8.0	44.6		24.0		5.0		
Actuated g/C Ratio	0.56	0.48				0.07	0.37		0.20		0.04		
v/c Ratio	0.79	0.53				0.17	0.62		1.11		0.30		
Control Delay (s/veh)	37.3	27.9				56.6	41.5		113.4		67.4		
Queue Delay	2.0	1.3				0.0	0.0		0.8		0.0		
Total Delay (s/veh)	39.2	29.2				56.6	41.5		114.3		67.4		
LDS	D	C				E	D		F		E		
Approach Delay (s/veh)		34.3					42.2				67.4		
Approach LDS		C					D				E		
Queue Length 50th (ft)	226	228				13	232		~296		15		
Queue Length 95th (ft)	#365	#494				36	#427		#421		42		
Internal Link Dist (ft)		285					738				98		
Turn Bay Length (ft)	200					200							
Base Capacity (vph)	501	721				109	561		369		67		
Starvation Cap Reductn	34	166				0	0		0		0		
Spillback Cap Reductn	0	0				0	0		28		0		
Storage Cap Reductn	0	0				0	0		0		0		
Reduced v/c Ratio	0.84	0.69				0.17	0.62		1.20		0.30		

#### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 8 (7%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay (s/veh): 57.4

Intersection LDS: E

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Analysis Period (min) 15

\* User Entered Value








~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

















Queue shown is maximum after two cycles.

#### Splits and Phases: 11: Lafayette St & Dow St & Washington St

 Ø2 (R)	 Ø1	 Ø4	 Ø7	 Ø9
38.5 s	16 s	29 s	12.5 s	24 s
 Ø6 (R)	 Ø5			
35.5 s	19 s			

12: Lafayette St & Palmer St  
Seth

2040 Build AM  
10/05/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	5	0	5	75	0	90	5	665	0	0	590	5	
Future Volume (vph)	5	0	5	75	0	90	5	665	0	0	590	5	
Satd. Flow (prot)	0	1364	0	0	1326	0	0	1545	0	0	1529	0	
Flt Permitted					0.978			0.997					
Satd. Flow (perm)	0	1379	0	0	1286	0	0	1541	0	0	1529	0	
Satd. Flow (RTOR)		82			82								
Lane Group Flow (vph)	0	10	0	0	187	0	0	769	0	0	668	0	
Turn Type	Perm	NA		Split	NA		Perm	NA			NA		
Protected Phases		4		8	8			2			6		9
Permitted Phases	4						2						
Total Split (s)	23.0	23.0		23.0	23.0		49.0	49.0			49.0		25.0
Total Lost Time (s)		5.0			5.0			5.0			5.0		
Act Effct Green (s)		5.5			15.6			87.9			87.9		
Actuated g/C Ratio		0.05			0.13			0.73			0.73		
v/c Ratio		0.07			0.77			0.68			0.60		
Control Delay (s/veh)		1.0			47.6			15.0			9.4		
Queue Delay		0.0			0.2			0.4			1.6		
Total Delay (s/veh)		1.0			47.8			15.4			11.0		
LOS		A			D			B			B		
Approach Delay (s/veh)		1.0			47.8			15.4			11.0		
Approach LOS		A			D			B			B		
Queue Length 50th (ft)		0			80			44			15		
Queue Length 95th (ft)		0			151			m#844			m#306		
Internal Link Dist (ft)		64			604			261			285		
Turn Bay Length (ft)													
Base Capacity (vph)		276			283			1129			1120		
Starvation Cap Reductn		0			0			0			272		
Spillback Cap Reductn		0			4			75			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.04			0.67			0.73			0.79		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay (s/veh): 17.2

Intersection LOS: B

Intersection Capacity Utilization 60.1%

ICU Level of Service B

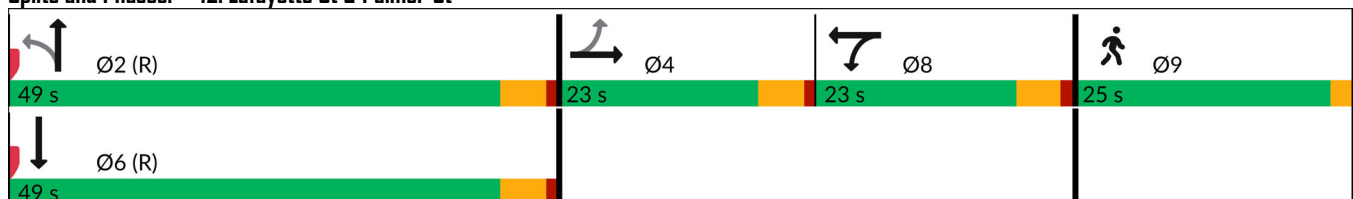
Analysis Period (min) 15





















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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: Lafayette St & Palmer St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	180	10	110	15	30	20	175	610	10	5	410	135	
Future Volume (vph)	180	10	110	15	30	20	175	610	10	5	410	135	
Satd. Flow (prot)	0	1421	1446	0	1535	1516	1711	1572	0	0	1515	1473	
Flt Permitted		*0.950			0.984		0.950				0.993		
Satd. Flow (perm)	0	1414	1446	0	1535	1516	1711	1572	0	0	1506	1473	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	218	126	0	51	23	179	632	0	0	494	161	
Turn Type	Perm	NA	pt+ov	Split	NA	Prot	Prot	NA		Perm	NA	custom	
Protected Phases		4	4 5	3	3	3	5	2			6	4	9
Permitted Phases	4									6		6	
Total Split (s)	21.0	21.0		11.0	11.0	11.0	16.0	60.0		44.0	44.0	21.0	28.0
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0			5.0	5.0	
Act Effct Green (s)		16.0	32.9		6.0	6.0	15.9	68.4			47.5	68.5	
Actuated g/C Ratio		0.13	0.27		0.05	0.05	0.13	0.57			0.40	0.57	
v/c Ratio		1.16	0.32		0.67	0.31	0.79	0.71			0.83	0.19	
Control Delay (s/veh)		161.2	22.8		95.2	66.0	76.8	28.9			53.1	15.5	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0	
Total Delay (s/veh)		161.2	22.8		95.2	66.0	76.8	28.9			53.1	15.5	
LOS		F	C		F	E	E	C			D	B	
Approach Delay (s/veh)		110.5			86.1			39.5			43.8		
Approach LOS		F			F			D			D		
Queue Length 50th (ft)		~199	41		40	18	~162	433			~391	64	
Queue Length 95th (ft)		#340	68		#99	44	#309	#665			#555	158	
Internal Link Dist (ft)		770			537			1056			584		
Turn Bay Length (ft)			300			300	300					300	
Base Capacity (vph)		188	396		76	75	226	896			596	840	
Starvation Cap Reductn		0	0		0	0	0	0			0	0	
Spillback Cap Reductn		0	0		0	0	0	0			0	0	
Storage Cap Reductn		0	0		0	0	0	0			0	0	
Reduced v/c Ratio		1.16	0.32		0.67	0.31	0.79	0.71			0.83	0.19	

#### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay (s/veh): 55.8

Intersection LOS: E

Intersection Capacity Utilization 84.2%

ICU Level of Service E

Analysis Period (min) 15

\* User Entered Value

~ 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: 16: Lafayette St & Loring Ave/West St

Ø2 (R) 60 s	Ø4 21 s	Ø3 11 s	Ø9 28 s
Ø5 16 s	Ø6 (R) 44 s		



Intersection										
Int Delay, s/veh	1.3									
Movement	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	0	20	20	852	20	40	1000	160	0	0
Future Vol, veh/h	0	20	20	852	20	40	1000	160	0	0
Conflicting Peds, #/hr	0	5	20	0	10	0	0	20	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	92	92	91	91	91	92	92	92	92	92
Heavy Vehicles, %	2	2	3	3	3	3	3	3	3	3
Mvmt Flow	0	22	22	936	22	43	1087	174	0	0
Major/Minor	Minor1	Major1			Major2			Minor2		
Conflicting Flow All	1652	962	1281	0	0	968	0	0	-	670
Stage 1	1001	-	-	-	-	-	-	-	-	-
Stage 2	650	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.23	4.145	-	-	4.145	-	-	-	6.945
Critical Hdwy Stg 1	6.13	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.53	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.2285	-	-	2.2285	-	-	-	3.3285
Pot Cap-1 Maneuver	71	309	535	-	-	704	-	-	0	398
Stage 1	292	-	-	-	-	-	-	-	0	-
Stage 2	425	-	-	-	-	-	-	-	0	-
Platoon blocked, %				-	-		-	-		
Mov Cap-1 Maneuver	54	305	526	-	-	698	-	-	-	384
Mov Cap-2 Maneuver	54	-	-	-	-	-	-	-	-	-
Stage 1	263	-	-	-	-	-	-	-	-	-
Stage 2	356	-	-	-	-	-	-	-	-	-
Approach	EB	SE			NW			SW		
HCM Ctrl Dly, s/v	32.46	0.27			1.14			14.93		
HCM LOS	D							B		
Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	SEL	SET	SER	SWLn1		
Capacity (veh/h)	101	-	-	158	40	-	-	384		
HCM Lane V/C Ratio	0.062	-	-	0.172	0.042	-	-	0.057		
HCM Ctrl Dly (s/v)	10.5	0.9	-	32.5	12.1	0	-	14.9		
HCM Lane LOS	B	A	-	D	B	A	-	B		
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.1	-	-	0.2		

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	5	10	5	70	0	635	0	0	630	5
Future Vol, veh/h	5	0	5	10	5	70	0	635	0	0	630	5
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
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	84	84	84	84	84	84	97	97	97	94	94	94
Heavy Vehicles, %	4	4	4	2	2	2	3	3	3	4	4	4
Mvmt Flow	6	0	6	12	6	83	0	655	0	0	670	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1350	1338	358	1000	1340	665	686	0	-	-	-	0
Stage 1	683	683	-	655	655	-	-	-	-	-	-	-
Stage 2	668	655	-	345	686	-	-	-	-	-	-	-
Critical Hdwy	7.36	6.56	6.96	7.33	6.53	6.23	4.145	-	-	-	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.538	4.038	3.338	3.519	4.019	3.319	2.2285	-	-	-	-	-
Pot Cap-1 Maneuver	116	150	635	209	152	459	900	-	0	0	-	-
Stage 1	402	444	-	454	462	-	-	-	0	0	-	-
Stage 2	443	458	-	644	447	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	90	149	624	206	151	455	892	-	-	-	-	-
Mov Cap-2 Maneuver	90	149	-	206	151	-	-	-	-	-	-	-
Stage 1	399	441	-	454	462	-	-	-	-	-	-	-
Stage 2	354	458	-	633	443	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	29.86		18.82		0		0	
HCM LOS	D		C					




  

Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR
Capacity (veh/h)	892	-	157	361	-	-
HCM Lane V/C Ratio	-	-	0.076	0.28	-	-
HCM Ctrl Dly (s/v)	0	-	29.9	18.8	-	-
HCM Lane LOS	A	-	D	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	1.1	-	-

Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕						↕			↕		
Traffic Vol, veh/h	5	30	5	0	0	0	5	570	250	110	610	10	
Future Vol, veh/h	5	30	5	0	0	0	5	570	250	110	610	10	
Conflicting Peds, #/hr	10	0	10	10	0	10	20	0	50	50	0	20	
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	82	82	82	92	92	92	95	95	95	91	91	91	
Heavy Vehicles, %	4	4	4	0	0	0	3	3	3	5	5	5	
Mvmt Flow	6	37	6	0	0	0	5	600	263	121	670	11	
Major/Minor	Minor2						Major1		Major2				
Conflicting Flow All	1558	1861	706				701	0	0	913	0	0	
Stage 1	938	938	-				-	-	-	-	-	-	
Stage 2	621	924	-				-	-	-	-	-	-	
Critical Hdwy	6.44	6.54	6.24				4.13	-	-	4.15	-	-	
Critical Hdwy Stg 1	5.44	5.54	-				-	-	-	-	-	-	
Critical Hdwy Stg 2	5.44	5.54	-				-	-	-	-	-	-	
Follow-up Hdwy	3.536	4.036	3.336				2.227	-	-	2.245	-	-	
Pot Cap-1 Maneuver	122	72	433				891	-	-	734	-	-	
Stage 1	378	341	-				-	-	-	-	-	-	
Stage 2	532	346	-				-	-	-	-	-	-	
Platoon blocked, %								-	-				-
Mov Cap-1 Maneuver	86	0	421				876	-	-	734	-	-	
Mov Cap-2 Maneuver	86	0	-				-	-	-	-	-	-	
Stage 1	367	0	-				-	-	-	-	-	-	
Stage 2	384	0	-				-	-	-	-	-	-	
Approach	EB						NB		SB				
HCM Ctrl Dly, s/v	42.86						0.06		1.64				
HCM LOS	E												
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	SBL	SBT	SBR						
Capacity (veh/h)	10	-	-	143	270	-	-						
HCM Lane V/C Ratio	0.006	-	-	0.342	0.165	-	-						
HCM Ctrl Dly (s/v)	9.1	0	-	42.9	10.9	0	-						
HCM Lane LOS	A	A	-	E	B	A	-						
HCM 95th %tile Q(veh)	0	-	-	1.4	0.6	-	-						

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
Future Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	78	78	78	94	94	94	95	95	95
Heavy Vehicles, %	10	10	10	0	0	0	4	4	4	6	6	6
Mvmt Flow	6	0	6	6	0	32	5	809	16	11	553	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1435	1451	595	1441	1446	856	578	0	0	844	0	0
Stage 1	596	596	-	847	847	-	-	-	-	-	-	-
Stage 2	839	855	-	594	599	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.1	6.5	6.2	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.5	4	3.3	2.236	-	-	2.254	-	-
Pot Cap-1 Maneuver	107	126	489	112	133	360	986	-	-	775	-	-
Stage 1	476	479	-	359	381	-	-	-	-	-	-	-
Stage 2	349	364	-	495	494	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	91	118	473	103	124	348	969	-	-	761	-	-
Mov Cap-2 Maneuver	91	118	-	103	124	-	-	-	-	-	-	-
Stage 1	459	461	-	349	370	-	-	-	-	-	-	-
Stage 2	308	354	-	471	475	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	30.65		22.06		0.06		0.18					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	11	-	-	152	249	33	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.079	0.154	0.014	-	-				
HCM Ctrl Dly (s/v)	8.7	0	-	30.6	22.1	9.8	0	-				
HCM Lane LOS	A	A	-	D	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0	-	-				
















Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	5	25	5	5	20	15	725	10	5	515	15
Future Vol, veh/h	20	5	25	5	5	20	15	725	10	5	515	15
Conflicting Peds, #/hr	10	0	10	10	0	10	12	0	12	12	0	12
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	90	90	90	75	75	75	97	97	97	90	90	90
Heavy Vehicles, %	6	6	6	2	2	2	5	5	5	6	6	6
Mvmt Flow	22	6	28	7	7	27	15	747	10	6	572	17
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1395	1404	603	1392	1408	775	601	0	0	770	0	0
Stage 1	604	604	-	796	796	-	-	-	-	-	-	-
Stage 2	792	801	-	596	612	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.12	6.52	6.22	4.15	-	-	4.16	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.518	4.018	3.318	2.245	-	-	2.254	-	-
Pot Cap-1 Maneuver	116	137	492	119	139	398	962	-	-	827	-	-
Stage 1	479	482	-	381	399	-	-	-	-	-	-	-
Stage 2	377	391	-	490	484	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	97	129	483	102	131	391	952	-	-	818	-	-
Mov Cap-2 Maneuver	97	129	-	102	131	-	-	-	-	-	-	-
Stage 1	469	472	-	366	384	-	-	-	-	-	-	-
Stage 2	332	376	-	448	474	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	36.46		25.36		0.18		0.09					
HCM LOS	E		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	36	-	-	169	217	17	-	-				
HCM Lane V/C Ratio	0.016	-	-	0.329	0.185	0.007	-	-				
HCM Ctrl Dly (s/v)	8.8	0	-	36.5	25.4	9.4	0	-				
HCM Lane LOS	A	A	-	E	D	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	1.3	0.7	0	-	-				

