Project 2022
Cape Cod Hospital

Hyannis, Massachusetts

PREPARED FOR

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Executive Summary

VHB, Inc. has prepared a traffic impact and access study (TIAS) for the proposed Project 2022 (the "Project") located along Lewis Bay Road in Hyannis, and Bayview Street in Yarmouth, Massachusetts. The Project is to be located on the southwest corner of the existing hospital. The proposed Project would involve the construction of a five-story, 199,296 square-foot medical building. The medical building will consist of radiation oncology, medical oncology with 26 new infusion bays, 24 ICU beds (relocated from the existing hospital), 72 patient beds (36 relocated from the existing hospital), two new operating rooms and one new endoscopy procedure room. Constructing the Project requires demolition of two existing buildings on site, the Whitcomb Pavilion and a medical center building. The total square footage to be removed is 76,753 square feet resulting in a net increase of 122,542 square feet of hospital space. The proposed Project will bolster and expand existing necessary services at the Cape Cod Hospital to better serve the community at large and lessen the need for patients to travel off Cape to receive necessary care. As such this Project should be considered a public benefit.

Access to the site will continue to be provided by a number of driveways. Full access driveways exist on Lewis Bay Road, just south of South Street, on Gleason Street, west of Park Street, on Willow Street and 2 driveways on Bayview Street, one across from Trenton Street and the other just north of Trenton Street. The existing Lewis Bay Road driveway will be shifted approximately 50 feet to the south of its present location under the redevelopment plan. The change in driveway location will create more separation between the site driveway and South Street which we believe is an improvement. In addition, an exit only driveway will be provided on the south side of the parking lot to Willow Street. This exit will allow parked cars an egress opportunity without driving through the canopy of the proposed medical building. Signage to encourage egress at this location is being proposed throughout the southern parking fields.

Based on a review of the anticipated trip generation and trip distribution for the proposed project, a study area was established. The study area was established also in part based on a review of the RPP and the RPP Functional Classification of Cape Cod Roadways Map and through consultation with the Cape Cod Commission Staff and the Town of Barnstable. Using this approach, the project study area will include the following 16 intersections and 8 roadway links:

Intersections:

- Lewis Bay Road at:
  - Site driveway
  - Proposed new site driveway
  - South Street
  - Gleason Street
  - Park Street
  - Main Street/Camp Street
- Bayview Street at:
  - Main Street
  - Main Parking Field driveway (south)
  - Main Parking Field driveway (north)
  - Park Street
  - Site driveway
  - Site driveway/Trenton Street
- Main Street at:
  - Old Colony Road/Center Street
  - Barnstable Road/Ocean Street
  - High School Road
- Gleason Street at Site driveway
- South Street at Ocean Street/Old Colony Road

Roadway Links:

- Lewis Bay Road – between Main Street and Gleason Street
- Lewis Bay Road – between Gleason Street and South Street
- Bayview Street – between Main Street and Willow Street
- Main Street – between Lewis Bay Road/Camp Street and Bayview Street
- Main Street – between Lewis Bay Road/Camp Street and Old Colony Road/Center Street
- Main Street – between Old Colony Road/Center Street and Barnstable Road/Ocean Street
- Main Street – between Barnstable Road/Ocean Street and High School Road
- South Street – between Ocean Street/Old Colony Road and Lewis Bay Road

Turning movement counts (TMC), collecting *peak hour* data, were conducted at each of the study area intersections during the weekday morning and evening peak periods, 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively. Concurrent with the TMCs, 24-hour automatic traffic recorder counts were conducted on Lewis Bay Road between Gleason Street and South Street.

The proposed Project is expected to result in a total of 1,150 (575 entering/575 exiting) on a typical weekday with 91 net new trips (60 entering/31 exiting) during the weekday morning peak hour and 103 net new trips (35 entering/68 exiting) during the weekday evening peak hour.

Capacity analyses were conducted for each of the study area intersections and roadway segments under 2019 Existing conditions, 2026 No-Build conditions (without the proposed development), and 2026 Build conditions (with the proposed development). The analysis results show only minor changes at study area intersections as a result of this Project. This is a Project of community benefit and as such the mitigation being proposed is limited to the following:

- Expansion of existing comprehensive Transportation Demand Management Program (TDM) plan at the hospital to include the Project
- Intersection safety enhancements at:
  - Main Street and Lewis Bay Road/Camp Street
  - Main Street and Old Colony Road/Center Street
  - Main Street and High School Road
  - South Street and Ocean Street and Old Colony Road

Overall, VHB concludes that the Project meets the RPP's goals and objectives and that the mitigation proposed is appropriate for the Project. VHB further concludes that based on the nature and location of the Project, the proposed robust TDM measures, and the very minimal, virtually imperceptible Project-related delays at study area intersections, that the Project complies with the methods of Objective TR3. In the alternative, Cape Cod Hospital, a charitable non-profit organization, seeks a waiver pursuant to Section 9 of the RPP from congestion-related payments (TR3) based on the appropriate siting of the Project, its public need and purpose, a robust TDM plan, the provision of additional services/care on Cape Cod, and the minimal congestion impacts.

1

Introduction

This traffic study documents the findings of the traffic evaluation conducted for the Project including an assessment of existing conditions, projection of future traffic volumes without and with the proposed development, analysis of impacts of the proposed development, and recommendations for improving existing capacity deficiencies as well as to offset project related traffic impacts.

Project Description

The site is surrounded by Lewis Bay Road and Gleason Street in Hyannis, and Bayview Street in Yarmouth, Massachusetts. The building redevelopment/expansion is to be located on the southwest corner of Cape Cod Hospital. The proposed Project would involve the construction of an approximately 199,295 sf medical building consisting of a radiation oncology center, a medical oncology center with 26 new infusion bays, 24 ICU/VICU beds (relocated from the hospital), 36 new patient beds (relocated from the hospital), 36 additional patient beds, two new operating rooms and one new endoscopy procedure room. To make way for the new facility two existing buildings comprised of approximately 76,753 sf will be removed as part of this project resulting in net new space of approximately 122,542 sf.

Access to the site would be provided by five full access driveways, one on Gleason Street, one on Lewis Bay Road, one on Willow Street, and two on Bayview Road. The existing Lewis Bay Road driveway will be shifted approximately 50 feet to the south of its present location under the redevelopment plan. The change in driveway location will create more separation between the site driveway and South Street which we believe is an improvement. Additional parking for employees is to be located in the field lots northeast of the site, one of which is gated. Figure 1 shows the Project site in relation to the surrounding area. A site plan of the Project is included in the Appendix.

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vhb

Site Location Map
and Study Area Intersections
Project 2022
Hyannis, Massachusetts

Figure 1

Study Methodology

This traffic assessment has been conducted in three stages. The first stage involved an assessment of existing traffic conditions within the project area including an inventory of existing roadway geometry; observations of traffic flow, including daily and peak period traffic counts; and a review of vehicular crash data.

The second stage of the study established the framework for evaluating the transportation impacts of the proposed project. Specific travel demand forecasts for the project were assessed along with future traffic demands on the study area roadways due to projected background traffic growth and other proposed area development that will occur, independent of the proposed development. The year 2026, a seven-year time horizon, was selected as the design year for analysis for the preparation of this traffic impact and access assessment to satisfy the Executive Office of Environmental Affairs/Executive Office of Transportation [EOEA/EOT] guidelines and Cape Code Commission (CCC) Development of Regional Impact (DRI) requirement.

The third and final stage involved conducting traffic analyses to identify both existing and projected future roadway capacities and demands. This analysis was used as the basis for determining potential project impacts and potential mitigation measures.

2

Existing Conditions

Evaluation of the transportation impacts associated with the proposed Project requires a thorough understanding of the existing transportation system in the Project study area. Existing transportation conditions in the study area include roadway geometry, traffic controls, daily and peak period traffic flow, and vehicular crash information data. Each of these elements is described in detail below.

Study Area

Based on a review of the anticipated trip generation and trip distribution for the proposed Project, a study area was established. The study area was established also in part based on a review of the RPP and the RPP Functional Classification of Cape Cod Roadways Map and through consultation with the CCC and the Town of Barnstable. Using this approach, the Project study area will include the following 14 intersections and six roadway links:

Intersections:

- Lewis Bay Road at:
  - Site driveway
  - Proposed new site driveway
  - South Street
  - Gleason Street
  - Park Street
  - Main Street/Camp Street
- Bayview Street at:
  - Main Street
  - Main Parking Field driveway (north)

- Park Street
- Main Parking Field driveway (south)
- Site driveway
- Site driveway/Trenton Street

- Main Street at:
  - Old Colony Road/Center Street
  - Barnstable Road/Ocean Street
  - High School Road
- Gleason Street at Site driveway
- South Street at Ocean Street/Old Colony Road

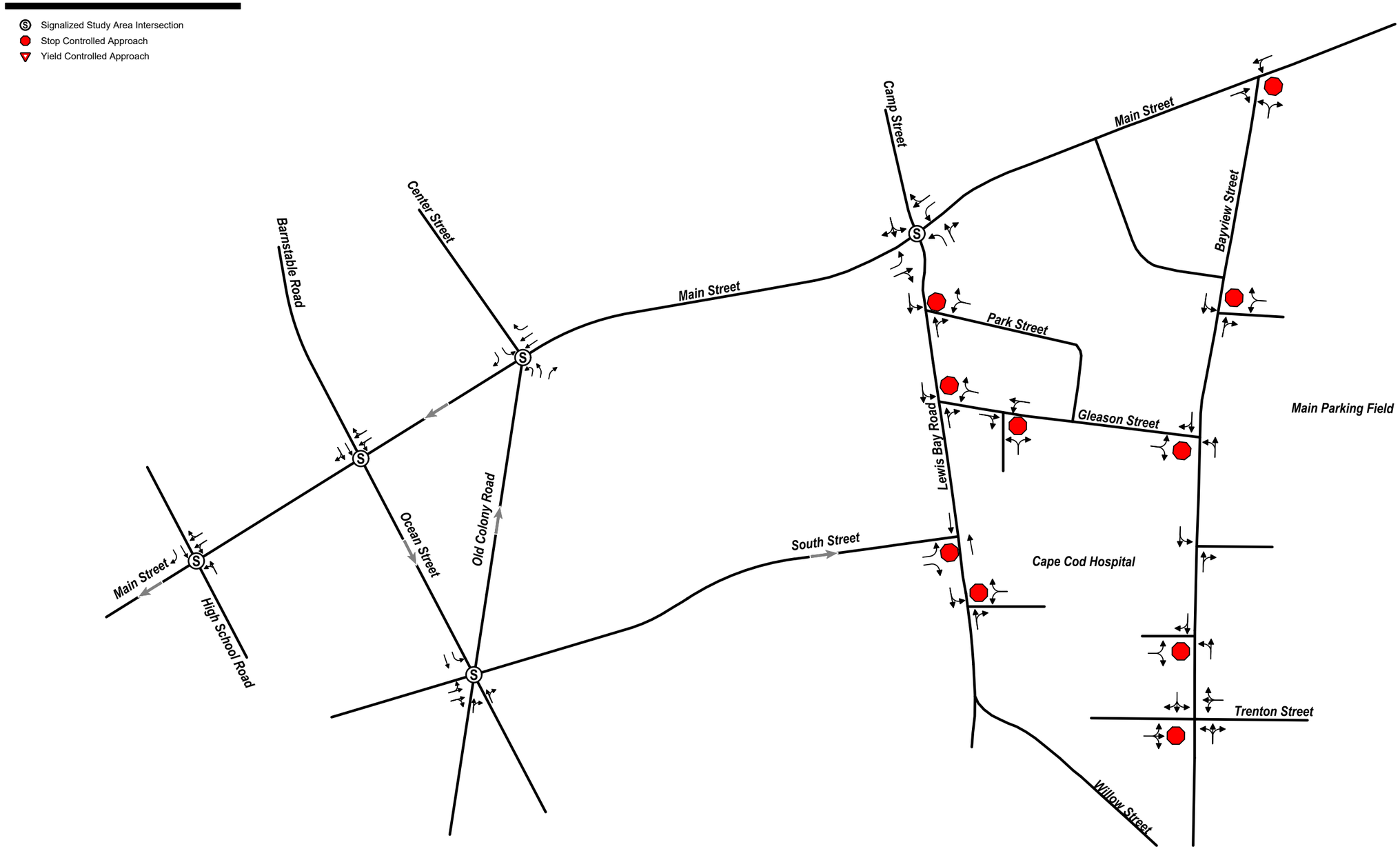
Roadway Links:

- Lewis Bay Road – between Main Street and Gleason Street
- Lewis Bay Road – between Gleason Street and South Street
- Bayview Street – between Main Street and Willow Street
- Main Street – between Lewis Bay Road/Camp Street and Bayview Street
- Main Street – between Lewis Bay Road/Camp Street and Old Colony Road/Center Street
- Main Street – between Old Colony Road/Center Street and Barnstable Road/Ocean Street
- Main Street – between Barnstable Road/Ocean Street and High School Road
- South Street – between Ocean Street/Old Colony Road and Lewis Bay Road

The existing conditions evaluation consisted of an inventory of the traffic control; roadway, driveway, and intersection geometry in the study area; the collection of daily and peak period traffic volumes; and a review of recent vehicular crash history.

Roadway Geometry

The major travel routes and intersections within the study area are described below. Figure 2 shows the observed existing geometry and traffic control at each study-area intersection.



Lane Geometry & Traffic Control
Study Area Intersection
Project 2022
Hyannis, Massachusetts

Figure 2

Roadways

Main Street

Main Street, within the study area, is a two-lane roadway generally running in an east-west direction. Main Street is under local jurisdiction and is classified as a principal arterial. There is no posted speed limit along Main Street within the study area. Land use along Main Street is primarily commercial with some residential.

Bayview Street

Bayview Street, within the study area, is a two-lane roadway running in the north-south direction adjacent to the hospital from Main Street to Bay View Street Beach. Bayview Street is under local jurisdiction and is classified as a collector. There is no posted speed limit along Bayview Street within the study area. Land use along Bayview Street is primarily commercial (medical) and residential.

Lewis Bay Road

Lewis Bay Road, within the study area, is a two-lane roadway running in the north-south direction adjacent to the hospital from Main Street to Willow Street. Lewis Bay Road is under local jurisdiction and is classified as a principal arterial north of South Street and a collector south of South Street. There is no posted speed limit along Lewis Bay Road within the study area. Land use along Lewis Bay Road is a mix of commercial and residential.

Intersections

The following sections describe the study-area intersections in detail.

