



## BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Monica Tibbits-Nutt, MPO Chair | Secretary and CEO, Massachusetts Department of Transportation  
Tegin Leigh Teich, Executive Director, MPO Staff

### ***TECHNICAL MEMORANDUM***

**DATE:** July 5, 2024  
**TO:** Marzie Galazka, Town of Swampscott  
**FROM:** Kyle Casiglio, Boston Region MPO Staff  
**RE:** Community Transportation Technical Assistance (CTTA) Program:  
Safer School Access Design in Swampscott

This memorandum describes the results of a transportation study of the approaches to Stanley Elementary School in Swampscott, Massachusetts. The study was conducted through the Boston Region Metropolitan Planning Organization's (MPO) Community Transportation Technical Assistance (CTTA) Program, through which MPO staff provide technical analysis and support to municipalities in the Boston metropolitan area about local multimodal transportation issues.

The Town of Swampscott contacted Central Transportation Planning Staff (CTPS), the staff to the MPO, regarding the safety of approaches to Stanley Elementary School. Stanley Elementary is expanding into a consolidated school for Swampscott. A prior consultant-led traffic study estimated that the school could generate as many as 1,862 net new trips per day at full capacity. The Town requested that MPO staff study the conditions at the approaches to the school and analyze alternative redesign concepts for the primary intersection in the study area: Humphrey Street, Atlantic Avenue, and Forest Avenue Extension. The Town also indicated that a nearby synagogue had agreed to allow parking for parents to "park-and-walk" students to school and asked that two routes between the school and the synagogue be evaluated for safety.

MPO staff conducted community engagement and collected data in order to perform this analysis. We first conducted a site visit and met with Town staff. Additionally, we analyzed traffic counts, turning movement counts, speed data, and crash records to assess the concerns at the primary intersection. Then we reviewed the submitted redesigns and developed recommendations.

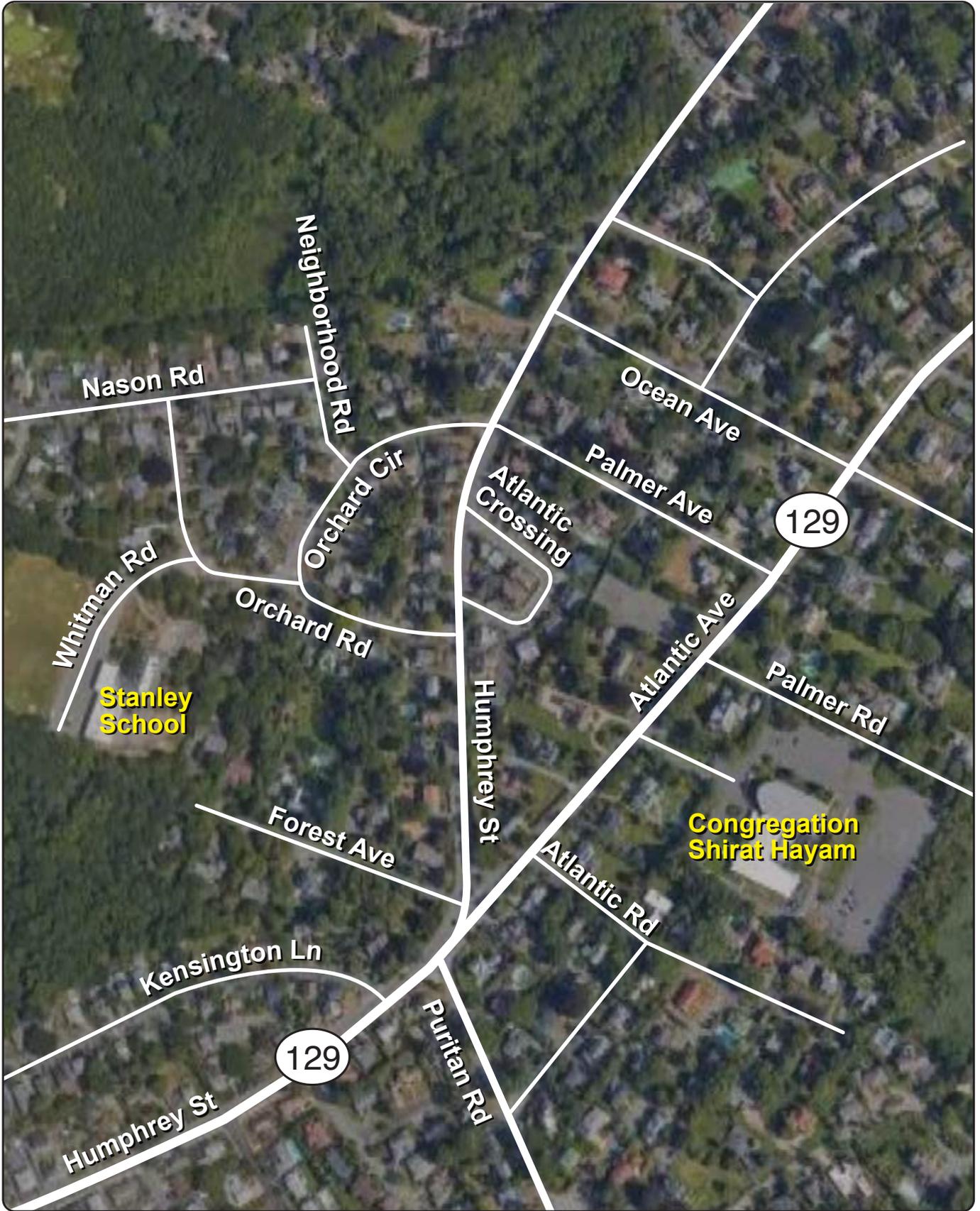
Recommendations included in this memorandum focus on improving safety for all road users by reducing high-speed traffic, providing safe facilities for pedestrians and bicyclists, and reducing risky merging and turn maneuvers. We provide short-term recommendations that can be implemented quickly (such as

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crosswalk striping, wayfinding signage, and quick-build safety infrastructure) along with longer-term recommendations (such as intersection reconstruction and raised crosswalks) that might need more time to operationalize but can be just as effective in improving safety, if not more.

## **1 EXISTING CONDITIONS**

The study area (see Figure 1) is located in the Town of Swampscott, which is a member of the North Shore Task Force (NSTF) subregion in the Boston metropolitan area. Swampscott is a coastal suburban community, bordered by the City of Lynn, City of Salem, and Town of Marblehead. The population of Swampscott is 15,125, based on the five-year 2018-2022 American Community Survey (ACS) estimates.



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**Figure 1**  
**Swampscott-Study Area**

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The study area features two primary roads, Humphrey Street and Atlantic Avenue. Both roads are parts of State Route 129 (SR129). The two roads meet at a Y-shaped intersection. West of the intersection, SR129 is Humphrey Street and connects the study area with downtown Swampscott to the south. Humphrey Street continues north of the intersection and serves as the primary road for accessing Stanley Elementary School. East of the intersection, SR129 travels along Atlantic Avenue, which facilitates connectivity between Swampscott and Marblehead to the north and connects the study area with downtown Swampscott to the south. Congregation Shirat Hayam, the location identified for the “park-and-walk,” is located on Atlantic Avenue. Forest Avenue Extension is a minor residential dead-end street that connects to the intersection. Fewer than 100 cars use the street daily (on average).

Traffic controls at the intersection include a yield sign for people entering the intersection from the southbound Humphrey Street approach, and a channelized slip lane for people entering from Atlantic Avenue and turning right onto Humphrey Street northbound. The nearest pedestrian crossing to the primary intersection is approximately 200 meters west of the intersection, on the far side of the nearby intersection of Humphrey Street and Puritan Road.

Town of Swampscott staff reported that pedestrian improvements had recently been implemented at the northern approaches to the school at Orchard Road and Orchard Circle, including high-visibility crosswalks, curb bump-outs, and a rectangular rapid flashing beacon (RRFB) at the intersection of Orchard Circle, Humphrey Street, and Palmer Avenue. At the northern boundary of the study area, they anticipate that the Swampscott Rail Trail will be extended along the historic rail right-of-way and will connect to the study area at Neighborhood Road.

The Massachusetts Bay Transportation Authority (MBTA) has one bus route with three stops in the study area: the Route 442 bus runs north-south on Humphrey Street and connects the study area with Lynn and the rapid transit system at Wonderland Station to the south as well as Marblehead to the north.

## **2 COMMUNITY ENGAGEMENT**

### **2.1 Kickoff Meeting**

MPO staff met with Marzie Galazka, Director of Community and Economic Development, and Gino Cresta, Director of the Department of Public Works, from the Town of Swampscott on Thursday, March 7, 2024. Ms. Galazka outlined the concerns the Town had with the primary intersection and shared the park-and-

walk concept that the Town had developed. Ms. Galazka and Mr. Cresta coordinated between municipal and MPO staff to arrange a site visit.

## 2.2 Site Visit

MPO staff met with Ms. Galazka, Mr. Cresta, and representatives from the Town of Swampscott school district on Monday, March 11, 2024. The visit took place from 2:00 PM to 3:30 PM and began at the primary intersection, with attendees walking through the study area. The route went up Atlantic Avenue to the Congregation Shirat Hayam parking lot, then continued up Atlantic Avenue to Palmer Avenue. We crossed Humphrey Street and continued to Stanley School via Orchard Circle, Orchard Road, and Whitman Road. Construction staff escorted the group through the site, following which we returned to the primary intersection via Forest Avenue Extension.

We took photographs and recorded videos of existing conditions and observed drivers utilizing each intersection along the walk. During the visit, MPO staff spoke with Town staff about their issues and concerns related to the study area and compared the pedestrian experience along both proposed park-and-walk routes.

## 2.3 Site Visit Findings

MPO staff observed and noted existing infrastructure conditions throughout the study area, which are listed below:

- Lines of sight appeared significantly impacted by vegetation on the slip lane island (see Figure 2). This issue was most impactful for southbound traffic entering the intersection from Humphrey Street. This approach is controlled by a yield sign, with oncoming traffic from Atlantic Avenue obstructed by the foliage.
- The primary intersection lacks any safe and legal pedestrian crossings (see Figure 3), meaning the park-and-walk route utilizing Forest Avenue Extension would require parents and students to walk to Puritan Road to cross safely.
- The alternative park-and-walk route lacks safe crossing facilities at key points, including Atlantic Avenue and Palmer Road (Figure 4A) and Atlantic Avenue and Palmer Avenue (Figure 4B). Also notable is the location of the RRFB at Humphrey Street, Palmer Avenue, and Orchard Circle. The RRFB is on the north side of the intersection, while the south side of the intersection, which is closer to the school, has no crossing facilities (Figure 4C).
- Primary roads in the study area, Atlantic Avenue and Humphrey Street, have higher bicycle levels of traffic stress than would be appropriate for

elementary school-age children.<sup>1</sup> No bicycle facilities are provided on Humphrey Street, while unprotected lanes are provided in both directions on Atlantic Avenue (see Figure 5). Both roads have a speed limit of 30 miles per hour (mph) and 85th percentile speeds at or above 35 mph (See Section 3.3).

- MPO staff observed a sign reading “Please Slow Down We Love Our Children” on Humphrey Street facing southbound traffic just south of Orchard Road. This was an indication, later confirmed by the speed data, that speeding on the road was significant enough for residents to take notice.

**Figure 2**  
**Obstructed View of Atlantic Avenue from Humphrey Street Southbound**



Source: Boston Region MPO staff.

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<sup>1</sup> Level of traffic stress (LTS) is a rating given to a road segment or crossing indicating the stress it imposes on bicyclists. See <https://peterfurth.sites.northeastern.edu/level-of-traffic-stress/>, last accessed June 20, 2024.

**Figure 3**  
**Lack of Pedestrian Facilities at Primary Intersection**



Source: Boston Region MPO staff.

**Figure 4A**  
**Lack of Pedestrian Facilities at Atlantic Avenue at Palmer Road**



Source: Google Street View (November 2021).

**Figure 4B**  
**Lack of Pedestrian Facilities at Atlantic Avenue at Palmer Avenue**



Source: Google Street View (November 2021).

**Figure 4C**  
**Pedestrian Facilities on One Side of Palmer Avenue at Humphrey Street**



Source: Google Street View (November 2021).

**Figure 5**  
**Atlantic Avenue Bike Lanes**



Source: Boston Region MPO staff.

**Figure 6**  
**Resident Posted Speed Sign**



Source: Google Street View (November 2021).

## 2.4 Intermediate Presentation

MPO staff held an intermediate presentation on May 15, 2024, for Swampscott staff, attended by Ms. Galazka, Mr. Cresta, and Max Kasper, the Town's Facilities Director. We shared our preliminary findings and recommendations based on the site visit and data collection effort described in Section 3. Swampscott staff requested that we include cost estimates in the alternatives analysis and an executive summary of findings to support a grant application for work within the study area. This executive summary was provided to the Town of Swampscott on May 30, 2024.

## 3 EXISTING CONDITIONS ANALYSIS

To examine the existing conditions, MPO staff collected automatic traffic recorder (ATR) counts on the approaching roadways for the primary intersection and turning movement counts (TMCs) for eight intersections in the study area. The ATR counts were recorded during March 4–8, 2024 (Monday–Friday). The TMCs were collected on Thursday, March 7, 2024, during three distinct time periods: the morning peak period (6:00 AM–9:00 AM), afternoon peak period (11:00 AM–2:00PM), and evening peak period (3:00 PM–6:00 PM).

### 3.1 Daily Traffic Volume ATR Counts

Figure 7 below summarizes the average annual weekday traffic volumes for the approaches to the primary intersection. Based on the data, staff calculated the average weekday traffic volumes in roadway sections near the primary intersection as follows:

- Humphrey Street, south of Orchard Road—8,074 vehicles, with a split of 4,092 (50.68 percent) southbound vehicles and 3,982 (49.32 percent) northbound vehicles
- Atlantic Avenue, north of Atlantic Road—7,751 vehicles, with a split of 3,942 (50.86 percent) westbound vehicles and 3,809 (49.14 percent) eastbound vehicles
- Humphrey Street, west of Alden Street—13,628 vehicles, with a split of 6,668 (48.93 percent) westbound vehicles and 6,960 (51.07 percent) eastbound vehicles

Full ATR count data can be found in Appendix A of this memo.

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Direction of travel

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Directional average weekday volume



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Figure 7  
Swampscott—Average Annual  
Daily Traffic (AADT)

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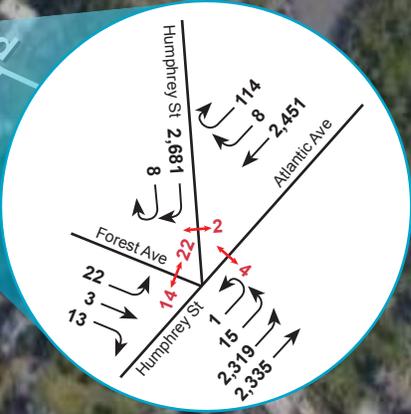
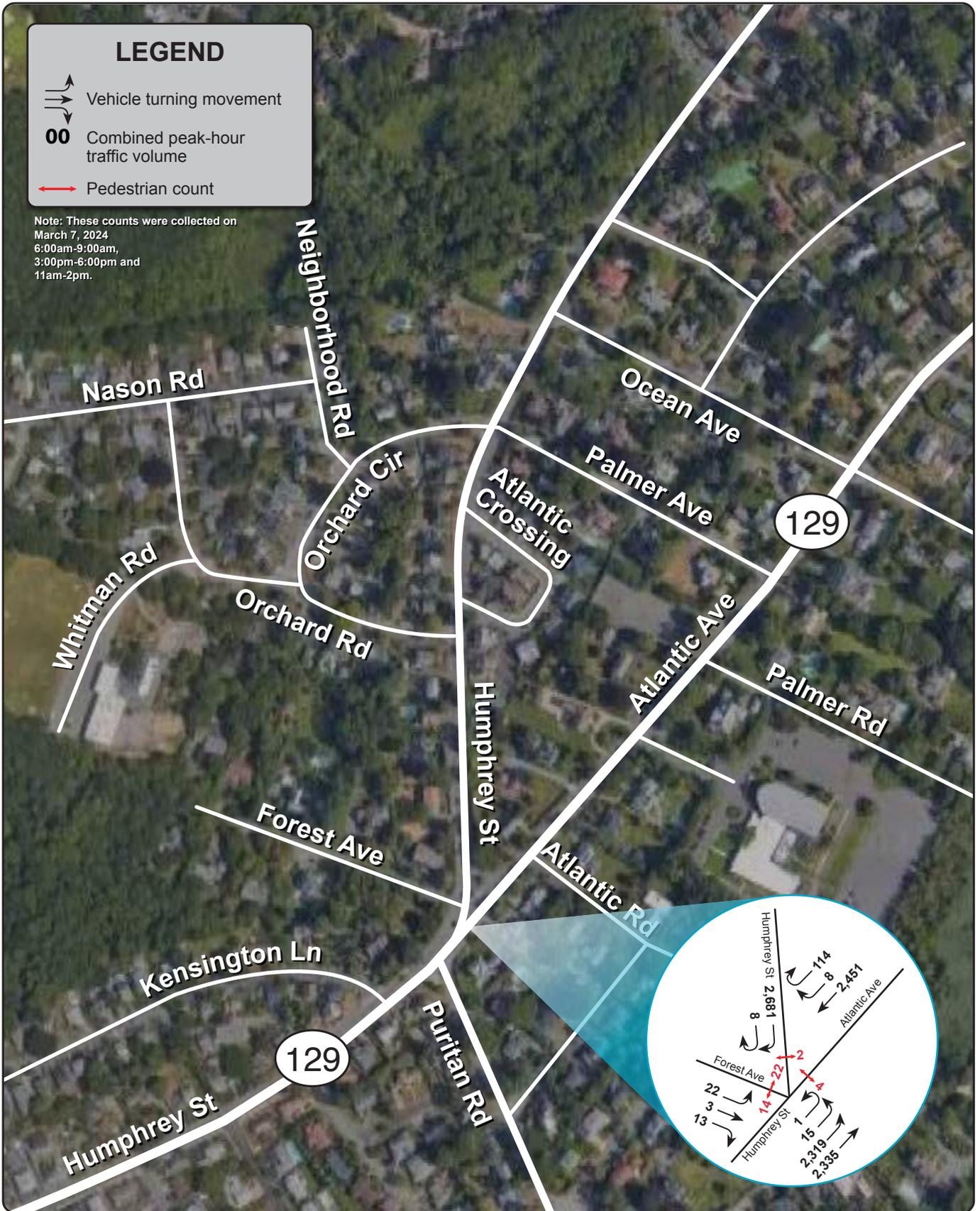
### **3.2 Turning Movement Counts**

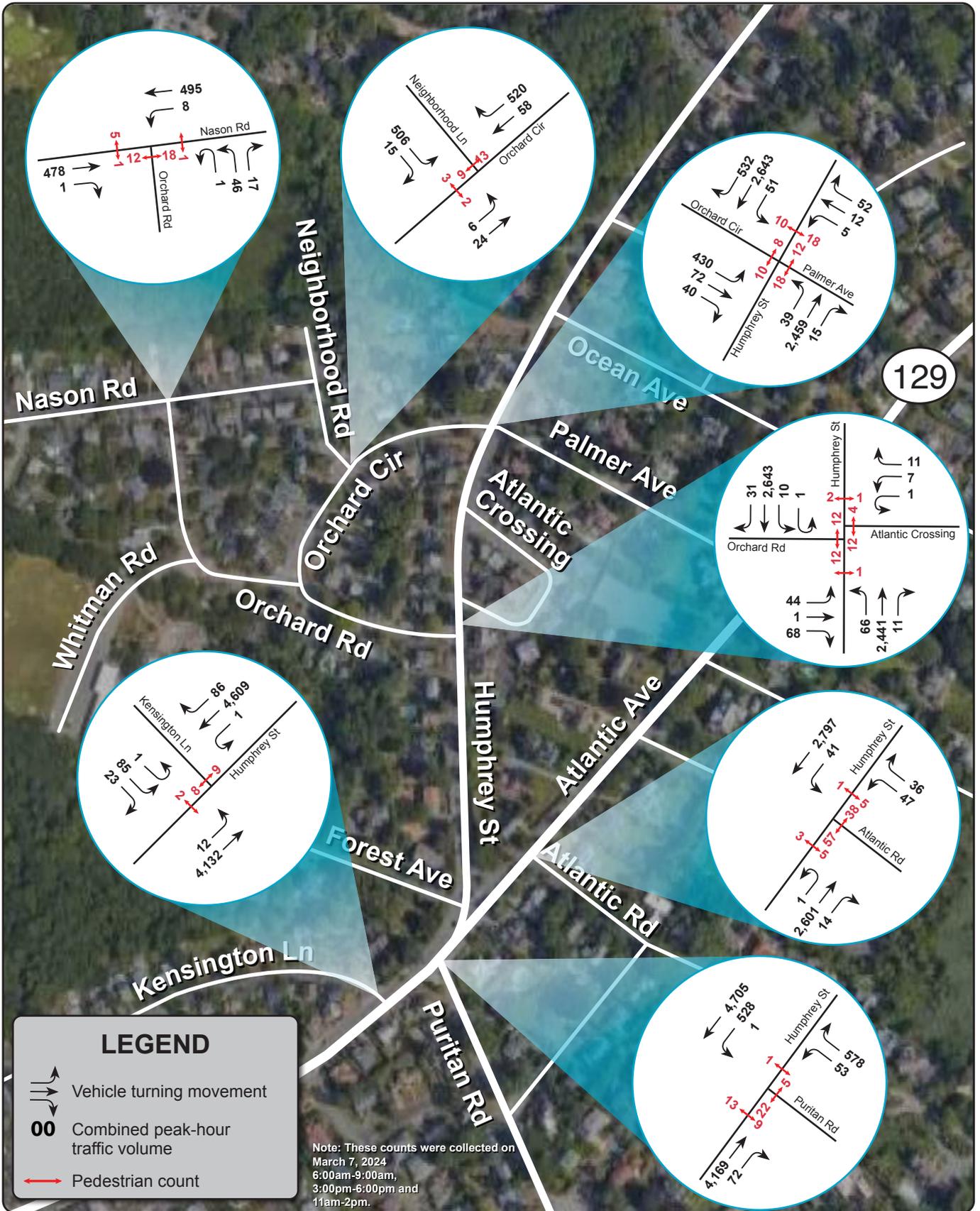
MPO staff collected turning movement counts at the study intersections on Thursday, March 7, 2024, during three distinct time periods: the morning peak period (6:00 AM–9:00 AM), afternoon peak period (11:00 AM–2:00 PM), and evening peak period (3:00 PM–6:00 PM). Figure 8 summarizes the TMCs collected on March 7, 2024, for these three periods within the primary intersection. Figure 9 summarizes the peak hour TMCs for secondary intersections within the study area. Original TMC count diagrams can be found in Appendix B of this memo.