Intersection						
Int Delay, s/veh	6.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	455	745	0	0	875
Future Vol, veh/h	0	455	745	0	0	875
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	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	474	776	0	0	911
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	388	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	608	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	608	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	28.72	0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	WBLnI	SBT			
Capacity (veh/h)	-	608	-			
HCM Lane V/C Ratio	-	0.78	-			
HCM Ctrl Dly (s/v)	-	28.7	-			
HCM Lane LOS	-	D	-			
HCM 95th %tile Q(veh)	-	7.4	-			

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
Future Vol, veh/h	5	0	5	5	0	25	5	760	15	10	525	5
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	78	78	78	94	94	94	95	95	95
Heavy Vehicles, %	10	10	10	0	0	0	4	4	4	6	6	6
Mvmt Flow	6	0	6	6	0	32	5	809	16	11	553	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1395	1411	555	1401	1406	816	558	0	0	824	0	0
Stage 1	576	576	-	827	827	-	-	-	-	-	-	-
Stage 2	819	835	-	574	579	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.1	6.5	6.2	4.14	-	-	4.16	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.5	4	3.3	2.236	-	-	2.254	-	-
Pot Cap-1 Maneuver	114	133	516	119	140	380	1003	-	-	789	-	-
Stage 1	489	489	-	369	389	-	-	-	-	-	-	-
Stage 2	358	372	-	508	504	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	101	129	516	114	136	380	1003	-	-	789	-	-
Mov Cap-2 Maneuver	101	129	-	114	136	-	-	-	-	-	-	-
Stage 1	479	480	-	365	385	-	-	-	-	-	-	-
Stage 2	325	368	-	492	494	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	27.87		20.3		0.06		0.18					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	11	-	-	169	274	33	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.071	0.141	0.013	-	-				
HCM Ctrl Dly (s/v)	8.6	0	-	27.9	20.3	9.6	0	-				
HCM Lane LOS	A	A	-	D	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0	-	-				

## **Part 6: 2040 Build Conditions: Weekday PM Peak-Hour LOS and Delays**



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	30	610	35	10	800	10	0	0	0	15	30	150	
Future Volume (vph)	30	610	35	10	800	10	0	0	0	15	30	150	
Satd. Flow (prot)	0	1559	0	0	1570	0	0	0	0	0	1356	0	
Flt Permitted		0.934			0.989						0.996		
Satd. Flow (perm)	0	1459	0	0	1554	0	0	0	0	0	1353	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	775	0	0	882	0	0	0	0	0	235	0	
Turn Type	Perm	NA		Perm	NA					Perm	NA		
Protected Phases		4			8						6		9
Permitted Phases	4			8						6			
Total Split (s)	94.0	94.0		94.0	94.0					31.0	31.0		25.0
Total Lost Time (s)		5.0			5.0						5.0		
Act Effct Green (s)		99.3			99.3						30.7		
Actuated g/C Ratio		0.66			0.66						0.20		
v/c Ratio		0.80			0.86						0.85		
Control Delay (s/veh)		28.4			11.8						83.6		
Queue Delay		6.9			0.8						0.0		
Total Delay (s/veh)		35.2			12.6						83.6		
LOS		D			B						F		
Approach Delay (s/veh)		35.2			12.6						83.6		
Approach LOS		D			B						F		
Queue Length 50th (ft)		455			314						214		
Queue Length 95th (ft)		#830			m108						#367		
Internal Link Dist (ft)		2078			541			138			342		
Turn Bay Length (ft)													
Base Capacity (vph)		966			1029						276		
Starvation Cap Reductn		0			30						0		
Spillback Cap Reductn		151			0						0		
Storage Cap Reductn		0			0						0		
Reduced v/c Ratio		0.95			0.88						0.85		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 144 (96%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay (s/veh): 30.7

Intersection LOS: C

Intersection Capacity Utilization 79.9%

ICU Level of Service D

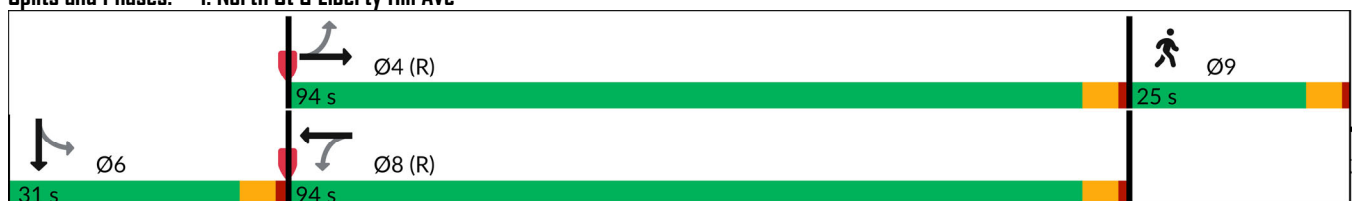
Analysis Period (min) 15



















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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 1: North St & Liberty Hill Ave



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	10	610	25	15	705	35	70	60	30	135	130	20	
Future Volume (vph)	10	610	25	15	705	35	70	60	30	135	130	20	
Satd. Flow (prot)	1711	1564	0	1711	1562	0	0	1493	0	0	1753	0	
Flt Permitted	0.061			0.119				0.979			0.977		
Satd. Flow (perm)	110	1564	0	214	1562	0	0	1493	0	0	1753	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	11	690	0	16	779	0	0	188	0	0	324	0	
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA		
Protected Phases		4			8		2	2		6	6		9
Permitted Phases	4			8									
Total Split (s)	73.0	73.0		73.0	73.0		22.0	22.0		30.0	30.0		25.0
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0			6.0		
Act Effct Green (s)	67.0	67.0		67.0	67.0			22.9			27.1		
Actuated g/C Ratio	0.45	0.45		0.45	0.45			0.15			0.18		
v/c Ratio	0.22	0.99		0.17	1.12			0.82			1.03		
Control Delay (s/veh)	29.7	53.8		33.7	107.7			88.6			115.4		
Queue Delay	0.0	15.1		0.0	0.0			0.0			0.0		
Total Delay (s/veh)	29.7	68.9		33.7	107.7			88.6			115.4		
LOS	C	E		C	F			F			F		
Approach Delay (s/veh)		68.3			106.2			88.6			115.4		
Approach LOS		E			F			F			F		
Queue Length 50th (ft)	3	664		9	~857			~220			~373		
Queue Length 95th (ft)	m5	#928		m24	#1111			#352			#553		
Internal Link Dist (ft)		541			1292			401			319		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	49	698		95	697			228			316		
Starvation Cap Reductn	0	36		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	0.22	1.04		0.17	1.12			0.82			1.03		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay (s/veh): 92.8

Intersection LOS: F

Intersection Capacity Utilization 69.8%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 2: School St/Orne St & North St

Ø2 22 s	Ø6 30 s	Ø4 (R) 73 s	Ø9 25 s
		Ø8 (R) 73 s	

Lane Group	SET	SER	NWL	NWT	NEL	NER	Ø4	Ø9
Lane Configurations								
Traffic Volume (vph)	750	30	445	715	0	170		
Future Volume (vph)	750	30	445	715	0	170		
Satd. Flow (prot)	1789	0	1711	1801	0	1558		
Flt Permitted			0.950					
Satd. Flow (perm)	1789	0	1711	1801	0	1501		
Satd. Flow (RTOR)								
Lane Group Flow (vph)	848	0	468	753	0	200		
Turn Type	NA		Prot	NA		pm+ov		
Protected Phases	6		5	2		5	4	9
Permitted Phases						4		
Total Split (s)	51.0		50.0	101.0		50.0	23.0	26.0
Total Lost Time (s)	4.0		5.0	4.0		5.0		
Act Effct Green (s)	80.4		45.0	132.0		45.0		
Actuated g/C Ratio	0.54		0.30	0.88		0.30		
v/c Ratio	0.89		0.91	0.48		0.43		
Control Delay (s/veh)	22.7		73.8	4.8		45.7		
Queue Delay	0.0		0.0	0.0		0.0		
Total Delay (s/veh)	22.7		73.8	4.8		45.7		
LOS	C		E	A		D		
Approach Delay (s/veh)	22.7			31.2	45.7			
Approach LOS	C			C	D			
Queue Length 50th (ft)	~669		443	216		158		
Queue Length 95th (ft)	m#881		#652	285		222		
Internal Link Dist (ft)	1292			252	419			
Turn Bay Length (ft)								
Base Capacity (vph)	958		513	1584		467		
Starvation Cap Reductn	0		0	0		0		
Spillback Cap Reductn	0		0	0		0		
Storage Cap Reductn	0		0	0		0		
Reduced v/c Ratio	0.89		0.91	0.48		0.43		

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 36 (24%), Referenced to phase 2:NWT and 6:SET, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 29.3

Intersection LOS: C

Intersection Capacity Utilization 83.0%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.


















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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 3: Mason St & North St

Ø2 (R) 101 s	Ø6 (R) 51 s	Ø5 50 s	Ø4 23 s	Ø9 26 s
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	105	100	40	0	0	0	0	485	45	135	580	70	
Future Volume (vph)	105	100	40	0	0	0	0	485	45	135	580	70	
Satd. Flow (prot)	0	1536	1531	0	0	0	0	1569	0	1711	1545	0	
Flt Permitted		0.975								0.193			
Satd. Flow (perm)	0	1536	1444	0	0	0	0	1569	0	348	1545	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	230	45	0	0	0	0	570	0	145	699	0	
Turn Type	Split	NA	Perm					NA		pm+pt	NA		
Protected Phases	4	4						2		1	6		9
Permitted Phases			4							6			
Total Split (s)	25.0	25.0	25.0					45.0		11.0	56.0		29.0
Total Lost Time (s)		5.0	5.0					5.0		4.0	5.0		
Act Effct Green (s)		19.0	19.0					46.8		59.6	58.6		
Actuated g/C Ratio		0.17	0.17					0.43		0.54	0.53		
v/c Ratio		0.87	0.18					0.86		0.51	0.85		
Control Delay (s/veh)		74.7	40.3					42.3		31.1	37.0		
Queue Delay		0.0	0.3					0.3		0.0	5.2		
Total Delay (s/veh)		74.7	40.5					42.6		31.1	42.2		
LOS		E	D					D		C	D		
Approach Delay (s/veh)		69.1						42.6			40.3		
Approach LOS		E						D			D		
Queue Length 50th (ft)		158	27					~405		27	478		
Queue Length 95th (ft)		#283	60					m#608		m#113	m#671		
Internal Link Dist (ft)		473			358			431			307		
Turn Bay Length (ft)			75										
Base Capacity (vph)		279	262					666		285	823		
Starvation Cap Reductn		0	0					6		0	0		
Spillback Cap Reductn		0	49					0		0	80		
Storage Cap Reductn		0	0					0		0	0		
Reduced v/c Ratio		0.82	0.21					0.86		0.51	0.94		

#### Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 99 (90%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 45.8

Intersection LDS: D

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

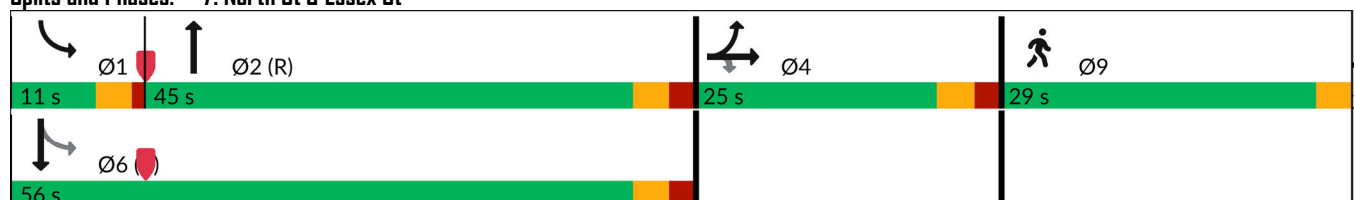
Queue shown is maximum after two cycles.

















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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 7: North St & Essex St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	5	95	15	35	0	355	0	170	40	400	225	0	
Future Volume (vph)	5	95	15	35	0	355	0	170	40	400	225	0	
Satd. Flow (prot)	0	1556	0	0	1275	0	0	1537	0	0	1527	0	
Flt Permitted		0.931			0.881						0.680		
Satd. Flow (perm)	0	1450	0	0	1124	0	0	1537	0	0	1062	0	
Satd. Flow (RTOR)					386								
Lane Group Flow (vph)	0	158	0	0	424	0	0	221	0	0	687	0	
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA		
Protected Phases		4			8			2			6		9
Permitted Phases	4			8						6			
Total Split (s)	23.0	23.0		23.0	23.0			62.0		62.0	62.0		25.0
Total Lost Time (s)		5.0			5.0			5.0			5.0		
Act Effct Green (s)		15.7			15.7			79.3			79.3		
Actuated g/C Ratio		0.14			0.14			0.72			0.72		
v/c Ratio		0.76			0.86			0.20			0.90		
Control Delay (s/veh)		68.5			25.4			7.8			24.6		
Queue Delay		0.0			2.0			0.0			8.4		
Total Delay (s/veh)		68.5			27.3			7.8			33.1		
LOS		E			C			A			C		
Approach Delay (s/veh)		68.5			27.3			7.8			33.1		
Approach LOS		E			C			A			C		
Queue Length 50th (ft)		107			24			38			160		
Queue Length 95th (ft)		139			#201			135			m#812		
Internal Link Dist (ft)		246			238			211			431		
Turn Bay Length (ft)													
Base Capacity (vph)		237			506			1107			765		
Starvation Cap Reductn		0			0			0			62		
Spillback Cap Reductn		0			23			94			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.67			0.88			0.22			0.98		

#### Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 108 (98%), Referenced to phase 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay (s/veh): 31.4