Lewis Bay Road at Main Street

- Four-legged signalized intersection
- Eastbound approach consists of a dedicated left-turn lane and a shared through/ right-turn lane
- Westbound approach consists of a dedicated left-turn lane and a shared through/ right-turn lane

- Northbound approach consists of a dedicated left-turn lane and a shared through/ right-turn lane
- Southbound approach consists of a shared left/ through/ right turn lane
- Sidewalks are provided on all approaches
- 3-4-foot-wide shoulders are provided on all approaches
- Crosswalks are provided across all approaches
- Land use in the area is a mix of commercial and residential

Lewis Bay Road at Park Street

- Three-legged unsignalized intersection
- Westbound leg is STOP controlled while northbound and southbound operate freely
- The westbound approach consists of one shared left/ right turn lane
- Sidewalks are provided on all approaches
- A crosswalk is provided across the Park Street approach
- Land use in the area is a mix of commercial and residential

Lewis Bay Road at Gleason Street

- Three-legged unsignalized intersection
- Westbound leg is STOP controlled while northbound and southbound operate freely
- The westbound approach consists of one shared left/ right turn lane
- A crosswalk is provided across the Gleason Street approach
- Sidewalks are provided on all approaches
- Land use in the area is a mix of commercial and residential

Lewis Bay Road at South Street

- Three-legged unsignalized intersection
- South Street approach is one way eastbound and has dedicated left and right turn lanes

- The eastbound approach is STOP controlled
- Northbound and southbound approaches each have one general purpose lane and are STOP controlled.
- Sidewalks are provided on both sides of South Street and on the west side of Lewis Bay Road
- A crosswalk is provided across the South Street approach
- Land use in the area is a mix of residential and commercial including Anchor Inn Hotel on the southwest corner of the intersection and the Cape Cod Hospital to the east of the intersection

Lewis Bay Road at Cape Cod Hospital Driveway

- Three-legged unsignalized intersection
- All approaches have one general purpose lane
- No crosswalks are provided at the intersection
- Sidewalks are provided on the west side of Lewis Bay Road
- Land uses in the area are primarily commercial with the Cape Cod Hospital northeast of the intersection and Whitcomb Pavilion southeast of the intersection

Bayview Street at Trenton Street/Cape Cod Hospital Driveway

- Four-legged unsignalized intersection
- Each approach consists of one general purpose lane
- The eastbound Cape Cod Hospital driveway approach and westbound Trenton Street driveway are STOP controlled while northbound southbound Bayview Street approaches operate freely
- Sidewalks are provided on the west side of Bayview Street
- A crosswalk is provided across the eastbound Cape Cod Hospital driveway approach
- Land use in the area is primarily commercial with some residential

Bayview Street at Cape Cod Hospital Driveway

- Three-legged unsignalized intersection providing access to the Cape Cod Hospital loading dock
- Eastbound approach is STOP controlled
- All approaches have one general purpose lane
- Sidewalks are provided on the west side of Bayview Street and the north side of the driveway
- There is a crosswalk provided across the Cape Cod Hospital driveway
- Land use in the area is primarily commercial with some residential

Bayview Street at Main Parking Field Driveway (South)

- Three-legged unsignalized intersection
- Westbound approach has gated access and is one way entering the parking lot
- Parking lot is signed as permit parking only
- All approaches have one general purpose lane
- A sidewalk is provided on the west side of Bayview Street
- There are no crosswalks provided at this location
- Land use in the area is a mix of commercial and residential

Bayview Street at Park Street

- Three-legged unsignalized intersection
- Eastbound approach is under STOP control
- All approaches provide one general purpose lane
- There is a crosswalk provided across Park Street and across the northern leg of Bayview Street
- Cape Cod Hospital is located adjacent to the intersection of the southwest corner

Bayview Street at Main Parking Field Driveway (North)

- Three-legged unsignalized intersection
- Westbound approach is STOP controlled
- Parking lot is signed as permit parking only
- All approaches have one general purpose lane
- Sidewalks are provided on the west side of Bayview Street and the south side of the driveway
- There are no crosswalks provided at this location
- Land use in the area is a mix of commercial and residential

Bayview Street at Main Street

- Four-legged unsignalized intersection
- All approaches provide one general purpose lane
- Sidewalks are provided on all approaches
- There are no crosswalks provided at this location
- Land use in the area is a primarily commercial

Main Street at Old Colony Road/Center Street

- Four-legged signalized intersection
- Western leg is one-way away (westbound) from the intersection
- Northbound approach provides three lanes (left/through/right) and is one-way approaching the intersection
- Westbound approach provides two through lanes and channelized right-turn lane
- Southbound approach provides an exclusive left-turn lane and exclusive right-turn lane
- Sidewalks are provided on all approaches
- Crosswalks are provided across all legs
- Land use in the area is primarily commercial

Main Street at Barnstable Road/Ocean Street

- Four-legged signalized intersection
- Main Street provides two lanes and is one-way westbound
- Southern leg provides two lanes and is one-way southbound
- Northern leg provides a through lane and a shared through/right-turn lane
- Sidewalks are provided at all legs
- Crosswalks are provided across all legs
- Land use in the area is primarily commercial

Main Street at High School Road

- Four-legged signalized intersection
- Main Street provides two lanes and is one-way westbound
- Southern leg provides a shared through/left-turn lane
- Northern leg provides a through lane and a right-turn lane
- Sidewalks are provided at all legs
- Crosswalks are provided across all legs
- Land use in the area is primarily commercial

Gleason Street at Cape Cod Hospital Driveway

- Three-legged unsignalized intersection
- Northbound approach is under STOP control
- All approaches provide one general purpose lane
- Sidewalks are provided on all approaches except on the west side of the driveway
- There are no crosswalks provided at this location
- Land use in the area is a mixture of commercial and residential

South Street at Ocean Street and Old Colony Road

- Six-legged signalized intersection
- South Street provides two lanes and is one-way eastbound
- Ocean Street southbound leg provides a left-turn lane and a shared through/bear-right turn lane
- Ocean Street northbound leg provides a shared through/right-turn lane
- Old Colony Road northeastbound provides a shared through/right-turn lane
- Sidewalks are provided at all legs
- Crosswalks are provided across all legs
- Land use in the area is primarily open space

Roadway Jurisdiction

Roadways within the Town of Barnstable are under the jurisdiction of the Town of Barnstable, and MassDOT. Within the project study area, all study area roadways are under local jurisdiction. Figure 3 illustrates the roadway jurisdiction designations within the study area.

Traffic Volume Data

Turning movement counts (TMC), collecting *peak hour* data, were conducted at study area intersections during the weekday morning and evening peak periods from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively. It is during these two periods when the combination of site traffic and area background traffic are at their most critical level. These counts were conducted in November 2017 which does not represent average or peak summer conditions and therefore counts were adjusted to reflect average and peak conditions. Additional count locations were conducted in November 2018 based on Pre-DRI comments from CCC. All counts were grown to reflect 2019 conditions.

The weekday morning and evening peak periods are consistent with typical peak tourist traffic periods and coincide with the expected peak periods for traffic entering and exiting the proposed site. Based on the TMCs, the weekday morning peak period generally occurred from 7:30 AM to 8:30 AM and the weekday evening peak period occurred from 4:15 PM to 5:15 PM.

Concurrent with the TMCs, 48-hour automatic traffic recorder (ATR) counts were conducted on Lewis Bay Road between Gleason Street and South Street. A summary of the ATR traffic data is presented in Table 1. All traffic count data is contained in the Appendix to this document.

Table 1 Existing Traffic Volume Summary – Peak Summer Season

	Daily [a]	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
Location	Weekday	Volume [b]	K Factor [c]	Dir. Dist. [d]	Volume	K Factor	Dir. Dist.
Lewis Bay Road	5,000	400	8.1%	87% NB	375	7.6%	88% NB

a. daily traffic expressed in vehicles per day. Based on daily volumes collected in November 2017. Exact peak hours of the ATRs may not coincide with the peak hour of the TMCs.
b. peak period volumes expressed in vehicles per hour
c. percent of daily traffic that occurs during the peak period
d. directional distribution of peak period traffic

Seasonality of Count Data

Comparison of traffic count data with historic seasonal data available from the *2018 Traffic Counting Report for Cape Cod Massachusetts* indicated that November traffic counts are approximately 8-percent lower than the average annual month conditions Additionally, the November traffic counts are also lower than peak-season traffic conditions which occur in July and August. As such, the November 2017 and 2018 counts were grown to 2019 existing conditions and then adjusted to represent peak and average conditions by multiplying the counts by a factor of 1.42 and 1.08, respectively. The CCC Seasonal Adjustment Factors are included in the Appendix to this document. Figures 4 and 5 illustrate the 2019 Existing weekday morning and weekday evening peak hour traffic volumes for the peak season while Figures 6 and 7 illustrate the 2019 Existing weekday morning and weekday evening peak hour traffic volumes for the average season.

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MassDOT

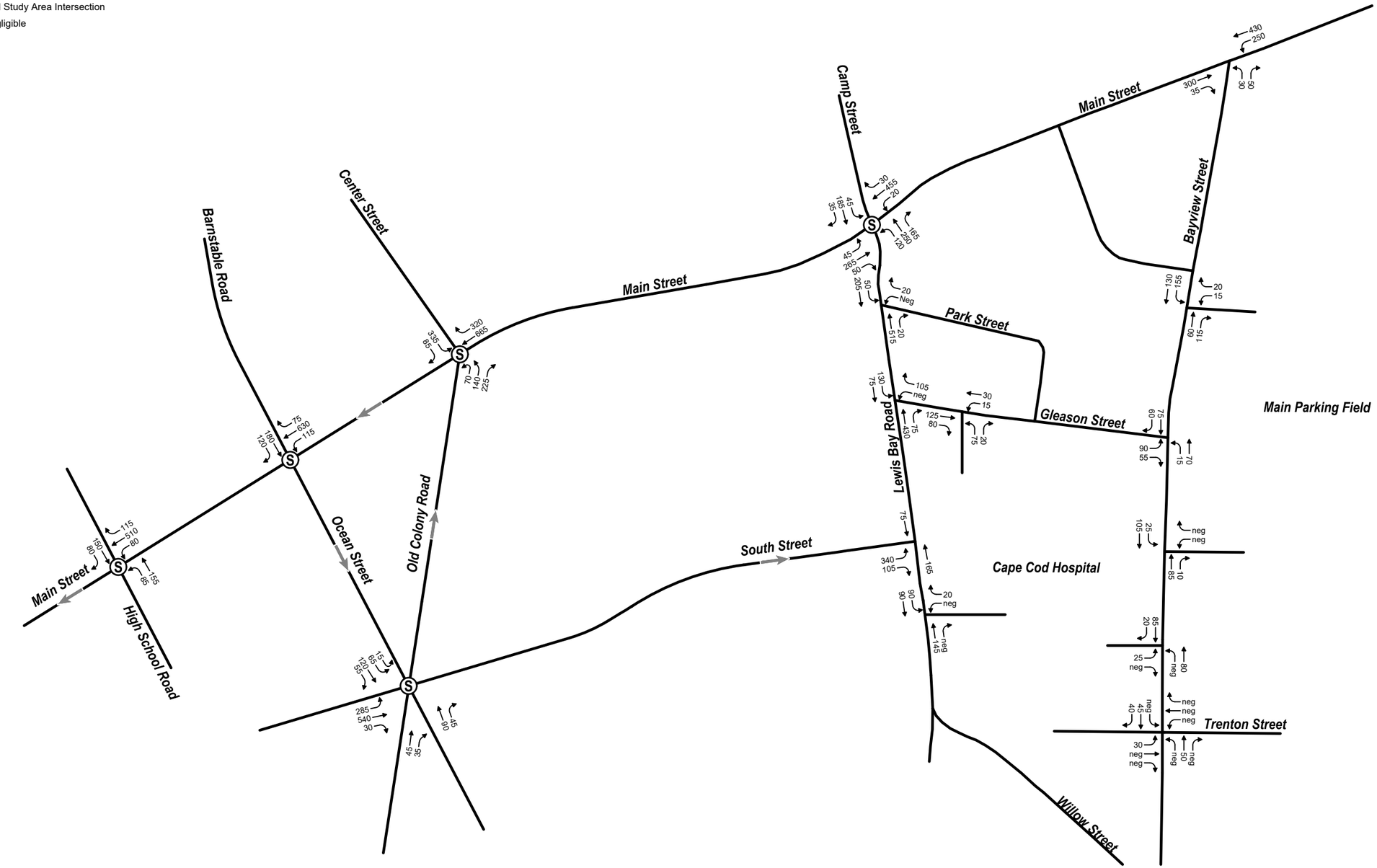
Local

Roadway Jurisdiction

Project 2022
Hyannis, Massachusetts

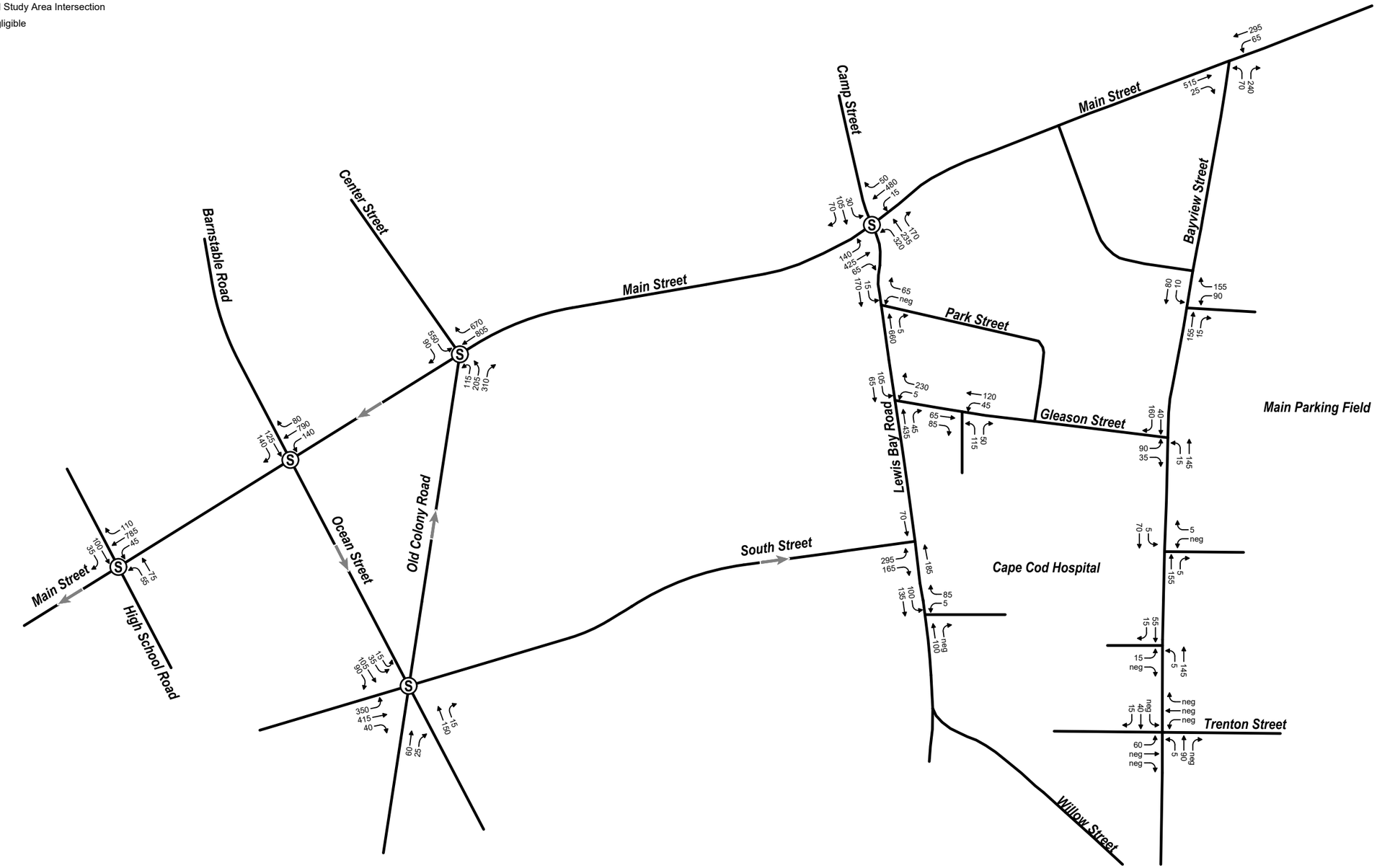
Figure 3

Ⓢ Signalized Study Area Intersection
neg = Negligible



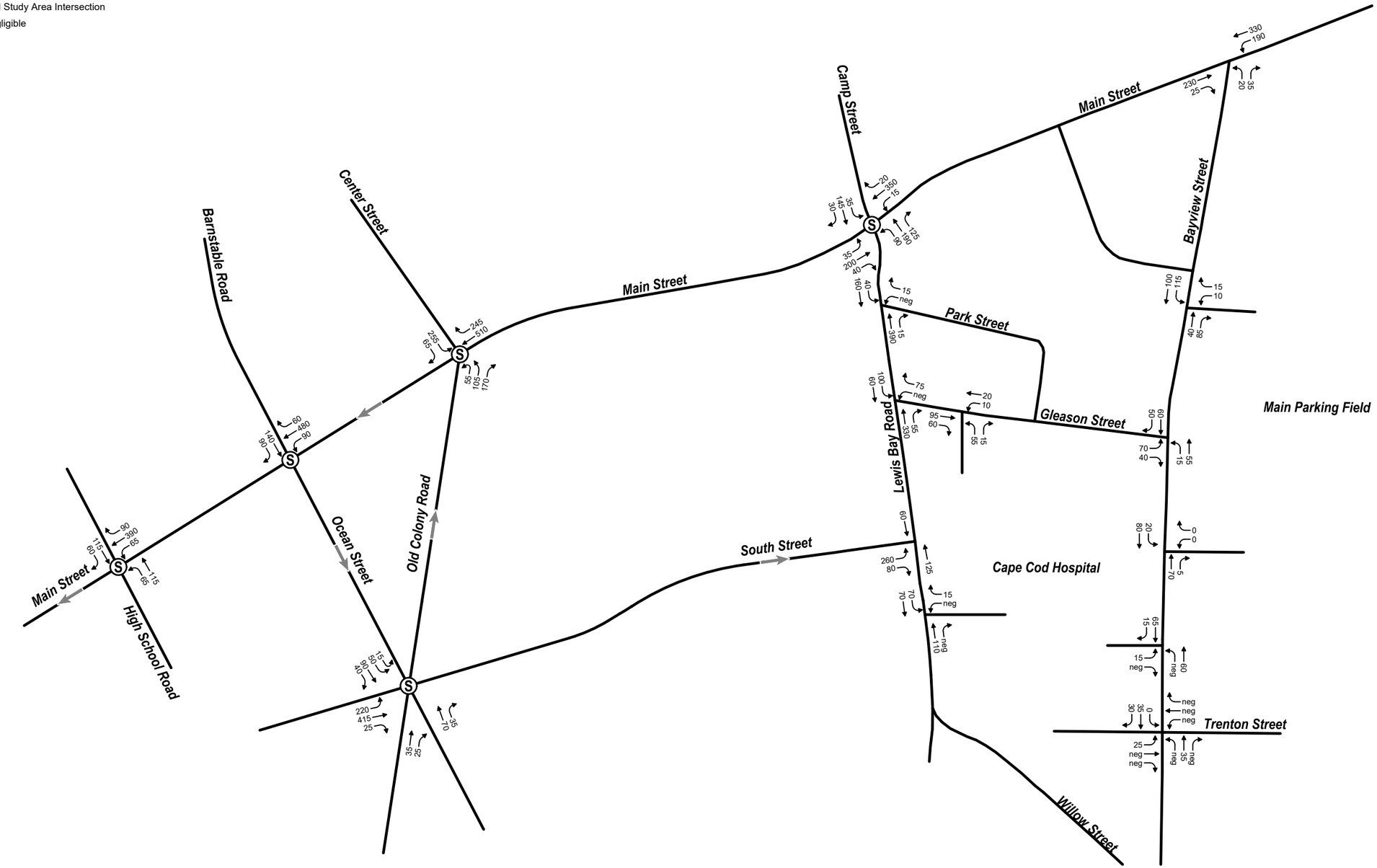
2019 Existing Conditions Peak Season **Figure 4**
Weekday Morning Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Ⓢ Signalized Study Area Intersection
neg = Negligible