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-  Vehicle turning movement
-  Combined peak-hour traffic volume
-  Pedestrian count

Note: These counts were collected on March 7, 2024  
 6:00am-9:00am,  
 3:00pm-6:00pm and  
 11am-2pm.





**Figure 9**  
Swampscott-Turning  
Movement Counts

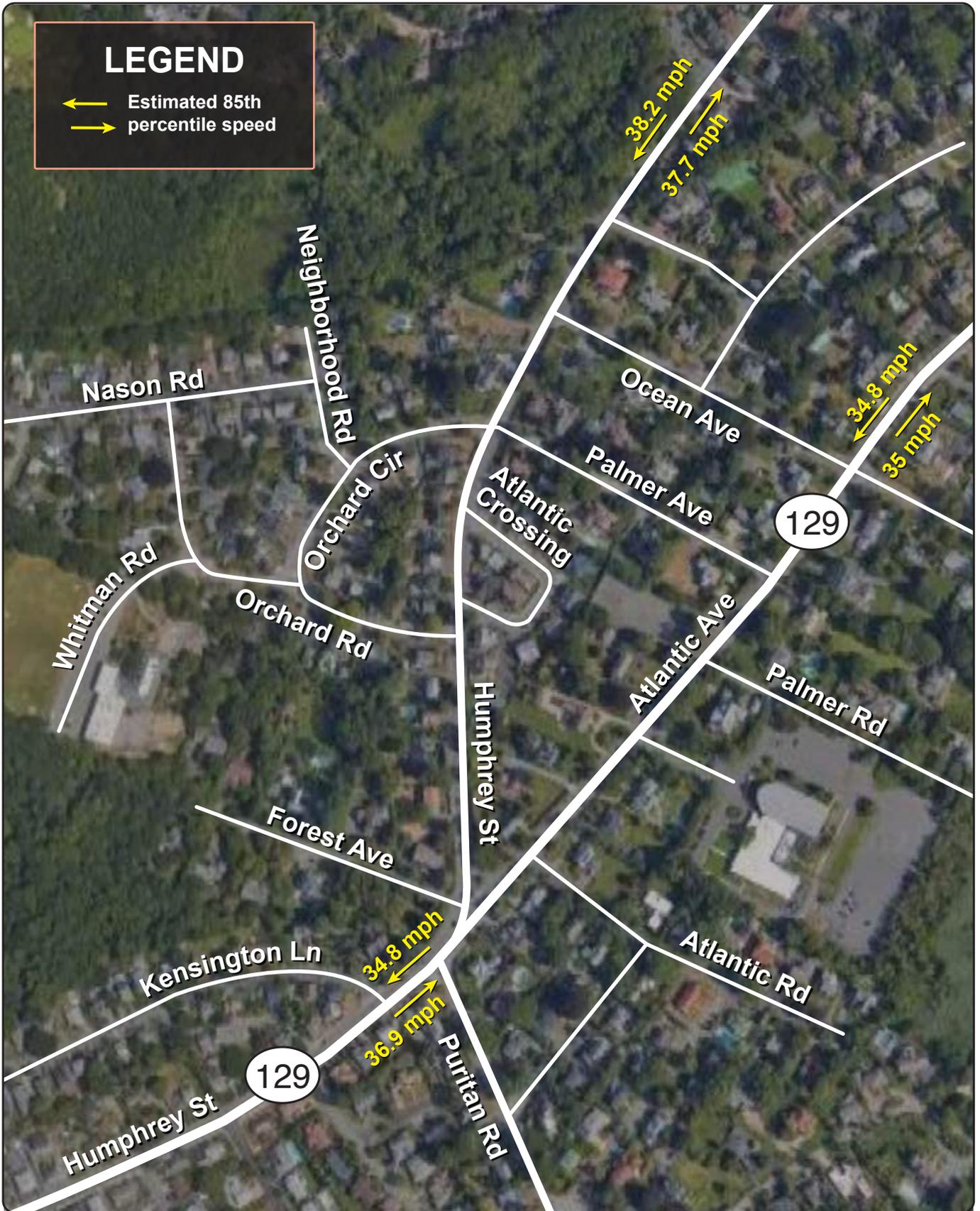
### 3.3 Speed Data

Along with total traffic counts, the ATR counts taken at the approaches to the primary intersection captured speed data. Figure 10 shows 85th percentile speed data for each of the approaches. All measured approaches have a speed limit of 30 mph, though a recommended 20 mph speed sign is posted on Humphrey Street for southbound drivers in advance of the yield. This recommended speed limit sign is located just to the south of where the ATR captured data for that segment.

All approaches to the intersection were measured as having an 85th percentile speed above the speed limit, ranging from 4.8 mph above the speed limit (westbound traffic on Atlantic Avenue and westbound traffic on Humphrey Street south of the intersection) to 8.2 mph above the speed limit (southbound traffic on Humphrey Street north of the intersection). Full speed data can be found in Appendix C of this memo.

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← Estimated 85th percentile speed  
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**Figure 10**  
**Swampscott**  
**Speed Measurements**

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### 3.4 Crash Data

MPO staff utilized the MassDOT IMPACT Crash Portal<sup>2</sup> to determine the crash rate and number of crashes involving vulnerable road users<sup>3</sup> within the study area over the five-year period from 2016–20. There were 33 crashes in the study area during the five-year period, representing 4.65 percent of all crashes in Swampscott over this period (771). Eight of these crashes resulted in someone getting injured and none resulted in fatalities. There was one crash involving a bicyclist, and none of the crashes involved a pedestrian.

Nineteen of the crashes occurred in the primary intersection, including the one crash involving a bicyclist. Thirteen of these crashes involved the yield traffic control for southbound drivers on Humphrey Street, resulting in rear-end collisions as people did not expect to stop (10 crashes) or in angle crashes from drivers proceeding through the yield too early (three crashes). The total of 19 crashes within this intersection exceeded the number of crashes at any other individual intersection in the Town of Swampscott during this period. Only one other intersection in Swampscott—where Eastman Avenue, Danvers Road, and Essex Street meet—had more than 15 crashes.

A second crash cluster was identified at the intersection of Humphrey Street, Palmer Avenue, and Orchard Circle. Five crashes occurred in this intersection during the five-year period.

The full crash data table can be found in Appendix D of this memo.

### 3.5 Travel Pattern Data

As the ATR counts were taken under winter conditions, MPO staff utilized Replica data to get a better understanding of pedestrian and bicyclist mode shares under fall conditions when the school would be opening. This analysis found that on a typical weekday in the fall of 2023, 15,400 trips by 8,620 trip-takers originated in the census tract referred to as MA-Essex County-2022, where the entirety of the study area lies. Walking was the primary mode of transportation in more than one in 10 trips (12.5 percent). However, fewer than one percent (0.88 percent) of trips were made by bicycling. The potential to increase walking trips is likely limited because only 10.8 percent of trips were

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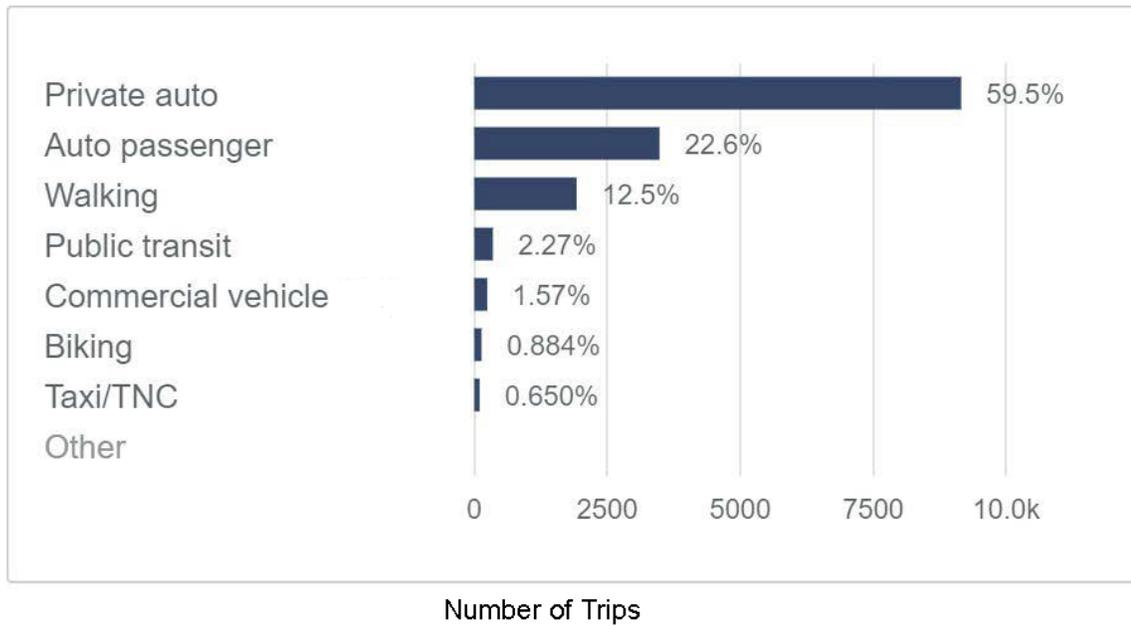
<sup>2</sup> See <https://apps.impact.dot.state.ma.us/cdv/>, last accessed May 7, 2024.

<sup>3</sup> In Massachusetts, vulnerable road users include people walking and biking; roadside workers; people using mobility devices such as wheelchairs, motorized bicycles, scooters, skateboards, roller skates, and other micromobility devices; and people riding horses and driving horse-drawn carriages and farm equipment. See <https://www.massbike.org/new-massachusetts-vulnerable-road-users-laws-webinar-recap-faq>.

shorter than half a mile, which is typically the median distance people walk for local trips. However, there appears to be significant room for growth in bicycling mode share because half of all trips (50.0 percent) were shorter than two miles. Figure 11 below summarizes the Replica data for the study area.

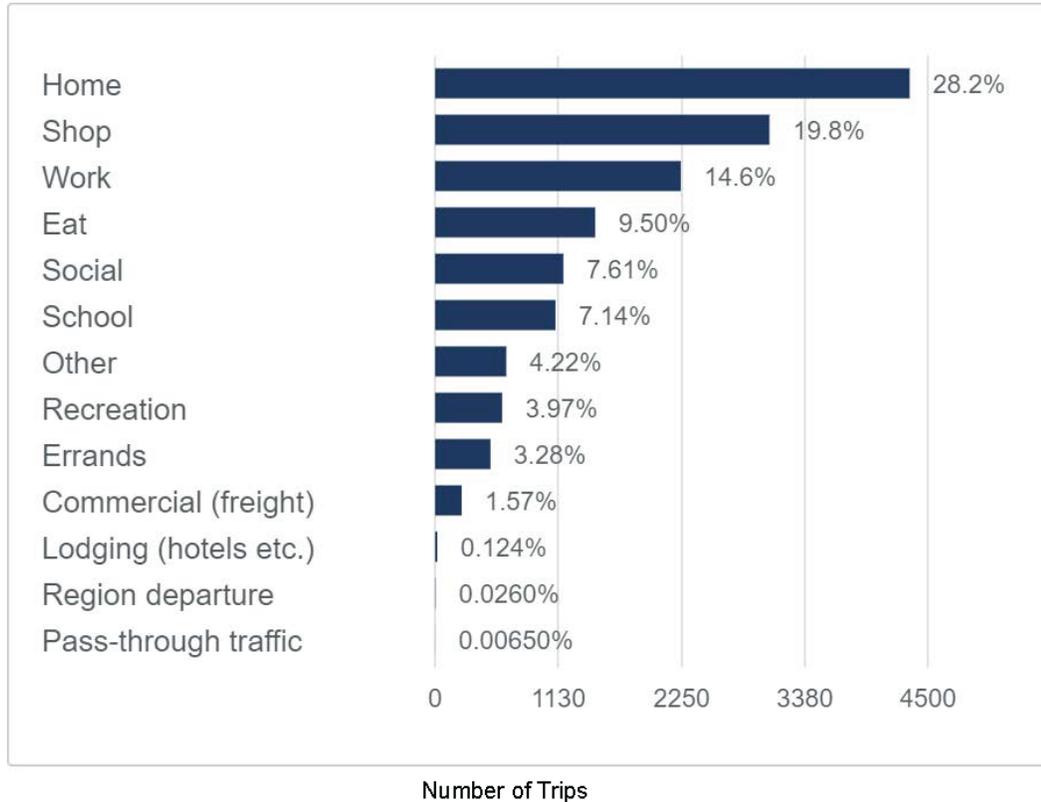
**Figure 11A**  
**Fall 2023 Trip Origin Data for Census Tract MA-Essex County-2022**

Primary Mode



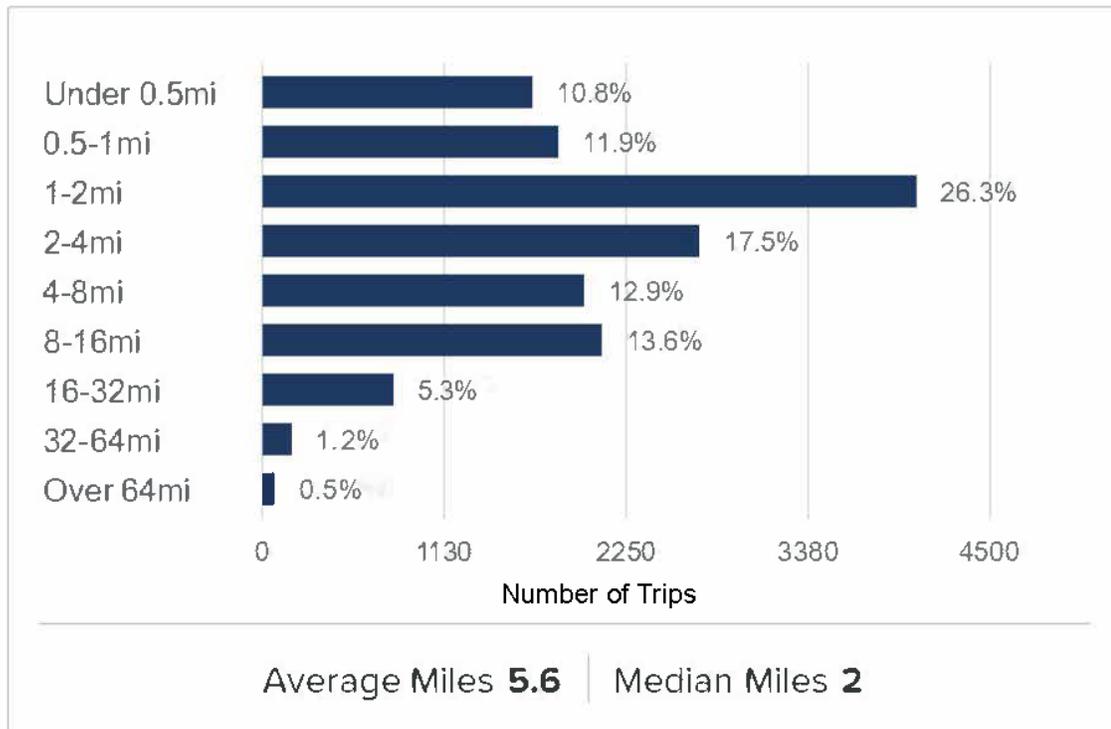
**Figure 11B**  
**Fall 2023 Trip Origin Data for Census Tract MA-Essex County-2022**

Trip Purpose



**Figure 11C**  
**Fall 2023 Trip Origin Data for Census Tract MA-Essex County-2022**

Trip Distance (Miles)



#### 4 FUTURE CONDITIONS

Town of Swampscott staff shared a traffic analysis study (TAS) performed by Greenman-Pederson, Inc. that assessed the impact the expanded school would have on traffic in the area and made recommendations to mitigate the impacts. The TAS found that under a full capacity scenario, the school would attract 1,862 additional daily trips compared to current conditions. Of these, 652 would be during the AM peak hour, when school would begin, and 616 would occur during the PM peak hour, when school lets out.

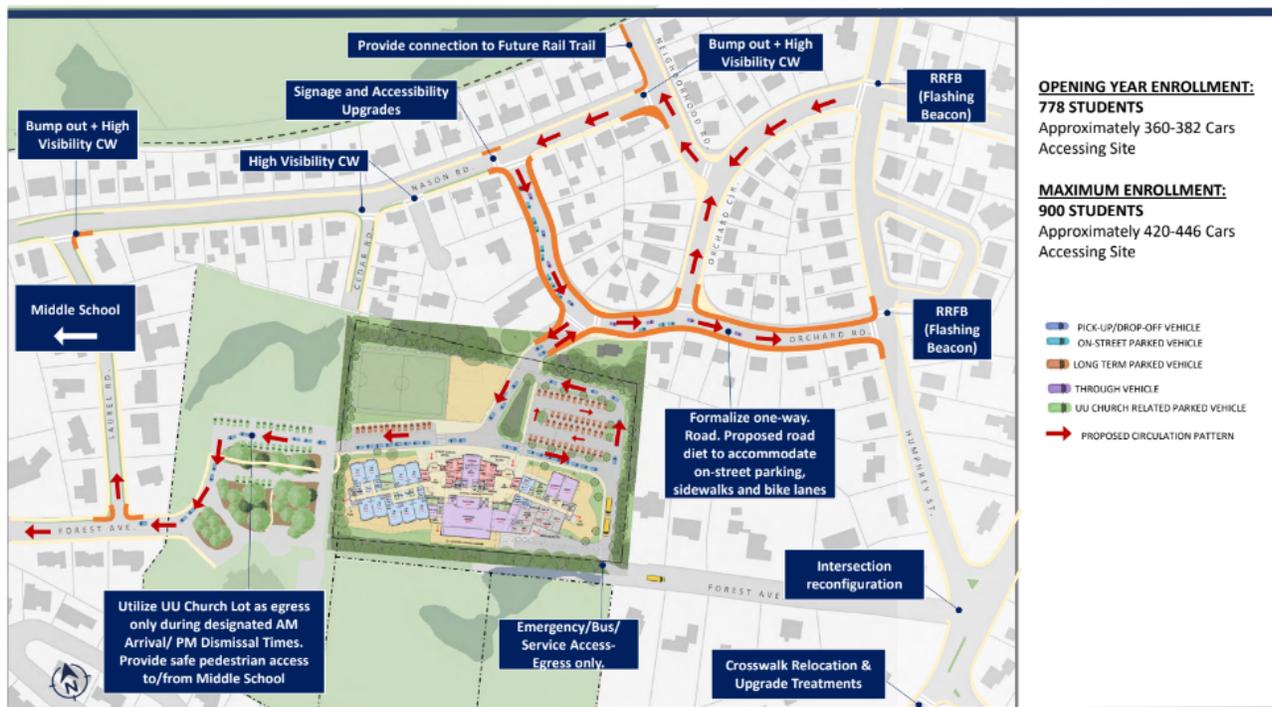
One of the recommendations included a revised traffic pattern for the residential streets north of the school to facilitate drop-off and pick-up of students. In this study, we assumed the revised traffic pattern to reflect future conditions.

After Greenman-Pederson conducted the TAS, the Town reached an agreement with the Congregation Shirat Hayam to allow parents to park their vehicles in the congregation’s parking lot and walk their students to school. Developing safe pedestrian routes between the parking lot and the school has the potential to alleviate some of the traffic congestion anticipated under future conditions.

### 4.1 Future Traffic Patterns

Figure 12 below shows the revised traffic pattern recommended by the TAS. All of the streets shown presently allow bidirectional traffic. The revised pattern would develop a network of one-way streets in order to prevent parent drop-off and pick-up queues from backing up onto Humphrey Street. The TAS recommended using the width gained from removing one travel lane to provide bike lanes and expand sidewalks for vulnerable road users and to accommodate on-street parking. The revised traffic pattern would also prevent access to the school from the west, where vehicular traffic would only be allowed to exit, and from Forest Avenue Extension, which would only be open to buses, pedestrians, and bicyclists.

**Figure 12**  
**Revised Traffic Pattern Around Stanley School**



Source: Greenman-Pederson, Inc. Traffic Analysis Study.

## 4.2 Safety Concerns

As demonstrated earlier in Sections 3.3 and 3.4 of this memo, there are already considerable speeding and crash issues within the study area, particularly at the primary study intersection. Future conditions would not only add a significant number of trips to the study area, but they would also introduce a high number of pedestrians via the park-and-walk concept. Future conditions also presume a high percentage of the peak-hour trips will experience congestion on side streets associated with student pick-up and drop-off. This congestion could lead to increased aggressive driving behavior.

## 5 ALTERNATIVES ANALYSIS

In the traffic analysis study shared by the Town of Swampscott, three conceptual redesigns were included for the primary intersection. MPO staff evaluated the pros and cons of each design. However, we did not select a preferred alternative due to the conceptual nature of the designs and room for revision.

Additionally, MPO staff evaluated the merits of the two proposed park-and-walk routes, with an emphasis on ability to implement them in time for the start of the 2024–25 school year. We recommend Alternative 2 as the preferred alternative for implementation for the 2024–25 school year, and Alternative 1 as a potential longer-term alternative if the primary intersection is reconstructed.

### 5.1 Intersection Design Alternative 1: Roundabout

Design Alternative 1, shown below in Figure 13, would reconfigure the intersection into a single-lane roundabout, eliminating the slip lane and existing traffic controls.