Intersection LOS: C

Intersection Capacity Utilization 90.5%

ICU Level of Service E

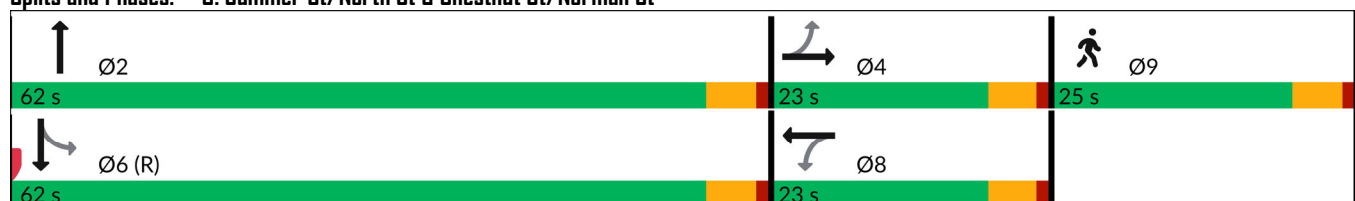
Analysis Period (min) 15
























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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 8: Summer St/North St & Chestnut St/Norman St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	40	215	210	90	310	55	190	440	160	80	255	70	
Future Volume (vph)	40	215	210	90	310	55	190	440	160	80	255	70	
Satd. Flow (prot)	1711	1801	1531	1711	1751	0	1711	3421	1531	1711	1801	1531	
Flt Permitted	0.950			0.950			0.950			0.950			
Satd. Flow (perm)	1711	1801	1465	1711	1751	0	1711	3421	1424	1711	1801	1405	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	45	242	236	99	401	0	200	463	168	88	280	77	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	7	4		3	8		5	2		1	6		9
Permitted Phases			4						2			6	
Total Split (s)	12.0	40.0	40.0	18.0	46.0		28.0	41.0	41.0	21.0	34.0	34.0	30.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	6.0	30.4	30.4	11.4	38.3		20.5	45.1	45.1	15.0	39.7	39.7	
Actuated g/C Ratio	0.04	0.20	0.20	0.08	0.26		0.14	0.30	0.30	0.10	0.26	0.26	
v/c Ratio	0.66	0.66	0.79	0.76	0.90		0.86	0.45	0.39	0.51	0.59	0.21	
Control Delay (s/veh)	111.3	63.7	75.9	101.6	77.6		75.0	31.7	33.0	75.4	58.7	51.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	111.3	63.7	75.9	101.6	77.6		75.0	31.7	33.0	75.4	58.7	51.9	
LOS	F	E	E	F	E		E	C	C	E	E	D	
Approach Delay (s/veh)		73.3			82.3			42.4			60.8		
Approach LOS		E			F			D			E		
Queue Length 50th (ft)	44	214	215	96	376		198	209	141	83	267	66	
Queue Length 95th (ft)	#109	305	313	#188	#553		m#277	m261	m201	145	#418	118	
Internal Link Dist (ft)		193			332			528			749		
Turn Bay Length (ft)	100		150				200		200	200		200	
Base Capacity (vph)	68	408	332	136	466		250	1029	428	171	476	371	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0	
Reduced v/c Ratio	0.66	0.59	0.71	0.73	0.86		0.80	0.45	0.39	0.51	0.59	0.21	

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 96 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay (s/veh): 61.7

Intersection LDS: E

Intersection Capacity Utilization 68.9%

ICU Level of Service C

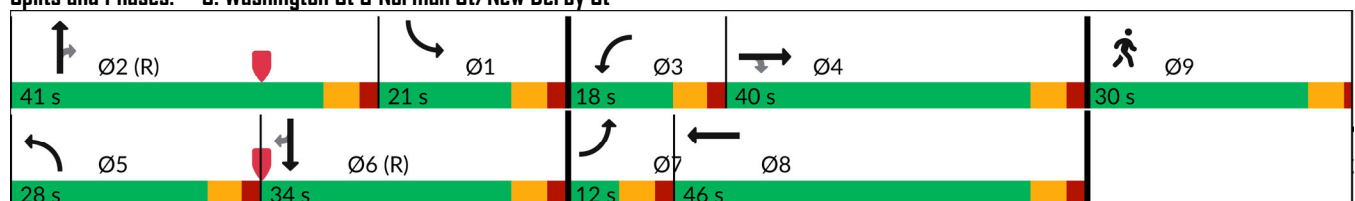
Analysis Period (min) 15























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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 9: Washington St & Norman St/New Derby St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	155	260	370	15	200	250	130	445	45	140	370	30	
Future Volume (vph)	155	260	370	15	200	250	130	445	45	140	370	30	
Satd. Flow (prot)	1711	1801	1531	0	1761	1501	1694	3319	0	1728	1818	1546	
Flt Permitted	0.950				0.957		0.950			0.950			
Satd. Flow (perm)	1711	1801	1454	0	1690	1443	1694	3319	0	1728	1818	1461	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	161	271	385	0	250	291	148	557	0	152	402	33	
Turn Type	Prot	NA	pm+av	Perm	NA	pm+av	Prot	NA		Prot	NA	pm+av	
Protected Phases	7	4	5		8	1	5	2		1	6	7	9
Permitted Phases			4	8		8						6	
Total Split (s)	21.0	51.0	21.0	30.0	30.0	23.0	21.0	41.0		23.0	43.0	21.0	35.0
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	7.0	
Act Effct Green (s)	14.0	44.0	58.2		23.0	38.4	14.2	41.6		15.4	42.8	56.8	
Actuated g/C Ratio	0.09	0.29	0.39		0.15	0.26	0.09	0.28		0.10	0.29	0.38	
v/c Ratio	1.01	0.51	0.67		0.97	0.78	0.93	0.61		0.86	0.78	0.06	
Control Delay (s/veh)	140.1	48.2	30.1		109.8	45.3	119.3	53.2		91.1	38.3	18.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay (s/veh)	140.1	48.2	30.1		109.8	45.3	119.3	53.2		91.1	38.3	18.3	
LDS	F	D	C		F	D	F	D		F	D	B	
Approach Delay (s/veh)		57.8			75.1			67.0			50.8		
Approach LDS		E			E			E			D		
Queue Length 50th (ft)	~162	221	158		247	158	146	268		134	402	21	
Queue Length 95th (ft)	#319	317	273		#394	214	#278	329		m#253	#582	m31	
Internal Link Dist (ft)		253			828			250			528		
Turn Bay Length (ft)						300	300						
Base Capacity (vph)	159	528	571		259	381	160	920		184	518	560	
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0	
Reduced v/c Ratio	1.01	0.51	0.67		0.97	0.76	0.93	0.61		0.83	0.78	0.06	

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 9 (6%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay (s/veh): 62.2

Intersection LDS: E

Intersection Capacity Utilization 75.0%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.





















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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 10: Canal St & Mill St & Washington St

	Ø1		Ø2 (R)		Ø4		Ø9
23 s		41 s		51 s		35 s	
	Ø5		Ø6 (R)		Ø7		Ø8
21 s		43 s		21 s		30 s	

														
Lane Group	NBL	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SER	SWL2	SWL	SWR	SWR2	Ø9
Lane Configurations														
Traffic Volume (vph)	330	280	10	30	25	40	420	10	345	5	10	5	5	
Future Volume (vph)	330	280	10	30	25	40	420	10	345	5	10	5	5	
Satd. Flow (prot)	1678	1511	0	0	0	1728	1584	0	1558	0	1565	0	0	
Flt Permitted	0.443					0.950					0.971			
Satd. Flow (perm)	782	1511	0	0	0	1728	1584	0	1460	0	1565	0	0	
Satd. Flow (RTOR)									*100					
Lane Group Flow (vph)	351	341	0	0	0	68	453	0	401	0	25	0	0	
Turn Type	pm+pt	NA			Prot	Prot	NA		Perm	Prot	Prot			
Protected Phases	5	2			1	1	6			7	7			9
Permitted Phases	2								4					
Total Split (s)	16.0	41.5			16.0	16.0	41.5		26.0	12.5	12.5			24.0
Total Lost Time (s)	6.0	8.0				8.0	8.0		5.0		7.5			
Act Effct Green (s)	53.2	51.2				8.1	48.1		21.0		5.0			
Actuated g/C Ratio	0.44	0.43				0.07	0.40		0.18		0.04			
v/c Ratio	0.83	0.53				0.58	0.71		1.19		0.38			
Control Delay (s/veh)	42.3	22.7				74.6	42.6		142.6		73.0			
Queue Delay	0.0	0.3				0.0	1.4		1.0		9.9			
Total Delay (s/veh)	42.3	22.9				74.6	44.0		143.6		82.9			
LOS	D	C				E	D		F		F			
Approach Delay (s/veh)		32.8					48.0				82.9			
Approach LOS		C					D				F			
Queue Length 50th (ft)	~299	249				52	~374		~307		19			
Queue Length 95th (ft)	m#365	m#380				#114	#580		#469		50			
Internal Link Dist (ft)		285					738				98			
Turn Bay Length (ft)	200					200								
Base Capacity (vph)	421	644				117	635		338		65			
Starvation Cap Reductn	0	48				0	0		0		0			
Spillback Cap Reductn	0	0				0	65		28		21			
Storage Cap Reductn	0	0				0	0		0		0			
Reduced v/c Ratio	0.83	0.57				0.58	0.79		1.29		0.57			

#### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 18 (15%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.19

Intersection Signal Delay (s/veh): 65.5

Intersection LOS: E

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15

\* User Entered Value

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

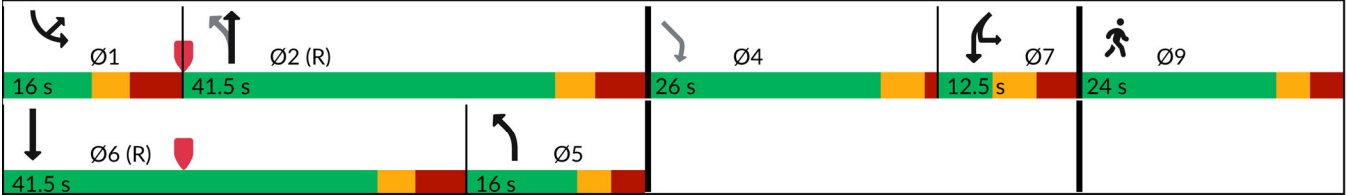
# 95th percentile volume exceeds capacity, queue may be longer.

















Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Splits and Phases: 11: Lafayette St & Dow St & Washington St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	5	0	10	160	0	90	5	585	0	0	730	10	
Future Volume (vph)	5	0	10	160	0	90	5	585	0	0	730	10	
Satd. Flow (prot)	0	1346	0	0	1374	0	0	1576	0	0	1571	0	
Flt Permitted		0.916			0.969			0.994					
Satd. Flow (perm)	0	1243	0	0	1318	0	0	1566	0	0	1571	0	
Satd. Flow (RTOR)		109			109						1		
Lane Group Flow (vph)	0	24	0	0	266	0	0	686	0	0	788	0	
Turn Type	Perm	NA		Split	NA		Perm	NA			NA		
Protected Phases		4		8	8			2			6		9
Permitted Phases	4						2						
Total Split (s)	23.0	23.0		23.0	23.0		49.0	49.0			49.0		25.0
Total Lost Time (s)		5.0			5.0			5.0			5.0		
Act Effct Green (s)		5.5			22.2			76.5			76.5		
Actuated g/C Ratio		0.05			0.19			0.64			0.64		
v/c Ratio		0.15			0.78			0.69			0.79		
Control Delay (s/veh)		2.0			42.0			23.5			17.9		
Queue Delay		0.0			0.1			0.2			5.8		
Total Delay (s/veh)		2.0			42.1			23.7			23.7		
LOS		A			D			C			C		
Approach Delay (s/veh)		2.0			42.1			23.7			23.7		
Approach LOS		A			D			C			C		
Queue Length 50th (ft)		0			118			319			273		
Queue Length 95th (ft)		0			203			#815			m#827		
Internal Link Dist (ft)		64			604			261			285		
Turn Bay Length (ft)													
Base Capacity (vph)		279			354			999			1002		
Starvation Cap Reductn		0			0			0			163		
Spillback Cap Reductn		2			2			33			0		
Storage Cap Reductn		0			0			0			0		
Reduced v/c Ratio		0.09			0.76			0.71			0.94		

#### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay (s/veh): 26.2

Intersection LOS: C

Intersection Capacity Utilization 69.1%

ICU Level of Service C

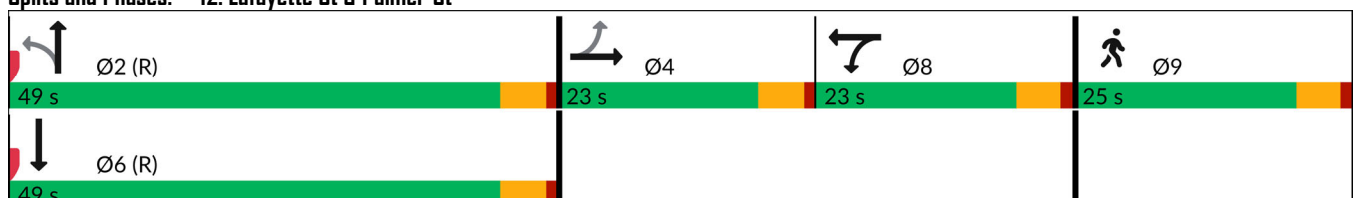
Analysis Period (min) 15





















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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 12: Lafayette St & Palmer St



													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	210	25	80	25	25	10	165	560	20	5	375	180	
Future Volume (vph)	210	25	80	25	25	10	165	560	20	5	375	180	
Satd. Flow (prot)	0	1479	1501	0	1569	1561	1694	1552	0	0	1559	1516	
Flt Permitted		*0.900			0.976		0.950				*0.900		
Satd. Flow (perm)	0	1391	1501	0	1569	1561	1694	1552	0	0	1404	1516	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	0	294	100	0	68	14	179	631	0	0	437	207	
Turn Type	Perm	NA	pt+ov	Split	NA	Prot	Prot	NA		Perm	NA	custom	
Protected Phases		4	4 5	3	3	3	5	2			6	4	9
Permitted Phases	4									6		6	
Total Split (s)	31.0	31.0		14.0	14.0	14.0	20.0	67.0		47.0	47.0	31.0	28.0
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0			5.0	5.0	
Act Effct Green (s)		26.0	46.0		8.6	8.6	15.0	73.6			53.6	79.6	
Actuated g/C Ratio		0.19	0.33		0.06	0.06	0.11	0.53			0.38	0.57	
v/c Ratio		1.14	0.20		0.71	0.15	0.99	0.77			0.81	0.24	
Control Delay (s/veh)		149.0	35.2		100.1	65.5	125.6	37.9			54.7	10.6	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0			0.0	0.0	
Total Delay (s/veh)		149.0	35.2		100.1	65.5	125.6	37.9			54.7	10.6	
LOS		F	D		F	E	F	D			D	B	
Approach Delay (s/veh)		120.1			94.2			57.3			40.5		
Approach LOS		F			F			E			D		
Queue Length 50th (ft)		~311	66		62	12	165	532			~428	68	
Queue Length 95th (ft)		#417	99		#94	29	#324	#781			#607	100	
Internal Link Dist (ft)		770			537			1056			584		
Turn Bay Length (ft)			300			300	300					300	
Base Capacity (vph)		258	493		100	100	181	815			537	861	
Starvation Cap Reductn		0	0		0	0	0	0			0	0	
Spillback Cap Reductn		0	0		0	0	0	0			0	0	
Storage Cap Reductn		0	0		0	0	0	0			0	0	
Reduced v/c Ratio		1.14	0.20		0.68	0.14	0.99	0.77			0.81	0.24	

#### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay (s/veh): 66.1

Intersection LOS: E

Intersection Capacity Utilization 82.8%

ICU Level of Service E

Analysis Period (min) 15

\* User Entered Value

~ 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: 16: Lafayette St & Loring Ave/West St