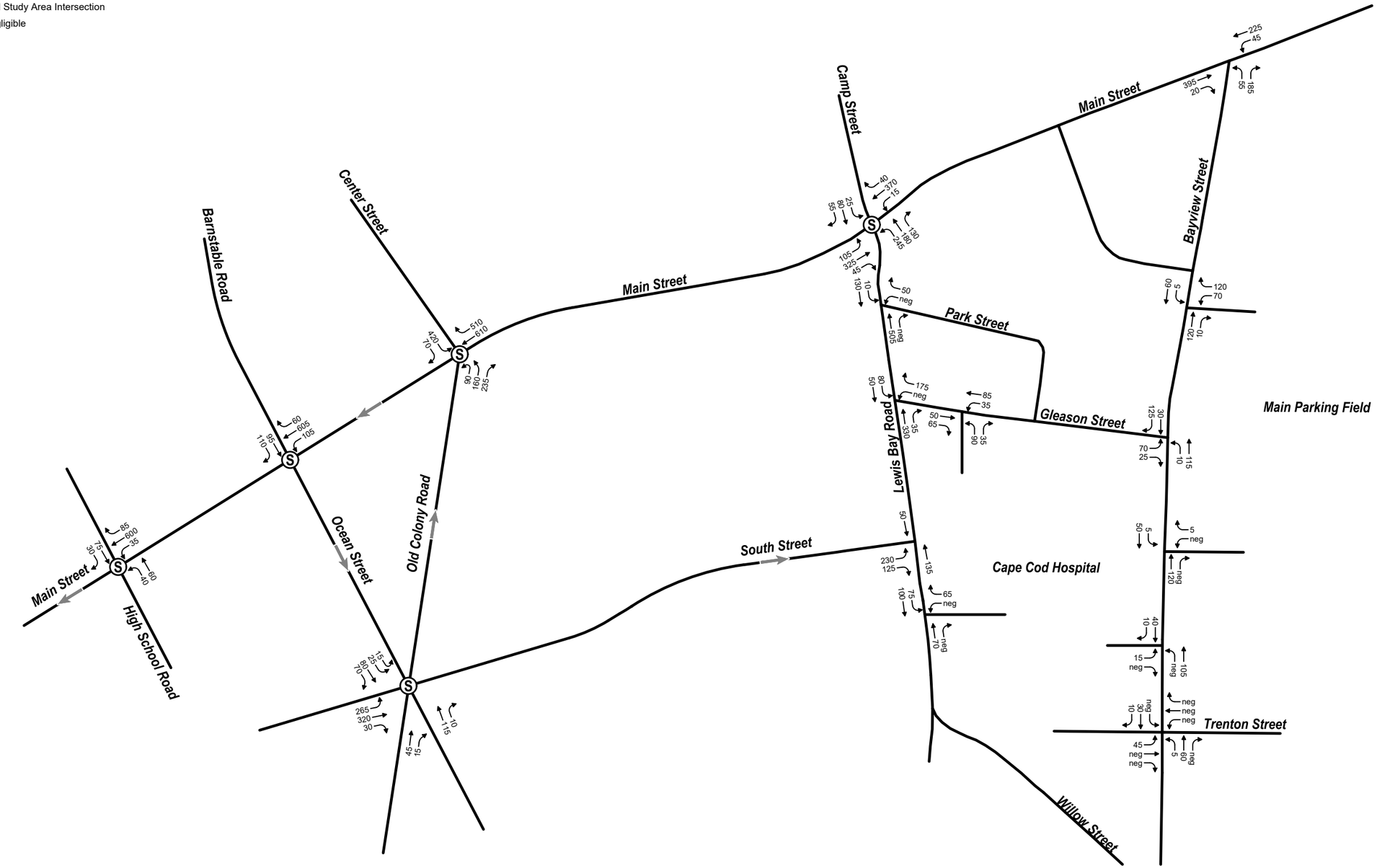
2019 Existing Conditions Peak Season **Figure 5**
Weekday Evening Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Ⓢ Signalized Study Area Intersection
neg = Negligible



2019 Existing Conditions Avg Season **Figure 6**
Weekday Morning Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Ⓢ Signalized Study Area Intersection
neg = Negligible



2019 Existing Conditions Avg Season **Figure 7**
Weekday Evening Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Public Transportation

Several transit services are currently provided on Cape Cod. The following information was provided by the Cape Cod Regional Transit Authority (CCRTA).

Cape Cod Regional Transit Authority

The Cape Cod Regional Transit Authority (CCRTA) oversees local bus service on Cape Cod. There are seven, year-round, fixed-route services provided by CCRTA including the SeaLine, the Barnstable Villager, the H2O, the Flex, the Bourne Run, the Sandwich Line, and the Hyannis Loop. All buses are wheelchair accessible and equipped with bicycle racks. All SeaLine, Barnstable Villager, H2O, Sandwich Line, and Hyannis Loop routes connect at the Plymouth & Brockton bus terminal in downtown Hyannis, located approximately 0.6 miles north of the site.

CCRTA also offers "demand response service" through three separate lines; (1) ADA Paratransit Service is a door-to-door, shared-ride service for those eligible individuals who are unable to use the CCRTA fixed route services. It is a comparable service to the fixed route service schedule in that it operates during the same hours and travels within the ¾ of a mile of the fixed route service areas; (2) DART Service (Dial-a-Ride Transportation) is a daily general public service that is a door-to-door, ride by appointment, transportation service. This service is available to all Cape Cod residents for any purpose; and (3) Boston Hospital Transportation (BHT) is a service that runs on weekdays, by reservation, and provides transportation service to 15 Boston area hospitals. The BHT has bus stops in Wellfleet, Eastham, Orleans, Harwich, the Barnstable Commuter Lot, and the Sagamore Commuter Lot.

While seven fixed-route services are provided by the CCRTA, only one of the fixed routes directly serves the site, the H2O Hyannis-Orleans bus. It should be noted however, that all bus routes stop at the Hyannis Transportation Center and Cape Cod Hospital runs a shuttle that goes to the transportation center. The seven fixed bus route schedules are provided in the Appendix to this document.

Vehicular Crash History

To identify potential vehicle crash trends in the study area, vehicular crash data for the study area intersections were obtained from Massachusetts Department of Transportation (MassDOT) for the most recent five-year period (2012-2016) available. A summary of the MassDOT vehicle crash history is provided in Table 2 and the detailed crash data is provided in the Appendix to this document.

In addition to summarizing the crash history, VHB also calculated crash rates for the study area intersections. Intersection crash rates are calculated based on the number of crashes at an intersection and the volume of traffic traveling through that intersection on a daily basis. The MassDOT average intersection crash rate for District 5 (the MassDOT district designation for the Town of Barnstable) is 0.75 for signalized intersections and 0.57 for unsignalized intersections. In other words, on average, 0.75 crashes occurred per million vehicles entering signalized intersections and 0.57 crashes occurred per million vehicles entering unsignalized intersections throughout District 5. The crash rate worksheets for the study area intersections are included in the Appendix to this document.

Table 2 Vehicular Crash Summary (2012 – 2016)

	Lewis Bay Road at Main Street	Lewis Bay Road at Park Street	Lewis Bay Road at Gleason Street	Lewis Bay Road at South Street	Lewis Bay Road at CC Hospital Driveway	Bayview Street at Trenton Street / CC Hospital Driveway
Signalized?	Yes	No	No	No	No	No
MassDOT Average Crash Rate	0.75	0.57	0.57	0.57	0.57	0.57
Calculated Crash Rate	0.47	0.05	0.29	0.14	0.00	0.00
Exceeds Average?	No	No	No	No	No	No
Year						
2012	4	1	0	2	0	0
2013	4	0	1	0	0	0
2014	8	0	1	0	0	0
2015	2	0	2	0	0	0
2016	2	0	1	0	0	0
Total	**20**	**1**	**5**	**2**	**0**	**0**
Yearly Average	4.0	0.2	1.0	0.4	0.0	0.0
Collision Type						
Angle	6	1	3	1	0	0
Head-on	3	0	0	0	0	0
Rear-end	6	0	1	0	0	0
Rear-to-rear	0	0	0	0	0	0
Sideswipe, opposite direction	0	0	0	1	0	0
Sideswipe, same direction	2	0	0	0	0	0
Single Vehicle Crash	3	0	1	0	0	0
Fixed Object	0	0	0	0	0	0
Severity						
Fatal Injury	0	0	0	0	0	0
Non-Fatal Injury	7	1	1	0	0	0
Property Damage Only	13	0	4	2	0	0
Not Reported	0	0	0	0	0	0
Time of day						
Weekday ,7:00 AM - 9:00 AM	2	0	1	0	0	0
Weekday, 4:00 – 6:00 PM	2	0	0	0	0	0
Saturday 11:00 AM – 2:00 PM	0	0	0	0	0	0
Weekday, other time	10	1	2	1	0	0
Weekend, other time	6	0	2	1	0	0
Pavement Conditions						
Dry	12	0	5	2	0	0
Wet	6	1	0	0	0	0
Snow	2	0	0	0	0	0
Ice	0	0	0	0	0	0
Slush	0	0	0	0	0	0
Not reported	0	0	0	0	0	0
Non-Motorist (Bike, Pedestrian)	0	0	2	0	0	0

Source: Crash data was obtained from MassDOT and Barnstable Police Department.

Table 2 Vehicular Crash Summary (2012 – 2016) (continued)

	Bayview Street at CC Hospital Driveway	Bayview Street at Main Parking Field Driveway (South)	Bayview Street at Park Street	Bayview Street at Main Parking Field Driveway (North)	Bayview Street at Main Street	Gleason Street at CC Hospital Driveway
Signalized?	No	No	No	No	No	No
MassDOT Average Crash Rate	0.57	0.57	0.57	0.57	0.57	0.57
Calculated Crash Rate	0.00	0.00	0.00	0.00	0.41	0.00
Exceeds Average?	No	No	No	No	No	No
Year						
2012	0	0	0	0	5	0
2013	0	0	0	0	1	0
2014	0	0	0	0	2	0
2015	0	0	0	0	0	0
2016	0	0	0	0	2	0
Total	**0**	**0**	**0**	**0**	**10**	**0**
Yearly Average	0.0	0.0	0.0	0.0	2	0.0
Collision Type						
Angle	0	0	0	0	5	0
Head-on	0	0	0	0	1	0
Rear-end	0	0	0	0	3	0
Rear-to-rear	0	0	0	0	0	0
Sideswipe, opposite direction	0	0	0	0	0	0
Sideswipe, same direction	0	0	0	0	0	0
Single Vehicle Crash	0	0	0	0	1	0
Not reported	0	0	0	0	0	0
Severity						
Fatal Injury	0	0	0	0	0	0
Non-Fatal Injury	0	0	0	0	7	0
Property Damage Only	0	0	0	0	3	0
Not Reported	0	0	0	0	0	0
Time of day						
Weekday ,7:00 AM - 9:00 AM	0	0	0	0	1	0
Weekday, 4:00 – 6:00 PM	0	0	0	0	1	0
Saturday 11:00 AM – 2:00 PM	0	0	0	0	0	0
Weekday, other time	0	0	0	0	6	0
Weekend, other time	0	0	0	0	2	0
Pavement Conditions						
Dry	0	0	0	0	9	0
Wet	0	0	0	0	1	0
Snow	0	0	0	0	0	0
Ice	0	0	0	0	0	0
Slush	0	0	0	0	0	0
Not reported	0	0	0	0	0	0
Non-Motorist (Bike, Pedestrian)	0	0	0	0	4	0

Source: Crash data was obtained from MassDOT and Barnstable Police Department.

Table 2 Vehicular Crash Summary (2012 – 2016) (continued)

	Main Street at Center Street / Old Colony Road	Main Street at Barnstable Road / Ocean Street	Main Street at High School Road	South Street at Ocean Street & Old Colony Road
Signalized?	Yes	Yes	Yes	Yes
MassDOT Average Crash Rate	0.75	0.75	0.75	0.75
Calculated Crash Rate	0.31	0.74	0.90	1.44
Exceeds Average?	No	No	Yes	Yes
Year				
2012	6	4	4	12
2013	5	3	4	7
2014	1	6	7	7
2015	3	2	4	7
2016	2	4	3	5
Total	**17**	**19**	**22**	**38**
Yearly Average	3.4	3.8	4.4	7.6
Collision Type				
Angle	2	5	9	20
Head-on	1	0	1	1
Rear-end	5	2	4	8
Rear-to-rear	0	0	0	0
Sideswipe, opposite direction	0	1	3	1
Sideswipe, same direction	2	6	3	4
Single Vehicle Crash	5	4	2	2
Not reported	2	1	0	2
Severity				
Fatal Injury	0	0	0	0
Non-Fatal Injury	6	5	4	12
Property Damage Only	11	13	17	26
Not Reported	0	1	1	0
Time of day				
Weekday ,7:00 AM - 9:00 AM	0	1	1	1
Weekday, 4:00 – 6:00 PM	2	1	0	2
Saturday 11:00 AM – 2:00 PM	0	1	1	0
Weekday, other time	15	12	16	27
Weekend, other time	0	4	4	8
Pavement Conditions				
Dry	14	15	17	32
Wet	3	1	5	5
Snow	0	2	0	1
Ice	0	0	0	0
Slush	0	0	0	0
Not reported	0	1	0	0
Non-Motorist (Bike, Pedestrian)	3	3	1	2

Source: Crash data was obtained from MassDOT and Barnstable Police Department.

As shown in Table 2, two of the study area intersections had calculated crash rates over the district average, Main Street at High School Road and South Street at Ocean Street and Old Colony Road. The majority of collisions within the study area were rear-end or angle crashes resulting in property damage only under dry pavement conditions. Crashes involving non-motorists (bike, pedestrian) occurred at the following intersections:

- Lewis Bay Road at Gleason Street
- Bayview Street at Main Street
- Main Street at Center Street / Old Colony Road
- Main Street at Barnstable Road / Ocean Street
- Main Street at High School Road
- South Street at Ocean Street and Old Colony Road

No fatal crashes were reported at any of the study area intersections. An average of three or more crashes occurred at the following intersections:

- Lewis Bay Road at Main Street
- Main Street at Center Street / Old Colony Road
- Main Street at Barnstable Road / Ocean Street
- Main Street at High School Road
- South Street at Ocean Street and Old Colony Road

The Transportation Technical Bulletin directs applicants to identify safety impacts at study area locations (road and intersections where a project is anticipated to increase traffic by 25 or more peak our trips) that are considered a high crash location.