MPO staff noted the following for Alternative 1:

#### Pros:

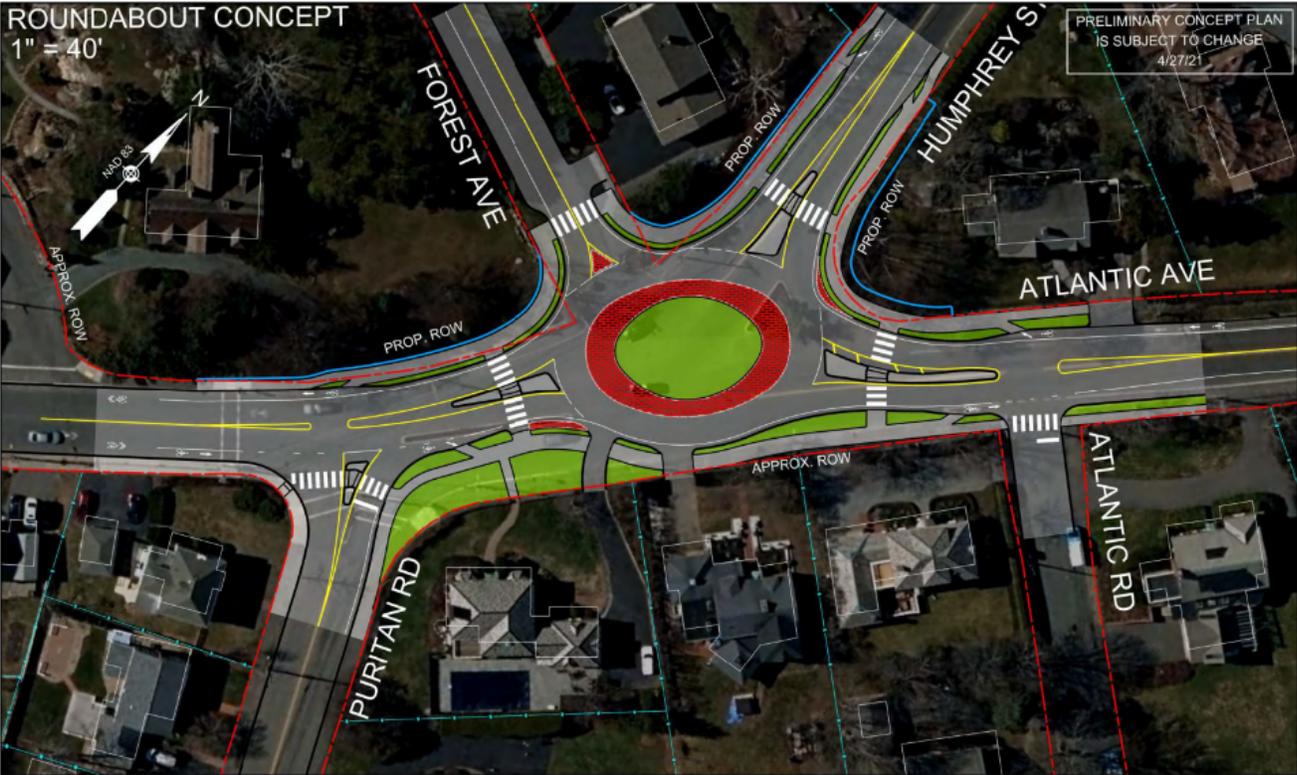
- Introduces a significant traffic-calming element in an intersection where speeding is a concern
- Ensures a consistent flow of traffic
- Allows sufficient capacity for peak-hour demand

#### Cons:

- Guides bicyclists to use the sidewalks and crosswalks to navigate the intersection—This either requires bicyclists to dismount, introducing a significant point of friction when using the intersection, or creates conflicts between bicyclists and pedestrians, presenting particular vulnerability for young, elderly, and disabled pedestrians.

- Offers the least direct pedestrian routing of the three alternatives we considered in this study—Pedestrians will need to walk farther and out of their way to navigate the intersection safely and legally compared to other alternatives.
- Requires a significant footprint expansion of the right-of-way, increasing cost and the amount of impervious surfaces

**Figure 13**  
**Design Alternative 1: Roundabout Concept**



Source: Greenman-Pederson, Inc. Traffic Analysis Study.

## 5.2 Intersection Design Alternative 2: Four-way Signalized Intersection

Design Alternative 2, shown below in Figure 14, would reconfigure the intersection into a four-way signalized intersection.

MPO staff noted the following for Alternative 2:

### Pros:

- Requires no expansion of the right-of-way
- Shrinks the impervious surface within the intersection
- Provides dedicated bicycle facilities along SR129, buffered in the eastbound direction and unbuffered in the westbound direction
- Has potential to be the safest bicycle and pedestrian crossing at the intersection with a dedicated bicycle-pedestrian phase

### Cons:

- Could result in aggressive driving behavior—As mentioned in Section 4.2 of this report, many people will be navigating this intersection during peak hours after spending considerable time in congested school lines. Without traffic-calming measures, this design may lead to increased aggressive driving behavior as people try to catch a yellow light or speed through a stale green.
- Has potential for significant delay during peak-hour traffic—Off-peak demand is split roughly 50/50 between Atlantic Avenue and Humphrey Street. This will skew towards Humphrey Street during peak hours and be exacerbated by increased demand for pedestrian crossings, requiring adaptive signals to avoid peak-hour delays in the intersection.

**Figure 14**  
**Design Alternative 2: Signalized Concept**



Source: Greenman-Pederson, Inc. Traffic Analysis Study.

### 5.3 Intersection Design Alternative 3: Stop-Controlled Intersection

Design Alternative 3, shown below in Figure 15, would reconfigure the intersection to direct Forest Avenue Extension traffic onto Humphrey Street and control what would then be a three-way intersection with a stop sign on Humphrey Street.

MPO staff noted the following for Alternative 3:

Pros:

- Maintains consistent bicycle facilities on SR129, including buffered lanes for eastbound bicyclists
- Decreases the amount of impervious surfaces at the intersection
- Simplifies the intersection by channeling one approach onto another
- Includes the shortest and most direct pedestrian crossings

Cons:

- Does not solve speeding issue—Similar to the signalized concept, this design does little to address the speeding concerns. Stop signs should not be used for speed control on their own, according to the Manual for Uniform Traffic Control Devices (MUTCD) Section 2B.05.<sup>4</sup>
- Requires expansion of the right-of-way
- Does not provide a pedestrian crossing at the eastern point of the intersection, where students and parents arriving from the park-and-walk will most likely want to cross
- Requires buses entering Forest Avenue Extension from the south to make a tight left turn—Bus turning geometry must be taken into consideration for a final design that chooses this concept.

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<sup>4</sup> See <https://mutcd.fhwa.dot.gov/pdfs/2003/Ch2B.pdf>, last accessed June 22, 2024.

**Figure 15**  
**Design Alternative 3: Stop-Controlled Concept**



Source: Greenman-Pederson, Inc. Traffic Analysis Study.

## 5.4 Park-and-Walk Alternatives

Figure 16 below shows the two park-and-walk alternatives under consideration. The route in Alternative 1 proceeds west on Atlantic Avenue until reaching the primary intersection, at which point students and parents would cross to Forest Avenue Extension to reach the school. The route in Alternative 2 proceeds east on Atlantic Avenue until reaching Palmer Avenue, where students and parents would cross and proceed to Humphrey Street. The route then crosses Humphrey Street and proceeds to the school via Orchard Circle and Orchard Road.

MPO staff noted the following for Alternative 1:

Pros:

- Is the shorter and most intuitive route, which is likely to be taken by many parents and students regardless of guidance from schools
- Includes only one crossing if parents and students can be guided all the way to the crossing west of the primary intersection

Cons:

- Requires crossing the primary intersection, which does not at present have a safe and legal crossing, or crossing west of the primary intersection, which requires parents and students to go out of their way
- Puts pedestrians on roadways with high traffic volumes and speeds for the majority of the trip

MPO Staff noted the following for Alternative 2:

Pros:

- Avoids the primary intersection
- Routes pedestrians primarily on streets with low traffic speeds
- Utilizes recent pedestrian improvements on Orchard Road and Orchard Circle
- Requires fewer interventions to make it safe for pedestrians

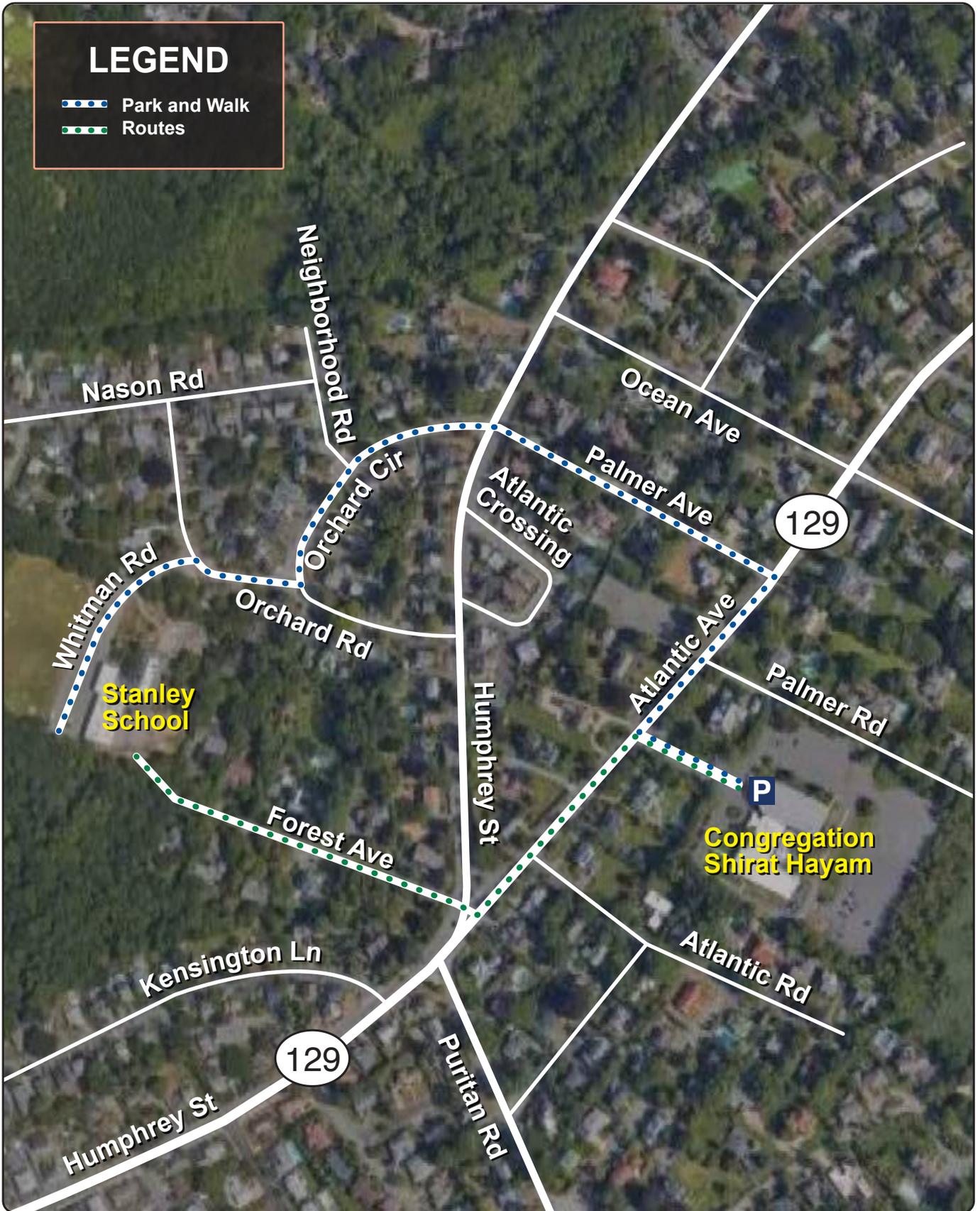
Cons:

- Longer overall distance
- Requires a greater number of crossings

As noted previously, MPO staff recommend Alternative 2 for short-term implementation for the 2024–25 school year. Alternative 1 may be a superior alternative in the longer term after reconstruction of the primary intersection.

# LEGEND

-  Park and Walk
-  Routes



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**Figure 16**  
**Swampscott**  
**Park and Walk Routes**

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## 6 RECOMMENDATIONS AND CONCLUSION

Through the analyses described in previous sections, MPO staff identified issues and concerns with current and future conditions and proposed short-term and longer-term improvements for the study area.

### 6.1 Short-term Recommendations

Our proposed short-term improvements would enhance safety and operations for the study area under existing and future conditions. We recommend that the Town of Swampscott implement the following improvements as soon as possible for the safety of all road users in the study area, especially the children who will begin attending Stanley Elementary in the fall of 2024:

- Clear the tree and vegetation from the slip lane island at the intersection of Humphrey Street, Atlantic Avenue, and Forest Avenue Extension.
- Install S1-1 “School Crossing” and W16-9P “Ahead” signage in advance of crossings at the intersection of Atlantic Avenue and Palmer Avenue and the intersection of Humphrey Street, Palmer Avenue, and Orchard Circle.
- Implement high visibility crosswalks (e.g., ladder, zebra, or continental style) and Rectangular Rapid Flashing Beacons (RRFBs) at the intersection of Palmer Road and Atlantic Avenue, at the southwest crossing of Palmer Avenue and Atlantic Avenue, and at the south crossing of Palmer Avenue, Humphrey Street, and Orchard Circle.
- Implement wayfinding signage along the preferred “park-and-walk” route.
- Fund a crossing guard for the intersection of Atlantic Avenue and Palmer Avenue as well as the intersection of Palmer Avenue, Humphrey Street, and Orchard Circle.
- Incorporate low-stress bicycle facilities, such as buffered or separated bike lanes, into the revised traffic pattern on Orchard Road, Orchard Circle, Neighborhood Road, and Nason Road, with provision to connect into a future extension of the Swampscott Rail Trail at Neighborhood Road.
- In coordination with the Massachusetts Bay Transportation Authority (MBTA), implement bus stop amenity improvements, including but not limited to seating, lighting, shelter, and trash cans at the three bus stops within the study area.

- Implement “quick-build” curb bump-outs using planters, flex-posts, or other rapid intervention techniques at the following intersections: Neighborhood Road and Nason Road, Nason Road and Orchard Road, Humphrey Street and Orchard Circle.

## 6.2 Long-term Recommendations

In addition to the above recommendations, MPO staff recommend the Town work to further study and implement some of the following longer-term changes:

- Reconstruct the intersection of Humphrey Street, Atlantic Avenue, and Forest Avenue Extension with a geometry that eliminates the slip-lane and includes safe pedestrian crossing facilities.
- Install wayfinding signage for the Forest Avenue Extension park-and-walk route after reconstruction of the intersection.
- Complete the Swampscott Rail Trail with access at Neighborhood Road.
- Implement raised crosswalks and/or intersections at crossings along the preferred “park-and-walk” route.
- Reconstruct sidewalks to include “hard” curb bump-outs at the intersections listed above for “quick-build” interventions.

### *Roundabout Concept*

- Shrink the footprint of the roundabout to make space for bicycle facilities through the intersection. Consider a “Dutch Style” roundabout.<sup>5</sup>
- Ensure adequate lighting is incorporated into the roundabout design.<sup>6</sup>
- Tighten up crossings to the intersection to improve the pedestrian crossing experience.

### *Signalized Concept*

- Incorporate traffic-calming measures such as speed tables, RRFBs, and curb bump-outs to reduce speeding at the intersection and its approaches.

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<sup>5</sup> See <https://bicycledutch.wordpress.com/2015/10/13/explaining-the-dutch-roundabout-abroad/>, last accessed on May 13, 2024.

<sup>6</sup> See <https://lrrb.org/media/reports/TRS1413.pdf>, last accessed on May 13, 2024.

- Incorporate adaptive signal technology to minimize delay during peak-hour traffic.
- Prohibit left-turns from Humphrey Street onto Atlantic Avenue.

### ***Stop-Controlled Concept***

- Incorporate traffic-calming measures such as speed tables, RRFBs, and curb bump-outs to reduce speeding at the intersection and its approaches.
- Ensure Forest Avenue Extension remains accessible to buses approaching from the south.
- Prohibit left-turns from Humphrey Street onto Atlantic Avenue.

## **6.3 Conclusion**

The Town of Swampscott approached the Boston Region MPO staff with concerns about the approaches to the expanded Stanley School and the expected increase in the number of trips attracted to the site. We used a combination of community outreach and multimodal data analysis to understand existing and projected future conditions, which allowed us to identify safety concerns related to speeding and high crash rates. To address these concerns, we developed short- and long-term recommendations and we analyzed alternative reconstruction concepts for the primary intersection, providing feedback on the three ideas. Finally, we assessed safety and comfort along two alternative park-and-walk routes and recommended Alternative 2 as the preferred route.

Funding for the implementation of these recommendations in the short term can be sought from the Massachusetts Safe Routes to School program<sup>7</sup> and the MPO's Transportation Improvement Program (TIP).<sup>8</sup> Specifically, the Community Connections Program within the TIP is a relevant funding source for projects that enhance bicycle and pedestrian safety such as those included in these recommendations.

The opening of Stanley School presents a unique opportunity to make the surrounding area in Swampscott safer and more accessible for walking and biking. Active commute modes improve self-reported well-being<sup>9</sup> and reduce

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<sup>7</sup> See <https://www.mass.gov/safe-routes-to-school> , last accessed June 22, 2024.

<sup>8</sup> See <https://www.ctps.org/tip>, last accessed June 22, 2024.

<sup>9</sup> See <https://www.sciencedirect.com/science/article/abs/pii/S2214140516302407>, last accessed June 22, 2024.

barriers to upward mobility.<sup>10</sup> Students, parents, and the community around the school will benefit from the increased opportunities for active mobility in their town. These interventions can have long lasting impacts on the travel patterns of Swampscott students. Young children who walk or bike to school are more likely to continue the habit as they age.<sup>11</sup> Investing in safe pedestrian and bicycling routes to Stanley School is thus an investment in driving long-term mode shift and in the well-being of Swampscott's youth.

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<sup>10</sup> See <https://psycnet.apa.org/record/2018-63708-001>, last accessed July 2, 2024.

<sup>11</sup> See <https://www.sciencedirect.com/science/article/pii/S2211335522000250/>, last accessed July 2, 2024.

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 3/4/2024

Page: 1

Station #: 240140000053  
Site ID: 00000000101  
Location: Humphrey St. NB, south of Orchard Rd..  
Direction: NORTH

STA. 1NB

File: D0304004.prn  
City: Swampscott  
County: speed

TIME	MON 4	TUE 5	WED 6	THU 7	FRI 8	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		19	9	18	24	18			18	70
02:00		5	11	8	11	9			9	35
03:00		2	4	7	6	5			5	19
04:00		2	2	2	9	4			4	15
05:00		12	18	15	16	15			15	61
06:00		40	54	48	48	48			48	190
07:00		110	122	115	130	119			119	477
08:00		283	268	295	301	287			287	1147
09:00		271	302	270	317	290			290	1160
10:00		215	217	231		221			221	663
11:00	218	181	227	208		208			208	834
12:00	186	206	245	213		212			212	850
13:00	246	224	239	230		235			235	939
14:00	195	244	229	242		228			228	910
15:00	253	323	265	303		286			286	1144
16:00	328	312	342	358		335			335	1340
17:00	308	352	343	336		335			335	1339
18:00	320	370	340	341		343			343	1371
19:00	314	289	290	289		296			296	1182
20:00	158	178	198	185		180			180	719
21:00	98	123	113	148		120			120	482
22:00	57	104	96	95		88			88	352
23:00	40	57	45	88		58			58	230
24:00	32	46	36	56		42			42	170
TOTALS	2753	3968	4015	4101	862	3982			3982	15699
% AVG WKDY	69.1	99.6	100.8	103.0	21.6					
% AVG WEEK	69.1	99.6	100.8	103.0	21.6					
AM Times	11:00	08:00	09:00	08:00	09:00	09:00			09:00	
AM Peaks	218	283	302	295	317	290			290	
PM Times	16:00	18:00	17:00	16:00		18:00			18:00	
PM Peaks	328	370	343	358		343			343	

U4

NB 3982  
SB 4092  
8074  
.94  
7,600

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 3/4/2024

Page: 1

Station #: 240140000073  
Site ID: 000000000102  
Location: Humphrey St. SB, south of Orchard Rd..  
Direction: SOUTH

STA. 1SB

File: D0304006.prn  
City: Swampscott  
County: speed

TIME	MON 4	TUE 5	WED 6	THU 7	FRI 8	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		10	10	11	11	10			10	42
02:00		10	3	9	10	8			8	32
03:00		3	5	4	6	4			4	18
04:00		10	9	7	12	10			10	38
05:00		23	24	21	33	25			25	101
06:00		119	112	110	95	109			109	436
07:00		248	272	241	201	240			240	962
08:00		281	247	303	262	273			273	1093
09:00		296	251	287	284	280			280	1118
10:00		237	231	267		245			245	735
11:00	224	231	229	228		228			228	912
12:00	199	231	257	257		236			236	944
13:00	230	274	264	247		254			254	1015
14:00	225	252	255	268		250			250	1000
15:00	248	292	279	300		280			280	1119
16:00	282	367	322	321		323			323	1292
17:00	300	343	343	310		324			324	1296
18:00	344	331	332	365		343			343	1372
19:00	232	236	241	269		244			244	978
20:00	145	187	170	166		167			167	668
21:00	101	115	110	126		113			113	452
22:00	48	63	77	81		67			67	269
23:00	20	37	26	50		33			33	133
24:00	32	23	16	33		26			26	104
TOTALS	2630	4219	4085	4281	914	4092			4092	16129
% AVG WKDY	64.3	103.1	99.8	104.6	22.3					
% AVG WEEK	64.3	103.1	99.8	104.6	22.3					
AM Times	11:00	09:00	07:00	08:00	09:00	09:00			09:00	
AM Peaks	224	296	272	303	284	280			280	
PM Times	18:00	16:00	17:00	18:00		18:00			18:00	
PM Peaks	344	367	343	365		343			343	

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 3/4/2024

Page: 1

Station #: 240140000107  
Site ID: 000000000203  
Location: Atlantic Ave. EB, north of Atlantic Rd.  
Direction: EAST

STA. 2 EB

File: D0304008.prn  
City: Swampscott  
County: speed

TIME	MON 4	TUE 5	WED 6	THU 7	FRI 8	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		13	18	16	32	20			20	79
02:00		8	5	7	7	7			7	27
03:00		2	6	6	15	7			7	29
04:00		5	5	7	3	5			5	20
05:00		13	14	10	15	13			13	52
06:00		21	35	17	37	28			28	110
07:00		86	85	101	105	94			94	377
08:00		322	327	304	289	310			310	1242
09:00		312	321	309	328	318			318	1270
10:00		194	201	207		201			201	602
11:00	157	178	189	163		172			172	687
12:00	195	175	229	176		194			194	775
13:00	206	195	263	208		218			218	872
14:00	190	202	230	202		206			206	824
15:00	279	302	284	261		282			282	1126
16:00	300	289	325	330		311			311	1244
17:00	312	324	331	331		324			324	1298
18:00	280	310	323	317		308			308	1230
19:00	247	312	292	276		282			282	1127
20:00	181	174	188	186		182			182	729
21:00	117	131	135	139		130			130	522
22:00	90	79	100	114		96			96	383
23:00	48	69	49	75		60			60	241
24:00	27	49	33	56		41			41	165
TOTALS	2629	3765	3988	3818	831	3809			3809	15031
% AVG WKDY	69.0	98.8	104.7	100.2	21.8					
% AVG WEEK	69.0	98.8	104.7	100.2	21.8					
AM Times	12:00	08:00	08:00	09:00	09:00	09:00		09:00		
AM Peaks	195	322	327	309	328	318		318		
PM Times	17:00	17:00	17:00	17:00		17:00		17:00		
PM Peaks	312	324	331	331		324		324		