Ø2 (R) 67 s	Ø4 31 s	Ø3 14 s	Ø9 28 s
Ø6 (R) 47 s	Ø5 20 s		

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations											 		
Traffic Volume (vph)	45	0	105	10	20	90	100	555	0	0	690	220	
Future Volume (vph)	45	0	105	10	20	90	100	555	0	0	690	220	
Satd. Flow (prot)	1678	0	1501	0	1653	0	1728	1818	0	0	3267	0	
Flt Permitted	0.950				0.996		*0.750						
Satd. Flow (perm)	1678	0	1402	0	1653	0	1364	1818	0	0	3267	0	
Satd. Flow (RTOR)													
Lane Group Flow (vph)	51	0	118	0	223	0	106	590	0	0	1034	0	
Turn Type	Prot		pm+av	Split	NA		pm+pt	NA			NA		
Protected Phases	7		5	8	8		5	2			6		9
Permitted Phases			7				2						
Total Split (s)	13.0		13.0	22.0	22.0		13.0	48.0			35.0		27.0
Total Lost Time (s)	6.0		6.0		6.0		6.0	6.0			6.0		
Act Effct Green (s)	7.0		12.6		16.0		60.8	60.8			47.8		
Actuated g/C Ratio	0.06		0.11		0.15		0.55	0.55			0.43		
v/c Ratio	0.48		0.71		0.93		0.14	0.59			0.73		
Control Delay (s/veh)	65.3		54.1		89.8		12.1	15.7			33.5		
Queue Delay	0.0		0.0		0.0		0.0	0.0			0.0		
Total Delay (s/veh)	65.3		54.1		89.8		12.1	15.7			33.5		
LOS	E		D		F		B	B			C		
Approach Delay (s/veh)		57.5			89.8			15.2			33.5		
Approach LOS		E			F			B			C		
Queue Length 50th (ft)	35		55		158		21	124			265		
Queue Length 95th (ft)	75		#106		137		m32	m#332			#578		
Internal Link Dist (ft)		297			159			120			231		
Turn Bay Length (ft)			100										
Base Capacity (vph)	106		166		240		776	1005			1419		
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	0.48		0.71		0.93		0.14	0.59			0.73		

#### Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay (s/veh): 35.3

Intersection LOS: D

Intersection Capacity Utilization 62.4%

ICU Level of Service B

Analysis Period (min) 15







\* User Entered Value




# 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: 22: North St & Rte 107 ramp to Rte 114/Federal St





 Ø2 (R)	 Ø8	 Ø7	 Ø9
48 s	22 s	13 s	27 s
 Ø6 (R)	 Ø5		
35 s	13 s		

Intersection										
Int Delay, s/veh	4.5									
Movement	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	5	25	15	910	15	20	1100	125	0	0
Future Vol, veh/h	5	25	15	910	15	20	1100	125	0	0
Conflicting Peds, #/hr	0	5	20	0	10	0	0	20	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	67	67	91	91	91	91	91	91	71	71
Heavy Vehicles, %	8	8	2	2	2	2	2	2	5	5
Mvmt Flow	7	37	16	1000	16	22	1209	137	0	0

Major/Minor	Minor1		Major1		Major2			Minor2		
Conflicting Flow All	1720	1023	1366	0	0	1026	0	0	-	713
Stage 1	1051	-	-	-	-	-	-	-	-	-
Stage 2	668	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.42	6.32	4.13	-	-	4.13	-	-	-	6.975
Critical Hdwy Stg 1	6.22	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.62	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2	2	2.219	-	-	2.219	-	-	-	3.3475
Pot Cap-1 Maneuver	81	392	501	-	-	674	-	-	0	370
Stage 1	386	-	-	-	-	-	-	-	0	-
Stage 2	630	-	-	-	-	-	-	-	0	-
Platoon blocked, %				-	-		-	-		
Mov Cap-1 Maneuver	63	386	492	-	-	668	-	-	-	357
Mov Cap-2 Maneuver	63	-	-	-	-	-	-	-	-	-
Stage 1	354	-	-	-	-	-	-	-	-	-
Stage 2	540	-	-	-	-	-	-	-	-	-

Approach	EB		SE		NW			SW		
HCM Ctrl Dly, s/v	129.33		0.2		0.65			15.96		
HCM LOS	F							C		

Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	SEL	SET	SER	SWLn1
Capacity (veh/h)	51	-	-	92	29	-	-	357
HCM Lane V/C Ratio	0.033	-	-	0.814	0.034	-	-	0.079
HCM Ctrl Dly (s/v)	10.6	0.5	-	129.3	12.6	0	-	16
HCM Lane LOS	B	A	-	F	B	A	-	C
HCM 95th %tile Q(veh)	0.1	-	-	4.3	0.1	-	-	0.3

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	0	115	0	590	0	0	760	5
Future Vol, veh/h	0	0	0	20	0	115	0	590	0	0	760	5
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
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	84	84	84	77	77	77	93	93	93	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	2	2	2
Mvmt Flow	0	0	0	26	0	149	0	634	0	0	844	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1502	1492	445	1067	1494	644	860	0	-	-	-	0
Stage 1	857	857	-	634	634	-	-	-	-	-	-	-
Stage 2	644	634	-	432	860	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.9	7.315	6.515	6.215	4.115	-	-	-	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.115	5.515	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.515	5.515	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5095	4.0095	3.3095	2.2095	-	-	-	-	-
Pot Cap-1 Maneuver	93	125	566	189	123	474	785	-	0	0	-	-
Stage 1	322	377	-	468	474	-	-	-	0	0	-	-
Stage 2	465	476	-	575	374	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	62	124	556	187	122	470	778	-	-	-	-	-
Mov Cap-2 Maneuver	62	124	-	187	122	-	-	-	-	-	-	-
Stage 1	320	373	-	468	474	-	-	-	-	-	-	-
Stage 2	314	476	-	570	370	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0		22.02		0		0	
HCM LOS	A		C					




Minor Lane/Major Mvmt	NBL	NBT	EBLnI	WBLnI	SBT	SBR
Capacity (veh/h)	778	-	-	384	-	-
HCM Lane V/C Ratio	-	-	-	0.457	-	-
HCM Ctrl Dly (s/v)	0	-	0	22	-	-
HCM Lane LOS	A	-	A	C	-	-
HCM 95th %tile Q(veh)	0	-	-	2.3	-	-

Intersection													
Int Delay, s/veh	2.7												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕						↕			↕		
Traffic Vol, veh/h	10	15	5	0	0	0	10	575	210	90	770	10	
Future Vol, veh/h	10	15	5	0	0	0	10	575	210	90	770	10	
Conflicting Peds, #/hr	10	0	10	10	0	10	20	0	50	50	0	20	
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	61	61	61	92	92	92	88	88	88	93	93	93	
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	3	3	3	
Mvmt Flow	16	25	8	0	0	0	11	653	239	97	828	11	
Major/Minor	Minor2						Major1		Major2				
Conflicting Flow All	1733	2012	863				859	0	0	942	0	0	
Stage 1	1047	1047	-				-	-	-	-	-	-	
Stage 2	686	965	-				-	-	-	-	-	-	
Critical Hdwy	6.4	6.5	6.2				4.12	-	-	4.13	-	-	
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-	
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-	
Follow-up Hdwy	3.5	4	3.3				2.218	-	-	2.227	-	-	
Pot Cap-1 Maneuver	98	60	357				782	-	-	724	-	-	
Stage 1	341	308	-				-	-	-	-	-	-	
Stage 2	504	336	-				-	-	-	-	-	-	
Platoon blocked, %								-	-	-			-
Mov Cap-1 Maneuver	68	0	348				769	-	-	724	-	-	
Mov Cap-2 Maneuver	68	0	-				-	-	-	-	-	-	
Stage 1	325	0	-				-	-	-	-	-	-	
Stage 2	371	0	-				-	-	-	-	-	-	
Approach	EB						NB		SB				
HCM Ctrl Dly, s/v	80						0.12		1.11				
HCM LOS	F												
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR						
Capacity (veh/h)	21	-	-	93	186	-	-						
HCM Lane V/C Ratio	0.015	-	-	0.526	0.134	-	-						
HCM Ctrl Dly (s/v)	9.8	0	-	80	10.7	0	-						
HCM Lane LOS	A	A	-	F	B	A	-						
HCM 95th %tile Q(veh)	0	-	-	2.3	0.5	-	-						

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	5	10	0	25	5	715	10	45	680	15
Future Vol, veh/h	5	5	5	10	0	25	5	715	10	45	680	15
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
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	69	69	69	93	93	93	96	96	96
Heavy Vehicles, %	10	10	10	0	0	0	3	3	3	2	2	2
Mvmt Flow	6	6	6	14	0	36	5	769	11	47	708	16
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1629	1640	756	1630	1643	814	744	0	0	800	0	0
Stage 1	830	830	-	805	805	-	-	-	-	-	-	-
Stage 2	800	810	-	825	838	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	78	96	395	82	101	381	859	-	-	823	-	-
Stage 1	353	374	-	379	398	-	-	-	-	-	-	-
Stage 2	367	382	-	370	385	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	83	382	65	87	368	844	-	-	809	-	-
Mov Cap-2 Maneuver	61	83	-	65	87	-	-	-	-	-	-	-
Stage 1	313	332	-	368	387	-	-	-	-	-	-	-
Stage 2	322	371	-	317	341	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Ctrl Dly, s/v	50.95		38.14			0.06			0.59			
HCM LOS	F		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	12	-	-	96	158	109	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.188	0.321	0.058	-	-				
HCM Ctrl Dly (s/v)	9.3	0	-	50.9	38.1	9.7	0	-				
HCM Lane LOS	A	A	-	F	E	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.7	1.3	0.2	-	-				



Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	15	25	5	5	10	15	695	10	20	595	30
Future Vol, veh/h	15	15	25	5	5	10	15	695	10	20	595	30
Conflicting Peds, #/hr	10	0	10	10	0	10	12	0	12	12	0	12
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	75	75	75	64	64	64	96	96	96	98	98	98
Heavy Vehicles, %	4	4	4	6	6	6	3	3	3	2	2	2
Mvmt Flow	20	20	33	8	8	16	16	724	10	20	607	31
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1444	1453	644	1440	1463	751	650	0	0	746	0	0
Stage 1	675	675	-	772	772	-	-	-	-	-	-	-
Stage 2	769	778	-	668	691	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.16	6.56	6.26	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.16	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.554	4.054	3.354	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	109	129	469	108	126	404	932	-	-	862	-	-
Stage 1	440	450	-	386	403	-	-	-	-	-	-	-
Stage 2	391	404	-	441	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	90	118	460	77	115	396	922	-	-	853	-	-
Mov Cap-2 Maneuver	90	118	-	77	115	-	-	-	-	-	-	-
Stage 1	419	429	-	371	388	-	-	-	-	-	-	-
Stage 2	354	388	-	372	419	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	46.24		35.18		0.19		0.29					
HCM LOS	E		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLnI	WBLnI	SBL	SBT	SBR				
Capacity (veh/h)	37	-	-	158	150	55	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.465	0.208	0.024	-	-				
HCM Ctrl Dly (s/v)	9	0	-	46.2	35.2	9.3	0	-				
HCM Lane LOS	A	A	-	E	E	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	2.2	0.8	0.1	-	-				

Intersection						
Int Delay, s/veh	12.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	585	655	0	0	875
Future Vol, veh/h	0	585	655	0	0	875
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	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	609	682	0	0	911

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	341	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.96	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.33	-
Pot Cap-1 Maneuver	0	652	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	652	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	46.24	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	652	-
HCM Lane V/C Ratio	-	0.935	-
HCM Ctrl Dly (s/v)	-	46.2	-
HCM Lane LOS	-	E	-
HCM 95th %tile Q(veh)	-	12.7	-

## **Part 7: Traffic Signal Warrant Analysis**

# HCS Warrants Report

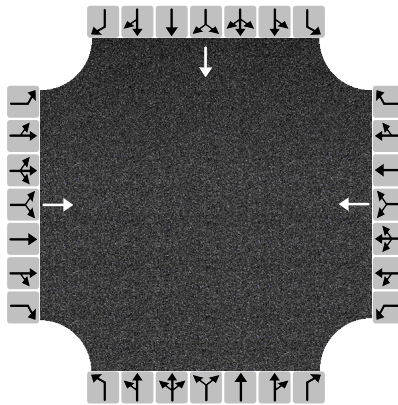
## Project Information

Analyst	Seth Asante	Date	5/7/2025
Agency	CTPS	Analysis Year	2025
Jurisdiction	Salem	Time Period Analyzed	
Units	U.S. Customary	MUTCD Method	MUTCD 11 (2023)
Project Description	Route 114 Corridor Study		

## General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7:00	Coordinated Signal System	No
Major Street Speed (mi/h)	30	Nearest Signal (ft)	650
Adequate Trials of Crash Exp. Alt.	No		

## Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	0	0	0	1	0
Lane Usage		T			T						T	
Vehicle Volumes Averages (veh/h)	0	670	0	0	779	0	0	0	0	0	123	0
Pedestrian median refuge available	No			No			No			No		
Pedestrian Averages (peds/h)	6			6			2			2		
Gap Averages (gaps/h)	0			0			0			0		
Delay Averages (s/veh)	0.0			0.0			0.0			35.3		
Delay Averages (veh-hrs)	0.0			0.0			0.0			1.3		

## School Crossing and Roadway Network

Number of Students in Highest Hour	20	Two or More Major Routes	Yes
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	60	5-year Growth Factor (%)	3

## Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	0

Volume Summary														
Hours	Major Volume (veh/h)	Minor Volume (veh/h)	Total Volume (veh/h)	Peds/h	Gaps/h	1A ( 100% )	1A ( 80% )	1B ( 100% )	1B ( 80% )	2 ( 100% )	3A ( 100% )	3B ( 80% )	4A ( 100% )	4B ( 100% )
7:00 - 8:00	1240	228	1468	22	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
8:00 - 9:00	1481	100	1581	22	0	No	No	Yes	Yes	Yes	No	No	No	No
9:00 - 10:00	1488	77	1565	22	0	No	No	Yes	Yes	No	No	No	No	No
10:00 - 11:00	1386	74	1460	10	0	No	No	No	Yes	No	No	No	No	No
11:00 - 12:00	1415	75	1490	10	0	No	No	Yes	Yes	No	No	No	No	No
12:00 - 13:00	1427	79	1506	10	0	No	No	Yes	Yes	No	No	No	No	No
13:00 - 14:00	1468	120	1588	10	0	No	Yes	Yes	Yes	Yes	No	Yes	No	No
14:00 - 15:00	1497	128	1625	10	0	No	Yes	Yes	Yes	Yes	No	Yes	No	No
15:00 - 16:00	1502	162	1664	22	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
16:00 - 17:00	1456	177	1633	22	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
17:00 - 18:00	1548	177	1725	22	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
18:00 - 19:00	1489	88	1577	10	0	No	No	Yes	Yes	Yes	No	No	No	No
Total	17397	1485	18882	192	0	4	6	11	12	8	0	6	0	0