To accomplish this, it is necessary to thoroughly review the crash reports from the local and state police departments to get a more detailed account of each incident. Local crash reports were requested from Town of Barnstable Police Department for the intersections of Main Street and Lewis Bay Road/Camp Street, Main Street at Center Street/Old Colony Road, Main Street at Barnstable Road/Ocean Street, Main Street at High School Road, and South Street at Ocean Street and Old Colony Road which averaged more than three crashes per year. Using the local crash reports, collision diagrams were created for the intersections to identify trends and determine appropriate safety mitigation measures. The collision diagrams are included in the Appendix to this document. Measures to improve safety at this location are outlined in the Mitigation chapter of this report.

3

Future Conditions

Traffic volumes in the study area were projected to the year 2026, reflecting a typical seven-year traffic planning horizon. Independent of the project, volumes on the roadway network under year 2026 No-Build conditions were assumed to include existing traffic and new traffic resulting from background development. Anticipated site-generated traffic volumes were added to the year 2026 No-Build traffic volumes to reflect the year 2026 Build conditions in the study area.

Background Traffic Growth

Traffic growth on area roadways is a function of the expected land development, economic activity, and changes in demographics. A frequently used procedure is to estimate an annual percentage increase and apply that increase to study area traffic volumes. An alternative procedure is to identify estimated traffic generated by specific planned major developments that would be expected to affect the project study area roadways. For the purpose of this assessment, ***both*** methods were utilized.

Historic Traffic Growth

VHB conducted research to determine the historic growth rate for traffic in this area as well as other planned developments that may affect traffic within the study area for the proposed project. Based on information contained in the *2018 Traffic Counting Report for Cape Cod Massachusetts*, traffic has increased at a rate of 0.44-percent per year Cape-wide over the last ten years (2008 – 2018). As described in this report, the Town of Barnstable is part of the Mid-Cape region, in which traffic increased at a rate of 0.26-percent per year over the last ten years (2008 – 2018). To provide a conservative analysis, and based on discussions with the CCC Transportation Staff, a background growth rate of 0.5-percent per year was applied. The historic growth data

provided in the *2018 Traffic Counting Report for Cape Cod Massachusetts* is contained in the Appendix to this document.

Site-Specific Growth

In addition to the historic traffic growth, VHB contacted representatives of the CCC and the Town of Barnstable to identify any other development projects planned within the vicinity of the site. Based on these discussions, the development projects presented in Table 3 could affect traffic volumes in the vicinity of the site.

Table 3 Background Project Summary

Project Name	Development Program	Project Status
Sea Captains Row	60 apartment units on Pleasant Street near the intersection with South Street	Approved by all Boards, build permitting stage
Dockside	33 apartment units at the intersection of School Street and South Street	Dependent on Town Council Approval

Traffic volumes associated with the above-mentioned developments were obtained from the traffic studies prepared for each project and added to the future traffic projections as part of this assessment. The traffic volumes associated with the above-mentioned developments are included in the Appendix to this document.

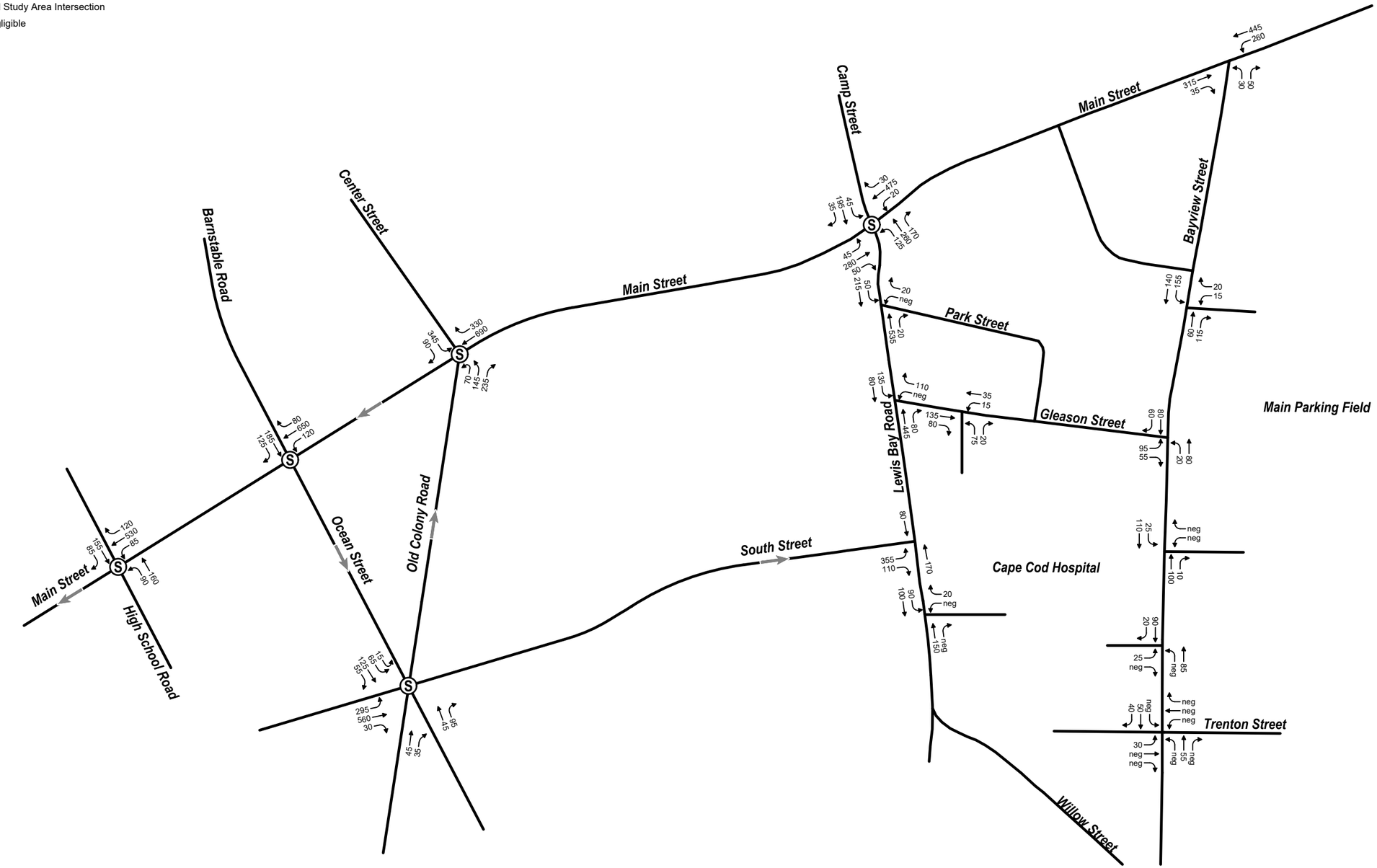
No-Build Traffic Volumes

The 2026 No-Build traffic volumes were developed by applying the 0.5-percent per year growth rate to the 2019 Existing conditions volumes and adding the traffic associated with the background development projects summarized in Table 3. Figures 8 and 9 display the resulting 2026 No-Build peak hour traffic volumes for the peak season and Figures 10 and 11 display the resulting 2026 No-Build peak hour traffic volumes for the average season.

Future Roadway Conditions

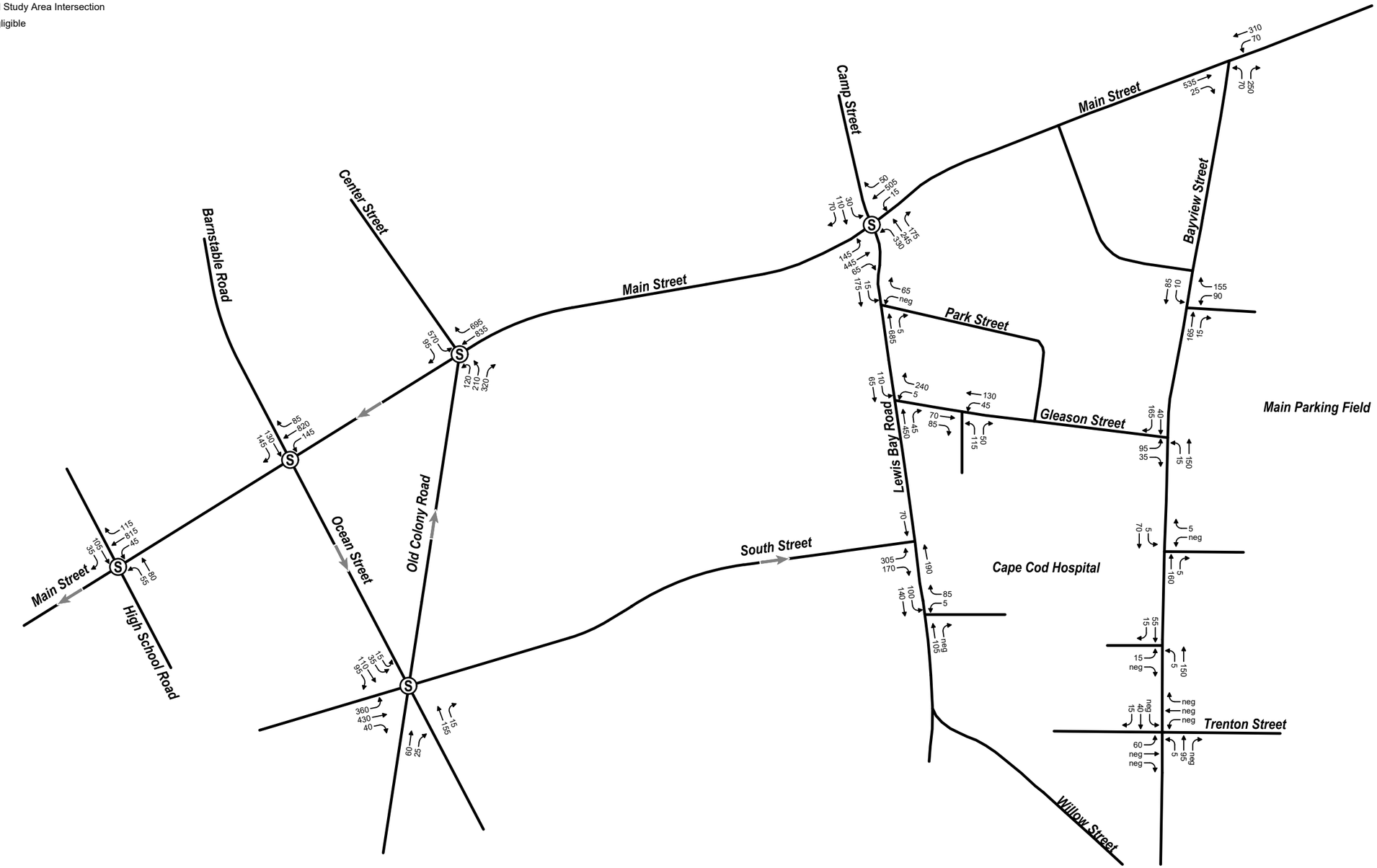
Another factor affecting background traffic conditions is the implementation of roadway improvements within the study area. No roadway improvement projects have been identified by the Town of Barnstable or MassDOT within the study area.

Ⓢ Signalized Study Area Intersection
neg = Negligible



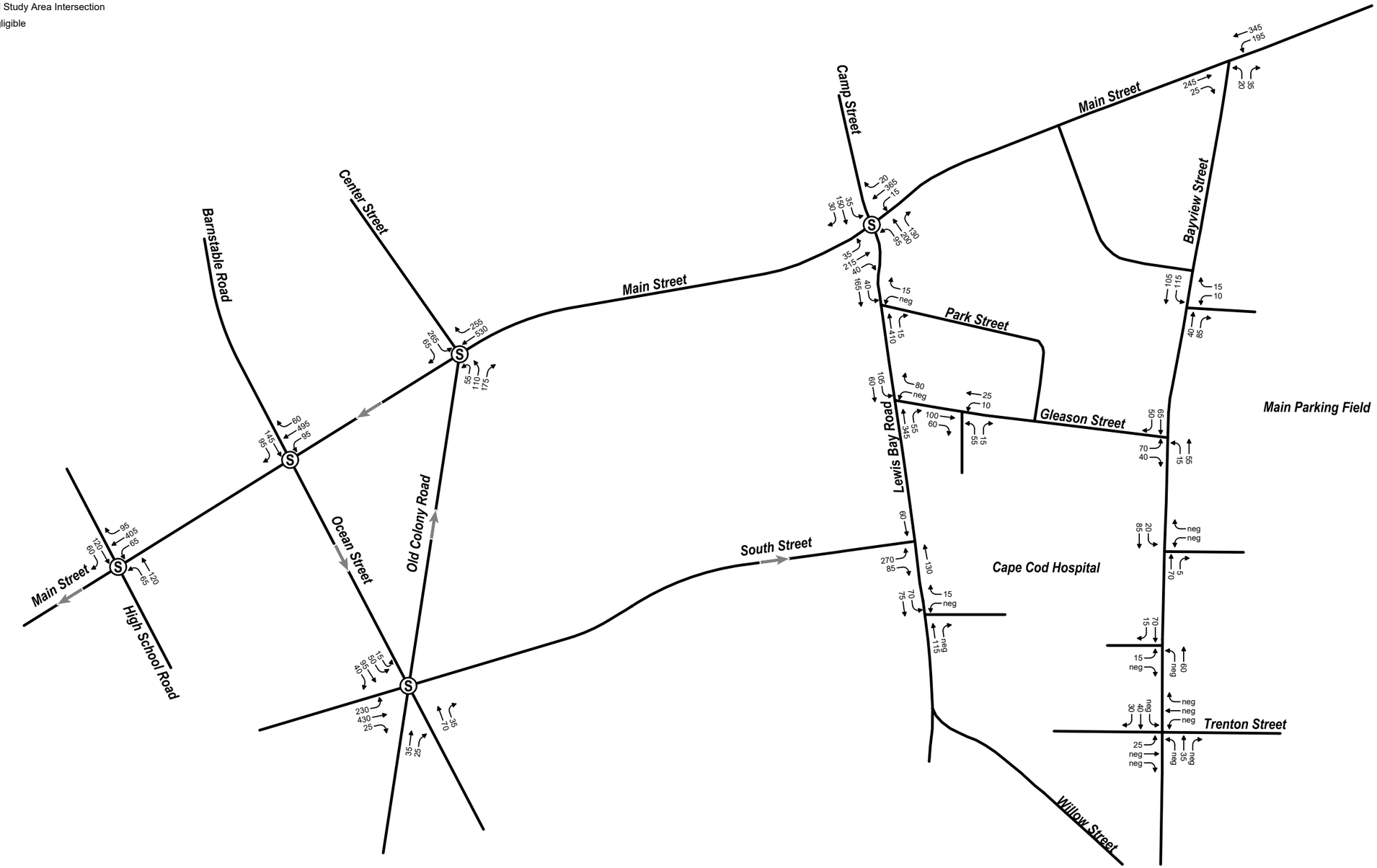
2026 No-Build Conditions Peak Season **Figure 8**
Weekday Morning Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Ⓢ Signalized Study Area Intersection
neg = Negligible