U3

EB 3809  
WB 3942  
7751  
.96  
7,400

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 3/4/2024

Page: 1

Station #: 240140000094  
Site ID: 000000000204  
Location: Atlantic Ave. WB, north of Atlantic St.  
Direction: WEST

STA. 2 WB

File: D0304010.prn  
City: Swampscott  
County: speed

TIME	MON 4	TUE 5	WED 6	THU 7	FRI 8	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		2	9	13	16	10			10	40
02:00		7	6	6	4	6			6	23
03:00		7	3	5	6	5			5	21
04:00		9	6	13	7	9			9	35
05:00		36	31	37	25	32			32	129
06:00		120	121	115	100	114			114	456
07:00		226	216	207	161	202			202	810
08:00		348	403	359	286	349			349	1396
09:00		378	402	357	310	362			362	1447
10:00		263	267	238		256			256	768
11:00	171	205	253	208		209			209	837
12:00	217	221	265	237		235			235	940
13:00	224	203	304	227		240			240	958
14:00	234	220	268	199		230			230	921
15:00	241	206	261	234		236			236	942
16:00	317	325	318	305		316			316	1265
17:00	293	295	331	358		319			319	1277
18:00	272	258	265	284		270			270	1079
19:00	188	218	186	193		196			196	785
20:00	97	139	130	137		126			126	503
21:00	103	92	95	110		100			100	400
22:00	66	49	73	84		68			68	272
23:00	25	21	33	62		35			35	141
24:00	12	16	19	22		17			17	69
TOTALS	2460	3864	4265	4010	915	3942			3942	15514
% AVG WKDY	62.4	98.0	108.2	101.7	23.2					
% AVG WEEK	62.4	98.0	108.2	101.7	23.2					
AM Times	12:00	09:00	08:00	08:00	09:00	09:00			09:00	
AM Peaks	217	378	403	359	310	362			362	
PM Times	16:00	16:00	17:00	17:00		17:00			17:00	
PM Peaks	317	325	331	358		319			319	

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 3/4/2024

Page: 1

STA 3 EB

Station #: 240140000072  
Site ID: 000000000303  
Location: Humphrey St. EB, west of Alden St.  
Direction: EAST

File: D0304014.prn  
City: Swampscott  
County: speed

TIME	MON 4	TUE 5	WED 6	THU 7	FRI 8	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		12	18	24	28	20			20	82
02:00		18	10	14	17	15			15	59
03:00		9	5	9	12	9			9	35
04:00		19	13	20	21	18			18	73
05:00		58	55	57	59	57			57	229
06:00		232	230	209	193	216			216	864
07:00		452	456	425	327	415			415	1660
08:00		592	617	620	502	583			583	2331
09:00		592	550	551	492	546			546	2185
10:00		446	436	439		440			440	1321
11:00		373	408	384		388			388	1165
12:00	360	382	450	409		400			400	1601
13:00	380	398	477	385		410			410	1640
14:00	388	393	426	404		403			403	1611
15:00	428	403	457	456		436			436	1744
16:00	493	592	539	547		543			543	2171
17:00	493	556	585	545		545			545	2179
18:00	519	499	516	553		522			522	2087
19:00	358	366	345	390		365			365	1459
20:00	193	259	236	232		230			230	920
21:00	163	159	169	192		171			171	683
22:00	109	87	136	150		120			120	482
23:00	44	59	60	97		65			65	260
24:00	43	39	33	57		43			43	172
TOTALS	3971	6995	7227	7169	1651	6960			6960	27013
% AVG WKDY	57.1	100.5	103.8	103.0	23.7					
% AVG WEEK	57.1	100.5	103.8	103.0	23.7					
AM Times	12:00	08:00	08:00	08:00	08:00	08:00		08:00		
AM Peaks	360	592	617	620	502	583		583		
PM Times	18:00	16:00	17:00	18:00		17:00		17:00		
PM Peaks	519	592	585	553		545		545		

U3

EB 6960  
WB 6668  

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13628  
.96  
13,100

Mass Highway Department

WEEKLY SUMMARY FOR LANE 1  
Starting: 3/4/2024

Page: 1

Station #: 240140000139  
Site ID: 000000000304  
Location: Humphrey St. WB, west of Alden St.  
Direction: WEST

STA. 3 WB

File: D0304002.prn  
City: Swampscott  
County: speed

TIME	MON 4	TUE 5	WED 6	THU 7	FRI 8	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		31	26	33	50	35			35	140
02:00		10	15	13	20	14			14	58
03:00		3	10	11	20	11			11	44
04:00		7	7	9	8	8			8	31
05:00		23	28	19	28	24			24	98
06:00		55	72	55	77	65			65	259
07:00		161	173	179	194	177			177	707
08:00		496	499	502	511	502			502	2008
09:00		460	505	476	529	492			492	1970
10:00		327	322	351		333			333	1000
11:00		278	342	311		310			310	931
12:00	321	313	394	319		337			337	1347
13:00	349	348	412	351		365			365	1460
14:00	322	372	404	374		368			368	1472
15:00	451	528	458	488		481			481	1925
16:00	532	536	566	578		553			553	2212
17:00	552	596	610	563		580			580	2321
18:00	542	607	591	567		577			577	2307
19:00	506	530	534	509		520			520	2079
20:00	308	317	353	326		326			326	1304
21:00	202	234	234	253		231			231	923
22:00	133	162	184	205		171			171	684
23:00	79	127	90	144		110			110	440
24:00	55	85	65	105		78			78	310
TOTALS	4352	6606	6894	6741	1437	6668			6668	26030
% AVG WKDY	65.3	99.1	103.4	101.1	21.6					
% AVG WEEK	65.3	99.1	103.4	101.1	21.6					
AM Times	12:00	08:00	09:00	08:00	09:00	08:00		08:00		
AM Peaks	321	496	505	502	529	502		502		
PM Times	17:00	18:00	17:00	16:00		17:00		17:00		
PM Peaks	552	607	610	578		580		580		

249891-A (Orchard Road at Nason Road) TMC - TMC

Thu Mar 7, 2024

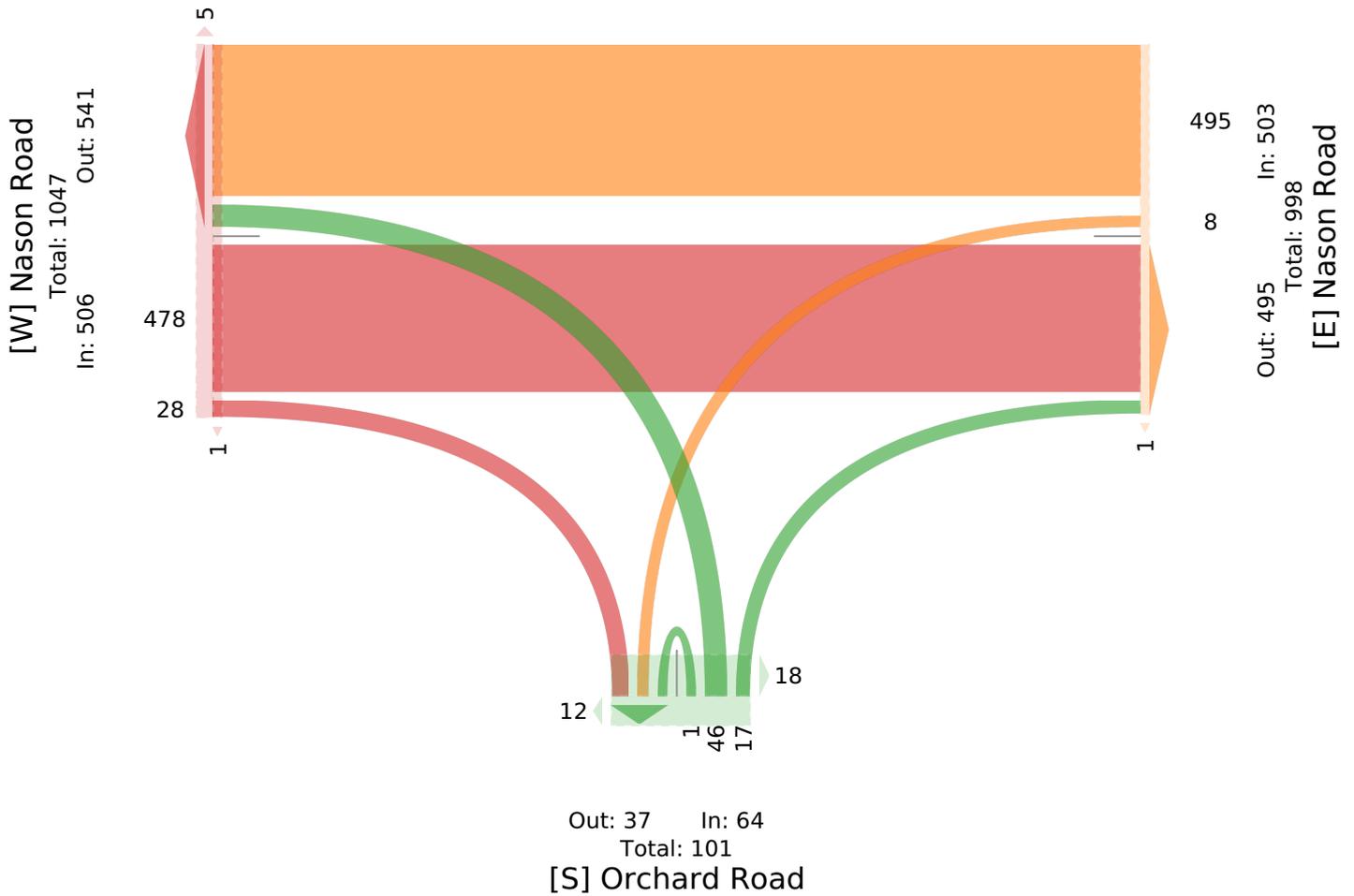
Full Length (6 AM-9 AM, 3 PM-6 PM, 11 AM-2 PM)

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

All Movements

ID: 1160282, Location: 42.474032, -70.897264

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



249891-B (Neighborhood Road at Orchard Circl... - TMC

Thu Mar 7, 2024

Full Length (6 AM-9 AM, 3 PM-6 PM, 11 AM-2 PM)

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

All Movements

ID: 1160284, Location: 42.473663, -70.895656

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

[N] Neighborhood Road

Total: 1047

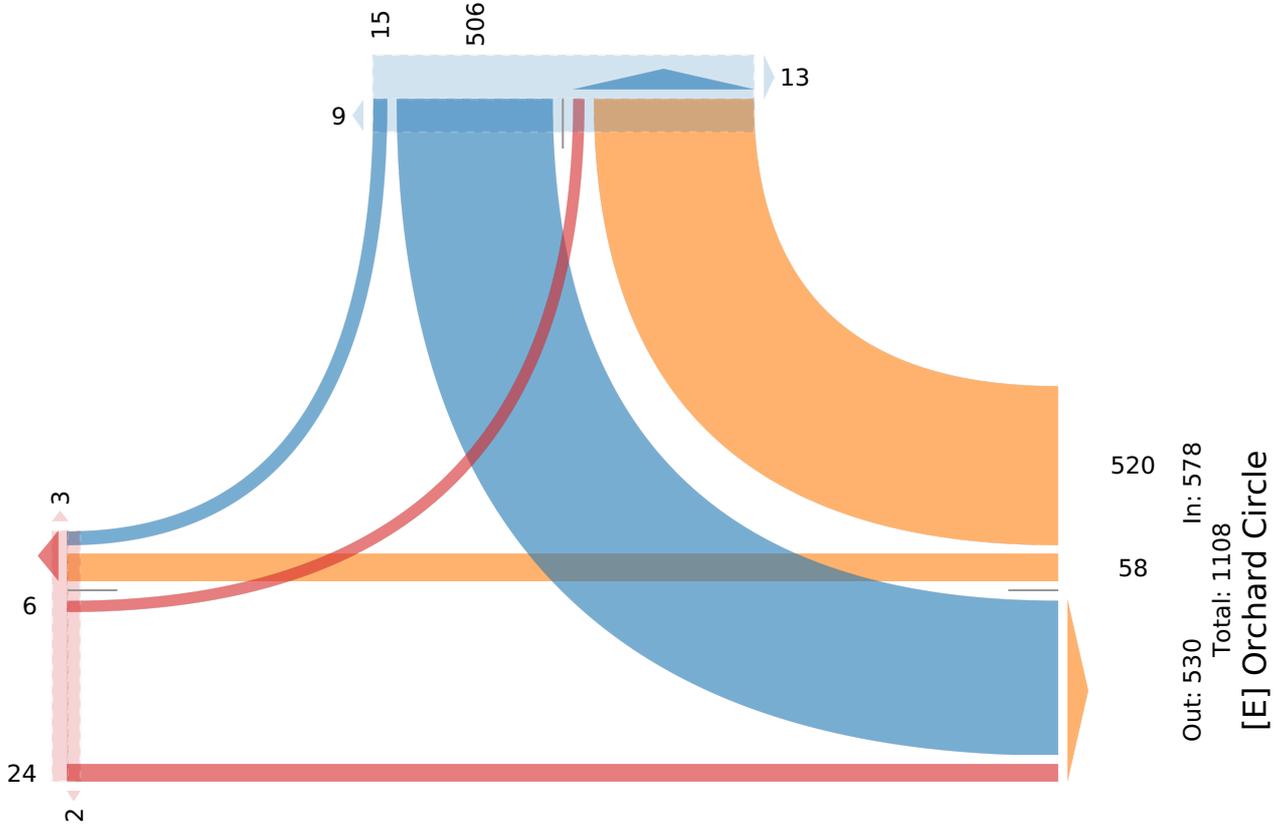
In: 521

Out: 526

[W] Orchard Circle

Total: 103

In: 30 Out: 73



249891-C (Orchard Circle at Humphrey Street)... - TMC

Thu Mar 7, 2024

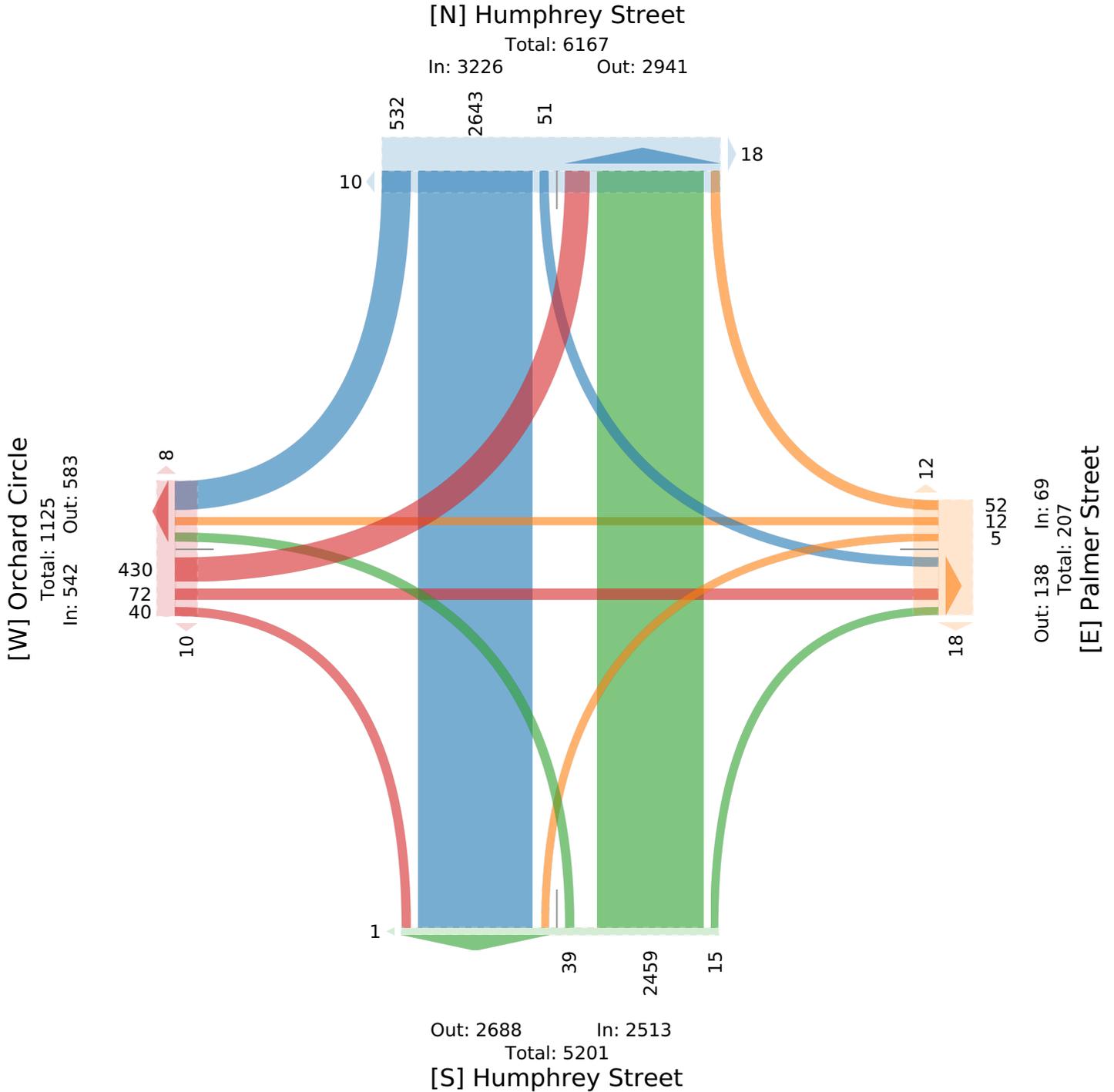
Full Length (6 AM-9 AM, 3 PM-6 PM, 11 AM-2 PM)

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

All Movements

ID: 1160285, Location: 42.473886, -70.894352

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



249891-D (Orchard Road at Humphrey Street) T... - TMC

Thu Mar 7, 2024

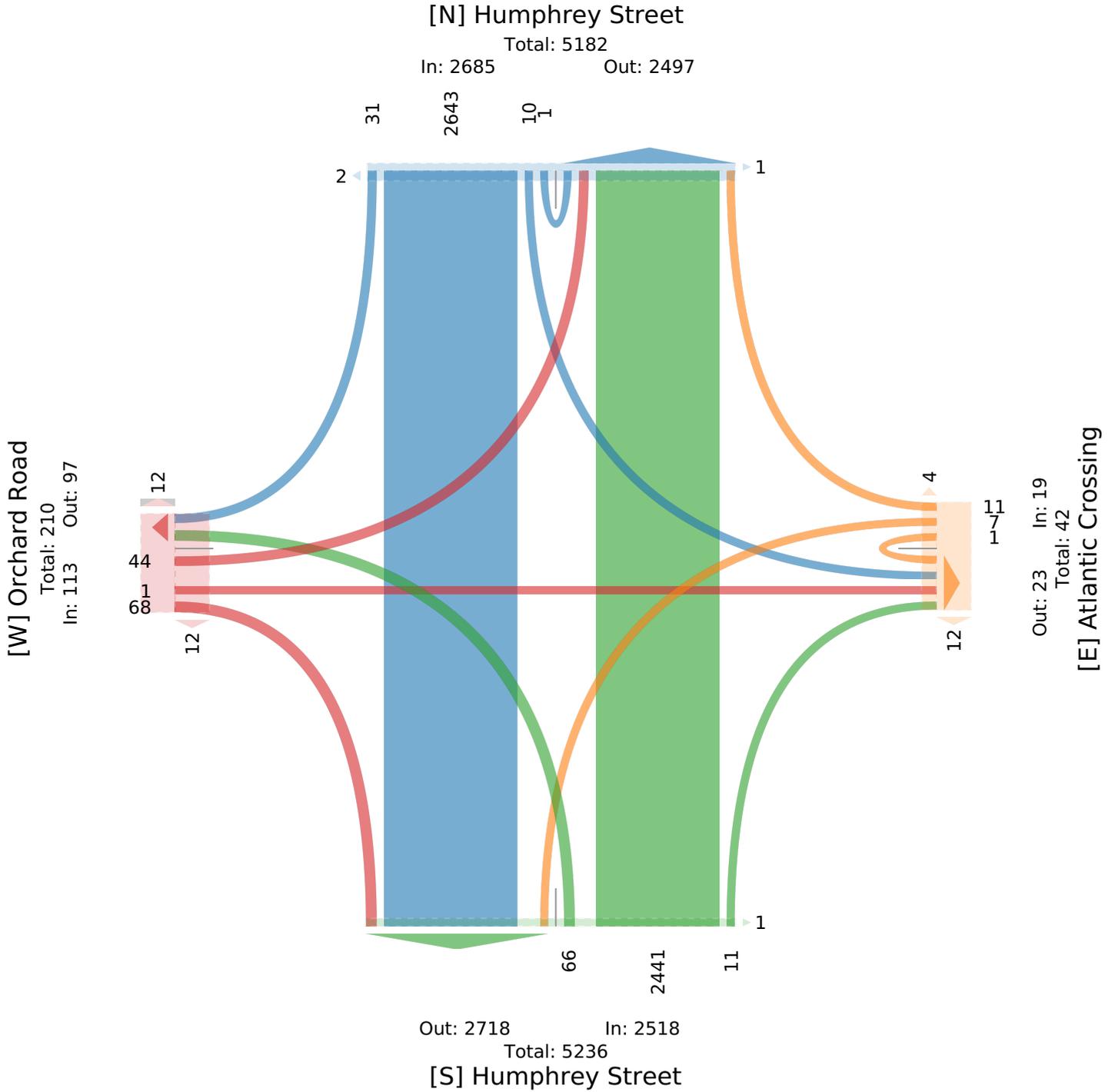
Full Length (6 AM-9 AM, 3 PM-6 PM, 11 AM-2 PM)