Pedestrian Volume								
15th % pedestrian speed < 3.5 ft/s				Pedestrian refuge present?			EB	WB
Hours	Major Street Vehicular Volume (veh/h)			Major Street Pedestrian Volume (ped/h)			4A ( 100% )	4B ( 100% )
	EB	WB	Total	EB	WB	Total		
7:00 - 8:00	588	652	1240	8	8	16	No	No
8:00 - 9:00	653	828	1481	8	8	16	No	No
9:00 - 10:00	650	838	1488	8	8	16	No	No
10:00 - 11:00	604	782	1386	4	4	8	No	No
11:00 - 12:00	632	783	1415	4	4	8	No	No
12:00 - 13:00	649	778	1427	4	4	8	No	No
13:00 - 14:00	674	794	1468	4	4	8	No	No
14:00 - 15:00	706	791	1497	4	4	8	No	No
15:00 - 16:00	716	786	1502	8	8	16	No	No
16:00 - 17:00	710	746	1456	8	8	16	No	No
17:00 - 18:00	746	802	1548	8	8	16	No	No
18:00 - 19:00	714	775	1489	4	4	8	No	No
Totals	8042	9355	17397	72	72	144	0	0

Warrants	
<b>Warrant 1: Eight-Hour Vehicular Volume</b>	✓
A. Minimum Vehicular Volumes (Both major approaches --and-- more critical minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- more critical minor approach) --or--	✓
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- more critical minor approach)	
<b>Warrant 2: Four-Hour Vehicular Volume</b>	✓
Four-Hour Vehicular Volume (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 3: Peak Hour</b>	✓

A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 4: Pedestrian Volume</b>	
A. Four Hour Volumes --or--	
B. Peak-Hour Volumes	
<b>Warrant 5: School Crossing</b>	✓
Gaps Same Period --and--	✓
Student Volumes	✓
Nearest Traffic Control Signal (optional)	✓
<b>Warrant 6: Coordinated Signal System</b>	
Degree of Platooning (Predominant direction or both directions)	
<b>Warrant 7: Crash Experience</b>	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported Crash History --and--	✓
B1. Angle Crashes and Pedestrian Crashes within a 1-year Period (All Severities)	
B2. Angle Crashes and Pedestrian Crashes within a 1-year Period (Fatal-and-Injury)	
B3. Angle Crashes and Pedestrian Crashes within a 3-year Period (All Severities)	✓
B4. Angle Crashes and Pedestrian Crashes within a 3-year Period (Fatal-and-Injury)	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	✓
<b>Warrant 8: Roadway Network</b>	✓
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	✓
B. Weekend Volume (Five hours total)	
<b>Warrant 9: Grade Crossing</b>	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

# HCS Warrants Report

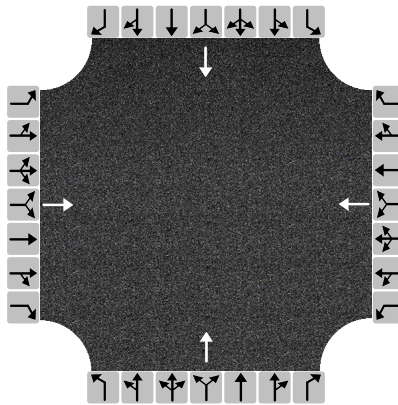
## Project Information

Analyst	Seth Asante	Date	5/7/2025
Agency	CTPS	Analysis Year	2025
Jurisdiction	Salem	Time Period Analyzed	
Units	U.S. Customary	MUTCD Method	MUTCD 11 (2023)
Project Description	Route 114 Corridor Study: Franklin St at North St		

## General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7:00	Coordinated Signal System	No
Major Street Speed (mi/h)	30	Nearest Signal (ft)	650
Adequate Trials of Crash Exp. Alt.	No		

## Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		T			T			T			T	
Vehicle Volumes Averages (veh/h)	0	1068	0	0	860	0	0	45	0	0	125	0
Pedestrian median refuge available	No			No			No			No		
Pedestrian Averages (peds/h)	2			10			1			1		
Gap Averages (gaps/h)	0			0			0			0		
Delay Averages (s/veh)	0.0			0.0			49.7			13.3		
Delay Averages (veh-hrs)	0.0			0.0			0.7			0.5		

## School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	Yes
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	60	5-year Growth Factor (%)	3

## Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	0

Volume Summary														
Hours	Major Volume (veh/h)	Minor Volume (veh/h)	Total Volume (veh/h)	Peds/h	Gaps/h	1A ( 100% )	1A ( 80% )	1B ( 100% )	1B ( 80% )	2 ( 100% )	3A ( 100% )	3B ( 80% )	4A ( 100% )	4B ( 100% )
7:00 - 8:00	1977	169	2171	20	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
8:00 - 9:00	2030	116	2179	20	0	No	No	Yes	Yes	Yes	No	Yes	No	No
9:00 - 10:00	1796	86	1926	20	0	No	No	Yes	Yes	Yes	No	No	No	No
10:00 - 11:00	1763	85	1892	7	0	No	No	Yes	Yes	Yes	No	No	No	No
11:00 - 12:00	1772	92	1909	7	0	No	No	Yes	Yes	Yes	No	No	No	No
12:00 - 13:00	1832	106	1984	7	0	No	No	Yes	Yes	Yes	No	Yes	No	No
13:00 - 14:00	1898	126	2079	7	0	No	Yes	Yes	Yes	Yes	No	Yes	No	No
14:00 - 15:00	1982	118	2142	7	0	No	No	Yes	Yes	Yes	No	Yes	No	No
15:00 - 16:00	2052	167	2272	22	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
16:00 - 17:00	2118	173	2352	22	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
17:00 - 18:00	2075	174	2303	22	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
18:00 - 19:00	1844	92	1979	8	0	No	No	Yes	Yes	Yes	No	No	No	No
Total	23139	1504	25188	169	0	4	5	12	12	12	0	8	0	0

Pedestrian Volume								
15th % pedestrian speed < 3.5 ft/s				Pedestrian refuge present?			EB	WB
Hours	Major Street Vehicular Volume (veh/h)			Major Street Pedestrian Volume (ped/h)			4A ( 100% )	4B ( 100% )
	EB	WB	Total	EB	WB	Total		
7:00 - 8:00	1140	837	1977	3	15	18	No	No
8:00 - 9:00	1082	948	2030	3	15	18	No	No
9:00 - 10:00	953	843	1796	3	15	18	No	No
10:00 - 11:00	961	802	1763	1	5	6	No	No
11:00 - 12:00	992	780	1772	1	5	6	No	No
12:00 - 13:00	1038	794	1832	1	5	6	No	No
13:00 - 14:00	1067	831	1898	1	5	6	No	No
14:00 - 15:00	1094	888	1982	1	5	6	No	No
15:00 - 16:00	1161	891	2052	3	15	18	No	No
16:00 - 17:00	1205	913	2118	3	15	18	No	No
17:00 - 18:00	1174	901	2075	3	15	18	No	No
18:00 - 19:00	952	892	1844	1	5	6	No	No
Totals	12819	10320	23139	24	120	144	0	0

Warrants	
<b>Warrant 1: Eight-Hour Vehicular Volume</b>	✓
A. Minimum Vehicular Volumes (Both major approaches --and-- more critical minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- more critical minor approach) --or--	✓
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- more critical minor approach)	
<b>Warrant 2: Four-Hour Vehicular Volume</b>	✓
Four-Hour Vehicular Volume (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 3: Peak Hour</b>	✓



A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 4: Pedestrian Volume</b>	
A. Four Hour Volumes --or--	
B. Peak-Hour Volumes	
<b>Warrant 5: School Crossing</b>	
Gaps Same Period --and--	✓
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
<b>Warrant 6: Coordinated Signal System</b>	
Degree of Platooning (Predominant direction or both directions)	
<b>Warrant 7: Crash Experience</b>	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported Crash History --and--	
B1. Angle Crashes and Pedestrian Crashes within a 1-year Period (All Severities)	
B2. Angle Crashes and Pedestrian Crashes within a 1-year Period (Fatal-and-Injury)	
B3. Angle Crashes and Pedestrian Crashes within a 3-year Period (All Severities)	
B4. Angle Crashes and Pedestrian Crashes within a 3-year Period (Fatal-and-Injury)	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	✓
<b>Warrant 8: Roadway Network</b>	✓
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	✓
B. Weekend Volume (Five hours total)	
<b>Warrant 9: Grade Crossing</b>	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

# HCS Warrants Report

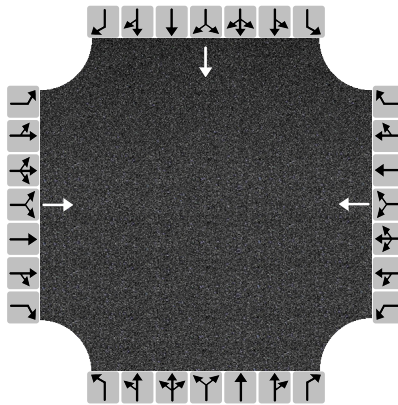
## Project Information

Analyst	Seth Asante	Date	5/7/2025
Agency	CTPS	Analysis Year	2025
Jurisdiction	Salem	Time Period Analyzed	
Units	U.S. Customary	MUTCD Method	MUTCD 11 (2023)
Project Description	Route 114 Corridor Study: Lynde St at North St		

## General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7:00	Coordinated Signal System	No
Major Street Speed (mi/h)	25	Nearest Signal (ft)	300
Adequate Trials of Crash Exp. Alt.	No		

## Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	0	0	0	1	0
Lane Usage		T			T						T	
Vehicle Volumes Averages (veh/h)	0	737	0	0	515	0	0	0	0	0	91	0
Pedestrian median refuge available	No			No			No			No		
Pedestrian Averages (peds/h)	7			7			0			1		
Gap Averages (gaps/h)	0			0			0			0		
Delay Averages (s/veh)	0.0			0.0			0.0			15.0		
Delay Averages (veh-hrs)	0.0			0.0			0.7			0.4		

## School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	Yes
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	60	5-year Growth Factor (%)	3

## Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	0

Volume Summary														
Hours	Major Volume (veh/h)	Minor Volume (veh/h)	Total Volume (veh/h)	Peds/h	Gaps/h	1A ( 100% )	1A ( 80% )	1B ( 100% )	1B ( 80% )	2 ( 100% )	3A ( 100% )	3B ( 80% )	4A ( 100% )	4B ( 100% )
7:00 - 8:00	1213	80	1293	21	0	No	No	Yes	Yes	No	No	No	No	No
8:00 - 9:00	1278	96	1374	21	0	No	No	Yes	Yes	Yes	No	No	No	No
9:00 - 10:00	1167	80	1247	21	0	No	No	Yes	Yes	No	No	No	No	No
10:00 - 11:00	1135	84	1219	11	0	No	No	Yes	Yes	Yes	No	No	No	No
11:00 - 12:00	1149	92	1241	11	0	No	No	Yes	Yes	Yes	No	No	No	No
12:00 - 13:00	1174	77	1251	11	0	No	No	Yes	Yes	No	No	No	No	No
13:00 - 14:00	1234	87	1321	11	0	No	No	Yes	Yes	Yes	No	No	No	No
14:00 - 15:00	1300	82	1382	11	0	No	No	Yes	Yes	Yes	No	No	No	No
15:00 - 16:00	1422	92	1514	21	0	No	No	Yes	Yes	Yes	No	No	No	No
16:00 - 17:00	1404	110	1514	21	0	No	No	Yes	Yes	Yes	No	No	No	No
17:00 - 18:00	1357	120	1477	21	0	No	Yes	Yes	Yes	Yes	No	Yes	No	No
18:00 - 19:00	1203	99	1302	11	0	No	No	Yes	Yes	Yes	No	No	No	No
Total	15036	1099	16135	192	0	0	1	12	12	9	0	1	0	0

Pedestrian Volume								
15th % pedestrian speed < 3.5 ft/s				Pedestrian refuge present?			EB	WB
Hours	Major Street Vehicular Volume (veh/h)			Major Street Pedestrian Volume (ped/h)			4A ( 100% )	4B ( 100% )
	EB	WB	Total	EB	WB	Total		
7:00 - 8:00	653	560	1213	10	9	19	No	No
8:00 - 9:00	749	529	1278	10	9	19	No	No
9:00 - 10:00	696	471	1167	10	9	19	No	No
10:00 - 11:00	672	463	1135	5	5	10	No	No
11:00 - 12:00	674	475	1149	5	5	10	No	No
12:00 - 13:00	673	501	1174	5	5	10	No	No
13:00 - 14:00	696	538	1234	5	5	10	No	No
14:00 - 15:00	747	553	1300	5	5	10	No	No
15:00 - 16:00	842	580	1422	10	9	19	No	No
16:00 - 17:00	851	553	1404	10	9	19	No	No
17:00 - 18:00	816	541	1357	10	9	19	No	No
18:00 - 19:00	782	421	1203	5	5	10	No	No
Totals	8851	6185	15036	90	84	174	0	0

Warrants	
<b>Warrant 1: Eight-Hour Vehicular Volume</b>	✓
A. Minimum Vehicular Volumes (Both major approaches --and-- more critical minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- more critical minor approach) --or--	✓
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- more critical minor approach)	
<b>Warrant 2: Four-Hour Vehicular Volume</b>	✓
Four-Hour Vehicular Volume (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 3: Peak Hour</b>	✓

A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 4: Pedestrian Volume</b>	
A. Four Hour Volumes --or--	
B. Peak-Hour Volumes	
<b>Warrant 5: School Crossing</b>	
Gaps Same Period --and--	✓
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
<b>Warrant 6: Coordinated Signal System</b>	
Degree of Platooning (Predominant direction or both directions)	
<b>Warrant 7: Crash Experience</b>	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported Crash History --and--	✓
B1. Angle Crashes and Pedestrian Crashes within a 1-year Period (All Severities)	
B2. Angle Crashes and Pedestrian Crashes within a 1-year Period (Fatal-and-Injury)	
B3. Angle Crashes and Pedestrian Crashes within a 3-year Period (All Severities)	✓
B4. Angle Crashes and Pedestrian Crashes within a 3-year Period (Fatal-and-Injury)	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	✓
<b>Warrant 8: Roadway Network</b>	✓
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	✓
B. Weekend Volume (Five hours total)	
<b>Warrant 9: Grade Crossing</b>	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

# HCS Warrants Report

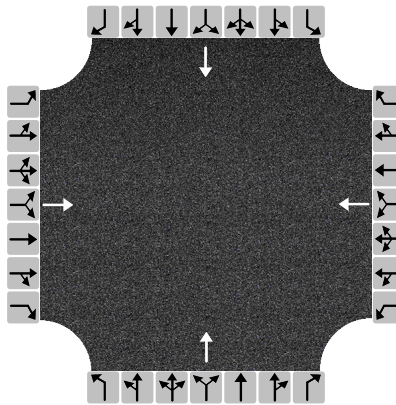
## Project Information

Analyst	Seth Asante	Date	5/7/2025
Agency	CTPS	Analysis Year	2025
Jurisdiction	Salem	Time Period Analyzed	
Units	U.S. Customary	MUTCD Method	MUTCD 11 (2023)
Project Description	Route 114 Corridor Study: Summer St at Norman St		

## General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7:00	Coordinated Signal System	No
Major Street Speed (mi/h)	25	Nearest Signal (ft)	500
Adequate Trials of Crash Exp. Alt.	No		

## Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		T			T			T			T	
Vehicle Volumes Averages (veh/h)	0	573	0	0	215	0	0	357	0	0	99	0
Pedestrian median refuge available	No			No			No			No		
Pedestrian Averages (peds/h)	15			6			7			7		
Gap Averages (gaps/h)	0			0			0			0		
Delay Averages (s/veh)	8.5			8.0			8.0			8.0		
Delay Averages (veh-hrs)	1.4			0.5			0.8			0.2		