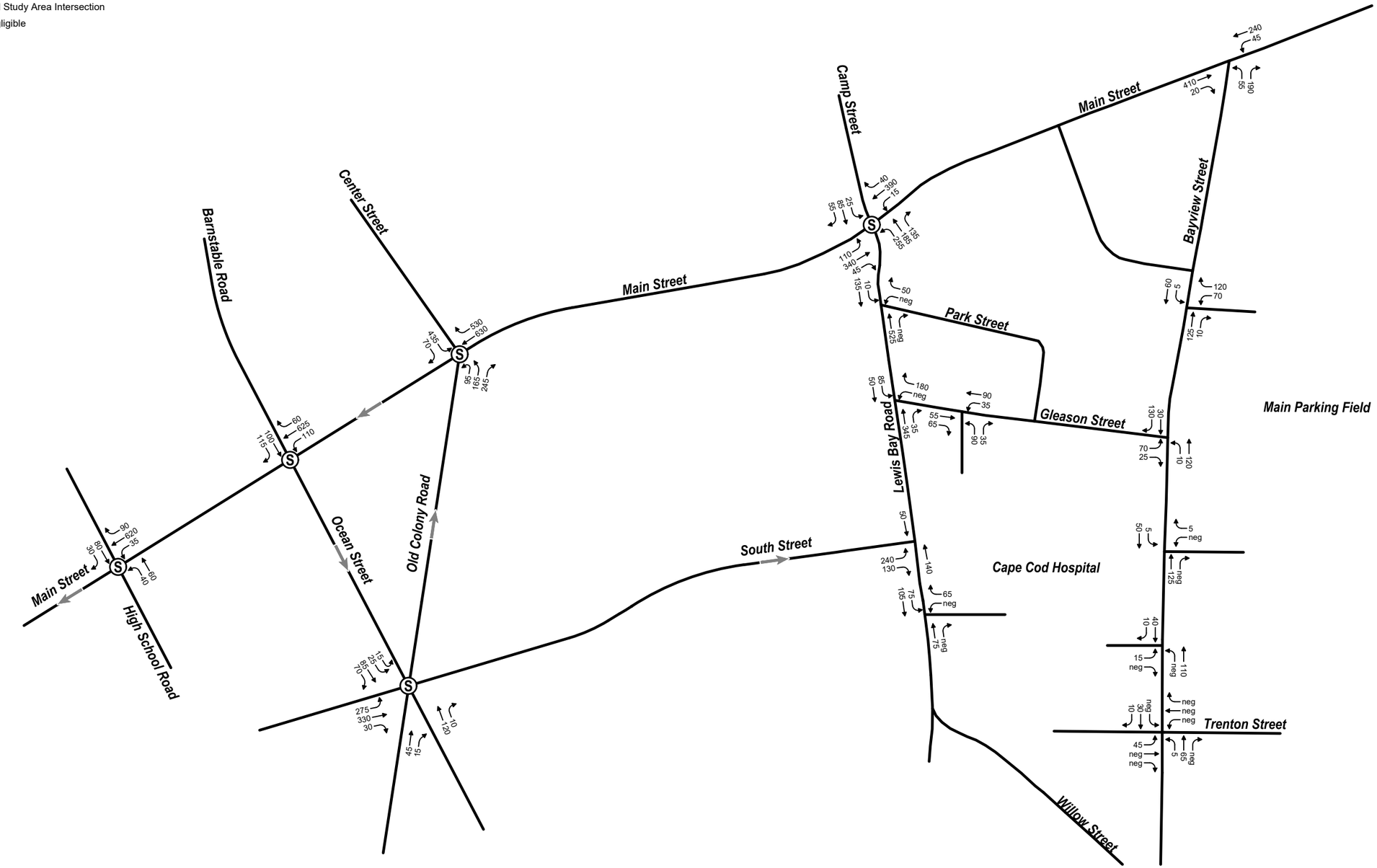
2026 No-Build Conditions Peak Season **Figure 9**
Weekday Evening Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Ⓢ Signalized Study Area Intersection
neg = Negligible



2026 No-Build Conditions Avg Season **Figure 10**
Weekday Morning Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Ⓢ Signalized Study Area Intersection
neg = Negligible



2026 No-Build Conditions Avg Season **Figure 11**
Weekday Evening Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Trip Generation

The proposed development would involve the construction of an approximately 122,500 sf addition to Cape Cod Hospital. To estimate the site-generated traffic, VHB used trip generation rates provided in the Trip Generation Manual[1], published by the Institute of Transportation Engineers (ITE). ITE land use code (LUC) 610 (Hospital) was determined to be the most appropriate land use code for this development.

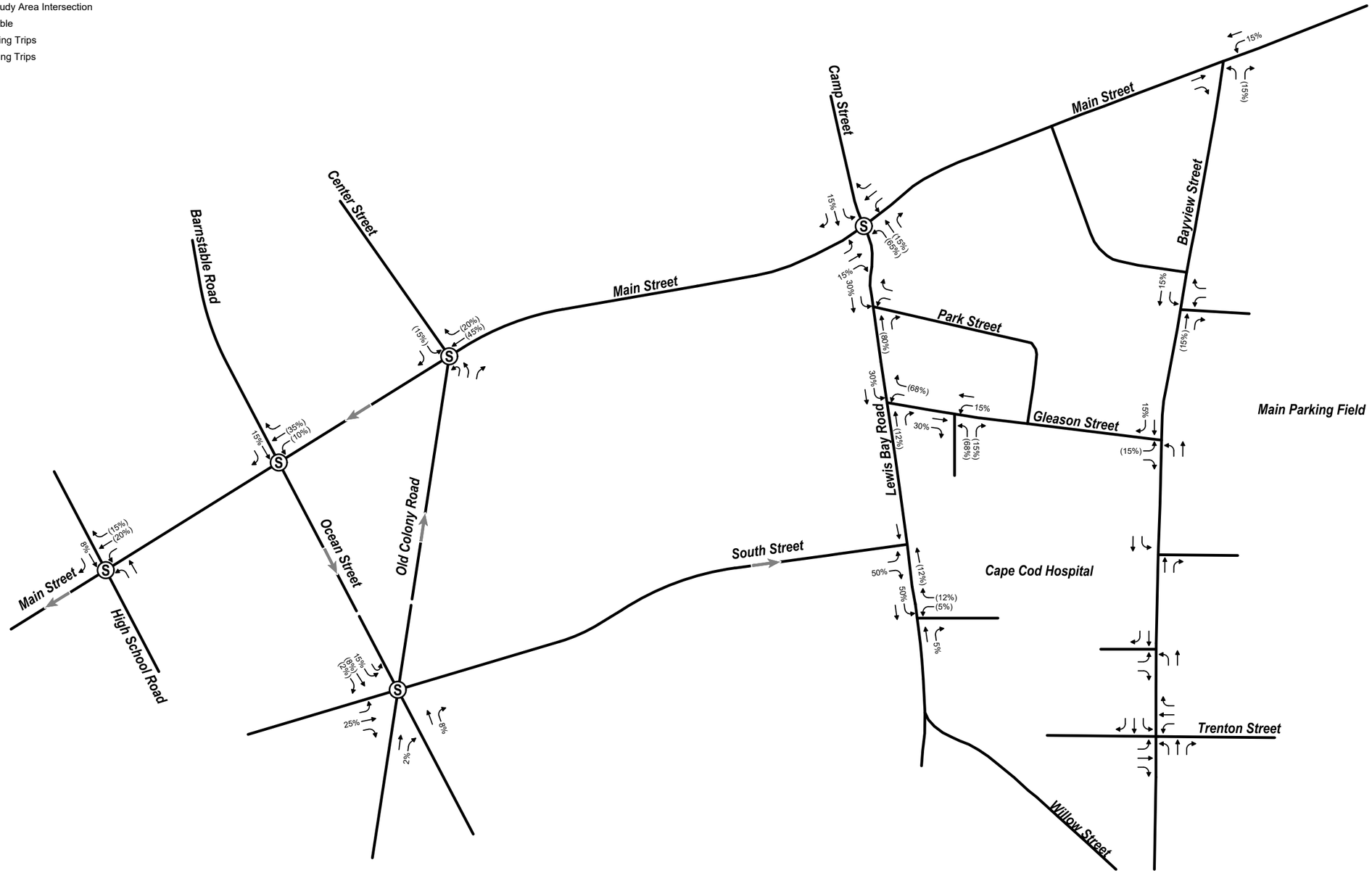
Since the proposed Project is an expansion to the existing hospital, VHB generated trips for the 122,542 sf net addition to the hospital and not for the entire 199,295 sf.

It should also be noted that trip reduction is a consideration of the RPP and the Transportation Technical Bulletin. The Hospital will extend its comprehensive TDM plan to include the Project. These measures are described in more detail in Chapter 5 of this TIAS and based on the robust nature of these measures, a conservative credit of 12.5% has been taken to account for the potential effect of the TDM on traffic generation. It is also noted that the Cape Cod Hospital Campus is located within a Growth Incentive Zone.

The trip generation calculations prepared using the ITE data and in accordance with and Technical Bulletin requirements are summarized in Table 4. The detailed Trip Generation calculations and networks are provided in the Appendix to this document.

[1] Trip Generation Manual (10th Edition), Institute of Transportation Engineers, Washington D.C., 2017.

Ⓢ Signalized Study Area Intersection
neg = Negligible
XX% = Entering Trips
(XX%) = Exiting Trips



Trip Distribution

Figure 12

Project 2022
Hyannis, Massachusetts

Table 4 Project Trip Generation Summary

Time Period	Direction	Site-Generated Trips [a]	12.5% Trip Reduction Requirement [b]	Net New Trips
Weekday	Enter	657	82	575
Daily	Exit	657	82	575
	Total	1314	164	1150
Weekday Morning	Enter	69	9	60
Peak Hour	Exit	35	4	31
	Total	104	13	91
Weekday Evening	Enter	40	5	35
Peak Hour	Exit	78	10	68
	Total	118	15	103

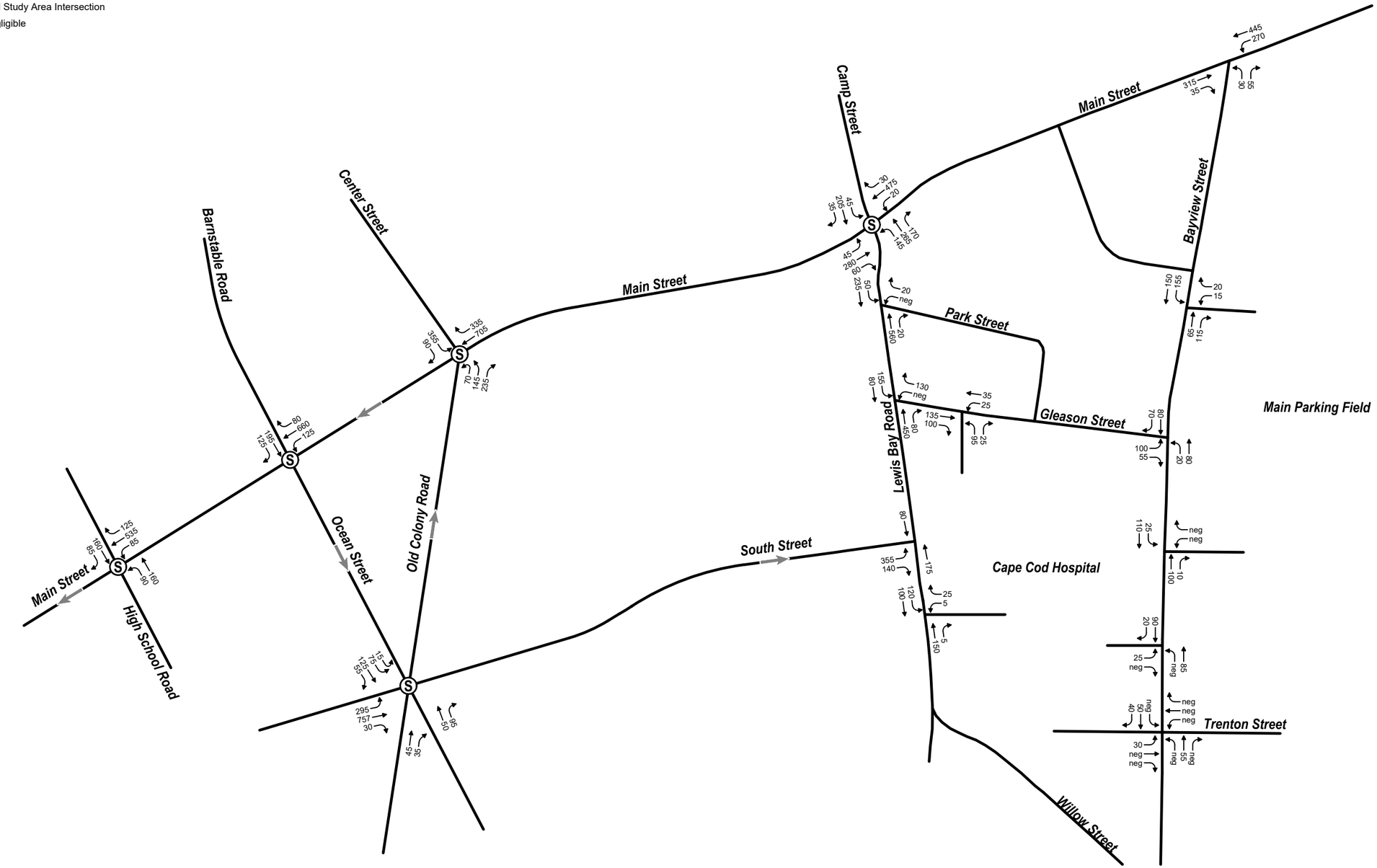
a. Based on ITE LUC 610 (Hospital)
b. 12.5-percent trip reduction in accordance with the RPP

As shown in Table 4, the proposed project is expected to result in a total of 1,150 net new trips (575 entering/575 exiting) on a typical weekday with 91 net new trips (60 entering/ 31 exiting) during the weekday morning peak hour 103 net new trips (35 entering/ 68 exiting) during the weekday evening peak hour.

Trip Distribution and Assignment

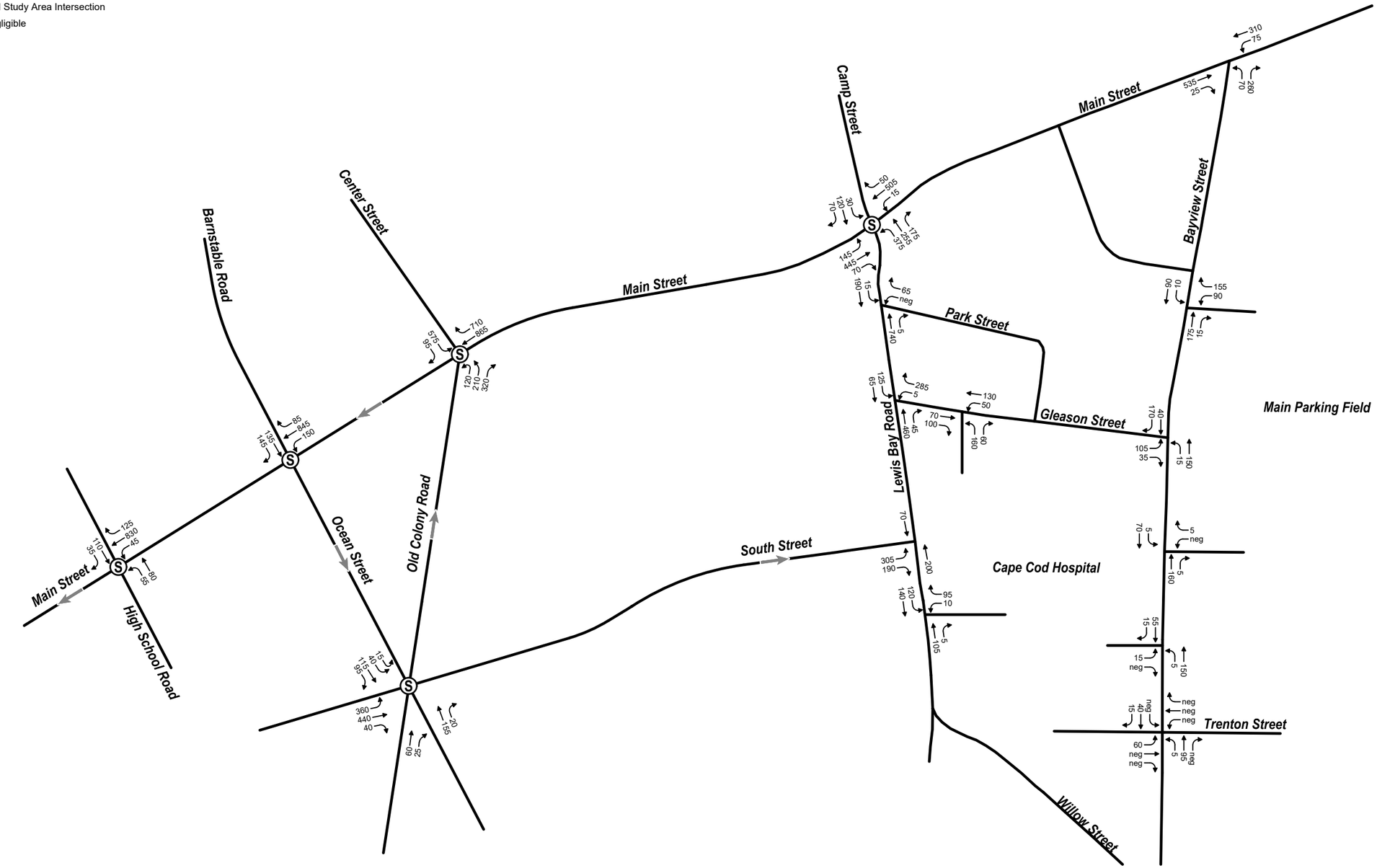
The directional distribution of traffic approaching and departing the Project is a function of several variables: population densities, existing travel patterns, and the efficiency of the roadways leading to the site. The trip distribution for the proposed development has been derived based on existing travel patterns. The anticipated trip distribution is summarized in Table 5 and is illustrated in Figure 12.