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

All Movements

ID: 1160287, Location: 42.472641, -70.89466

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



249891-E - TMC

Thu Mar 14, 2024

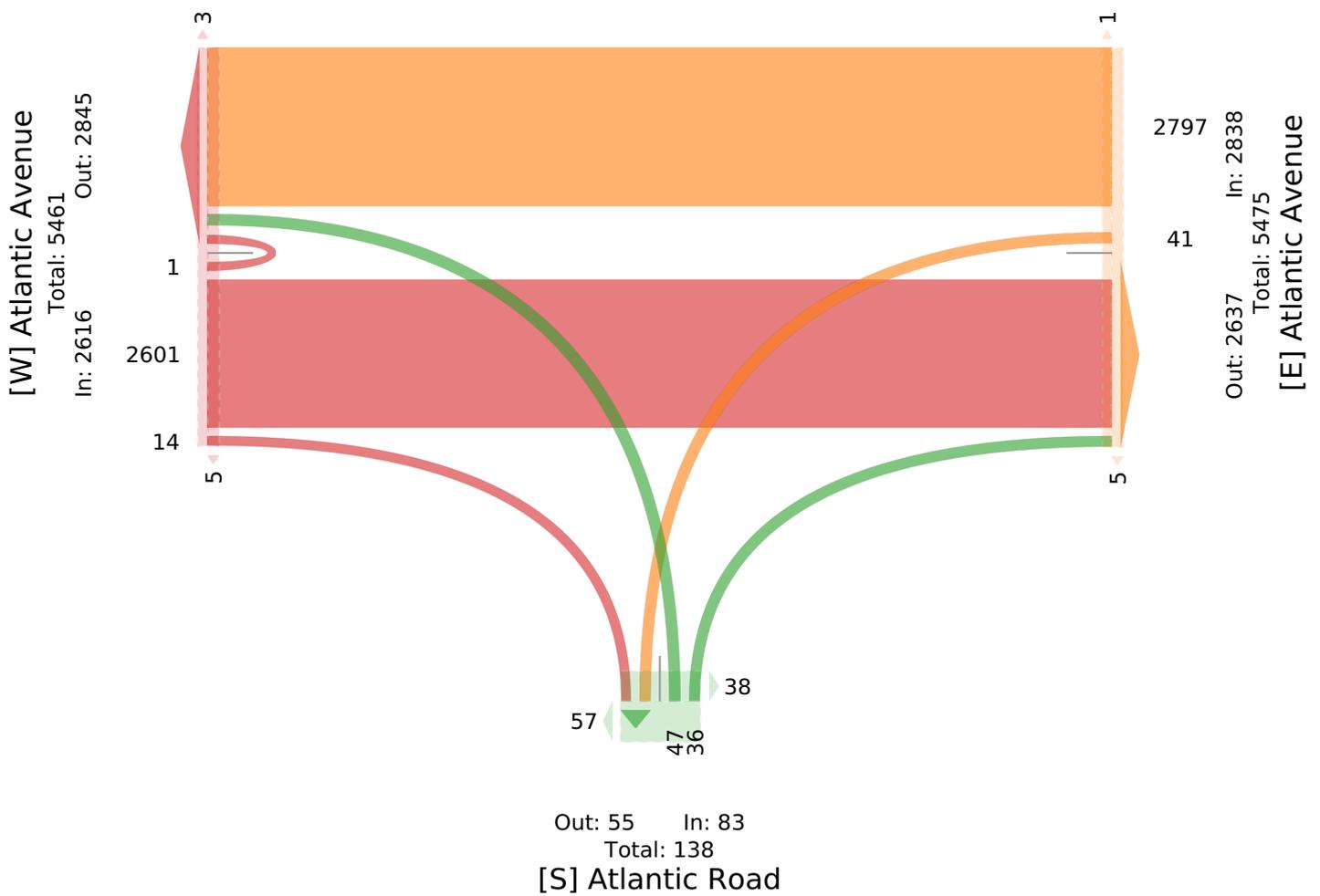
Full Length (6 AM-9 AM, 3 PM-6 PM, 11 AM-2 PM)

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

All Movements

ID: 1165189, Location: 42.471122, -70.894044

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



249891-F (Forest Avenue at Humphrey Street) ... - TMC

Thu Mar 7, 2024

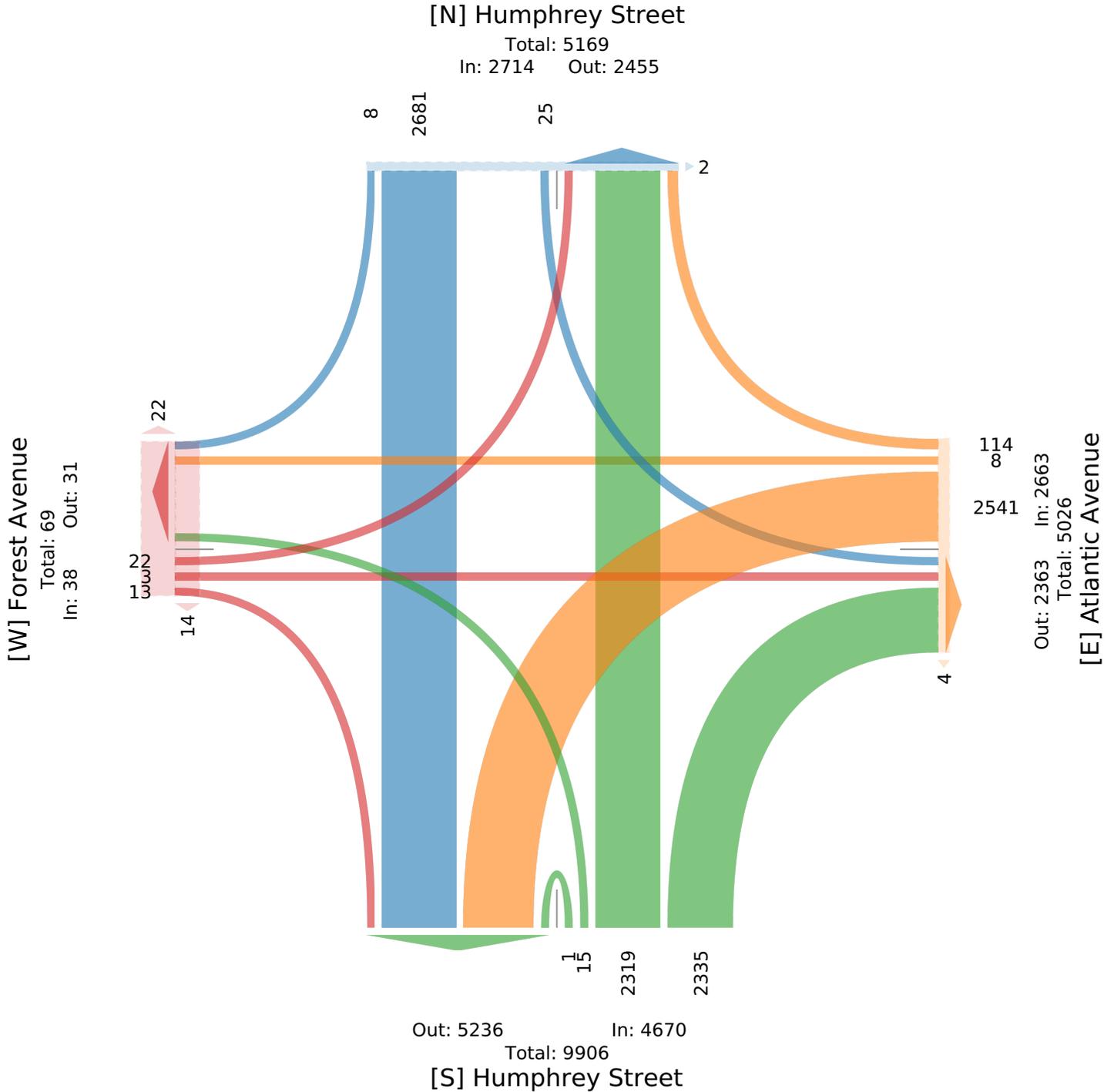
Full Length (6 AM-9 AM, 3 PM-6 PM, 11 AM-2 PM)

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

All Movements

ID: 1160289, Location: 42.470718, -70.894614

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



# 249891-G (Puritan Road at Humphrey Street) T... - TMC

Thu Mar 7, 2024

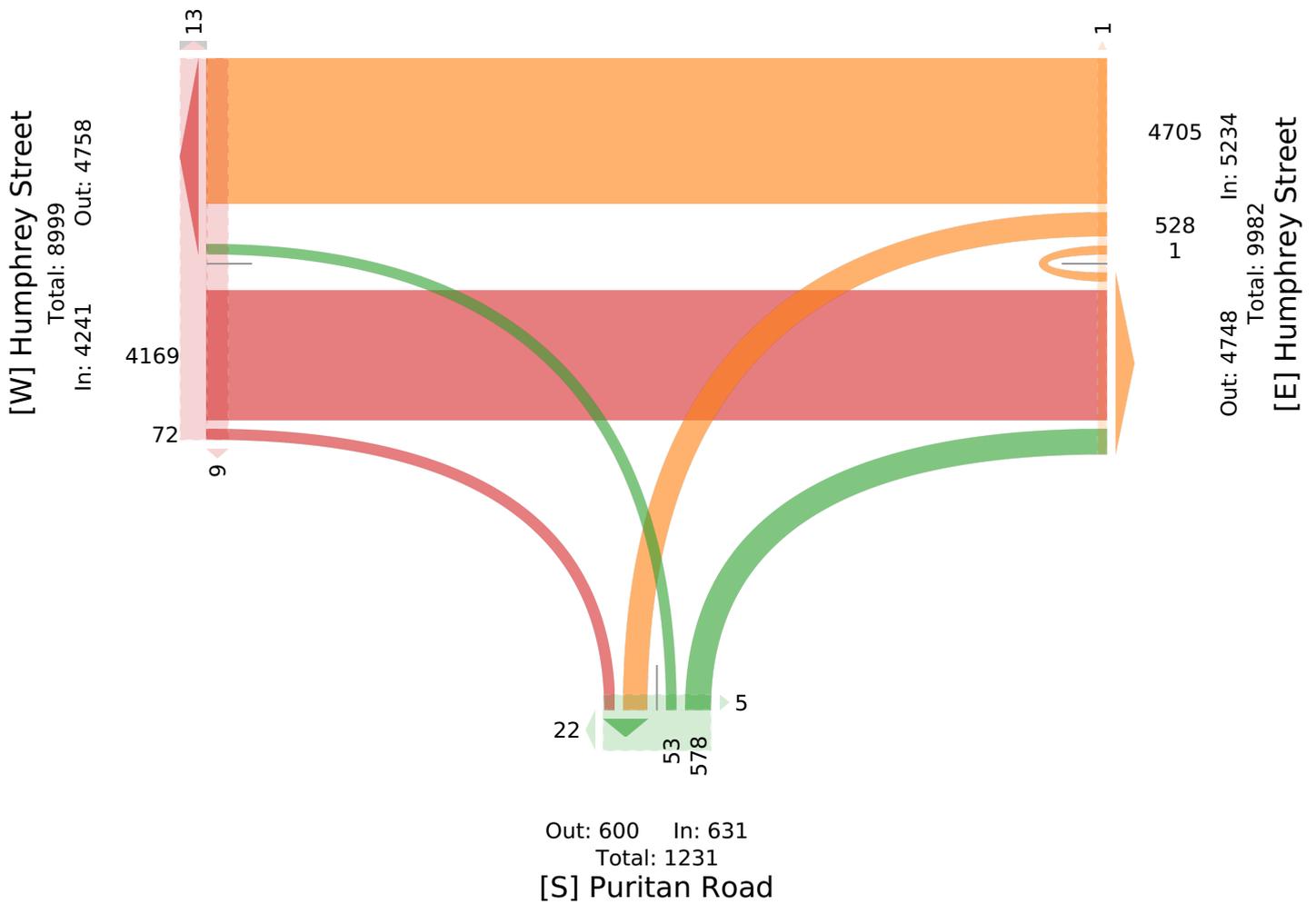
Full Length (6 AM-9 AM, 3 PM-6 PM, 11 AM-2 PM)

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

All Movements

ID: 1160290, Location: 42.470413, -70.894837

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



# 249891-H (Kensington Road at Humphrey Street... - TMC

Thu Mar 7, 2024

Full Length (6 AM-9 AM, 3 PM-6 PM, 11 AM-2 PM)

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

All Movements

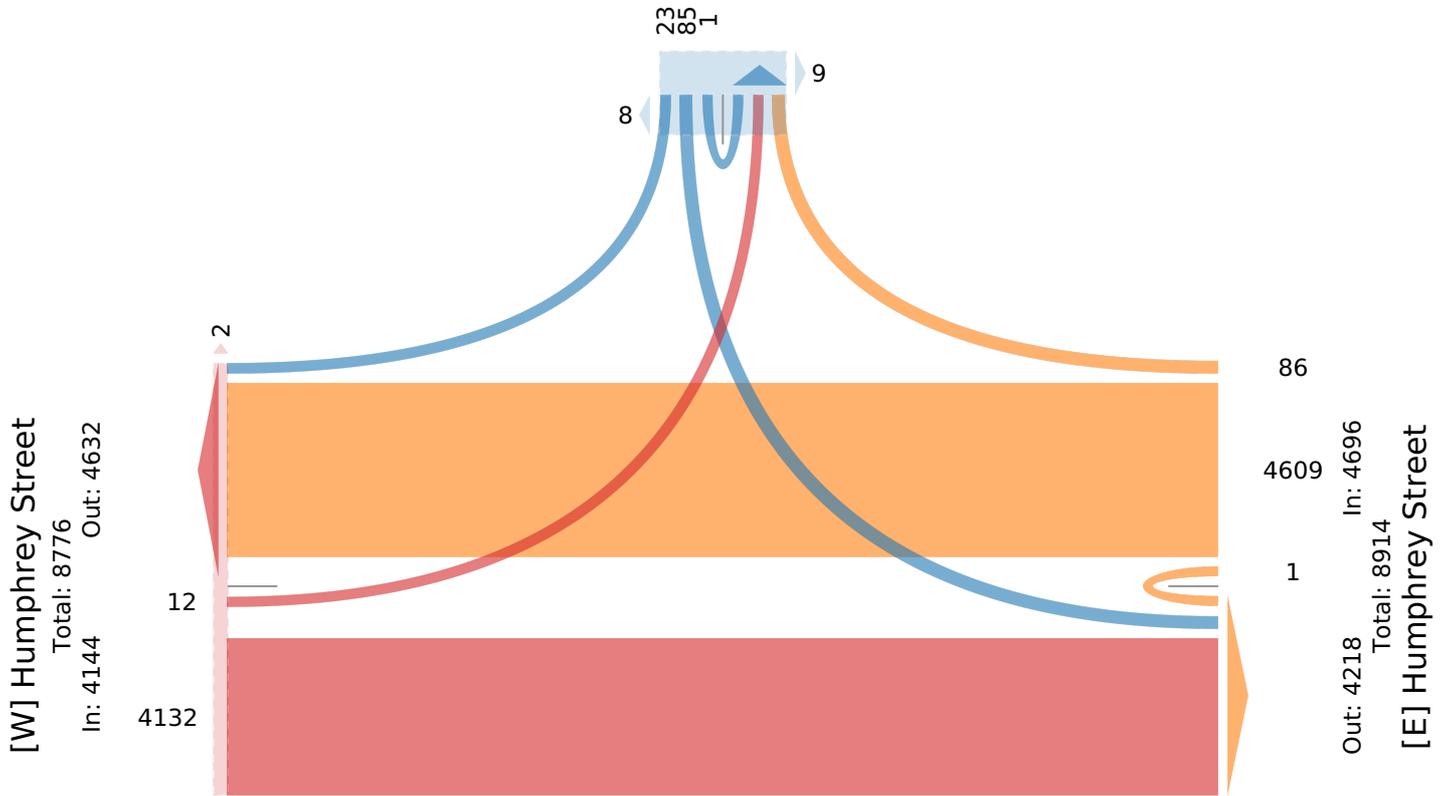
ID: 1160291, Location: 42.470177, -70.895389

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

## [N] Kensington Lane

Total: 208

In: 109 Out: 99



Mass Highway Department

SPEED SUMMARY  
 Mon 3/4/2024

Page: 1

STA. 1 NB

Station #: 240140000053  
 Site ID: 000000000101  
 Location: Humphrey St. NB, south of Orchard Rd..  
 Direction: NORTH  
 Lane: 1

File: D0304004.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
11:00	5	7	2	4	38	109	46	5	2	0	0	0	0	0	218
12:00	1	5	4	4	26	96	42	5	0	1	0	0	1	1	186
13:00	10	1	4	5	53	110	54	7	0	0	2	0	0	0	246
14:00	6	4	1	5	31	90	41	9	0	0	2	3	3	0	195
15:00	4	7	1	10	32	112	68	6	4	0	1	0	2	6	253
16:00	9	7	3	10	65	159	58	12	3	0	0	0	0	2	328
17:00	7	2	10	10	43	147	79	8	1	0	0	0	1	0	308
18:00	0	2	3	6	69	159	69	3	0	2	1	0	2	4	320
19:00	8	2	3	9	59	142	76	7	0	4	2	0	0	2	314
20:00	4	2	2	0	14	86	48	2	0	0	0	0	0	0	158
21:00	0	3	0	1	10	46	34	4	0	0	0	0	0	0	98
22:00	1	3	0	0	11	20	14	4	3	0	0	0	0	1	57
23:00	0	0	0	0	7	11	20	2	0	0	0	0	0	0	40
24:00	2	0	0	1	5	4	16	3	0	1	0	0	0	0	32
DAY TOTAL	57	45	33	65	463	1291	665	77	13	8	8	3	9	16	2753
PERCENTS	2.1%	1.6%	1.2%	2.4%	16.8%	46.9%	24.2%	2.8%	0.5%	0.3%	0.3%	0.1%	0.3%	0.6%	100.0%

Statistical Information...

15th Percentile Speed  
 27.8 mph

85th Percentile Speed  
 37.9 mph

Median Speed  
 32.9 mph

Average Speed  
 32.8 mph

10 MPH Pace Speed  
 30 mph to 40 mph  
 1956 vehicles in pace  
 Representing 73.0% of the total vehicles

Vehicles > 65 MPH  
 9  
 0.3%

Mass Highway Department

SPEED SUMMARY  
Tue 3/5/2024

Station #: 240140000053  
Site ID: 00000000101  
Location: Humphrey St. NB, south of Orchard Rd..  
Direction: NORTH  
Lane: 1

File: D0304004.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	2	4	6	3	4	0	0	0	0	0	0	19
02:00	0	0	0	0	0	3	2	0	0	0	0	0	0	0	5
03:00	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
05:00	0	1	0	0	2	3	5	1	0	0	0	0	0	0	12
06:00	1	3	3	0	5	14	13	1	0	0	0	0	0	0	40
07:00	5	17	1	0	13	51	23	0	0	0	0	0	0	0	110
08:00	8	5	5	20	52	127	60	4	0	0	2	0	0	0	283
09:00	7	8	1	12	68	117	44	6	1	0	0	3	2	2	271
10:00	3	1	0	5	32	109	61	3	0	0	0	1	0	0	215
11:00	3	5	3	1	34	85	45	4	0	0	1	0	0	0	181
12:00	2	1	1	2	47	107	43	2	0	1	0	0	0	0	206
13:00	7	3	3	7	42	107	50	3	0	0	0	1	0	1	224
14:00	3	5	1	12	42	114	57	6	2	0	0	0	2	0	244
15:00	6	5	6	17	71	135	70	10	0	0	0	0	3	0	323
16:00	9	6	5	7	39	169	65	9	0	0	0	1	2	0	312
17:00	9	5	11	8	46	180	80	8	0	2	0	0	0	3	352
18:00	6	1	2	5	77	194	78	5	0	0	0	2	0	0	370
19:00	7	5	2	2	51	153	60	5	0	2	0	0	2	0	289
20:00	5	1	0	3	26	86	49	4	2	2	0	0	0	0	178
21:00	4	3	3	1	26	57	24	2	1	2	0	0	0	0	123
22:00	0	1	2	2	15	48	29	3	0	0	0	2	0	2	104
23:00	1	0	0	0	6	32	17	1	0	0	0	0	0	0	57
24:00	0	0	0	0	7	15	19	3	0	0	2	0	0	0	46
DAY TOTAL	86	76	50	106	705	1914	898	84	6	9	5	10	11	8	3968
PERCENTS	2.2%	1.9%	1.3%	2.7%	17.8%	48.2%	22.6%	2.1%	0.2%	0.2%	0.1%	0.3%	0.3%	0.2%	100.0%

Statistical Information...

15th Percentile Speed  
27.5 mph

85th Percentile Speed  
37.5 mph

Median Speed  
32.6 mph

Average Speed  
32.4 mph

10 MPH Pace Speed  
30 mph to 40 mph  
2812 vehicles in pace  
Representing 72.6% of the total vehicles

Vehicles > 65 MPH  
11  
0.3%

Mass Highway Department

SPEED SUMMARY  
Wed 3/6/2024

Station #: 240140000053  
Site ID: 000000000101  
Location: Humphrey St. NB, south of Orchard Rd..  
Direction: NORTH  
Lane: 1

File: D0304004.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	2	0	0	0	1	5	1	0	0	0	0	0	0	9
02:00	1	0	0	0	1	2	5	2	0	0	0	0	0	0	11
03:00	0	0	1	0	0	2	1	0	0	0	0	0	0	0	4
04:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
05:00	0	1	0	2	3	5	6	0	1	0	0	0	0	0	18
06:00	2	8	2	0	5	16	17	4	0	0	0	0	0	0	54
07:00	7	14	1	1	9	56	28	5	1	0	0	0	0	0	122
08:00	3	6	4	8	57	121	61	4	0	0	2	0	0	2	268
09:00	6	5	7	7	66	127	77	5	0	0	0	0	0	2	302
10:00	12	1	3	4	26	107	56	4	0	0	2	0	0	2	217
11:00	5	5	0	6	39	107	57	8	0	0	0	0	0	0	227
12:00	8	3	2	11	41	107	66	4	2	0	1	0	0	0	245
13:00	16	9	8	12	37	107	43	7	0	0	0	0	0	0	239
14:00	5	8	2	10	48	89	53	9	3	0	0	0	0	2	229
15:00	4	3	9	7	54	109	68	10	0	1	0	0	0	0	265
16:00	11	5	1	2	46	167	104	3	2	0	0	1	0	0	342
17:00	8	5	7	4	65	161	85	6	0	0	0	0	0	2	343
18:00	7	2	1	9	86	160	63	8	0	1	1	0	0	2	340
19:00	4	2	0	3	66	155	49	4	1	4	0	2	0	0	290
20:00	2	1	2	4	32	99	49	7	1	0	0	0	1	0	198
21:00	1	2	0	2	10	59	33	3	0	0	1	0	0	2	113
22:00	4	1	2	3	8	45	30	2	0	1	0	0	0	0	96
23:00	0	1	1	1	2	25	14	1	0	0	0	0	0	0	45
24:00	0	0	0	0	4	15	14	3	0	0	0	0	0	0	36
DAY TOTAL	106	84	53	98	705	1842	984	100	11	7	7	3	1	14	4015
PERCENTS	2.6%	2.1%	1.3%	2.4%	17.6%	45.9%	24.5%	2.5%	0.3%	0.2%	0.2%	0.1%	0.0%	0.3%	100.0%

Statistical Information...