## School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	Yes
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	60	5-year Growth Factor (%)	3

## Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	0

Volume Summary														
Hours	Major Volume (veh/h)	Minor Volume (veh/h)	Total Volume (veh/h)	Peds/h	Gaps/h	1A ( 100% )	1A ( 80% )	1B ( 100% )	1B ( 80% )	2 ( 100% )	3A ( 100% )	3B ( 80% )	4A ( 100% )	4B ( 100% )
7:00 - 8:00	776	353	1224	48	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
8:00 - 9:00	787	356	1259	48	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
9:00 - 10:00	779	341	1206	48	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
10:00 - 11:00	733	326	1145	24	0	Yes	Yes	No	Yes	Yes	No	Yes	No	No
11:00 - 12:00	746	360	1196	24	0	Yes	Yes	No	Yes	Yes	No	Yes	No	No
12:00 - 13:00	704	346	1154	24	0	Yes	Yes	No	Yes	Yes	No	Yes	No	No
13:00 - 14:00	781	380	1253	24	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
14:00 - 15:00	789	360	1246	24	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
15:00 - 16:00	891	368	1380	48	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
16:00 - 17:00	904	386	1403	48	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
17:00 - 18:00	833	391	1330	48	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
18:00 - 19:00	749	317	1159	24	0	Yes	Yes	No	Yes	Yes	No	Yes	No	No
Total	9472	4284	14955	432	0	12	12	8	12	12	0	12	0	0

Pedestrian Volume								
15th % pedestrian speed < 3.5 ft/s				Pedestrian refuge present?			EB	WB
Hours	Major Street Vehicular Volume (veh/h)			Major Street Pedestrian Volume (ped/h)			4A ( 100% )	4B ( 100% )
	EB	WB	Total	EB	WB	Total		
7:00 - 8:00	516	260	776	20	8	28	No	No
8:00 - 9:00	533	254	787	20	8	28	No	No
9:00 - 10:00	565	214	779	20	8	28	No	No
10:00 - 11:00	537	196	733	10	4	14	No	No
11:00 - 12:00	552	194	746	10	4	14	No	No
12:00 - 13:00	508	196	704	10	4	14	No	No
13:00 - 14:00	572	209	781	10	4	14	No	No
14:00 - 15:00	576	213	789	10	4	14	No	No
15:00 - 16:00	642	249	891	20	8	28	No	No
16:00 - 17:00	657	247	904	20	8	28	No	No
17:00 - 18:00	626	207	833	20	8	28	No	No
18:00 - 19:00	601	148	749	10	4	14	No	No
Totals	6885	2587	9472	180	72	252	0	0

Warrants	
<b>Warrant 1: Eight-Hour Vehicular Volume</b>	✓
A. Minimum Vehicular Volumes (Both major approaches --and-- more critical minor approach) --or--	✓
B. Interruption of Continuous Traffic (Both major approaches --and-- more critical minor approach) --or--	✓
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 2: Four-Hour Vehicular Volume</b>	✓
Four-Hour Vehicular Volume (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 3: Peak Hour</b>	✓

A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 4: Pedestrian Volume</b>	
A. Four Hour Volumes --or--	
B. Peak-Hour Volumes	
<b>Warrant 5: School Crossing</b>	
Gaps Same Period --and--	✓
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
<b>Warrant 6: Coordinated Signal System</b>	
Degree of Platooning (Predominant direction or both directions)	
<b>Warrant 7: Crash Experience</b>	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported Crash History --and--	
B1. Angle Crashes and Pedestrian Crashes within a 1-year Period (All Severities)	
B2. Angle Crashes and Pedestrian Crashes within a 1-year Period (Fatal-and-Injury)	
B3. Angle Crashes and Pedestrian Crashes within a 3-year Period (All Severities)	
B4. Angle Crashes and Pedestrian Crashes within a 3-year Period (Fatal-and-Injury)	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	✓
<b>Warrant 8: Roadway Network</b>	✓
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	✓
B. Weekend Volume (Five hours total)	
<b>Warrant 9: Grade Crossing</b>	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

# HCS Warrants Report

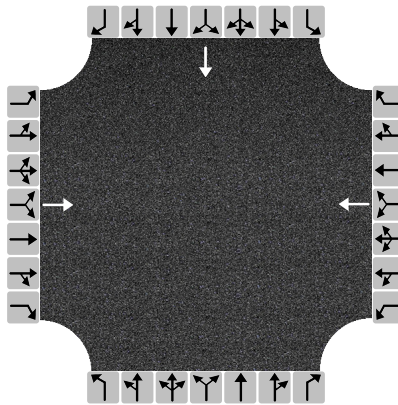
## Project Information

Analyst	Seth Asante	Date	5/7/2025
Agency	CTPS	Analysis Year	2025
Jurisdiction	Salem	Time Period Analyzed	
Units	U.S. Customary	MUTCD Method	MUTCD 11 (2023)
Project Description	Route 114 Corridor Study - Palmer St		

## General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7:00	Coordinated Signal System	No
Major Street Speed (mi/h)	30	Nearest Signal (ft)	600
Adequate Trials of Crash Exp. Alt.	No		

## Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	0	0	0	1	0
Lane Usage		T			T						T	
Vehicle Volumes Averages (veh/h)	0	650	0	0	644	0	0	0	0	0	166	0
Pedestrian median refuge available	No			No			No			No		
Pedestrian Averages (peds/h)	22			15			2			6		
Gap Averages (gaps/h)	0			0			0			0		
Delay Averages (s/veh)	0.0			0.0			0.0			88.8		
Delay Averages (veh-hrs)	0.0			0.0			0.0			4.2		

## School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	Yes
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	60	5-year Growth Factor (%)	3

## Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	0



Volume Summary														
Hours	Major Volume (veh/h)	Minor Volume (veh/h)	Total Volume (veh/h)	Peds/h	Gaps/h	1A ( 100% )	1A ( 80% )	1B ( 100% )	1B ( 80% )	2 ( 100% )	3A ( 100% )	3B ( 80% )	4A ( 100% )	4B ( 100% )
7:00 - 8:00	1316	90	1406	61	0	No	No	Yes	Yes	Yes	No	No	No	No
8:00 - 9:00	1354	134	1488	61	0	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
9:00 - 10:00	1186	160	1346	61	0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
10:00 - 11:00	1184	112	1296	30	0	No	No	Yes	Yes	Yes	No	No	No	No
11:00 - 12:00	1160	64	1224	30	0	No	No	No	Yes	No	No	No	No	No
12:00 - 13:00	1218	120	1338	30	0	No	Yes	Yes	Yes	Yes	No	No	No	No
13:00 - 14:00	1199	198	1397	30	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
14:00 - 15:00	1251	191	1442	30	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
15:00 - 16:00	1477	245	1722	61	0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
16:00 - 17:00	1457	276	1733	61	0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
17:00 - 18:00	1517	250	1767	61	0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
18:00 - 19:00	1216	161	1377	30	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Total	15535	2001	17536	546	0	7	9	11	12	11	5	8	0	0

Pedestrian Volume								
15th % pedestrian speed < 3.5 ft/s				Pedestrian refuge present?			EB	WB
Hours	Major Street Vehicular Volume (veh/h)			Major Street Pedestrian Volume (ped/h)			4A ( 100% )	4B ( 100% )
	EB	WB	Total	EB	WB	Total		
7:00 - 8:00	587	729	1316	30	20	50	No	No
8:00 - 9:00	658	696	1354	30	20	50	No	No
9:00 - 10:00	583	603	1186	30	20	50	No	No
10:00 - 11:00	563	621	1184	15	10	25	No	No
11:00 - 12:00	570	590	1160	15	10	25	No	No
12:00 - 13:00	588	630	1218	15	10	25	No	No
13:00 - 14:00	576	623	1199	15	10	25	No	No
14:00 - 15:00	658	593	1251	15	10	25	No	No
15:00 - 16:00	770	707	1477	30	20	50	No	No
16:00 - 17:00	770	687	1457	30	20	50	No	No
17:00 - 18:00	831	686	1517	30	20	50	No	No
18:00 - 19:00	648	568	1216	15	10	25	No	No
Totals	7802	7733	15535	270	180	450	0	0

Warrants	
<b>Warrant 1: Eight-Hour Vehicular Volume</b>	✓
A. Minimum Vehicular Volumes (Both major approaches --and-- more critical minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- more critical minor approach) --or--	✓
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 2: Four-Hour Vehicular Volume</b>	✓
Four-Hour Vehicular Volume (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 3: Peak Hour</b>	✓

A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	✓
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- more critical minor approach)	✓
<b>Warrant 4: Pedestrian Volume</b>	
A. Four Hour Volumes --or--	
B. Peak-Hour Volumes	
<b>Warrant 5: School Crossing</b>	
Gaps Same Period --and--	✓
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
<b>Warrant 6: Coordinated Signal System</b>	
Degree of Platooning (Predominant direction or both directions)	
<b>Warrant 7: Crash Experience</b>	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported Crash History --and--	✓
B1. Angle Crashes and Pedestrian Crashes within a 1-year Period (All Severities)	
B2. Angle Crashes and Pedestrian Crashes within a 1-year Period (Fatal-and-Injury)	
B3. Angle Crashes and Pedestrian Crashes within a 3-year Period (All Severities)	✓
B4. Angle Crashes and Pedestrian Crashes within a 3-year Period (Fatal-and-Injury)	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	✓
<b>Warrant 8: Roadway Network</b>	✓
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	✓
B. Weekend Volume (Five hours total)	
<b>Warrant 9: Grade Crossing</b>	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

# HCS Warrants Report

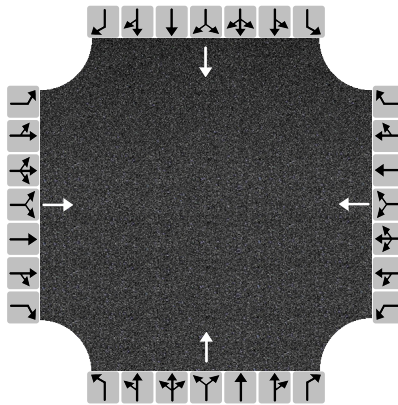
## Project Information

Analyst	Seth Asante	Date	5/7/2025
Agency	CTPS	Analysis Year	2025
Jurisdiction	Salem	Time Period Analyzed	
Units	U.S. Customary	MUTCD Method	MUTCD 11 (2023)
Project Description	Route 114 Corridor Study - Leavitt St		

## General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7:00	Coordinated Signal System	No
Major Street Speed (mi/h)	30	Nearest Signal (ft)	850
Adequate Trials of Crash Exp. Alt.	No		

## Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		T			T			T			T	
Vehicle Volumes Averages (veh/h)	0	650	0	0	617	0	0	10	0	0	0	0
Pedestrian median refuge available	No			No			No			No		
Pedestrian Averages (peds/h)	15			22			3			1		
Gap Averages (gaps/h)	0			0			0			0		
Delay Averages (s/veh)	0.0			0.0			46.6			0.0		
Delay Averages (veh-hrs)	0.0			0.0			0.2			4.2		

## School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	60	5-year Growth Factor (%)	3

## Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	0

Volume Summary														
Hours	Major Volume (veh/h)	Minor Volume (veh/h)	Total Volume (veh/h)	Peds/h	Gaps/h	1A ( 100% )	1A ( 80% )	1B ( 100% )	1B ( 80% )	2 ( 100% )	3A ( 100% )	3B ( 80% )	4A ( 100% )	4B ( 100% )
7:00 - 8:00	1113	1	1114	58	0	No	No	No	No	No	No	No	No	No
8:00 - 9:00	1253	14	1267	58	0	No	No	No	No	No	No	No	No	No
9:00 - 10:00	1158	19	1177	58	0	No	No	No	No	No	No	No	No	No
10:00 - 11:00	1130	9	1139	28	0	No	No	No	No	No	No	No	No	No
11:00 - 12:00	1102	2	1104	28	0	No	No	No	No	No	No	No	No	No
12:00 - 13:00	1174	4	1178	28	0	No	No	No	No	No	No	No	No	No
13:00 - 14:00	1176	7	1183	28	0	No	No	No	No	No	No	No	No	No
14:00 - 15:00	1274	7	1281	28	0	No	No	No	No	No	No	No	No	No
15:00 - 16:00	1434	9	1443	58	0	No	No	No	No	No	No	No	No	No
16:00 - 17:00	1513	21	1534	58	0	No	No	No	No	No	No	No	No	No
17:00 - 18:00	1604	13	1617	58	0	No	No	No	No	No	No	No	No	No
18:00 - 19:00	1277	15	1292	27	0	No	No	No	No	No	No	No	No	No
Total	15208	121	15329	515	0	0	0	0	0	0	0	0	0	0

Pedestrian Volume								
15th % pedestrian speed < 3.5 ft/s				Pedestrian refuge present?			EB	WB
Hours	Major Street Vehicular Volume (veh/h)			Major Street Pedestrian Volume (ped/h)			4A ( 100% )	4B ( 100% )
	EB	WB	Total	EB	WB	Total		
7:00 - 8:00	587	526	1113	20	30	50	No	No
8:00 - 9:00	658	595	1253	20	30	50	No	No
9:00 - 10:00	583	575	1158	20	30	50	No	No
10:00 - 11:00	563	567	1130	10	15	25	No	No
11:00 - 12:00	570	532	1102	10	15	25	No	No
12:00 - 13:00	588	586	1174	10	15	25	No	No
13:00 - 14:00	576	600	1176	10	15	25	No	No
14:00 - 15:00	658	616	1274	10	15	25	No	No
15:00 - 16:00	770	664	1434	20	30	50	No	No
16:00 - 17:00	770	743	1513	20	30	50	No	No
17:00 - 18:00	831	773	1604	20	30	50	No	No
18:00 - 19:00	648	629	1277	10	15	25	No	No
Totals	7802	7406	15208	180	270	450	0	0

Warrants	
<b>Warrant 1: Eight-Hour Vehicular Volume</b>	
A. Minimum Vehicular Volumes (Both major approaches --and-- more critical minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- more critical minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- more critical minor approach)	
<b>Warrant 2: Four-Hour Vehicular Volume</b>	
Four-Hour Vehicular Volume (Both major approaches --and-- more critical minor approach)	
<b>Warrant 3: Peak Hour</b>	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	

B. Peak-Hour Vehicular Volumes (Both major approaches --and-- more critical minor approach)	
<b>Warrant 4: Pedestrian Volume</b>	
A. Four Hour Volumes --or--	
B. Peak-Hour Volumes	
<b>Warrant 5: School Crossing</b>	
Gaps Same Period --and--	✓
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
<b>Warrant 6: Coordinated Signal System</b>	
Degree of Platooning (Predominant direction or both directions)	
<b>Warrant 7: Crash Experience</b>	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported Crash History --and--	
B1. Angle Crashes and Pedestrian Crashes within a 1-year Period (All Severities)	
B2. Angle Crashes and Pedestrian Crashes within a 1-year Period (Fatal-and-Injury)	
B3. Angle Crashes and Pedestrian Crashes within a 3-year Period (All Severities)	
B4. Angle Crashes and Pedestrian Crashes within a 3-year Period (Fatal-and-Injury)	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
<b>Warrant 8: Roadway Network</b>	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
<b>Warrant 9: Grade Crossing</b>	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