Ⓢ Signalized Study Area Intersection
neg = Negligible



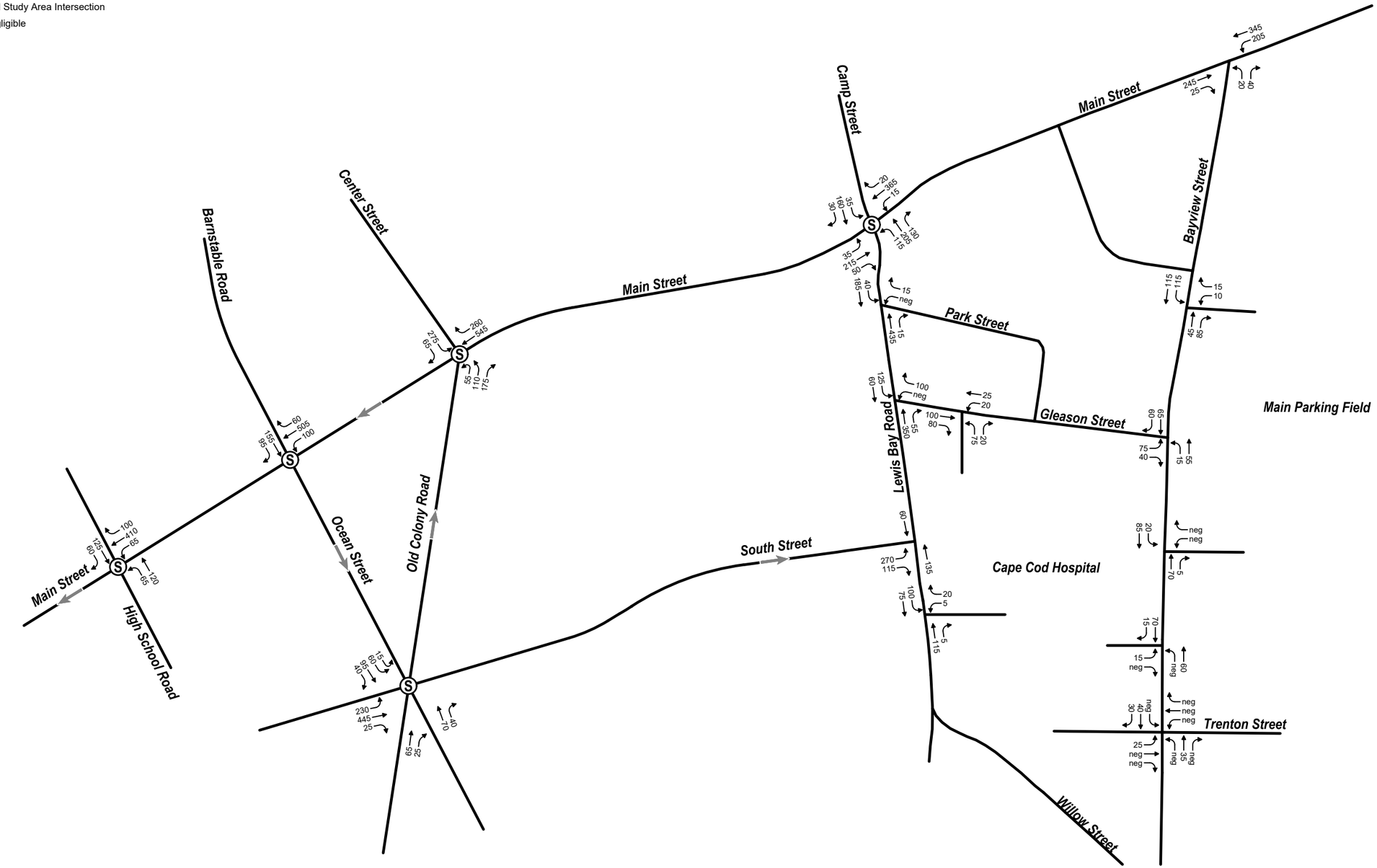
2026 Build Conditions Peak Season **Figure 13**
Weekday Morning Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Ⓢ Signalized Study Area Intersection
neg = Negligible



2026 Build Conditions Peak Season **Figure 14**
Weekday Evening Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

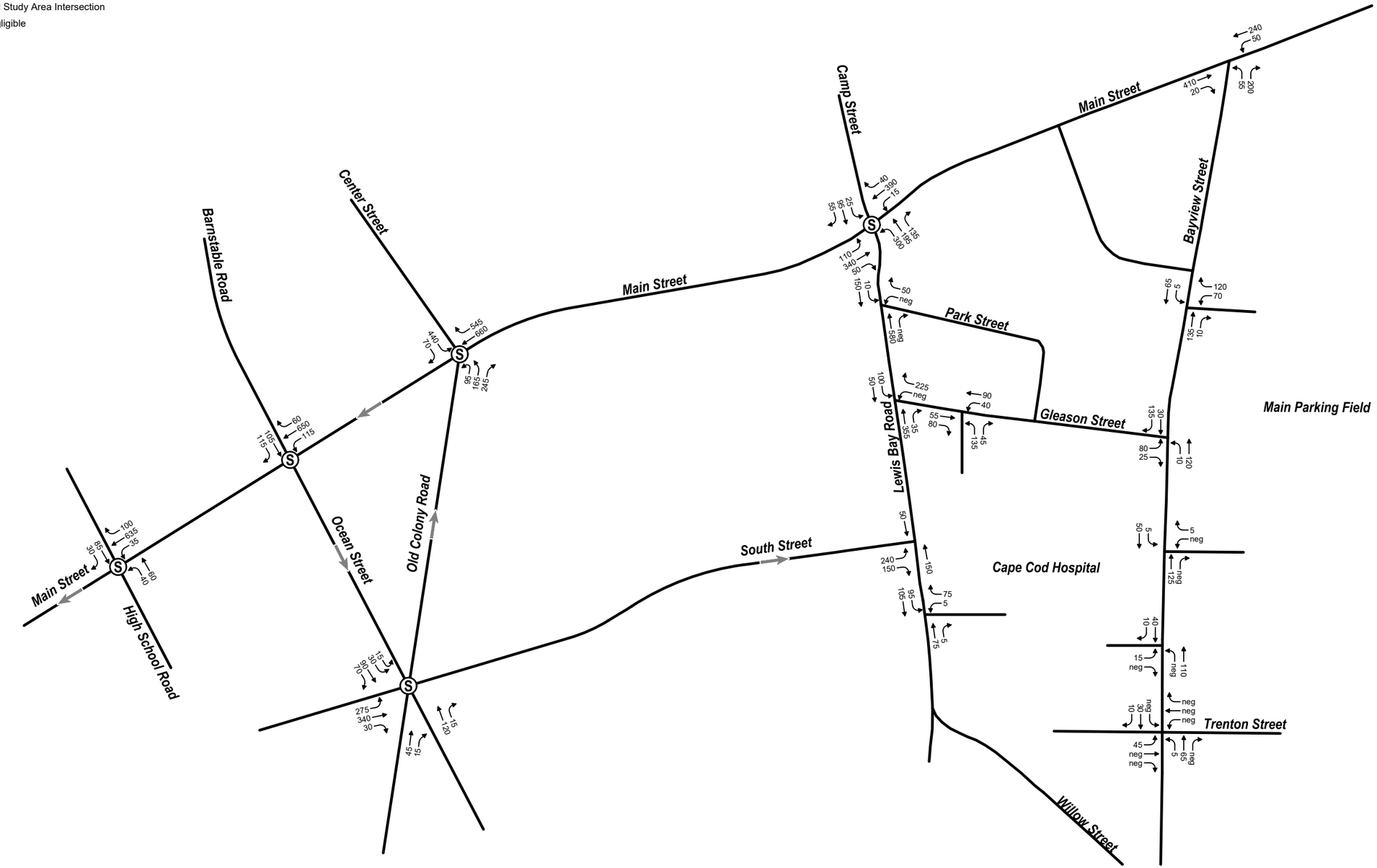
Ⓢ Signalized Study Area Intersection
neg = Negligible



2026 Build Conditions Avg Season
Weekday Morning Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Figure 15

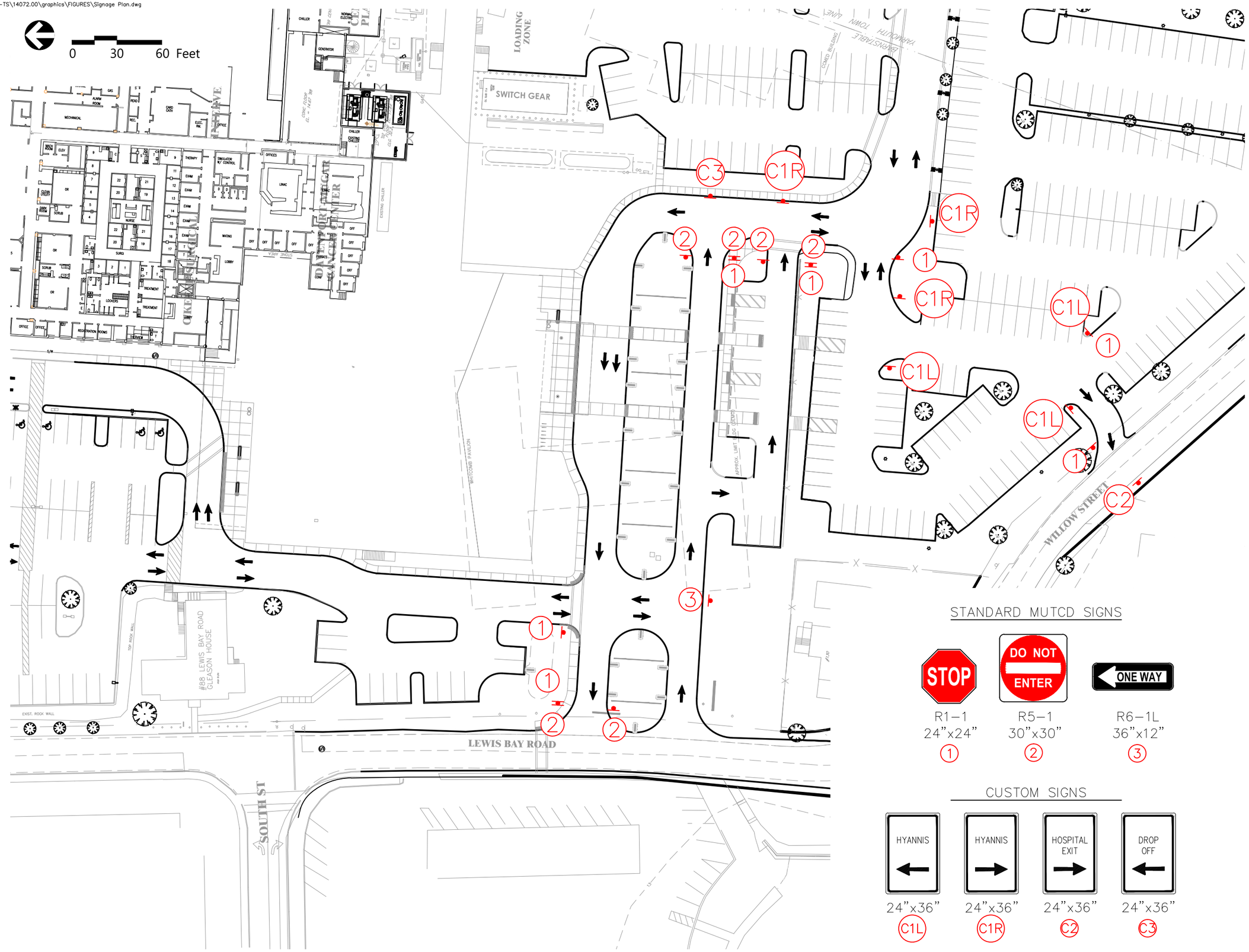
Ⓢ Signalized Study Area Intersection
neg = Negligible



2026 Build Conditions Avg Season
Weekday Evening Peak Hour Traffic Volumes
Project 2022
Hyannis, Massachusetts

Figure 16

\\vhb\gbl\proj\Wat-TS\14072.00\graphics\FIGURES\Signage Plan.dwg



STANDARD MUTCD SIGNS

R1-1 24"x24" (1) | R5-1 30"x30" (2) | R6-1L 36"x12" (3)

CUSTOM SIGNS

24"x36" (C1L) | 24"x36" (C1R) | 24"x36" (C2) | 24"x36" (C3)

vhb.com
vhb
101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Cape Cod Hospital

27 Park Street
Hyannis, Massachusetts

No.	Revision	Date	Appvd.

Designed by | Checked by

Issued for: DRAFT — Date: July 2019

Not Approved for Construction

Drawing Title
Figure 17
Wayfinding & Signage Plan

Drawing Number

Sheet 1 of 1

Project Number
14072.00

Saved Wednesday, August 7, 2019 1:49:21 PM APRICHARD Plotted Wednesday, August 7, 2019 3:45:12 PM Prichard, Adam

Table 5 Trip Distribution Summary

Direction (to/from)	Travel Route	Percent of New Site-Generated Traffic Assigned to Route
North	Lewis Bay Road	30%
South	Lewis Bay Road	5%
West	South Street	50%
North/East	Bayview Street	15%
Total		**100%**

The projected site-generated traffic volumes, summarized in Table 4, were distributed on the study area roadways using the trip distribution shown in Table 5 and added to the 2026 No-Build peak hour traffic volumes to develop the 2026 Build peak hour traffic volumes. The 2026 Build traffic volumes are shown in Figures 13 and 14 for the peak season and Figures 15 and 16 for the average season.

Site Access

Under the redevelopment condition, site access from Lewis Bay Road will be modified slightly. The existing site driveway will be relocated approximately 50 feet to the south creating more separation with South Street than exists today. This access configuration is an improvement over existing condition. Sight distance analysis of the proposed relocated site driveway is discussed below. In addition, to allow patrons who park on the south side of the campus, south of new building to egress the site without having to travel through the covered entry to the proposed building, an egress only driveway to Willow Street (right out only) is being provided on the south side of the site. In addition, to encourage egress from that location to patrons oriented to Hyannis and points west, a wayfinding and signage plan has been prepared and is represented in Figure 17. The site plan for the project is included in the Appendix.

Sight Distance

A sight distance analysis, in conformance with guidelines of the American Association of State Highway and Transportation Officials (AASHTO) was performed at the proposed site access driveway from Lewis Bay Road. Sight distance considerations are generally divided into two categories: Stopping Sight Distance (SSD) and Intersection Sight Distance (ISD). Stopping Sight Distance (SSD) is the distance required for a vehicle approaching an intersection from either direction to perceive, react and come to a complete stop before colliding with an object in the road, in this case the exiting

vehicle from a driveway. In this respect, SSD can be considered as the minimum visibility criterion for the safe operation of an unsignalized intersection.

Intersection Sight Distance (ISD) is based on the time required for perception, reaction and completion of the desired critical exiting maneuver once the driver on a minor street or driveway approach decided to execute the maneuver. Calculation for the critical ISD includes the time to (1) turn left, and to clear the half of the intersection without conflicting with the vehicles approaching from the left; and (2) accelerate to the operating speed of the roadway without causing approaching vehicles to unduly reduce their speed. In this context, ISD can be considered as a desirable visibility criterion for the safe operation of an unsignalized intersection. Essentially, while SSD is the minimum distance needed to avoid collisions, ISD is the minimum distance needed so that mainline motorists will not have to substantially reduce their speed due to turning vehicles. To maintain the safe operation of an unsignalized intersection, ISD only needs to be equal to the stopping sight distance, though it is desirable to meet ISD requirements by themselves.

To calculate the required SSD and ISD at the unsignalized proposed relocated site driveway along Lewis Bay Road floating car speeds were measured in the field. The measured speed was approximately 20 mph along Lewis Bay Road in the area where the driveway is proposed. Table 6 summarizes the sight distance analysis and the sight distance worksheets are included in the Attachments.