15th Percentile Speed  
27.5 mph

85th Percentile Speed  
37.7 mph

Median Speed  
32.7 mph

Average Speed  
32.4 mph

10 MPH Pace Speed  
30 mph to 40 mph  
2826 vehicles in pace  
Representing 72.6% of the total vehicles

Vehicles > 65 MPH  
1  
0.0%

Mass Highway Department

SPEED SUMMARY  
Thu 3/7/2024

Station #: 240140000053  
Site ID: 000000000101  
Location: Humphrey St. NB, south of Orchard Rd..  
Direction: NORTH  
Lane: 1

File: D0304004.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	0	3	11	4	0	0	0	0	0	0	18
02:00	2	0	0	0	0	5	1	0	0	0	0	0	0	0	8
03:00	0	0	0	0	1	2	2	2	0	0	0	0	0	0	7
04:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
05:00	2	1	0	2	1	4	3	1	1	0	0	0	0	0	15
06:00	1	7	1	1	5	14	16	3	0	0	0	0	0	0	48
07:00	7	6	8	1	24	45	18	4	2	0	0	0	0	0	115
08:00	11	10	9	5	60	120	67	11	0	0	0	0	0	2	295
09:00	8	7	2	6	65	117	60	3	0	0	0	0	2	0	270
10:00	11	9	2	14	52	95	46	2	0	0	0	0	0	0	231
11:00	9	6	1	10	39	86	46	7	0	0	0	0	0	4	208
12:00	5	3	0	7	45	85	53	7	1	0	2	0	1	4	213
13:00	0	3	0	4	37	122	58	5	0	0	0	0	1	0	230
14:00	7	4	2	9	55	107	49	6	2	0	0	1	0	0	242
15:00	7	7	2	10	58	138	73	5	0	0	0	0	2	1	303
16:00	15	7	5	6	61	175	76	9	1	1	0	0	0	2	358
17:00	9	6	1	4	59	152	98	7	0	0	0	0	0	0	336
18:00	6	5	2	8	63	180	64	10	1	0	2	0	0	0	341
19:00	5	0	2	4	66	142	63	1	0	3	2	0	0	1	289
20:00	6	7	4	0	24	107	35	2	0	0	0	0	0	0	185
21:00	6	4	1	3	12	81	33	1	0	2	0	2	0	3	148
22:00	1	3	1	1	12	32	38	4	2	0	0	0	1	0	95
23:00	2	0	1	2	8	44	20	8	0	2	0	0	0	1	88
24:00	1	1	0	3	1	20	23	3	0	2	0	0	0	2	56
DAY TOTAL	121	96	45	100	748	1877	953	105	10	10	6	3	7	20	4101
PERCENTS	3.0%	2.3%	1.1%	2.4%	18.2%	45.8%	23.2%	2.6%	0.2%	0.2%	0.1%	0.1%	0.2%	0.5%	100.0%

Statistical Information...

15th Percentile Speed  
27.4 mph

85th Percentile Speed  
37.6 mph

Median Speed  
32.6 mph

Average Speed  
32.3 mph

10 MPH Pace Speed  
30 mph to 40 mph  
2830 vehicles in pace  
Representing 71.5% of the total vehicles

Vehicles > 65 MPH  
7  
0.2%

Mass Highway Department

SPEED SUMMARY  
Fri 3/8/2024

Page: 5

Station #: 240140000053  
Site ID: 00000000101  
Location: Humphrey St., NB, south of Orchard Rd..  
Direction: NORTH  
Lane: 1

File: D0304004.prn  
City: Swampscott  
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	11	8	3	0	0	0	0	0	0	24
02:00	0	0	0	0	2	5	3	1	0	0	0	0	0	0	11
03:00	0	0	0	1	2	1	2	0	0	0	0	0	0	0	6
04:00	0	1	0	0	0	4	1	1	0	2	0	0	0	0	9
05:00	1	1	0	0	1	3	8	1	1	0	0	0	0	0	16
06:00	0	6	3	1	11	16	8	1	0	2	0	0	0	0	48
07:00	4	10	9	1	14	59	27	4	1	0	1	0	0	0	130
08:00	7	11	3	4	57	131	79	7	1	0	0	0	0	1	301
09:00	10	8	2	5	50	140	93	5	0	0	2	0	0	2	317
DAY TOTAL	22	37	18	12	138	370	229	23	3	4	3	0	0	3	862
PERCENTS	2.6%	4.3%	2.1%	1.4%	16.0%	42.9%	26.6%	2.7%	0.3%	0.5%	0.3%	0.0%	0.0%	0.3%	100.0%

Statistical Information...

15th Percentile Speed  
27.1 mph

85th Percentile Speed  
38.0 mph

Median Speed  
32.9 mph

Average Speed  
32.2 mph

10 MPH Pace Speed  
30 mph to 40 mph  
599 vehicles in pace  
Representing 71.6% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
 Mon 3/4/2024

Page: 1

STA. 1 SB

Station #: 240140000073  
 Site ID: 000000000102  
 Location: Humphrey St. SB, south of Orchard Rd..  
 Direction: SOUTH  
 Lane: 1

File: D0304006.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
11:00	10	5	2	5	22	88	79	8	2	0	0	1	2	0	224
12:00	8	6	1	6	24	74	70	10	0	0	0	0	0	0	199
13:00	10	0	1	6	20	104	79	10	0	0	0	0	0	0	230
14:00	16	9	5	6	34	93	50	11	0	0	0	0	0	1	225
15:00	23	5	0	5	33	111	56	13	1	1	0	0	0	0	248
16:00	17	5	6	2	21	125	93	12	1	0	0	0	0	0	282
17:00	7	3	2	2	46	158	76	5	0	0	0	0	1	0	300
18:00	6	4	2	11	65	174	77	5	0	0	0	0	0	0	344
19:00	2	6	0	9	42	119	49	5	0	0	0	0	0	0	232
20:00	3	3	0	1	23	73	37	5	0	0	0	0	0	0	145
21:00	1	5	0	0	26	35	28	6	0	0	0	0	0	0	101
22:00	1	1	0	0	6	17	21	2	0	0	0	0	0	0	48
23:00	1	0	0	0	2	8	7	2	0	0	0	0	0	0	20
24:00	1	0	0	1	3	13	10	3	0	0	1	0	0	0	32
DAY TOTAL	106	52	19	54	367	1192	732	97	4	1	1	1	3	1	2630
PERCENTS	4.0%	2.0%	0.7%	2.1%	14.0%	45.3%	27.8%	3.7%	0.2%	0.0%	0.0%	0.0%	0.1%	0.0%	100.0%

Statistical Information.

15th Percentile Speed  
 28.5 mph

85th Percentile Speed  
 38.2 mph

Median Speed  
 33.2 mph

Average Speed  
 33.0 mph

10 MPH Pace Speed  
 30 mph to 40 mph  
 1924 vehicles in pace  
 Representing 76.3% of the total vehicles

Vehicles > 65 MPH  
 3  
 0.1%

Mass Highway Department

SPEED SUMMARY  
Tue 3/5/2024

Page: 2

Station #: 240140000073  
Site ID: 000000000102  
Location: Humphrey St. SB, south of Orchard Rd..  
Direction: SOUTH  
Lane: 1

File: D0304006.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	1	0	0	0	0	4	3	2	0	0	0	0	0	0	10
02:00	0	0	0	0	3	2	3	2	0	0	0	0	0	0	10
03:00	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
04:00	0	0	0	0	1	5	2	2	0	0	0	0	0	0	10
05:00	4	4	0	0	0	2	8	5	0	0	0	0	0	0	23
06:00	2	10	1	0	2	31	48	24	1	0	0	0	0	0	119
07:00	13	10	1	2	13	80	120	9	0	0	0	0	0	0	248
08:00	7	6	1	3	39	117	98	9	1	0	0	0	0	0	281
09:00	12	10	0	2	32	147	87	5	1	0	0	0	0	0	296
10:00	4	3	1	3	38	101	78	9	0	0	0	0	0	0	237
11:00	12	4	1	2	36	85	83	8	0	0	0	0	0	0	231
12:00	10	4	0	3	36	101	71	6	0	0	0	0	0	0	231
13:00	9	5	1	7	55	132	56	8	0	0	1	0	0	0	274
14:00	12	3	4	1	40	103	75	14	0	0	0	0	0	0	252
15:00	16	10	2	7	39	124	84	10	0	0	0	0	0	0	292
16:00	16	9	1	2	50	202	74	12	0	0	0	0	0	1	367
17:00	2	3	1	6	74	153	94	10	0	0	0	0	0	0	343
18:00	4	2	2	5	61	168	86	3	0	0	0	0	0	0	331
19:00	5	8	0	2	53	110	56	2	0	0	0	0	0	0	236
20:00	5	1	1	4	22	92	55	7	0	0	0	0	0	0	187
21:00	2	5	1	0	12	59	30	6	0	0	0	0	0	0	115
22:00	2	2	0	1	6	34	17	1	0	0	0	0	0	0	63
23:00	0	0	0	0	6	18	9	4	0	0	0	0	0	0	37
24:00	0	0	0	0	4	7	11	1	0	0	0	0	0	0	23
DAY TOTAL	138	99	18	50	622	1880	1248	159	3	0	1	0	0	1	4219
PERCENTS	3.3%	2.3%	0.4%	1.2%	14.7%	44.6%	29.6%	3.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
28.6 mph

85th Percentile Speed  
38.2 mph

Median Speed  
33.3 mph

Average Speed  
33.0 mph

10 MPH Pace Speed  
30 mph to 40 mph  
3128 vehicles in pace  
Representing 76.7% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Wed 3/6/2024

Station #: 240140000073  
Site ID: 000000000102  
Location: Humphrey St. SB, south of Orchard Rd..  
Direction: SOUTH  
Lane: 1

File: D0304006.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	2	2	3	1	0	1	1	0	0	0	10
02:00	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
03:00	0	0	0	0	1	1	2	1	0	0	0	0	0	0	5
04:00	0	0	0	0	2	2	3	0	0	0	0	0	0	2	9
05:00	0	0	0	1	0	5	11	5	1	0	1	0	0	0	24
06:00	2	10	0	0	2	23	55	16	2	0	0	0	1	1	112
07:00	12	14	0	4	20	91	112	15	0	0	1	0	0	3	272
08:00	8	7	2	2	26	102	88	11	0	0	0	0	1	0	247
09:00	13	3	2	9	26	110	76	10	0	0	0	0	0	2	251
10:00	8	4	1	2	31	97	74	14	0	0	0	0	0	0	231
11:00	8	4	2	3	26	114	67	5	0	0	0	0	0	0	229
12:00	14	5	1	9	42	111	61	14	0	0	0	0	0	0	257
13:00	12	9	5	2	53	112	61	10	0	0	0	0	0	0	264
14:00	9	4	2	4	47	123	56	6	1	2	0	0	0	1	255
15:00	14	3	2	5	53	142	55	5	0	0	0	0	0	0	279
16:00	20	9	1	4	65	147	72	4	0	0	0	0	0	0	322
17:00	7	2	1	12	84	157	74	6	0	0	0	0	0	0	343
18:00	3	2	1	6	60	195	63	2	0	0	0	0	0	0	332
19:00	3	4	2	0	50	125	51	6	0	0	0	0	0	0	241
20:00	2	4	1	1	22	82	52	5	1	0	0	0	0	0	170
21:00	0	1	0	1	15	48	39	5	1	0	0	0	0	0	110
22:00	1	1	0	1	19	32	19	4	0	0	0	0	0	0	77
23:00	0	1	0	0	1	8	11	3	2	0	0	0	0	0	26
24:00	0	0	0	0	3	8	5	0	0	0	0	0	0	0	16
DAY TOTAL	136	87	23	66	650	1840	1110	148	8	3	3	0	2	9	4085
PERCENTS	3.3%	2.1%	0.6%	1.6%	15.9%	45.0%	27.2%	3.6%	0.2%	0.1%	0.1%	0.0%	0.0%	0.2%	100.0%

Statistical Information...

15th Percentile Speed  
28.2 mph

85th Percentile Speed  
38.1 mph

Median Speed  
33.1 mph

Average Speed  
32.9 mph

10 MPH Pace Speed  
30 mph to 40 mph  
2950 vehicles in pace  
Representing 74.9% of the total vehicles

Vehicles > 65 MPH  
2  
0.1%

Mass Highway Department

SPEED SUMMARY  
Thu 3/7/2024

Station #: 240140000073  
Site ID: 000000000102  
Location: Humphrey St. SB, south of Orchard Rd..  
Direction: SOUTH  
Lane: 1

File: D0304006.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	1	6	4	0	0	0	0	0	0	0	11
02:00	1	0	0	0	2	4	0	2	0	0	0	0	0	0	9
03:00	0	0	0	0	0	2	1	1	0	0	0	0	0	0	4
04:00	0	0	0	0	0	2	3	1	1	0	0	0	0	0	7
05:00	1	1	0	0	0	8	6	2	2	1	0	0	0	0	21
06:00	5	12	1	0	5	16	56	9	3	1	0	0	0	2	110
07:00	9	12	3	3	13	90	98	11	0	0	1	0	0	1	241
08:00	12	10	1	3	24	110	132	10	0	0	1	0	0	0	303
09:00	14	7	4	1	23	128	98	12	0	0	0	0	0	0	287
10:00	8	7	0	8	38	119	71	16	0	0	0	0	0	0	267
11:00	6	6	0	5	48	108	46	9	0	0	0	0	0	0	228
12:00	13	5	1	5	40	114	71	7	0	0	0	0	0	1	257
13:00	1	5	0	4	37	117	69	14	0	0	0	0	0	0	247
14:00	6	5	3	4	35	129	80	5	1	0	0	0	0	0	268
15:00	23	13	13	4	41	106	89	10	1	0	0	0	0	0	300
16:00	10	4	0	3	57	141	96	9	0	0	1	0	0	0	321
17:00	4	7	1	17	50	162	62	6	1	0	0	0	0	0	310
18:00	8	4	1	7	59	199	84	3	0	0	0	0	0	0	365
19:00	6	3	2	4	58	128	61	6	0	0	0	0	0	1	269
20:00	5	8	1	2	28	72	44	5	0	0	0	0	0	1	166
21:00	1	4	2	1	15	61	36	6	0	0	0	0	0	0	126
22:00	1	0	0	1	10	36	26	7	0	0	0	0	0	0	81
23:00	0	0	0	2	9	26	9	4	0	0	0	0	0	0	50
24:00	2	0	0	1	3	11	16	0	0	0	0	0	0	0	33
DAY TOTAL	136	113	33	75	596	1895	1258	155	9	2	3	0	0	6	4281
PERCENTS	3.2%	2.6%	0.8%	1.8%	13.9%	44.3%	29.4%	3.6%	0.2%	0.0%	0.1%	0.0%	0.0%	0.1%	100.0%

Statistical Information...

15th Percentile Speed  
28.4 mph

85th Percentile Speed  
38.2 mph

Median Speed  
33.3 mph

Average Speed  
32.9 mph

10 MPH Pace Speed  
30 mph to 40 mph  
3153 vehicles in pace  
Representing 76.2% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
 Fri 3/8/2024

Station #: 240140000073  
 Site ID: 000000000102  
 Location: Humphrey St. SB, south of Orchard Rd..  
 Direction: SOUTH  
 Lane: 1

File: D0304006.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	2	3	4	2	0	0	0	0	0	0	11
02:00	0	0	0	0	4	2	3	1	0	0	0	0	0	0	10
03:00	0	0	0	1	1	0	3	1	0	0	0	0	0	0	6
04:00	1	0	0	0	0	6	3	1	1	0	0	0	0	0	12
05:00	0	2	0	1	1	7	16	5	1	0	0	0	0	0	33
06:00	3	9	0	0	9	16	36	20	2	0	0	0	0	0	95
07:00	4	15	6	3	20	61	74	18	0	0	0	0	0	0	201
08:00	6	10	1	10	14	106	96	18	1	0	0	0	0	0	262
09:00	12	10	0	6	23	127	97	8	1	0	0	0	0	0	284
DAY TOTAL	26	46	7	21	74	328	332	74	6	0	0	0	0	0	914
PERCENTS	2.8%	5.0%	0.8%	2.3%	8.1%	35.9%	36.3%	8.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 29.0 mph

85th Percentile Speed  
 39.2 mph

Median Speed  
 34.5 mph

Average Speed  
 33.5 mph

10 MPH Pace Speed  
 30 mph to 40 mph  
 660 vehicles in pace  
 Representing 74.3% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
 Mon 3/4/2024

Page: 1

STA. 2EB

Station #: 240140000107  
 Site ID: 000000000203  
 Location: Atlantic Ave. EB, north of Atlantic Rd.  
 Direction: EAST  
 Lane: 1

File: D0304008.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
11:00	11	4	7	22	35	60	15	2	0	1	0	0	0	0	157
12:00	0	1	1	3	43	110	33	4	0	0	0	0	0	0	195
13:00	0	0	3	9	47	118	28	1	0	0	0	0	0	0	206
14:00	0	0	2	1	43	106	38	0	0	0	0	0	0	0	190
15:00	0	0	3	5	70	147	53	1	0	0	0	0	0	0	279
16:00	0	0	2	1	69	172	55	1	0	0	0	0	0	0	300
17:00	0	0	2	1	82	174	51	2	0	0	0	0	0	0	312
18:00	0	0	3	7	80	148	38	4	0	0	0	0	0	0	280
19:00	0	0	3	6	102	114	21	1	0	0	0	0	0	0	247
20:00	0	0	2	2	55	94	26	2	0	0	0	0	0	0	181
21:00	0	0	0	2	44	53	14	4	0	0	0	0	0	0	117
22:00	0	0	1	1	30	43	15	0	0	0	0	0	0	0	90
23:00	0	0	0	1	15	26	5	1	0	0	0	0	0	0	48
24:00	0	0	0	0	3	19	5	0	0	0	0	0	0	0	27
DAY TOTAL	11	5	29	61	718	1384	397	23	0	1	0	0	0	0	2629
PERCENTS	0.4%	0.2%	1.1%	2.3%	27.3%	52.6%	15.1%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 27.1 mph

85th Percentile Speed  
 35.4 mph

Median Speed  
 31.8 mph

Average Speed  
 31.6 mph

10 MPH Pace Speed  
 25 mph to 35 mph  
 2102 vehicles in pace  
 Representing 80.3% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
Tue 3/5/2024

Page: 2

Station #: 240140000107  
Site ID: 00000000203  
Location: Atlantic Ave. EB, north of Atlantic Rd.  
Direction: EAST  
Lane: 1

File: D0304008.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	0	10	3	0	0	0	0	0	0	0	13
02:00	0	0	0	0	1	4	3	0	0	0	0	0	0	0	8
03:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	2	1	2	0	0	0	0	0	0	0	5
05:00	0	0	0	0	1	6	3	2	1	0	0	0	0	0	13
06:00	0	0	0	0	5	11	5	0	0	0	0	0	0	0	21
07:00	0	0	0	0	9	57	18	2	0	0	0	0	0	0	86
08:00	1	1	7	13	113	157	29	1	0	0	0	0	0	0	322
09:00	0	0	5	9	104	155	38	1	0	0	0	0	0	0	312
10:00	0	1	1	7	49	94	39	3	0	0	0	0	0	0	194
11:00	1	0	4	3	43	93	32	1	1	0	0	0	0	0	178
12:00	1	0	2	3	58	80	29	2	0	0	0	0	0	0	175
13:00	0	0	1	7	48	90	49	0	0	0	0	0	0	0	195
14:00	0	0	2	3	36	136	25	0	0	0	0	0	0	0	202
15:00	0	1	4	6	90	159	39	3	0	0	0	0	0	0	302
16:00	1	0	3	6	56	162	56	5	0	0	0	0	0	0	289
17:00	0	0	4	4	87	179	46	4	0	0	0	0	0	0	324
18:00	0	0	2	6	96	175	27	4	0	0	0	0	0	0	310
19:00	0	0	1	13	112	164	21	1	0	0	0	0	0	0	312
20:00	0	0	1	3	49	96	23	2	0	0	0	0	0	0	174
21:00	0	0	0	2	36	75	17	1	0	0	0	0	0	0	131
22:00	0	0	0	1	18	47	13	0	0	0	0	0	0	0	79
23:00	0	0	1	5	17	36	9	1	0	0	0	0	0	0	69
24:00	0	0	0	1	4	30	12	2	0	0	0	0	0	0	49
DAY TOTAL	4	3	38	92	1035	2018	538	35	2	0	0	0	0	0	3765
PERCENTS	0.1%	0.1%	1.0%	2.4%	27.5%	53.6%	14.3%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
27.1 mph

85th Percentile Speed  
35.1 mph

Median Speed  
31.8 mph

Average Speed  
31.5 mph

10 MPH Pace Speed  
25 mph to 35 mph  
3053 vehicles in pace  
Representing 81.2% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Wed 3/6/2024

Station #: 240140000107  
Site ID: 00000000203  
Location: Atlantic Ave. EB, north of Atlantic Rd.  
Direction: EAST  
Lane: 1