# HCS Warrants Report

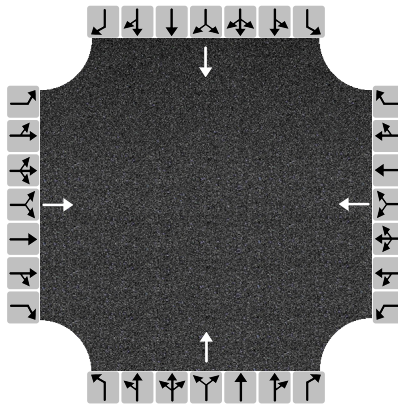
## Project Information

Analyst	Seth Asante	Date	5/7/2025
Agency	CTPS	Analysis Year	2025
Jurisdiction	Salem	Time Period Analyzed	
Units	U.S. Customary	MUTCD Method	MUTCD 11 (2023)
Project Description	Route 114 Corridor Study - Holly-Leach		

## General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7:00	Coordinated Signal System	No
Major Street Speed (mi/h)	30	Nearest Signal (ft)	2000
Adequate Trials of Crash Exp. Alt.	No		

## Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		T			T			T			T	
Vehicle Volumes Averages (veh/h)	0	673	0	0	704	0	0	7	0	0	28	0
Pedestrian median refuge available	No			No			No			No		
Pedestrian Averages (peds/h)	11			11			3			9		
Gap Averages (gaps/h)	0			0			0			0		
Delay Averages (s/veh)	0.0			0.0			7.5			7.5		
Delay Averages (veh-hrs)	0.0			0.0			0.0			0.1		

## School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	60	5-year Growth Factor (%)	3

## Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	0

Volume Summary														
Hours	Major Volume (veh/h)	Minor Volume (veh/h)	Total Volume (veh/h)	Peds/h	Gaps/h	1A ( 100% )	1A ( 80% )	1B ( 100% )	1B ( 80% )	2 ( 100% )	3A ( 100% )	3B ( 80% )	4A ( 100% )	4B ( 100% )
7:00 - 8:00	1518	31	1561	49	0	No	No	No	No	No	No	No	No	No
8:00 - 9:00	1505	26	1543	49	0	No	No	No	No	No	No	No	No	No
9:00 - 10:00	1335	30	1370	49	0	No	No	No	No	No	No	No	No	No
10:00 - 11:00	1305	26	1337	21	0	No	No	No	No	No	No	No	No	No
11:00 - 12:00	1322	29	1355	21	0	No	No	No	No	No	No	No	No	No
12:00 - 13:00	1331	22	1359	21	0	No	No	No	No	No	No	No	No	No
13:00 - 14:00	1341	22	1372	21	0	No	No	No	No	No	No	No	No	No
14:00 - 15:00	1324	34	1366	21	0	No	No	No	No	No	No	No	No	No
15:00 - 16:00	1479	26	1512	49	0	No	No	No	No	No	No	No	No	No
16:00 - 17:00	1447	27	1482	49	0	No	No	No	No	No	No	No	No	No
17:00 - 18:00	1491	35	1536	49	0	No	No	No	No	No	No	No	No	No
18:00 - 19:00	1130	30	1165	20	0	No	No	No	No	No	No	No	No	No
Total	16528	338	16958	419	0	0	0	0	0	0	0	0	0	0

Pedestrian Volume									
15th % pedestrian speed < 3.5 ft/s					Pedestrian refuge present?			EB	WB
Hours	Major Street Vehicular Volume (veh/h)			Major Street Pedestrian Volume (ped/h)			4A ( 100% )	4B ( 100% )	
	EB	WB	Total	EB	WB	Total			
7:00 - 8:00	754	764	1518	15	15	30	No	No	
8:00 - 9:00	753	752	1505	15	15	30	No	No	
9:00 - 10:00	681	654	1335	15	15	30	No	No	
10:00 - 11:00	649	656	1305	7	7	14	No	No	
11:00 - 12:00	567	755	1322	7	7	14	No	No	
12:00 - 13:00	625	706	1331	7	7	14	No	No	
13:00 - 14:00	657	684	1341	7	7	14	No	No	
14:00 - 15:00	648	676	1324	7	7	14	No	No	
15:00 - 16:00	732	747	1479	15	15	30	No	No	
16:00 - 17:00	714	733	1447	15	15	30	No	No	
17:00 - 18:00	730	761	1491	15	15	30	No	No	
18:00 - 19:00	566	564	1130	7	7	14	No	No	
Totals	8076	8452	16528	132	132	264	0	0	

Warrants	
<b>Warrant 1: Eight-Hour Vehicular Volume</b>	
A. Minimum Vehicular Volumes (Both major approaches --and-- more critical minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- more critical minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- more critical minor approach)	
<b>Warrant 2: Four-Hour Vehicular Volume</b>	
Four-Hour Vehicular Volume (Both major approaches --and-- more critical minor approach)	
<b>Warrant 3: Peak Hour</b>	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	

B. Peak-Hour Vehicular Volumes (Both major approaches --and-- more critical minor approach)	
<b>Warrant 4: Pedestrian Volume</b>	
A. Four Hour Volumes --or--	
B. Peak-Hour Volumes	
<b>Warrant 5: School Crossing</b>	
Gaps Same Period --and--	✓
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
<b>Warrant 6: Coordinated Signal System</b>	
Degree of Platooning (Predominant direction or both directions)	
<b>Warrant 7: Crash Experience</b>	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported Crash History --and--	
B1. Angle Crashes and Pedestrian Crashes within a 1-year Period (All Severities)	
B2. Angle Crashes and Pedestrian Crashes within a 1-year Period (Fatal-and-Injury)	
B3. Angle Crashes and Pedestrian Crashes within a 3-year Period (All Severities)	
B4. Angle Crashes and Pedestrian Crashes within a 3-year Period (Fatal-and-Injury)	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
<b>Warrant 8: Roadway Network</b>	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
<b>Warrant 9: Grade Crossing</b>	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	



# HCS Warrants Report

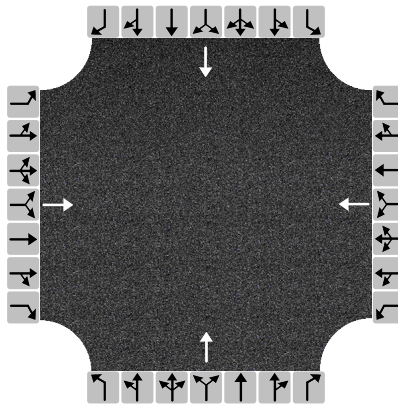
## Project Information

Analyst	Seth Asante	Date	5/7/2025
Agency	CTPS	Analysis Year	2025
Jurisdiction	Salem	Time Period Analyzed	
Units	U.S. Customary	MUTCD Method	MUTCD 11 (2023)
Project Description	Route 114 Corridor Study -Ocean		

## General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7:00	Coordinated Signal System	No
Major Street Speed (mi/h)	30	Nearest Signal (ft)	800
Adequate Trials of Crash Exp. Alt.	No		

## Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		T			T			T			T	
Vehicle Volumes Averages (veh/h)	0	673	0	0	704	0	0	50	0	0	57	0
Pedestrian median refuge available	No			No			No			No		
Pedestrian Averages (peds/h)	11			11			7			4		
Gap Averages (gaps/h)	0			0			1			0		
Delay Averages (s/veh)	0.0			0.0			29.5			21.0		
Delay Averages (veh-hrs)	0.0			0.0			0.4			0.3		

## School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	60	5-year Growth Factor (%)	3

## Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	0

Volume Summary														
Hours	Major Volume (veh/h)	Minor Volume (veh/h)	Total Volume (veh/h)	Peds/h	Gaps/h	1A ( 100% )	1A ( 80% )	1B ( 100% )	1B ( 80% )	2 ( 100% )	3A ( 100% )	3B ( 80% )	4A ( 100% )	4B ( 100% )
7:00 - 8:00	1518	51	1616	45	0	No	No	No	No	No	No	No	No	No
8:00 - 9:00	1505	62	1621	45	0	No	No	No	Yes	No	No	No	No	No
9:00 - 10:00	1335	60	1441	45	13	No	No	No	Yes	No	No	No	No	No
10:00 - 11:00	1305	58	1413	22	0	No	No	No	No	No	No	No	No	No
11:00 - 12:00	1322	62	1438	22	0	No	No	No	Yes	No	No	No	No	No
12:00 - 13:00	1331	65	1443	22	0	No	No	No	Yes	No	No	No	No	No
13:00 - 14:00	1341	55	1446	22	0	No	No	No	No	No	No	No	No	No
14:00 - 15:00	1324	57	1431	22	0	No	No	No	No	No	No	No	No	No
15:00 - 16:00	1479	57	1589	45	0	No	No	No	No	No	No	No	No	No
16:00 - 17:00	1447	67	1576	45	0	No	No	No	Yes	No	No	No	No	No
17:00 - 18:00	1491	68	1605	45	0	No	No	No	Yes	No	No	No	No	No
18:00 - 19:00	1130	42	1209	22	0	No	No	No	No	No	No	No	No	No
Total	16528	704	17828	402	13	0	0	0	6	0	0	0	0	0

Pedestrian Volume								
15th % pedestrian speed < 3.5 ft/s				Pedestrian refuge present?			EB	WB
Hours	Major Street Vehicular Volume (veh/h)			Major Street Pedestrian Volume (ped/h)			4A ( 100% )	4B ( 100% )
	EB	WB	Total	EB	WB	Total		
7:00 - 8:00	754	764	1518	15	15	30	No	No
8:00 - 9:00	753	752	1505	15	15	30	No	No
9:00 - 10:00	681	654	1335	15	15	30	No	No
10:00 - 11:00	649	656	1305	7	7	14	No	No
11:00 - 12:00	567	755	1322	7	7	14	No	No
12:00 - 13:00	625	706	1331	7	7	14	No	No
13:00 - 14:00	657	684	1341	7	7	14	No	No
14:00 - 15:00	648	676	1324	7	7	14	No	No
15:00 - 16:00	732	747	1479	15	15	30	No	No
16:00 - 17:00	714	733	1447	15	15	30	No	No
17:00 - 18:00	730	761	1491	15	15	30	No	No
18:00 - 19:00	566	564	1130	7	7	14	No	No
Totals	8076	8452	16528	132	132	264	0	0

Warrants	
<b>Warrant 1: Eight-Hour Vehicular Volume</b>	
A. Minimum Vehicular Volumes (Both major approaches --and-- more critical minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- more critical minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- more critical minor approach)	
<b>Warrant 2: Four-Hour Vehicular Volume</b>	
Four-Hour Vehicular Volume (Both major approaches --and-- more critical minor approach)	
<b>Warrant 3: Peak Hour</b>	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	

B. Peak-Hour Vehicular Volumes (Both major approaches --and-- more critical minor approach)	
<b>Warrant 4: Pedestrian Volume</b>	
A. Four Hour Volumes --or--	
B. Peak-Hour Volumes	
<b>Warrant 5: School Crossing</b>	
Gaps Same Period --and--	✓
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
<b>Warrant 6: Coordinated Signal System</b>	
Degree of Platooning (Predominant direction or both directions)	
<b>Warrant 7: Crash Experience</b>	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported Crash History --and--	
B1. Angle Crashes and Pedestrian Crashes within a 1-year Period (All Severities)	
B2. Angle Crashes and Pedestrian Crashes within a 1-year Period (Fatal-and-Injury)	
B3. Angle Crashes and Pedestrian Crashes within a 3-year Period (All Severities)	
B4. Angle Crashes and Pedestrian Crashes within a 3-year Period (Fatal-and-Injury)	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
<b>Warrant 8: Roadway Network</b>	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
<b>Warrant 9: Grade Crossing</b>	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

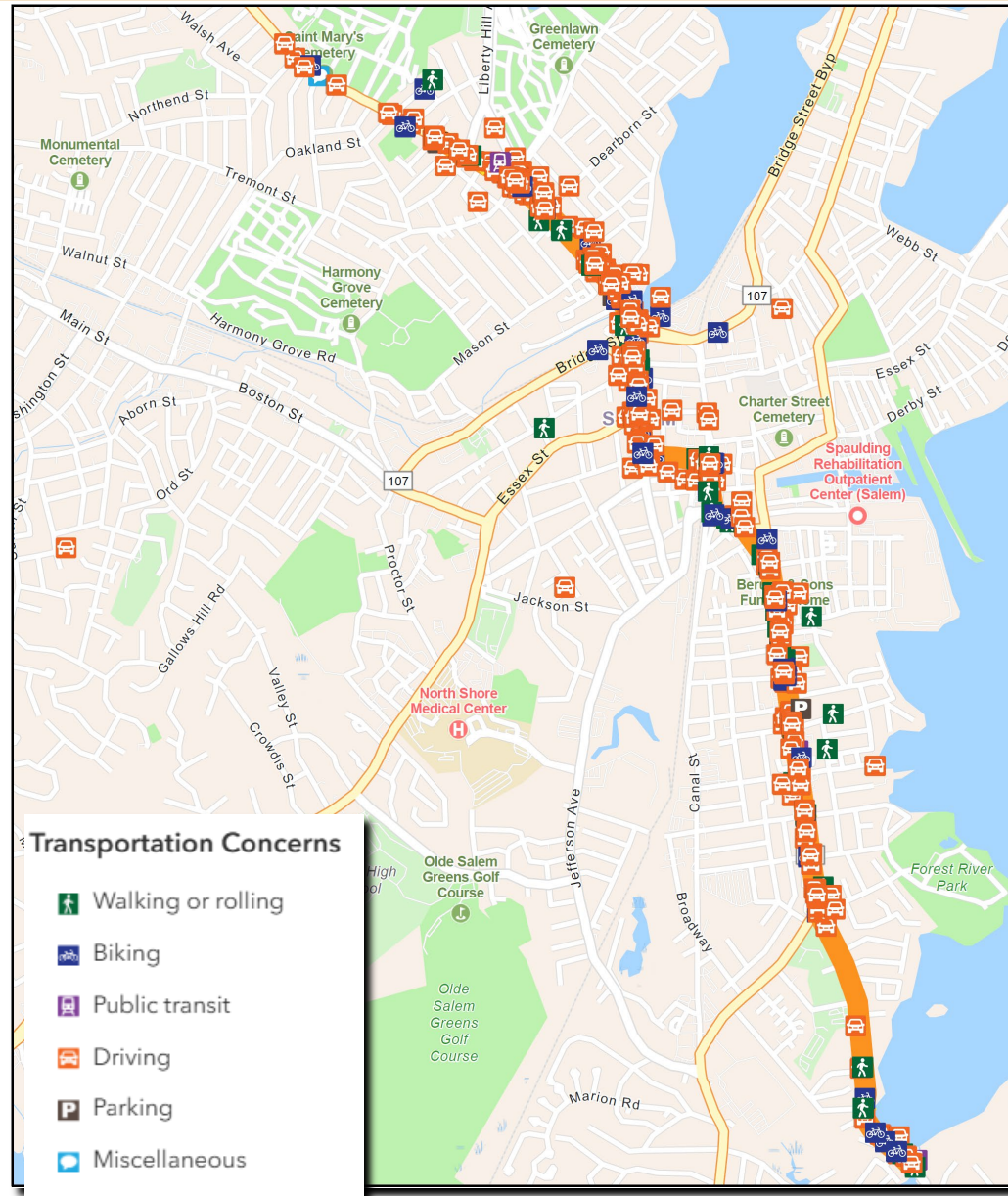
**Appendix E**  
**Community Survey Results**