Table 6 Sight Distance Analysis Summary

	Stopping Sight Distance (ft) [a]			Intersection Sight Distance (ft) [a]		
Location	**Traveling**	**Required**	**Measured**	**Looking**	**Desired**	**Measured**
Relocated Site Driveway Lewis Bay Road	Northbound	115	260	Left	225	260
	Southbound	115	500	Right	225	500

a Based-on guidelines established in A Policy on the Geometric Design of Highways and Streets, Sixth Edition, American Association of State Highway and Transportation Officials (AASHTO), 2011 for an 85th percentile speed of 20 mph northbound/southbound.

As shown in Table 6, the minimum stopping sight distance requirements and the desired intersection sight distance requirements are exceeded at the site driveway intersection. To ensure that sight distance is maintained in the future any plantings that may be introduced at the site driveway will be low lying and any existing overgrowth will be trimmed as necessary to maintain and even improve on sight distance.

4

Traffic Operations Analysis

Measuring existing traffic volumes and projecting future traffic volumes quantifies traffic within the study area. To assess quality of flow, roadway capacity analyses were conducted with respect to the 2019 Existing conditions and projected 2026 No-Build and 2026 Build traffic volume conditions. Capacity analyses provide an indication of the adequacy of the roadway facilities to serve the anticipated traffic demands. In accordance with CCC guidelines, capacity analyses were conducted for both peak summer season and average month traffic conditions. The analysis summary tables provided in this chapter contain the results of both the peak summer season analyses and average month analyses.

Level-of-Service and Delay Criteria

Level-of-service (LOS) is the term used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads. It is a qualitative measure of the effect of a number of factors including roadway geometrics, speed, travel delay, freedom to maneuver, and safety. Level-of-service provides an index to the operational qualities of a roadway segment or an intersection. Level-of-service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

For this study, capacity analyses were completed for the signalized and unsignalized study area intersections, and roadway segments. Level-of-service (LOS) designation is reported differently for signalized intersections, unsignalized intersections, and roadway segments. For signalized intersections, the analysis considers the operation of each lane or lane group entering the intersection and assigns a LOS designation to each. Overall intersection data is then calculated in order to represent the overall conditions at the intersection. The evaluation criteria used to analyze the signalized study area intersections is based on the percentile-delay method (Synchro results). For unsignalized intersections, the analysis assumes that traffic on the mainline is not

affected by traffic on the side streets. The LOS is determined primarily for left-turns from the main street and all movements from the minor street. The evaluation criteria used to analyze the unsignalized study area intersections is based on the 2010 Highway Capacity Manual (HCM)[2]. For roadway segments, the roadway geometrics determine the segment capacity and the percent of traffic that have the ability to travel at or near the posted speed limit is used to assess level-of-service. The evaluation criteria used to analyze the study area roadway segments is based on the 2010 Highway Capacity Manual (HCM).

Level-of-Service Analysis

Levels-of-service analyses were conducted for the 2019 Existing, 2026 No-Build, and 2026 Build conditions for the signalized and unsignalized study-area intersections.

Signalized Intersection Capacity Analyses

Table 7 presents a summary of the capacity analyses for the signalized intersection in the study area during peak season conditions while Table 8 presents a summary of the capacity analyses for the average month conditions. The capacity analyses worksheets are included in the Appendix to this document.

▼

2 Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2010.

Table 7 Signalized Intersection Capacity Analysis – Peak Summer Season

Location / Movement	2019 Existing Conditions					2026 No-Build Conditions					2026 Build Conditions				
	v/c [a]	Del [b]	LOS [c]	50 Q [d]	95 Q [e]	v/c	Del	LOS	50 Q	95 Q	v/c	Del	LOS	50 Q	95 Q
Lewis Bay Road at Main Street															
Weekday Morning															
EB L	0.19	19	B	15	50	0.21	19	B	15	50	0.21	20	B	15	50
EB T/R	0.46	26	C	122	328	0.47	26	C	130	349	0.49	27	C	138	360
WB L	0.05	18	B	6	27	0.05	18	B	7	28	0.06	18	B	7	28
WB T/R	0.78	40	D	265	#615	0.80	41	D	293	#685	0.81	42	D	298	#685
NB L	0.35	23	C	53	119	0.36	24	C	52	122	0.42	25	C	61	140
NB T/R	0.65	28	C	220	410	0.63	28	C	209	424	0.64	28	C	212	430
SB L/T/R	0.66	43	D	149	#366	0.72	47	D	162	#402	0.75	49	D	172	#422
Overall		**33**	**C**				**34**	**C**				**34**	**C**		
Weekday Evening															
EB L	0.53	26	C	44	120	0.63	35	C	51	153	0.64	35	D	52	153
EB T/R	0.60	30	C	194	520	0.66	33	C	228	#636	0.67	33	C	237	#645
WB L	0.05	20	C	5	22	0.06	21	C	5	22	0.06	21	C	5	22
WB T/R	0.88	53	D	309	#754	0.96	66	E	356	#836	0.97	68	E	364	#836
NB L	0.93	64	E	166	#398	0.95	68	E	171	#414	1.09	105	F	~211	#514
NB T/R	0.69	35	C	208	424	0.70	35	D	217	439	0.70	36	D	226	454
SB L/T/R	0.81	63	E	119	248	0.82	64	E	129	#278	0.83	65	E	136	#297
Overall		**45**	**D**				**50**	**D**				**57**	**E**		
Old Colony Road / Center Street at Main Street															
Weekday Morning															
WB T	0.66	21	C	131	186	0.65	21	C	126	192	0.66	21	C	130	196
WB R	0.49	5	A	0	43	0.48	5	A	0	50	0.48	4	A	0	51
NB L	0.20	4	A	0	19	0.20	4	A	0	18	0.20	4	A	0	18
NB T	0.50	30	C	57	108	0.50	30	C	58	111	0.50	30	C	58	111
NB R	0.53	8	A	0	53	0.54	8	A	0	54	0.54	8	A	0	54
SB L	0.93	59	E	157	#323	0.90	54	D	150	#329	0.93	59	E	158	#341
SB R	0.22	6	A	0	28	0.22	6	A	0	31	0.22	6	A	0	31
Overall		**23**	**C**				**22**	**C**				**23**	**C**		
Weekday Evening															
WB T	0.70	22	C	163	226	0.72	23	C	174	240	0.74	24	C	183	251
WB R	0.72	7	A	7	88	0.76	9	A	21	134	0.77	9	A	26	152
NB L	0.27	7	A	0	38	0.29	7	A	0	40	0.29	7	A	0	40
NB T	0.59	32	C	81	144	0.64	34	C	88	155	0.64	34	C	88	155
NB R	0.57	8	A	0	60	0.59	8	A	0	62	0.59	8	A	0	62
SB L	>1.20	>120	F	~434	#564	>1.20	>120	F	~397	#583	>1.20	>120	F	~401	#587
SB R	0.25	7	A	0	30	0.24	7	A	0	33	0.24	7	A	0	33
Overall		**86**	**F**				**72**	**E**				**74**	**E**		
Ocean Street / Barnstable Road at Main Street															
Weekday Morning															
WB L/T/R	0.59	9	A	60	116	0.60	9	A	62	114	0.60	9	A	64	117
SB T/R	0.40	9	A	20	44	0.36	9	A	17	52	0.37	10	A	18	55
Overall		**9**	**A**				**9**	**A**				**9**	**A**		
Weekday Evening															
WB L/T/R	0.66	13	B	72	221	0.69	13	B	84	259	0.70	13	B	88	272
SB T/R	0.34	12	B	12	61	0.38	13	B	14	63	0.39	13	B	16	65
Overall		**13**	**B**				**13**	**B**				**13**	**B**		

a Volume to capacity ratio.
b Average total delay, in seconds per vehicle.
c Level-of-service.
d 50th percentile queue, in feet.
e 95th percentile queue, in feet.
95th percentile volume exceeds capacity, queue may be longer.
~ Volume exceeds capacity, queue is theoretically infinite.

Table 7 Signalized Intersection Capacity Analysis – Peak Summer Season (continued)

Location / Movement	2019 Existing Conditions					2026 No-Build Conditions					2026 Build Conditions				
	v/c [a]	Del [b]	LOS [c]	50 Q [d]	95 Q [e]	v/c	Del	LOS	50 Q	95 Q	v/c	Del	LOS	50 Q	95 Q
Main Street at High School Road															
Weekday Morning															
WB L/T/R	1.15	104	F	~55	#314	0.67	22	C	40	#295	0.68	23	C	41	#299
NB L/T	0.59	12	B	28	95	0.41	10	A	18	112	0.41	10	A	18	112
SB T	0.24	7	A	11	62	0.22	8	A	10	66	0.23	8	A	11	68
SB R	0.42	3	A	0	17	0.13	3	A	0	21	0.13	3	A	0	21
Overall		**62**	**E**				**17**	**B**				**17**	**B**		
Weekday Evening															
WB L/T/R	0.59	21	C	~72	#340	0.47	18	B	0	#344	0.61	22	C	~77	#353
NB L/T	0.23	9	A	9	63	0.16	7	A	0	61	0.22	9	A	9	64
SB T	0.16	8	A	8	46	0.12	7	A	0	49	0.15	8	A	7	51
SB R	0.06	3	A	0	9	0.05	3	A	0	10	0.05	3	A	0	10
Overall		**18**	**B**				**16**	**B**				**19**	**B**		
South Street at Ocean Street and Old Colony Road															
Weekday Morning															
EB L/T/R	0.69	21	C	140	#384	0.68	20	C	135	#395	0.69	21	C	138	#406
NB R/HR	0.39	17	B	25	84	0.37	16	B	21	87	0.38	17	B	23	92
SB L	0.23	10	A	4	39	0.21	9	A	2	40	0.24	11	B	5	47
SB T/BR	0.53	30	C	69	163	0.51	30	C	63	168	0.51	30	C	64	168
NE T/R	0.35	34	C	31	97	0.33	34	C	29	97	0.33	34	C	29	97
Overall		**22**	**C**				**21**	**C**				**21**	**C**		
Weekday Evening															
EB L/T/R	0.66	21	C	134	323	0.66	20	C	129	331	0.66	21	C	137	336
NB R/HR	0.46	19	B	39	105	0.41	17	B	30	111	0.42	18	B	33	116
SB L	0.11	4	A	0	17	0.11	4	A	0	16	0.12	5	A	0	19
SB T/BR	0.52	29	C	69	185	0.54	29	C	70	191	0.54	30	C	74	195
NE T/R	0.40	34	C	37	99	0.35	34	C	30	102	0.35	34	C	31	102
Overall		**22**	**C**				**22**	**C**				**22**	**C**		

a Volume to capacity ratio.
b Average total delay, in seconds per vehicle.
c Level-of-service.
d 50th percentile queue, in feet.
e 95th percentile queue, in feet.
95th percentile volume exceeds capacity, queue may be longer.
~ Volume exceeds capacity, queue is theoretically infinite.

Table 8 Signalized Intersection Capacity Analysis – Average Season

Location / Movement	2019 Existing Conditions					2026 No-Build Conditions					2026 Build Conditions				
	v/c [a]	Del [b]	LOS [c]	50 Q [d]	95 Q [e]	v/c	Del	LOS	50 Q	95 Q	v/c	Del	LOS	50 Q	95 Q
Lewis Bay Road at Main Street															
Weekday Morning															
EB L	0.11	17	B	8	41	0.11	17	B	9	41	0.12	18	B	9	41
EB T/R	0.37	20	C	62	236	0.39	21	C	71	254	0.43	22	C	78	269
WB L	0.03	17	B	3	22	0.03	17	B	4	22	0.04	17	B	4	22
WB T/R	0.67	31	C	142	382	0.68	32	C	162	417	0.73	35	C	168	423
NB L	0.24	19	B	27	92	0.24	20	B	28	97	0.29	20	C	35	113
NB T/R	0.53	21	C	103	290	0.51	21	C	106	301	0.47	20	C	110	308
SB L/T/R	0.56	35	C	81	241	0.59	36	D	91	255	0.64	39	D	99	#277
Overall		**26**	**C**				**26**	**C**				**28**	**C**		
Weekday Evening															
EB L	0.33	21	C	28	92	0.37	21	C	33	102	0.39	22	C	34	103
EB T/R	0.52	27	C	114	360	0.52	27	C	137	409	0.54	28	C	145	418
WB L	0.04	19	B	4	22	0.04	20	B	4	22	0.04	20	B	4	22
WB T/R	0.77	42	D	190	#486	0.82	46	D	223	#570	0.83	48	D	229	#577
NB L	0.62	33	C	94	248	0.70	37	D	110	#271	0.79	43	D	134	#390
NB T/R	0.50	27	C	113	299	0.54	28	C	131	310	0.53	28	C	138	322
SB L/T/R	0.62	47	D	70	187	0.68	51	D	85	201	0.70	53	D	93	214
Overall		**33**	**C**				**36**	**D**				**38**	**D**		
Old Colony Road / Center Street at Main Street															
Weekday Morning															
WB T	0.56	19	B	86	138	0.55	19	B	83	142	0.56	19	B	86	146
WB R	0.43	5	A	0	39	0.42	5	A	0	45	0.42	5	A	0	45
NB L	0.16	3	A	0	9	0.16	2	A	0	9	0.16	3	A	0	9
NB T	0.38	26	C	35	85	0.39	26	C	37	87	0.39	27	C	37	87
NB R	0.45	8	A	0	47	0.45	8	A	0	48	0.46	8	A	0	48
SB L	0.71	33	C	87	#226	0.70	33	C	84	#234	0.72	34	C	89	#247
SB R	0.17	4	A	0	16	0.16	3	A	0	15	0.16	3	A	0	15
Overall		**17**	**B**				**17**	**B**				**17**	**B**		
Weekday Evening															
WB T	0.57	20	B	105	163	0.58	20	B	114	171	0.60	20	B	120	180
WB R	0.62	5	A	0	60	0.63	5	A	0	61	0.64	5	A	0	62
NB L	0.23	6	A	0	27	0.25	7	A	0	33	0.25	7	A	0	33
NB T	0.49	29	C	59	115	0.53	30	C	67	123	0.53	30	C	67	123
NB R	0.50	8	A	0	53	0.53	8	A	0	55	0.53	8	A	0	55
SB L	1.18	>120	F	~255	#415	1.12	111	F	~243	#431	1.15	119	F	~251	#435
SB R	0.18	5	A	0	18	0.17	4	A	0	18	0.17	4	A	0	18
Overall		**39**	**D**				**33**	**C**				**34**	**C**		
Ocean Street / Barnstable Road at Main Street															
Weekday Morning															
WB L/T/R	0.53	9	A	41	71	0.53	9	A	42	71	0.54	9	A	44	73
SB T/R	0.29	7	A	12	30	0.26	7	A	10	34	0.27	7	A	11	36
Overall		**8**	**A**				**8**	**A**				**8**	**A**		
Weekday Evening															
WB L/T/R	0.55	10	B	49	151	0.62	13	B	56	171	0.61	12	B	59	180
SB T/R	0.24	9	A	7	44	0.27	11	B	8	49	0.28	12	B	9	51
Overall		**10**	**B**				**12**	**B**				**12**	**B**		

a Volume to capacity ratio.
b Average total delay, in seconds per vehicle.
c Level-of-service.
d 50th percentile queue, in feet.
e 95th percentile queue, in feet.
~ Volume exceeds capacity, queue is theoretically infinite.
# 95th percentile volume exceeds capacity, queue may be longer.