File: D0304008.prn  
City: Swampscott  
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	8	7	0	0	0	0	0	0	0	18
02:00	0	0	0	0	1	2	2	0	0	0	0	0	0	0	5
03:00	0	0	0	1	1	2	1	1	0	0	0	0	0	0	6
04:00	0	0	0	1	0	3	0	1	0	0	0	0	0	0	5
05:00	0	0	0	0	2	5	4	2	1	0	0	0	0	0	14
06:00	0	0	0	4	2	16	11	2	0	0	0	0	0	0	35
07:00	0	0	0	0	29	38	17	1	0	0	0	0	0	0	85
08:00	0	0	5	12	121	160	29	0	0	0	0	0	0	0	327
09:00	0	1	4	8	106	166	34	2	0	0	0	0	0	0	321
10:00	1	0	3	5	42	118	29	3	0	0	0	0	0	0	201
11:00	1	0	1	2	55	93	31	6	0	0	0	0	0	0	189
12:00	0	0	2	3	50	135	35	3	1	0	0	0	0	0	229
13:00	2	2	3	13	77	124	37	1	4	0	0	0	0	0	263
14:00	0	0	7	9	61	121	31	1	0	0	0	0	0	0	230
15:00	0	0	6	9	97	143	27	1	1	0	0	0	0	0	284
16:00	0	0	3	3	97	183	37	1	1	0	0	0	0	0	325
17:00	0	0	1	9	90	179	48	4	0	0	0	0	0	0	331
18:00	0	0	6	21	95	162	36	3	0	0	0	0	0	0	323
19:00	0	0	1	10	119	137	25	0	0	0	0	0	0	0	292
20:00	0	0	1	3	49	111	22	2	0	0	0	0	0	0	188
21:00	0	0	2	2	46	67	14	4	0	0	0	0	0	0	135
22:00	0	0	0	3	33	48	16	0	0	0	0	0	0	0	100
23:00	0	0	0	2	12	21	11	3	0	0	0	0	0	0	49
24:00	0	0	0	1	6	15	8	3	0	0	0	0	0	0	33
DAY TOTAL	4	3	45	121	1194	2057	512	44	8	0	0	0	0	0	3988
PERCENTS	0.1%	0.1%	1.1%	3.0%	29.9%	51.6%	12.8%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
26.8 mph

85th Percentile Speed  
34.9 mph

Median Speed  
31.5 mph

Average Speed  
31.3 mph

10 MPH Pace Speed  
25 mph to 35 mph  
3251 vehicles in pace  
Representing 81.6% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Thu 3/7/2024

Station #: 240140000107.  
Site ID: 00000000203  
Location: Atlantic Ave. EB, north of Atlantic Rd.  
Direction: EAST  
Lane: 1

File: D0304008.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	1	7	7	1	0	0	0	0	0	0	0	16
02:00	0	0	0	1	4	1	1	0	0	0	0	0	0	0	7
03:00	0	0	1	1	3	1	0	0	0	0	0	0	0	0	6
04:00	1	0	1	2	3	0	0	0	0	0	0	0	0	0	7
05:00	3	0	0	0	6	1	0	0	0	0	0	0	0	0	10
06:00	3	0	0	2	3	9	0	0	0	0	0	0	0	0	17
07:00	0	0	1	3	28	61	8	0	0	0	0	0	0	0	101
08:00	0	0	5	12	113	149	25	0	0	0	0	0	0	0	304
09:00	0	2	3	15	112	146	30	1	0	0	0	0	0	0	309
10:00	0	0	2	6	61	106	28	4	0	0	0	0	0	0	207
11:00	1	0	1	5	49	87	20	0	0	0	0	0	0	0	163
12:00	1	0	3	5	53	89	22	3	0	0	0	0	0	0	176
13:00	1	0	3	8	57	105	33	1	0	0	0	0	0	0	208
14:00	0	0	3	5	53	104	35	1	1	0	0	0	0	0	202
15:00	1	0	5	6	61	147	40	1	0	0	0	0	0	0	261
16:00	0	0	0	9	103	170	43	5	0	0	0	0	0	0	330
17:00	0	2	2	3	96	198	29	0	1	0	0	0	0	0	331
18:00	0	0	3	5	75	189	43	2	0	0	0	0	0	0	317
19:00	1	1	3	14	95	137	24	1	0	0	0	0	0	0	276
20:00	0	2	8	7	77	69	20	3	0	0	0	0	0	0	186
21:00	0	0	0	5	35	80	16	3	0	0	0	0	0	0	139
22:00	0	0	0	3	24	65	21	0	1	0	0	0	0	0	114
23:00	0	0	1	1	20	40	13	0	0	0	0	0	0	0	75
24:00	0	0	0	0	5	20	27	4	0	0	0	0	0	0	56
DAY TOTAL	12	7	45	119	1143	1981	479	29	3	0	0	0	0	0	3818
PERCENTS	0.3%	0.2%	1.2%	3.1%	29.9%	51.9%	12.5%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
26.8 mph

85th Percentile Speed  
34.9 mph

Median Speed  
31.5 mph

Average Speed  
31.2 mph

10 MPH Pace Speed  
25 mph to 35 mph  
3124 vehicles in pace  
Representing 82.1% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
 Fri 3/8/2024

Station #: 240140000107  
 Site ID: 000000000203  
 Location: Atlantic Ave. EB, north of Atlantic Rd.  
 Direction: EAST  
 Lane: 1

File: D0304008.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	1	0	0	0	4	18	8	1	0	0	0	0	0	0	32
02:00	0	0	0	0	0	5	2	0	0	0	0	0	0	0	7
03:00	0	0	0	0	3	4	7	1	0	0	0	0	0	0	15
04:00	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
05:00	0	0	0	0	2	7	3	2	1	0	0	0	0	0	15
06:00	0	1	1	2	5	17	8	3	0	0	0	0	0	0	37
07:00	1	3	0	1	30	44	23	3	0	0	0	0	0	0	105
08:00	2	2	3	5	81	160	33	3	0	0	0	0	0	0	289
09:00	0	1	5	18	98	175	27	3	1	0	0	0	0	0	328
DAY TOTAL	4	7	9	26	223	431	113	16	2	0	0	0	0	0	831
PERCENTS	0.5%	0.8%	1.1%	3.1%	26.8%	51.9%	13.6%	1.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 26.8 mph

85th Percentile Speed  
 35.3 mph

Median Speed  
 31.7 mph

Average Speed  
 31.4 mph

10 MPH Pace Speed  
 25 mph to 35 mph  
 654 vehicles in pace  
 Representing 79.1% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
Mon 3/4/2024

Page: 1

STA 2WB

Station #: 240140000094  
Site ID: 00000000204  
Location: Atlantic Ave. WB, north of Atlantic St.  
Direction: WEST  
Lane: 1

File: D0304010.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
11:00	6	0	8	12	73	54	17	1	0	0	0	0	0	0	171
12:00	0	0	0	3	76	107	28	3	0	0	0	0	0	0	217
13:00	0	1	0	18	79	109	16	1	0	0	0	0	0	0	224
14:00	0	0	2	14	75	114	26	3	0	0	0	0	0	0	234
15:00	0	0	2	16	98	104	19	1	0	1	0	0	0	0	241
16:00	1	4	7	20	145	121	18	1	0	0	0	0	0	0	317
17:00	0	2	3	26	111	131	20	0	0	0	0	0	0	0	293
18:00	0	0	4	11	128	108	21	0	0	0	0	0	0	0	272
19:00	0	1	7	25	84	65	6	0	0	0	0	0	0	0	188
20:00	0	0	2	4	38	40	12	1	0	0	0	0	0	0	97
21:00	0	1	0	8	33	47	13	1	0	0	0	0	0	0	103
22:00	0	0	0	7	29	20	9	1	0	0	0	0	0	0	66
23:00	0	0	0	0	6	12	5	1	0	1	0	0	0	0	25
24:00	0	0	0	0	2	3	5	2	0	0	0	0	0	0	12
DAY TOTAL	7	9	35	164	977	1035	215	16	0	2	0	0	0	0	2460
PERCENTS	0.3%	0.4%	1.4%	6.7%	39.7%	42.1%	8.7%	0.7%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
25.8 mph

85th Percentile Speed  
34.4 mph

Median Speed  
30.2 mph

Average Speed  
30.1 mph

10 MPH Pace Speed  
25 mph to 35 mph  
2012 vehicles in pace  
Representing 82.0% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Tue 3/5/2024

Station #: 240140000094  
Site ID: 000000000204  
Location: Atlantic Ave. WB, north of Atlantic St.  
Direction: WEST  
Lane: 1

File: D0304010.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	1	2	2	1	1	0	0	0	0	0	0	7
03:00	0	0	0	0	0	5	2	0	0	0	0	0	0	0	7
04:00	0	0	0	0	2	5	1	1	0	0	0	0	0	0	9
05:00	0	0	0	0	1	19	14	2	0	0	0	0	0	0	36
06:00	0	0	0	0	15	45	52	7	1	0	0	0	0	0	120
07:00	0	0	0	1	39	129	56	1	0	0	0	0	0	0	226
08:00	0	0	3	21	82	182	57	3	0	0	0	0	0	0	348
09:00	0	0	2	10	132	196	37	1	0	0	0	0	0	0	378
10:00	1	0	2	8	99	116	35	2	0	0	0	0	0	0	263
11:00	0	0	2	1	46	117	37	2	0	0	0	0	0	0	205
12:00	0	2	2	8	77	115	14	3	0	0	0	0	0	0	221
13:00	0	1	0	9	64	103	26	0	0	0	0	0	0	0	203
14:00	1	0	5	6	93	96	16	2	1	0	0	0	0	0	220
15:00	0	0	1	12	79	102	12	0	0	0	0	0	0	0	206
16:00	0	0	9	28	120	147	21	0	0	0	0	0	0	0	325
17:00	0	0	2	18	123	129	23	0	0	0	0	0	0	0	295
18:00	0	0	2	12	127	102	15	0	0	0	0	0	0	0	258
19:00	0	2	4	21	106	77	7	1	0	0	0	0	0	0	218
20:00	0	0	3	8	54	61	12	1	0	0	0	0	0	0	139
21:00	0	0	0	3	29	45	13	2	0	0	0	0	0	0	92
22:00	0	0	1	2	21	18	6	1	0	0	0	0	0	0	49
23:00	0	0	0	2	6	11	2	0	0	0	0	0	0	0	21
24:00	0	0	0	1	8	4	3	0	0	0	0	0	0	0	16
DAY TOTAL	2	5	38	172	1327	1826	462	30	2	0	0	0	0	0	3864
PERCENTS	0.1%	0.1%	1.0%	4.5%	34.3%	47.3%	12.0%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
26.4 mph

85th Percentile Speed  
34.8 mph

Median Speed  
31.1 mph

Average Speed  
30.9 mph

10 MPH Pace Speed  
25 mph to 35 mph  
3153 vehicles in pace  
Representing 81.6% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Wed 3/6/2024

Station #: 240140000094  
Site ID: 00000000204  
Location: Atlantic Ave. WB, north of Atlantic St.  
Direction: WEST  
Lane: 1

File: D0304010.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	2	5	1	1	0	0	0	0	0	0	9
02:00	0	0	0	0	3	2	1	0	0	0	0	0	0	0	6
03:00	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3
04:00	0	0	0	0	1	4	1	0	0	0	0	0	0	0	6
05:00	0	0	0	0	0	12	17	2	0	0	0	0	0	0	31
06:00	0	0	2	0	12	57	42	8	0	0	0	0	0	0	121
07:00	0	0	1	2	40	116	56	0	1	0	0	0	0	0	216
08:00	0	0	0	14	126	204	57	2	0	0	0	0	0	0	403
09:00	0	1	1	20	168	186	24	2	0	0	0	0	0	0	402
10:00	1	0	0	7	100	119	38	2	0	0	0	0	0	0	267
11:00	1	0	1	15	98	113	25	0	0	0	0	0	0	0	253
12:00	0	0	1	8	105	128	23	0	0	0	0	0	0	0	265
13:00	6	5	11	39	127	98	16	2	0	0	0	0	0	0	304
14:00	1	1	2	17	121	108	17	1	0	0	0	0	0	0	268
15:00	1	0	2	15	98	124	20	1	0	0	0	0	0	0	261
16:00	3	3	4	22	161	116	9	0	0	0	0	0	0	0	318
17:00	1	0	4	23	165	112	26	0	0	0	0	0	0	0	331
18:00	0	0	4	14	134	102	11	0	0	0	0	0	0	0	265
19:00	0	0	4	22	91	58	11	0	0	0	0	0	0	0	186
20:00	0	0	3	7	58	52	10	0	0	0	0	0	0	0	130
21:00	0	1	2	6	40	34	11	1	0	0	0	0	0	0	95
22:00	0	0	0	7	42	20	4	0	0	0	0	0	0	0	73
23:00	0	0	0	0	14	13	5	1	0	0	0	0	0	0	33
24:00	0	0	0	0	13	5	1	0	0	0	0	0	0	0	19
DAY TOTAL	14	11	42	238	1720	1789	427	23	1	0	0	0	0	0	4265
PERCENTS	0.3%	0.3%	1.0%	5.6%	40.3%	41.9%	10.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
26.0 mph

85th Percentile Speed  
34.5 mph

Median Speed  
30.3 mph

Average Speed  
30.3 mph

10 MPH Pace Speed  
25 mph to 35 mph  
3509 vehicles in pace  
Representing 82.5% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Thu 3/7/2024

Page: 4

Station #: 240140000094  
Site ID: 000000000204  
Location: Atlantic Ave. WB, north of Atlantic St.  
Direction: WEST  
Lane: 1

File: D0304010.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	1	0	0	0	2	0	0	0	0	10	0	0	0	0	13
02:00	0	0	0	0	4	2	0	0	0	0	0	0	0	0	6
03:00	0	0	0	0	0	2	2	1	0	0	0	0	0	0	5
04:00	0	0	0	1	2	6	3	1	0	0	0	0	0	0	13
05:00	0	0	0	0	4	15	17	1	0	0	0	0	0	0	37
06:00	2	0	0	0	11	32	57	12	1	0	0	0	0	0	115
07:00	2	0	1	1	34	105	59	5	0	0	0	0	0	0	207
08:00	1	1	1	4	92	200	58	1	1	0	0	0	0	0	359
09:00	0	0	4	16	141	164	30	2	0	0	0	0	0	0	357
10:00	20	0	0	13	67	91	44	3	0	0	0	0	0	0	238
11:00	14	0	9	4	70	90	20	1	0	0	0	0	0	0	208
12:00	15	16	1	31	71	103	0	0	0	0	0	0	0	0	237
13:00	0	2	17	8	89	76	35	0	0	0	0	0	0	0	227
14:00	30	0	7	0	36	82	44	0	0	0	0	0	0	0	199
15:00	15	3	7	9	98	92	3	7	0	0	0	0	0	0	234
16:00	2	0	0	27	144	85	39	8	0	0	0	0	0	0	305
17:00	4	0	4	40	192	104	14	0	0	0	0	0	0	0	358
18:00	2	0	3	46	136	71	26	0	0	0	0	0	0	0	284
19:00	5	5	0	34	73	55	20	0	0	0	0	0	0	1	193
20:00	2	0	2	0	63	64	6	0	0	0	0	0	0	0	137
21:00	0	0	0	2	54	41	13	0	0	0	0	0	0	0	110
22:00	0	0	0	0	44	33	7	0	0	0	0	0	0	0	84
23:00	0	0	0	0	32	24	6	0	0	0	0	0	0	0	62
24:00	0	0	0	1	3	16	2	0	0	0	0	0	0	0	22
DAY TOTAL	115	27	56	237	1462	1553	505	42	2	10	0	0	0	1	4010
PERCENTS	2.9%	0.7%	1.4%	5.9%	36.5%	38.7%	12.6%	1.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
25.9 mph

85th Percentile Speed  
34.9 mph

Median Speed  
30.5 mph

Average Speed  
30.5 mph

10 MPH Pace Speed  
25 mph to 35 mph  
3015 vehicles in pace  
Representing 77.4% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
 Fri 3/8/2024

Page: 5

Station #: 240140000094  
 Site ID: 000000000204  
 Location: Atlantic Ave. WB, north of Atlantic St.  
 Direction: WEST  
 Lane: 1

File: D0304010.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	1	0	0	0	1	8	4	0	0	2	0	0	0	0	16
02:00	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
03:00	0	0	0	0	0	5	1	0	0	0	0	0	0	0	6
04:00	0	0	0	1	0	2	0	4	0	0	0	0	0	0	7
05:00	0	0	0	0	0	7	14	4	0	0	0	0	0	0	25
06:00	0	0	0	1	6	46	34	12	1	0	0	0	0	0	100
07:00	2	0	1	1	44	70	34	8	1	0	0	0	0	0	161
08:00	2	0	3	13	87	129	51	1	0	0	0	0	0	0	286
09:00	0	0	5	21	62	148	70	4	0	0	0	0	0	0	310
DAY TOTAL	5	0	9	37	200	415	212	33	2	2	0	0	0	0	915
PERCENTS	0.5%	0.0%	1.0%	4.0%	21.9%	45.4%	23.2%	3.6%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 27.3 mph

85th Percentile Speed  
 37.7 mph

Median Speed  
 32.5 mph

Average Speed  
 32.5 mph

10 MPH Pace Speed  
 30 mph to 40 mph  
 627 vehicles in pace  
 Representing 68.9% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
 Mon 3/4/2024

Page: 1

STA. 3EB

Station #: 240140000072  
 Site ID: 00000000303  
 Location: Humphrey St. EB, west of Alden St.  
 Direction: EAST  
 Lane: 1

File: D0304014.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
12:00	0	0	2	3	69	191	86	9	0	0	0	0	0	0	360
13:00	0	1	3	11	76	206	81	2	0	0	0	0	0	0	380
14:00	0	1	6	2	92	192	88	7	0	0	0	0	0	0	388
15:00	0	1	2	12	94	223	84	9	0	2	1	0	0	0	428
16:00	0	2	2	8	135	257	79	10	0	0	0	0	0	0	493
17:00	1	4	2	12	119	252	94	9	0	0	0	0	0	0	493
18:00	0	1	2	26	182	236	66	6	0	0	0	0	0	0	519
19:00	0	2	2	16	141	166	30	1	0	0	0	0	0	0	358
20:00	0	0	0	13	42	99	35	3	1	0	0	0	0	0	193
21:00	0	0	0	2	36	85	39	1	0	0	0	0	0	0	163
22:00	0	0	0	1	32	53	20	3	0	0	0	0	0	0	109
23:00	0	0	0	0	6	17	16	4	0	1	0	0	0	0	44
24:00	0	0	0	1	13	14	11	3	1	0	0	0	0	0	43
DAY TOTAL	1	12	21	107	1037	1991	729	67	2	3	1	0	0	0	3971
PERCENTS	0.0%	0.3%	0.5%	2.7%	26.1%	50.1%	18.4%	1.7%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 27.2 mph

85th Percentile Speed  
 36.4 mph

Median Speed  
 32.0 mph

Average Speed  
 31.9 mph

10 MPH Pace Speed  
 25 mph to 35 mph  
 3028 vehicles in pace  
 Representing 76.3% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
Tue 3/5/2024

Page: 2

Station #: 240140000072  
Site ID: 000000000303  
Location: Humphrey St. EB, west of Alden St.  
Direction: EAST  
Lane: 1

File: D0304014.prn  
City: Swampscott  
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	0	0	0	0	0	0	0	12
02:00	0	0	1	3	4	5	3	2	0	0	0	0	0	0	18
03:00	0	0	0	0	1	3	4	1	0	0	0	0	0	0	9
04:00	0	0	0	0	2	8	7	2	0	0	0	0	0	0	19
05:00	0	0	0	1	3	13	28	12	1	0	0	0	0	0	58
06:00	0	1	1	2	9	74	112	31	2	0	0	0	0	0	232
07:00	0	3	2	2	35	214	185	9	1	0	1	0	0	0	452
08:00	5	0	13	8	111	287	157	10	1	0	0	0	0	0	592
09:00	0	0	5	9	115	322	132	9	0	0	0	0	0	0	592
10:00	0	2	1	6	100	231	96	10	0	0	0	0	0	0	446
11:00	0	1	5	7	46	184	119	10	1	0	0	0	0	0	373
12:00	1	0	7	15	70	194	88	6	1	0	0	0	0	0	382
13:00	0	0	4	11	94	200	82	7	0	0	0	0	0	0	398
14:00	2	2	3	7	100	202	72	4	1	0	0	0	0	0	393
15:00	0	0	3	8	95	218	72	6	1	0	0	0	0	0	403
16:00	0	0	6	18	197	285	84	2	0	0	0	0	0	0	592
17:00	4	7	11	8	169	264	91	2	0	0	0	0	0	0	556
18:00	1	9	10	7	151	250	67	4	0	0	0	0	0	0	499
19:00	1	2	2	25	130	166	40	0	0	0	0	0	0	0	366
20:00	0	0	2	10	52	141	49	5	0	0	0	0	0	0	259
21:00	0	0	0	4	30	66	52	7	0	0	0	0	0	0	159
22:00	0	0	1	0	17	41	21	6	0	1	0	0	0	0	87
23:00	0	0	0	3	9	25	19	2	1	0	0	0	0	0	59
24:00	0	0	0	1	16	14	8	0	0	0	0	0	0	0	39
DAY TOTAL	14	27	77	156	1559	3412	1591	147	10	1	1	0	0	0	6995
PERCENTS	0.2%	0.4%	1.1%	2.2%	22.3%	48.8%	22.7%	2.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
27.5 mph

85th Percentile Speed  
37.2 mph

Median Speed  
32.5 mph

Average Speed  
32.3 mph

10 MPH Pace Speed  
30 mph to 40 mph  
5003 vehicles in pace  
Representing 71.7% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Wed 3/6/2024

Station #: 240140000072  
 Site ID: 000000000303  
 Location: Humphrey St. EB, west of Alden St.  
 Direction: EAST  
 Lane: 1

File: D0304014.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	6	5	5	1	0	0	0	1	0	0	18
02:00	0	0	0	0	0	7	3	0	0	0	0	0	0	0	10
03:00	0	0	0	0	0	2	1	2	0	0	0	0	0	0	5
04:00	0	0	0	1	1	7	2	2	0	0	0	0	0	0	13
05:00	0	0	0	0	1	11	33	9	1	0	0	0	0	0	55
06:00	1	1	2	2	16	84	102	21	1	0	0	0	0	0	230
07:00	0	1	3	6	46	226	163	11	0	0	0	0	0	0	456
08:00	1	3	8	9	124	288	176	6	0	0	0	0	0	2	617
09:00	0	0	3	3	87	325	125	7	0	0	0	0	0	0	550
10:00	1	1	1	5	100	216	103	8	1	0	0	0	0	0	436
11:00	0	4	3	19	129	208	44	1	0	0	0	0	0	0	408
12:00	0	5	7	17	123	215	75	7	1	0	0	0	0	0	450
13:00	5	4	7	26	166	193	71	5	0	0	0	0	0	0	477
14:00	2	2	5	12	127	220	56	2	0	0	0	0	0	0	426
15:00	0	3	3	28	135	213	66	7	2	0	0	0	0	0	457
16:00	0	0	4	13	175	279	65	3	0	0	0	0	0	0	539
17:00	1	0	2	23	205	270	75	9	0	0	0	0	0	0	585
18:00	0	2	2	21	199	224	62	6	0	0	0	0	0	0	516
19:00	0	0	0	18	132	157	35	3	0	0	0	0	0	0	345
20:00	0	1	0	8	63	119	40	5	0	0	0	0	0	0	236
21:00	0	0	2	1	43	78	40	5	0	0	0	0	0	0	169
22:00	0	0	0	3	48	61	22	2	0	0	0	0	0	0	136
23:00	0	0	0	1	13	24	18	3	1	0	0	0	0	0	60
24:00	0	0	0	2	6	13	10	2	0	0	0	0	0	0	33
DAY TOTAL	11	27	52	218	1945	3445	1392	127	7	0	0	1	0	2	7227
PERCENTS	0.2%	0.4%	0.7%	3.0%	26.9%	47.7%	19.3%	1.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
27.0 mph