October 1, 2025

1. Outline
2. Survey Results
3. Potential Improvements
4. Next Steps

# Mapping of Survey Responses

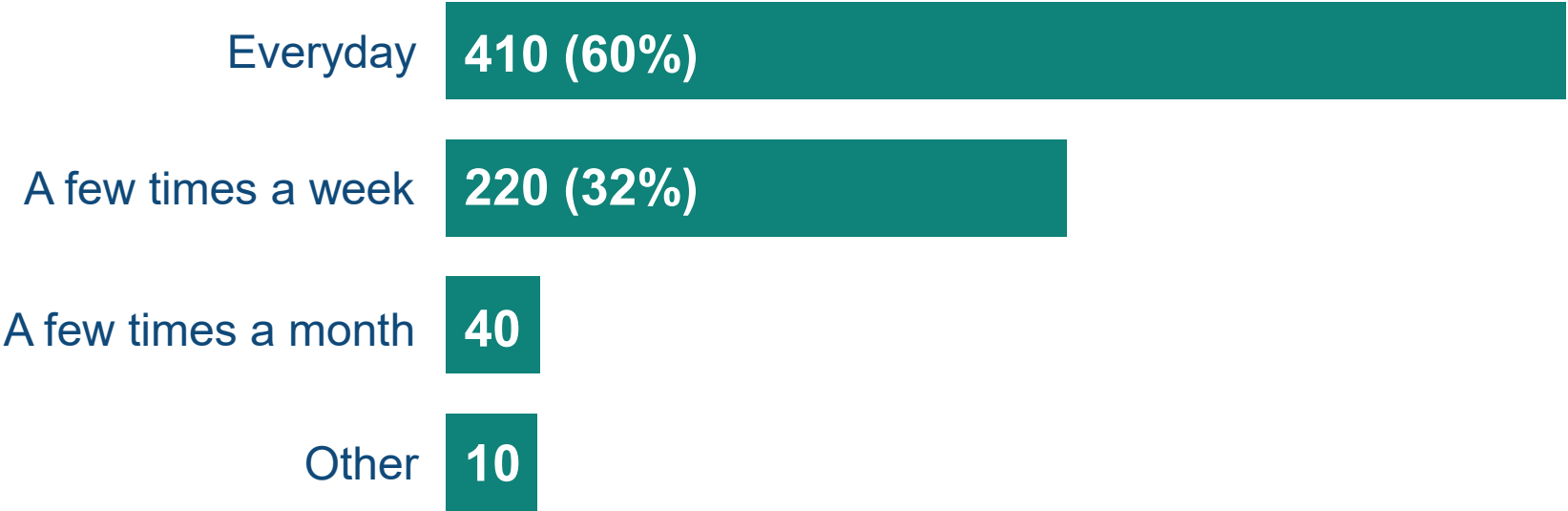




October 1, 2025

- 1. Outline
- 2. Survey Results
- 3. Potential Improvements
- 4. Next Steps

# Travel Frequency

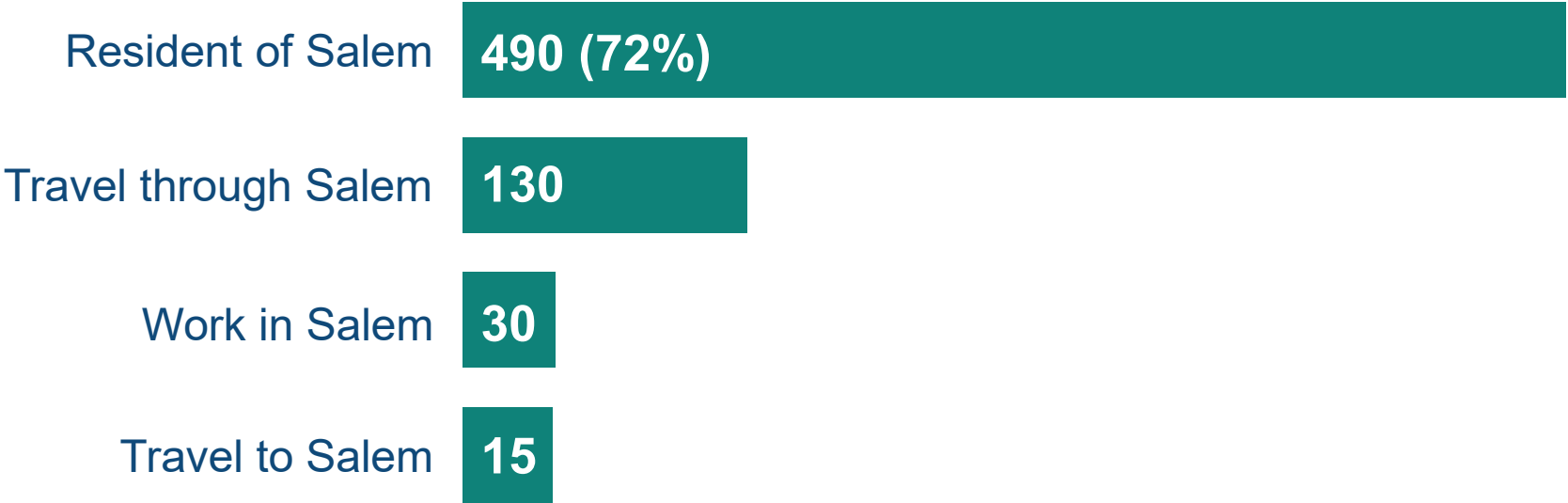




October 1, 2025

- 1. Outline
- 2. Survey Results
- 3. Potential Improvements
- 4. Next Steps

# Connection to Salem

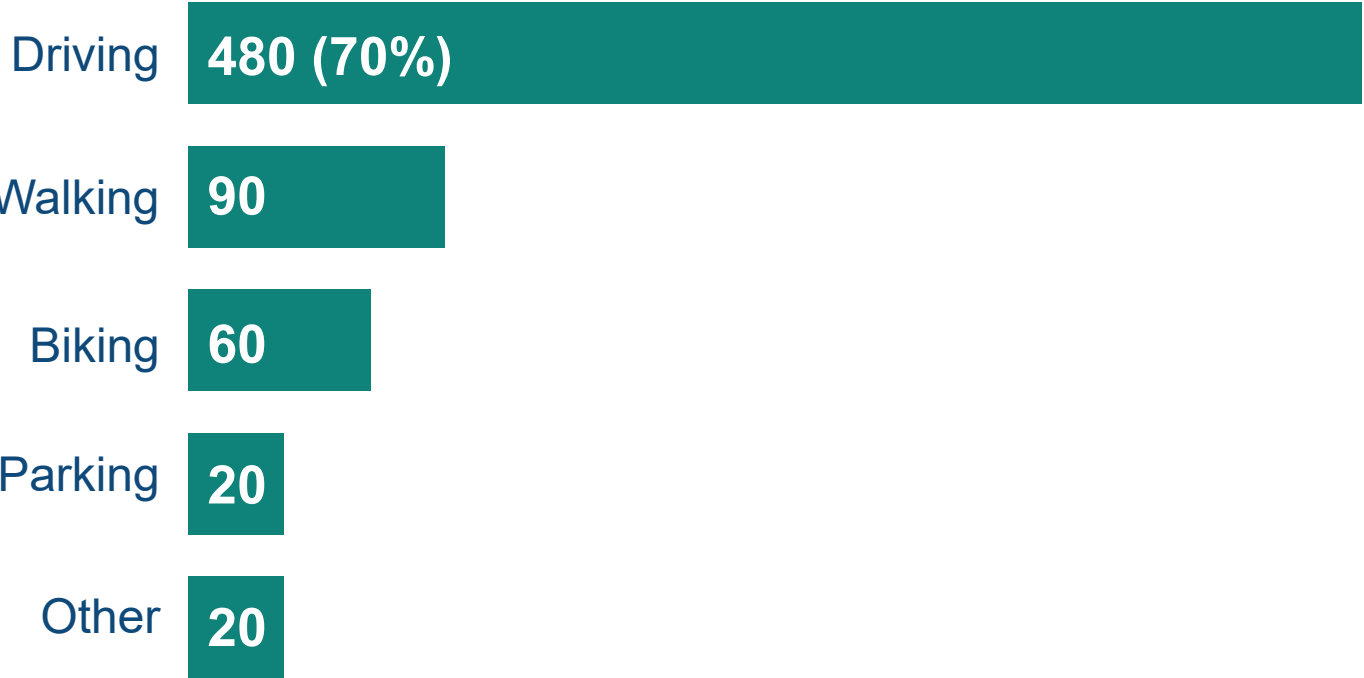




October 1, 2025

- 1. Outline
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- 4. Next Steps

# Transportation Concerns



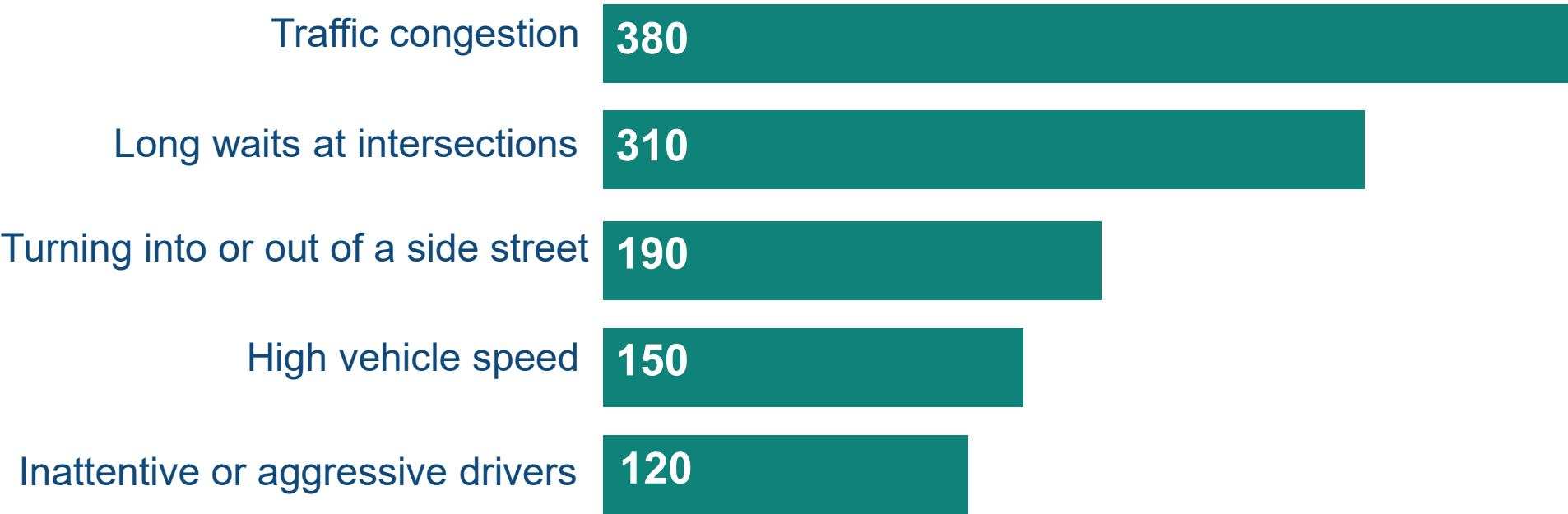




October 1, 2025

- 1. Outline
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- 3. Potential Improvements
- 4. Next Steps

# Challenges when Driving

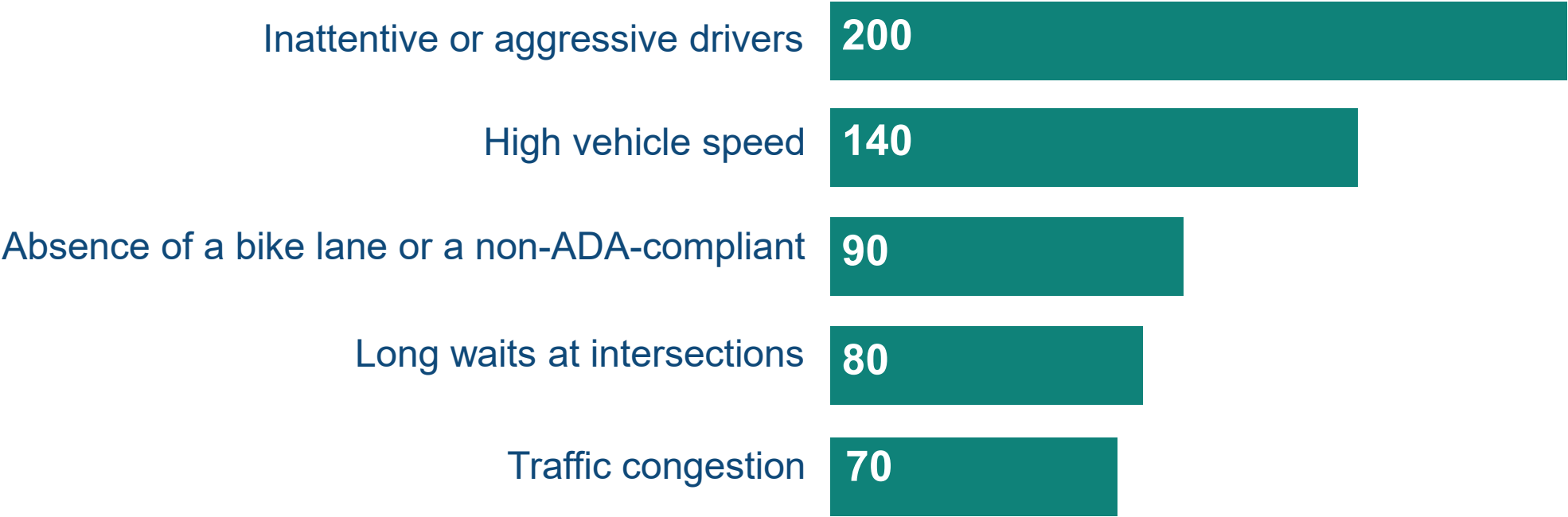




October 1, 2025

- 1. Outline
- 2. Survey Results
- 3. Potential Improvements
- 4. Next Steps

# Challenges when Walking or Biking





October 1, 2025

1. Outline
2. Survey Results
3. Potential Improvements
4. Next Steps

# Comments Regarding Walking Challenges



## Safety, operations, and poor infrastructure

Crosswalk safety and visibility

Drivers park too close to intersections.

Long waits for 'Walk' signal

Poor sidewalk conditions and non-ADA-compliant



October 1, 2025

1. Outline
2. Survey Results
3. Potential Improvements
4. Next Steps

# Comments Regarding Biking Challenges



## Safety, comfort, and consistency

Insufficient protection for bike lanes

Absence of bike lane markings at intersections

Inconsistent bike lane designs

Driver's parking, unloading, or passing in bike lanes



October 1, 2025

1. Outline
2. Survey Results
3. Potential Improvements
4. Next Steps

# Comments Regarding Driving Challenges



## Congestion and Delays

Poor signal timing and lack of coordination

Outdated signal equipment

Difficulty turning into or out of side streets

Cut through traffic on the side streets.