85th Percentile Speed  
36.6 mph

Median Speed  
32.0 mph

Average Speed  
31.8 mph

10 MPH Pace Speed  
25 mph to 35 mph  
5390 vehicles in pace  
Representing 74.7% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Thu 3/7/2024

Station #: 240140000072  
Site ID: 00000000303  
Location: Humphrey St. EB, west of Alden St.  
Direction: EAST  
Lane: 1

File: D0304014.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	1	4	15	4	0	0	0	0	0	0	0	24
02:00	0	0	0	0	3	5	6	0	0	0	0	0	0	0	14
03:00	0	0	0	0	1	3	3	2	0	0	0	0	0	0	9
04:00	0	0	0	0	2	8	7	3	0	0	0	0	0	0	20
05:00	0	0	1	0	4	14	23	14	1	0	0	0	0	0	57
06:00	0	1	1	0	13	61	107	19	7	0	0	0	0	0	209
07:00	4	1	3	11	57	181	156	11	1	0	0	0	0	0	425
08:00	0	0	10	13	103	364	123	6	0	1	0	0	0	0	620
09:00	2	1	4	15	119	268	135	6	1	0	0	0	0	0	551
10:00	0	0	5	19	97	207	103	7	1	0	0	0	0	0	439
11:00	0	2	3	11	93	186	79	10	0	0	0	0	0	0	384
12:00	1	3	6	23	96	188	89	3	0	0	0	0	0	0	409
13:00	1	0	4	8	93	196	72	11	0	0	0	0	0	0	385
14:00	0	3	1	7	88	210	89	6	0	0	0	0	0	0	404
15:00	12	31	3	13	99	217	71	9	1	0	0	0	0	0	456
16:00	0	1	2	25	162	259	88	10	0	0	0	0	0	0	547
17:00	0	0	9	28	177	261	69	1	0	0	0	0	0	0	545
18:00	0	2	8	39	194	245	62	3	0	0	0	0	0	0	553
19:00	0	3	4	25	143	176	37	2	0	0	0	0	0	0	390
20:00	0	0	3	11	65	107	43	3	0	0	0	0	0	0	232
21:00	0	0	0	2	44	101	42	3	0	0	0	0	0	0	192
22:00	0	1	0	1	35	64	45	4	0	0	0	0	0	0	150
23:00	1	1	0	4	14	47	24	6	0	0	0	0	0	0	97
24:00	0	0	0	0	10	28	16	3	0	0	0	0	0	0	57
DAY TOTAL	21	50	67	256	1716	3411	1493	142	12	1	0	0	0	0	7169
PERCENTS	0.3%	0.7%	0.9%	3.6%	23.9%	47.6%	20.8%	2.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
27.0 mph

85th Percentile Speed  
36.9 mph

Median Speed  
32.2 mph

Average Speed  
31.9 mph

10 MPH Pace Speed  
25 mph to 35 mph  
5127 vehicles in pace  
Representing 71.7% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
 Fri 3/8/2024

Station #: 240140000072  
 Site ID: 00000000303  
 Location: Humphrey St. EB, west of Alden St.  
 Direction: EAST  
 Lane: 1

File: D0304014.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	1	4	8	13	2	0	0	0	0	0	0	28
02:00	0	1	0	0	2	12	2	0	0	0	0	0	0	0	17
03:00	0	0	0	0	3	2	6	1	0	0	0	0	0	0	12
04:00	0	0	0	0	2	4	11	3	1	0	0	0	0	0	21
05:00	0	0	0	0	0	16	27	16	0	0	0	0	0	0	59
06:00	0	2	1	2	7	53	95	29	4	0	0	0	0	0	193
07:00	0	0	1	2	32	127	146	16	3	0	0	0	0	0	327
08:00	1	2	7	11	59	246	155	20	1	0	0	0	0	0	502
09:00	0	0	10	6	43	254	160	18	1	0	0	0	0	0	492
DAY TOTAL	1	5	19	22	152	722	615	105	10	0	0	0	0	0	1651
PERCENTS	0.1%	0.3%	1.2%	1.3%	9.2%	43.7%	37.3%	6.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 30.4 mph

85th Percentile Speed  
 38.9 mph

Median Speed  
 34.4 mph

Average Speed  
 34.3 mph

10 MPH Pace Speed  
 30 mph to 40 mph  
 1337 vehicles in pace  
 Representing 81.0% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
 Mon 3/4/2024

STA. 3 WB

Station #: 240140000139  
 Site ID: 000000000304  
 Location: Humphrey St. WB, west of Alden St.  
 Direction: WEST  
 Lane: 1

File: D0304002.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
12:00	0	4	2	0	73	172	63	6	1	0	0	0	0	0	321
13:00	1	3	5	12	107	170	46	4	0	0	0	0	0	1	349
14:00	1	2	1	5	61	181	65	4	2	0	0	0	0	0	322
15:00	0	2	0	1	105	246	89	8	0	0	0	0	0	0	451
16:00	0	0	0	10	92	326	99	4	1	0	0	0	0	0	532
17:00	3	2	5	28	132	302	76	4	0	0	0	0	0	0	552
18:00	0	3	1	14	211	265	45	3	0	0	0	0	0	0	542
19:00	0	0	6	29	220	221	28	2	0	0	0	0	0	0	506
20:00	0	0	2	6	98	149	52	1	0	0	0	0	0	0	308
21:00	0	0	0	8	57	103	29	5	0	0	0	0	0	0	202
22:00	0	0	0	0	43	61	26	3	0	0	0	0	0	0	133
23:00	0	0	0	0	27	34	18	0	0	0	0	0	0	0	79
24:00	0	1	0	0	9	23	20	2	0	0	0	0	0	0	55
DAY TOTAL	5	17	22	113	1235	2253	656	46	4	0	0	0	0	1	4352
PERCENTS	0.1%	0.4%	0.5%	2.6%	28.4%	51.8%	15.1%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 27.0 mph

85th Percentile Speed  
 35.4 mph

Median Speed  
 31.8 mph

Average Speed  
 31.5 mph

10 MPH Pace Speed  
 25 mph to 35 mph  
 3488 vehicles in pace  
 Representing 80.3% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Mass Highway Department

SPEED SUMMARY  
Tue 3/5/2024

Page: 2

Station #: 240140000139  
Site ID: 000000000304  
Location: Humphrey St. WB, west of Alden St.  
Direction: WEST  
Lane: 1

File: D0304002.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	5	9	14	3	0	0	0	0	0	0	31
02:00	0	0	0	0	0	4	5	1	0	0	0	0	0	0	10
03:00	0	0	0	1	1	1	0	0	0	0	0	0	0	0	3
04:00	0	0	0	1	1	3	1	1	0	0	0	0	0	0	7
05:00	0	0	0	1	3	12	2	4	0	0	1	0	0	0	23
06:00	0	1	1	2	6	24	17	4	0	0	0	0	0	0	55
07:00	2	0	3	2	37	84	28	5	0	0	0	0	0	0	161
08:00	2	3	4	31	164	252	36	2	2	0	0	0	0	0	496
09:00	0	1	3	10	131	247	63	5	0	0	0	0	0	0	460
10:00	0	1	4	8	80	164	66	4	0	0	0	0	0	0	327
11:00	1	0	3	1	63	165	41	4	0	0	0	0	0	0	278
12:00	0	0	1	8	84	163	50	7	0	0	0	0	0	0	313
13:00	0	2	4	8	112	168	51	3	0	0	0	0	0	0	348
14:00	1	1	3	8	100	196	58	5	0	0	0	0	0	0	372
15:00	1	4	3	32	140	262	84	2	0	0	0	0	0	0	528
16:00	1	6	1	8	130	290	93	7	0	0	0	0	0	0	536
17:00	0	0	12	20	196	306	56	6	0	0	0	0	0	0	596
18:00	5	1	4	28	257	263	48	1	0	0	0	0	0	0	607
19:00	0	1	2	32	193	245	54	1	0	0	0	2	0	0	530
20:00	0	0	1	5	82	181	43	5	0	0	0	0	0	0	317
21:00	0	0	0	5	67	107	51	4	0	0	0	0	0	0	234
22:00	0	0	0	2	34	81	43	2	0	0	0	0	0	0	162
23:00	0	0	0	5	26	67	24	4	0	1	0	0	0	0	127
24:00	0	0	0	1	10	44	27	3	0	0	0	0	0	0	85
DAY TOTAL	13	21	49	219	1922	3338	955	83	2	1	1	2	0	0	6606
PERCENTS	0.2%	0.3%	0.7%	3.3%	29.1%	50.5%	14.5%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
26.8 mph

85th Percentile Speed  
35.3 mph

Median Speed  
31.6 mph

Average Speed  
31.4 mph

10 MPH Pace Speed  
25 mph to 35 mph  
5260 vehicles in pace  
Representing 79.8% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Wed 3/6/2024

Station #: 240140000139  
Site ID: 000000000304  
Location: Humphrey St. WB, west of Alden St.  
Direction: WEST  
Lane: 1

File: D0304002.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	2	9	14	0	0	1	0	0	0	0	26
02:00	0	0	0	0	2	6	6	1	0	0	0	0	0	0	15
03:00	0	0	1	1	1	6	1	0	0	0	0	0	0	0	10
04:00	0	0	0	2	1	1	1	1	1	0	0	0	0	0	7
05:00	0	0	0	0	4	10	9	2	2	0	1	0	0	0	28
06:00	0	0	0	3	7	28	25	9	0	0	0	0	0	0	72
07:00	0	0	1	6	49	79	34	2	2	0	0	0	0	0	173
08:00	0	2	3	19	207	235	32	1	0	0	0	0	0	0	499
09:00	0	0	2	8	159	250	84	2	0	0	0	0	0	0	505
10:00	0	1	2	9	100	159	44	7	0	0	0	0	0	0	322
11:00	3	1	1	18	133	159	27	0	0	0	0	0	0	0	342
12:00	0	4	1	9	114	212	49	3	1	1	0	0	0	0	394
13:00	0	1	2	26	147	180	52	2	1	1	0	0	0	0	412
14:00	0	3	7	13	130	182	69	0	0	0	0	0	0	0	404
15:00	1	2	6	14	161	224	46	4	0	0	0	0	0	0	458
16:00	2	2	3	17	229	257	55	0	0	1	0	0	0	0	566
17:00	1	1	5	47	213	280	61	2	0	0	0	0	0	0	610
18:00	5	4	22	51	210	259	40	0	0	0	0	0	0	0	591
19:00	1	2	6	46	224	208	46	1	0	0	0	0	0	0	534
20:00	0	1	0	9	115	176	46	6	0	0	0	0	0	0	353
21:00	0	1	0	4	76	123	28	2	0	0	0	0	0	0	234
22:00	1	0	0	6	49	97	28	2	1	0	0	0	0	0	184
23:00	0	0	0	4	12	47	24	3	0	0	0	0	0	0	90
24:00	0	0	0	2	13	22	22	6	0	0	0	0	0	0	65
DAY TOTAL	14	25	62	314	2358	3209	843	56	8	4	1	0	0	0	6894
PERCENTS	0.2%	0.4%	0.9%	4.6%	34.2%	46.5%	12.2%	0.8%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
26.3 mph

85th Percentile Speed  
34.8 mph

Median Speed  
31.1 mph

Average Speed  
30.9 mph

10 MPH Pace Speed  
25 mph to 35 mph  
5567 vehicles in pace  
Representing 80.9% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
Thu 3/7/2024

Station #: 240140000139  
Site ID: 000000000304  
Location: Humphrey St. WB, west of Alden St.  
Direction: WEST  
Lane: 1

File: D0304002.prn  
City: Swampscott  
County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	1	6	11	15	0	0	0	0	0	0	0	33
02:00	0	0	0	0	1	6	4	2	0	0	0	0	0	0	13
03:00	0	0	0	1	3	5	2	0	0	0	0	0	0	0	11
04:00	0	0	0	3	2	2	1	1	0	0	0	0	0	0	9
05:00	0	0	0	0	1	12	4	2	0	0	0	0	0	0	19
06:00	0	1	0	2	10	17	23	1	1	0	0	0	0	0	55
07:00	0	0	2	0	62	84	29	2	0	0	0	0	0	0	179
08:00	3	1	8	36	201	214	35	4	0	0	0	0	0	0	502
09:00	4	5	11	30	197	199	24	6	0	0	0	0	0	0	476
10:00	0	4	5	20	92	173	54	3	0	0	0	0	0	0	351
11:00	1	3	2	16	93	155	40	1	0	0	0	0	0	0	311
12:00	0	1	2	8	90	173	41	4	0	0	0	0	0	0	319
13:00	5	1	3	18	114	153	53	4	0	0	0	0	0	0	351
14:00	1	3	4	12	116	196	41	0	0	1	0	0	0	0	374
15:00	3	0	12	21	155	243	53	0	0	1	0	0	0	0	488
16:00	5	3	2	26	228	257	55	2	0	0	0	0	0	0	578
17:00	0	1	2	9	185	308	54	3	1	0	0	0	0	0	563
18:00	1	1	13	35	225	256	35	1	0	0	0	0	0	0	567
19:00	0	4	4	29	229	212	28	3	0	0	0	0	0	0	509
20:00	0	1	2	6	129	146	39	2	1	0	0	0	0	0	326
21:00	0	0	0	3	73	136	36	5	0	0	0	0	0	0	253
22:00	0	0	1	3	43	112	44	2	0	0	0	0	0	0	205
23:00	0	0	0	0	34	71	35	4	0	0	0	0	0	0	144
24:00	1	1	0	0	9	42	45	6	1	0	0	0	0	0	105
DAY TOTAL	24	30	73	279	2298	3183	790	58	4	2	0	0	0	0	6741
PERCENTS	0.4%	0.4%	1.1%	4.1%	34.1%	47.2%	11.7%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
26.4 mph

85th Percentile Speed  
34.8 mph

Median Speed  
31.1 mph

Average Speed  
30.8 mph

10 MPH Pace Speed  
25 mph to 35 mph  
5481 vehicles in pace  
Representing 81.6% of the total vehicles

Vehicles > 65 MPH  
0  
0.0%

Mass Highway Department

SPEED SUMMARY  
 Fri 3/8/2024

Station #: 240140000139  
 Site ID: 000000000304  
 Location: Humphrey St. WB, west of Alden St.  
 Direction: WEST  
 Lane: 1

File: D0304002.prn  
 City: Swampscott  
 County: speed

TIME	10	15	20	25	30	35	40	45	50	55	60	65	70	120	Total
01:00	0	0	0	0	2	30	18	0	0	0	0	0	0	0	50
02:00	0	0	0	1	1	10	7	1	0	0	0	0	0	0	20
03:00	0	0	0	1	4	8	5	2	0	0	0	0	0	0	20
04:00	0	0	0	0	1	3	3	1	0	0	0	0	0	0	8
05:00	0	0	0	0	2	10	10	3	3	0	0	0	0	0	28
06:00	0	1	2	0	14	32	24	4	0	0	0	0	0	0	77
07:00	0	0	0	0	30	101	53	9	1	0	0	0	0	0	194
08:00	2	2	5	17	167	237	76	4	1	0	0	0	0	0	511
09:00	1	0	2	25	152	270	73	6	0	0	0	0	0	0	529
DAY TOTAL	3	3	9	44	373	701	269	30	5	0	0	0	0	0	1437
PERCENTS	0.2%	0.2%	0.6%	3.1%	26.0%	48.8%	18.7%	2.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Statistical Information...

15th Percentile Speed  
 27.1 mph

85th Percentile Speed  
 36.7 mph

Median Speed  
 32.1 mph

Average Speed  
 32.0 mph

10 MPH Pace Speed  
 25 mph to 35 mph  
 1074 vehicles in pace  
 Representing 74.9% of the total vehicles

Vehicles > 65 MPH  
 0  
 0.0%

Crash Date	Crash Severity	Time	Light Conditions	Manner of Collision	Road Surface Condition	Traffic Control Device Type	Vehicle Actions Prior to Crash (All Vehicles)	Latitude	Longitude
02/05/2016	PDO	11:20 AM	Daylight	Sideswipe, same direction	Snow	No controls	V1: Travelling straight ahead / V2: Parked	42.47343107	-70.89454801
03/16/2016	PDO	6:40 PM	Dusk	Rear-end	Dry	Yield signs	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	42.47112654	-70.89458226
06/24/2016	PDO	12:10 PM	Daylight	Rear-end	Dry	Yield signs	V1: Entering traffic lane / V2: Slowing or stopped in traffic	42.47075745	-70.89458558
05/26/2016	Not Reported	6:00 AM	Daylight	Sideswipe, same direction	Dry	Not reported	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic	42.47112654	-70.89458226
05/26/2016	Non-fatal injury	2:14 PM	Daylight	Single vehicle crash	Dry	No controls	V1: Travelling straight ahead	42.46972071	-70.89603066
06/23/2016	PDO	5:33 PM	Daylight	Rear-end	Dry	Yield signs	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic	42.47112654	-70.89458226
08/21/2016	Not Reported	10:59 PM	Dark - lighted roadway	Single vehicle crash	Not reported	No controls	V1: Turning left	42.47112654	-70.89458226
09/02/2016	Non-fatal injury	6:15 AM	Daylight	Rear-end	Dry	Yield signs	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	42.47112654	-70.89458226
09/07/2016	PDO	8:42 AM	Daylight	Rear-end	Wet	Traffic control signal	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	42.47112654	-70.89458226
12/10/2016	PDO	6:24 PM	Dark - lighted roadway	Angle	Dry	No controls	V1: Making U-turn / V2: Travelling straight ahead	42.47116836	-70.89397383
05/18/2017	Non-fatal injury	3:46 PM	Daylight	Single vehicle crash	Dry	No controls	V1: Travelling straight ahead	42.47265345	-70.89219625
06/12/2017	PDO	4:25 PM	Daylight	Angle	Dry	No controls	V1: Travelling straight ahead / V2: Turning left	42.47112654	-70.89458226
09/09/2017	PDO	9:35 AM	Daylight	Angle	Dry	Stop signs	V1: Travelling straight ahead / V2: Turning left	42.47388891	-70.89430039
12/10/2017	PDO	2:14 AM	Dark - lighted roadway	Single vehicle crash	Snow	No controls	V1: Travelling straight ahead	42.47391579	-70.89427581
10/07/2017	PDO	9:36 AM	Dark - lighted roadway	Angle	Dry	No controls	V1: Parked / V2: Backing	42.47290829	-70.8961461
10/19/2017	PDO	7:18 AM	Daylight	Rear-end	Dry	Yield signs	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	42.47070337	-70.89457416
11/03/2017	Non-fatal injury	4:03 PM	Daylight	Head-on	Wet	No controls	V1: Travelling straight ahead / V2: Entering traffic lane / V3: Slowing or stopped in traffic	42.47388891	-70.89430039
02/09/2018	PDO	7:43 AM	Daylight	Rear-end	Dry	Yield signs	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	42.47070397	-70.89458005
07/08/2018	PDO	2:24 PM	Daylight	Rear-end	Dry	Yield signs	V1: Entering traffic lane / V2: Slowing or stopped in traffic	42.47070397	-70.89458005
06/10/2018	Non-fatal injury	7:37 AM	Daylight	Angle	Dry	No controls	V1: Turning left	42.47070397	-70.89458005
10/10/2018	PDO	5:36 PM	Daylight	Rear-end	Dry	No controls	V1: Travelling straight ahead / V2: Travelling straight ahead	42.47070397	-70.89458005
12/18/2018	PDO	9:59 AM	Daylight	Rear-end	Dry	Yield signs	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	42.47070397	-70.89458005
12/09/2018	Non-fatal injury	11:36 AM	Daylight	Rear-end	Dry	No controls	V1: Travelling straight ahead / V2: Slowing or stopped in traffic / V3: Slowing or stopped in traffic	42.47015649	-70.8953305
03/14/2019	PDO	6:19 PM	Daylight	Rear-end	Dry	Yield signs	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	42.47070397	-70.89458005
05/13/2019	Non-fatal injury	5:24 PM	Daylight	Angle	Wet	No controls	V1: Travelling straight ahead / V2: Turning left	42.47070397	-70.89458005
07/26/2019	PDO	11:29 AM	Daylight	Rear-end	Dry	Traffic control signal	V1: Travelling straight ahead / V2: Travelling straight ahead	42.47070397	-70.89458005
08/31/2019	PDO	9:05 AM	Daylight	Rear-end	Dry	Yield signs	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	42.47070397	-70.89458005
10/28/2019	PDO	7:11 PM	Dark - lighted roadway	Rear-end	Wet	Stop signs	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	42.47388888	-70.89429508
11/05/2019	Non-fatal injury	12:31 AM	Dark - lighted roadway	Sideswipe, same direction	Dry	No controls	V1: Parked / V2: Travelling straight ahead	42.47400078	-70.89819584
11/15/2019	PDO	4:15 PM	Daylight	Rear-end	Dry	Yield signs	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	42.47070397	-70.89458005
01/19/2020	PDO	2:59 AM	Dark - lighted roadway	Single vehicle crash	Snow	Unknown	V1: Travelling straight ahead	42.47317125	-70.89460248
11/26/2020	PDO	1:41 AM	Dark - lighted roadway	Sideswipe, opposite direction	Dry	No controls	V1: Parked / V2: Turning right	42.47290423	-70.896395
08/10/2020	PDO	9:17 AM	Daylight	Angle	Dry	No controls	V1: Travelling straight ahead / V2: Turning left	42.47015648	-70.8953305