Table 8 Signalized Intersection Capacity Analysis – Average Season (continued)

Location / Movement	2019 Existing Conditions					2026 No-Build Conditions					2026 Build Conditions				
	v/c [a]	Del [b]	LOS [c]	50 Q [d]	95 Q [e]	v/c	Del	LOS	50 Q	95 Q	v/c	Del	LOS	50 Q	95 Q
Main Street at High School Road															
Weekday Morning															
WB L/T/R	0.53	19	B	30	#219	0.44	16	B	25	#202	0.38	16	B	26	#206
NB L/T	0.41	10	A	20	73	0.28	9	A	13	83	0.28	9	A	13	83
SB T	0.18	8	A	8	51	0.16	8	A	8	54	0.17	8	A	8	57
SB R	0.10	3	A	0	16	0.09	4	A	0	19	0.09	4	A	0	19
Overall		**14**	**B**				**13**	**B**				**12**	**B**		
Weekday Evening															
WB L/T/R	0.36	14	B	0	#245	0.36	14	B	0	#246	0.37	15	B	0	#254
NB L/T	0.13	7	A	0	48	0.12	8	A	0	48	0.12	8	A	0	48
SB T	0.11	7	A	0	37	0.10	8	A	0	41	0.10	8	A	0	42
SB R	0.05	3	A	0	7	0.04	3	A	0	9	0.04	3	A	0	9
Overall		**12**	**B**				**13**	**B**				**13**	**B**		
South Street at Ocean Street and Old Colony Road															
Weekday Morning															
EB L/T/R	0.56	16	B	85	244	0.43	15	B	82	246	0.57	16	B	85	253
NB R/HR	0.29	13	B	10	59	0.24	12	B	7	60	0.28	12	B	9	64
SB L	0.18	8	A	0	29	0.15	7	A	0	28	0.19	8	A	0	37
SB T/BR	0.38	25	C	37	126	0.31	24	C	35	129	0.37	25	C	35	129
NE T/R	0.22	28	C	17	75	0.18	27	C	16	73	0.21	28	C	16	73
Overall		**17**	**B**				**16**	**B**				**17**	**B**		
Weekday Evening															
EB L/T/R	0.52	17	B	75	225	0.53	16	B	76	230	0.53	17	B	78	236
NB R/HR	0.34	14	B	18	72	0.30	13	B	13	79	0.31	14	B	14	82
SB L	0.09	3	A	0	9	0.09	2	A	0	9	0.10	3	B	0	4
SB T/BR	0.39	24	C	40	144	0.40	24	C	39	146	0.40	24	A	41	119
NE T/R	0.25	28	C	19	72	0.22	28	C	16	75	0.22	28	C	16	52
Overall		**18**	**B**				**17**	**B**				**17**	**B**		

a Volume to capacity ratio.
b Average total delay, in seconds per vehicle.
c Level-of-service.
d 50th percentile queue, in feet.
e 95th percentile queue, in feet.
95th percentile volume exceeds capacity, queue may be longer.
~ Volume exceeds capacity, queue is theoretically infinite.

As shown in the Tables 7 and 8, minimal operational impacts are expected with the addition of the proposed project traffic. The intersections are expected to remain at the same overall level-of-service (for the both the average and peak season) between 2026 No-Build and 2026 Build conditions during peak hours. The only intersection that is expected to degrade during the 2026 Build conditions is Main Street at Lewis Bay Road / Camp Street. The operations will degrade from LOS D, during Existing and No-Build conditions, to LOS E during the Peak Summer scenario for the evening peak hour with projected 5 second increase in delay which will be imperceptible.

Unsignalized Intersection Capacity Analyses

The analytical methodologies typically used for the analysis of unsignalized intersections use conservative analysis parameters, such as high critical gaps[3]. Actual field observations indicate that drivers on minor streets generally accept smaller gaps in traffic than those used in the analysis procedures and therefore experience less delay than reported by the analysis software. Consequently, the analysis results tend to overstate the actual delays experienced in the field. For this reason, the results of the unsignalized intersection analyses should be considered highly conservative.

Tables 9 and 10 present a summary of the capacity analyses both the peak summer and average conditions for the unsignalized intersections in the study area. The capacity analyses worksheets are included in the Appendix to this document.

▼

3 'Critical gap' is defined as the minimum time, in seconds, between successive major-stream vehicles, in which a minor-street vehicle can make a maneuver

Table 9 Unsignalized Intersection Capacity Analysis – Peak Summer Season

Location / Movement	2019 Existing Conditions					2026 No-Build Conditions					2026 Build Conditions				
	D [a]	v/c [b]	Del [c]	LOS [d]	95 Q [e]	D	v/c	Del	LOS	95 Q	D	v/c	Del	LOS	95 Q
Lewis Bay Road at Park Street															
Weekday Morning															
WB L/R	20	0.06	13	B	5	20	0.04	12	B	3	20	0.04	13	B	3
SB L	50	0.06	9	A	5	50	0.06	9	A	5	50	0.06	9	A	5
Weekday Evening															
WB L/R	65	0.17	15	C	15	65	0.17	15	C	15	65	0.18	17	C	18
SB L	15	0.02	9	A	3	15	0.02	9	A	3	15	0.02	10	A	3
Lewis Bay Road at Gleason Street															
Weekday Morning															
WB L/R	105	0.21	14	B	20	110	0.22	13	B	20	130	0.26	14	B	25
SB L	130	0.14	9	A	13	135	0.15	9	A	13	155	0.17	9	A	15
Weekday Evening															
WB L/R	235	0.53	19	C	78	245	0.48	17	C	65	290	0.58	20	C	90
SB L	105	0.11	9	A	10	110	0.12	9	A	10	125	0.13	9	A	13
Lewis Bay Road at South Street															
Weekday Morning															
EB L	340	0.56	17	C	88	355	0.54	16	C	80	355	0.54	16	C	83
EB R	105	0.12	9	A	10	110	0.12	9	A	10	140	0.16	9	A	15
Weekday Evening															
EB L	295	0.45	14	B	58	305	0.47	14	B	63	305	0.47	15	B	63
EB R	165	0.18	10	A	15	170	0.19	10	A	18	190	0.21	10	A	20
Lewis Bay Road at CC Hospital Driveway															
Weekday Morning															
WB L/R	21	0.03	10	A	3	21	0.03	9	A	3	30	0.04	10	A	3
SB L	90	0.07	8	A	5	90	0.07	8	A	5	120	0.09	8	A	8
Weekday Evening															
WB L/R	90	0.11	10	A	10	90	0.11	10	A	10	105	0.13	10	A	13
SB L	100	0.07	8	A	5	100	0.07	8	A	5	120	0.09	8	A	8
Bayview Street at Trenton Street / CC Hospital Driveway															
Weekday Morning															
EB L/T/R	30	0.05	10	A	3	30	0.04	10	A	3	30	0.04	10	A	3
WB L/T/R	neg	0.00	9	A	0	neg	0.00	9	A	0	neg	0.00	9	A	0
NB L	neg	-	0	A	0	neg	-	0	A	0	neg	-	0	A	0
SB L	neg	-	0	A	0	neg	-	0	A	0	neg	-	0	A	0
Weekday Evening															
EB L/T/R	61	0.10	10	B	8	61	0.08	10	B	8	61	0.08	10	B	8
WB L/T/R	neg	0.00	9	A	0	neg	0.00	9	A	0	neg	0.00	9	A	0
NB L	5	0.00	7	A	0	5	0.00	7	A	0	5	0.00	7	A	0
SB L	neg	0.00	7	A	0	neg	0.00	7	A	0	neg	0.00	7	A	0

a Demand, in vehicles
b Volume to capacity ratio.
c Average total delay, in seconds per vehicle.
d Level-of-service.
e 95th percentile queue, in feet.
neg Negligible volume
N/A Not applicable

Table 9 Unsignalized Intersection Capacity Analysis – Peak Summer Season (continued)

Location / Movement	2019 Existing Conditions					2026 No-Build Conditions					2026 Build Conditions				
	D [a]	v/c [b]	Del [c]	LOS [d]	95 Q [e]	D	v/c	Del	LOS	95 Q	D	v/c	Del	LOS	95 Q
Bayview Street at CC Hospital Driveway															
Weekday Morning															
EB L/R	25	0.04	10	A	3	25	0.04	10	A	3	25	0.04	10	A	3
NB L	neg	0.00	7	A	0	neg	0.00	8	A	0	neg	0.00	8	A	0
Weekday Evening															
EB L/R	18	0.03	10	B	3	18	0.03	10	A	3	18	0.03	10	A	3
NB L	5	0.00	7	A	0	5	0.00	7	A	0	5	0.00	7	A	0
Bayview Street at Main Parking Field Driveway (South)															
Weekday Morning															
WB L/R	neg	N/A	0	A	-	neg	N/A	0	A	-	neg	N/A	0	A	-
SB L	25	0.02	8	A	3	25	0.02	8	A	3	25	0.02	8	A	3
Weekday Evening															
WB L/R	6	0.01	9	A	0	6	0.01	9	A	0	6	0.01	9	A	0
SB L	5	0.00	8	A	0	5	0.00	8	A	0	5	0.00	8	A	0
Bayview Street at Gleason Street															
Weekday Morning															
EB L/R	145	0.01	8	A	0	150	0.23	12	B	23	155	0.24	12	B	23
NB L	15	0.21	11	B	20	20	0.02	8	A	0	20	0.02	8	A	0
Weekday Evening															
EB L/R	125	0.22	12	B	20	130	0.23	13	B	23	140	0.25	13	B	25
NB L	15	0.01	8	A	0	15	0.01	8	A	0	15	0.01	8	A	0
Bayview Street at Main Parking Field Driveway (North)															
Weekday Morning															
WB L/R	35	0.09	13	B	8	35	0.07	12	B	5	35	0.07	12	B	5
SB L	155	0.16	8	A	13	155	0.12	8	A	10	155	0.12	8	A	10
Weekday Evening															
WB L/R	245	0.32	12	B	35	245	0.34	12	B	38	245	0.34	12	B	38
SB L	10	0.01	8	A	0	10	0.01	8	A	0	10	0.01	8	A	0
Bayview Street at Main Street															
Weekday Morning															
NB L/R	80	0.36	29	D	40	80	0.24	9	A	23	85	0.42	33	D	48
WB L	250	0.23	9	A	23	260	0.40	32	D	45	270	0.25	9	A	25
Weekday Evening															
NB L/R	310	0.75	35	D	155	320	0.88	54	F	223	330	0.91	59	F	243
WB L	65	0.07	9	A	5	70	0.08	9	A	8	75	0.08	9	A	8
Gleason Street at CC Hospital Driveway															
Weekday Morning															
NB L/R	95	0.17	11	B	15	75	0.14	11	B	13	120	0.18	11	B	18
WB L	15	0.02	8	A	0	15	0.01	8	A	0	25	0.02	8	A	3
Weekday Evening															
NB L/R	165	0.29	13	B	30	165	0.26	12	B	25	220	0.36	14	B	40
WB L	45	0.04	8	A	3	45	0.04	8	A	3	50	0.04	8	A	3

a Demand, in vehicles
b Volume to capacity ratio.
c Average total delay, in seconds per vehicle.
d Level-of-service.
e 95th percentile queue, in feet.
neg Negligible volume
N/A Not applicable

As shown in the Table 9, minimal operational impacts are expected with the addition of the proposed project traffic during the peak summer season. All of the unsignalized approaches are expected to operate at LOS D or better under 2026 Build conditions during both peak hours, except for the northbound approach at the intersection of Bayview Street and Main Street, which is expected to operate at LOS F during the weekday evening peak period. It should be noted that during the evening peak hour this approach currently operates at LOS D and is anticipated to operate at LOS F under 2026 no-build conditions.

Table 10 Unsignalized Intersection Capacity Analysis – Average Season

Location / Movement	2019 Existing Conditions					2026 No-Build Conditions					2026 Build Conditions				
	D [a]	v/c [b]	Del [c]	LOS [d]	95 Q [e]	D	v/c	Del	LOS	95 Q	D	v/c	Del	LOS	95 Q
Lewis Bay Road at Park Street															
Weekday Morning															
WB L/R	15	0.04	11	B	3	15	0.03	11	B	3	15	0.03	11	B	3
SB L	40	0.04	9	A	3	40	0.04	8	A	3	40	0.04	9	A	3
Weekday Evening															
WB L/R	50	0.10	13	B	8	50	0.10	13	B	8	50	0.11	13	B	10
SB L	10	0.01	9	A	0	10	0.01	9	A	0	10	0.01	9	A	0
Lewis Bay Road at Gleason Street															
Weekday Morning															
WB L/R	75	0.13	12	B	10	80	0.13	11	B	13	100	0.17	12	B	15
SB L	100	0.10	9	A	8	105	0.10	9	A	8	125	0.12	9	A	10
Weekday Evening															
WB L/R	175	0.33	13	B	38	180	0.30	13	B	30	225	0.38	14	B	43
SB L	80	0.07	8	A	5	85	0.08	8	A	8	100	0.10	9	A	8
Lewis Bay Road at South Street															
Weekday Morning															
EB L	260	0.39	13	B	48	270	0.37	12	B	43	270	0.38	12	B	45
EB R	80	0.09	9	A	8	85	0.09	9	A	8	115	0.13	9	A	10
Weekday Evening															
EB L	230	0.31	12	B	33	240	0.33	12	B	38	240	0.34	12	B	38
EB R	125	0.13	9	A	10	130	0.14	9	A	13	150	0.16	9	A	15
Lewis Bay Road at CC Hospital Driveway															
Weekday Morning															
WB L/R	16	0.02	9	A	3	16	0.02	9	A	3	25	0.03	9	A	3
SB L	70	0.05	8	A	5	70	0.05	8	A	5	100	0.07	8	A	5
Weekday Evening															
WB L/R	65	0.08	9	A	5	65	0.07	9	A	5	80	0.09	9	A	8
SB L	75	0.05	8	A	5	75	0.05	8	A	5	95	0.07	8	A	5
Bayview Street at Trenton Street / CC Hospital Driveway															
Weekday Morning															
EB L/T/R	25	0.04	9	A	3	25	0.03	9	A	3	25	0.03	9	A	3
WB L/T/R	neg	0.00	9	A	0	neg	0.00	9	A	0	neg	0.00	9	A	0
NB L	neg	N/A	0	A	0	neg	N/A	0	A	0	neg	N/A	0	A	0
SB L	neg	N/A	0	A	0	neg	N/A	0	A	0	neg	N/A	0	A	0
Weekday Evening															
EB L/T/R	46	0.07	10	A	5	46	0.06	10	A	5	46	0.06	10	A	5
WB L/T/R	neg	0.00	9	A	0	neg	0.00	9	A	0	neg	0.00	9	A	0
NB L	5	0.00	7	A	0	5	0.00	7	A	0	5	0.00	7	A	0
SB L	neg	0.00	7	A	0	neg	0.00	7	A	0	neg	0.00	7	A	0

a Demand, in vehicles
b Volume to capacity ratio.
c Average total delay, in seconds per vehicle.
d Level-of-service.
e 95th percentile queue, in feet.
neg Negligible volume
N/A Not applicable

Table 10 Unsignalized Intersection Capacity Analysis – Average Season (continued)

Location / Movement	2019 Existing Conditions					2026 No-Build Conditions					2026 Build Conditions				
	D [a]	v/c [b]	Del [c]	LOS [d]	95 Q [e]	D	v/c	Del	LOS	95 Q	D	v/c	Del	LOS	95 Q
Bayview Street at CC Hospital Driveway															
Weekday Morning															
EB L/R	15	0.02	9	A	3	15	0.02	9	A	3	15	0.02	9	A	3
NB L	neg	0.00	7	A	0	neg	0.00	7	A	0	neg	0.00	7	A	0
Weekday Evening															
EB L/R	17	0.02	10	A	3	17	0.02	10	A	3	17	0.02	10	A	3
NB L	neg	-	0	A	0	neg	-	0	A	0	neg	-	0	A	0
Bayview Street at Main Parking Field Driveway (South)															
Weekday Morning															
WB L/R	neg	N/A	0	A	N/A	neg	N/A	0	A	N/A	neg	N/A	0	A	N/A
SB L	20	0.02	7	A	0	20	0.01	7	A	0	20	0.01	7	A	0
Weekday Evening															
WB L/R	6	0.01	9	A	0	6	0.01	9	A	0	6	0.01	9	A	0
SB L	5	0.00	8	A	0	5	0.00	8	A	0	5	0.00	8	A	0
Bayview Street at Gleason Street															
Weekday Morning															
EB L/R	110	0.16	11	B	13	110	0.16	11	B	15	115	0.17	11	B	15
NB L	15	0.01	8	A	0	15	0.01	8	A	0	15	0.01	8	A	0
Weekday Evening															
EB L/R	95	0.15	11	B	13	95	0.15	11	B	13	105	0.17	12	B	15
NB L	10	0.01	8	A	0	10	0.01	8	A	0	10	0.01	8	A	0
Bayview Street at Main Parking Field Driveway (North)															
Weekday Morning															
WB L/R	25	0.05	11	B	5	25	0.04	10	B	3	25	0.04	10	B	3
SB L	115	0.11	8	A	10	115	0.09	8	A	8	115	0.09	8	A	8
Weekday Evening															
WB L/R	190	0.23	10	B	23	190	0.24	11	B	23	190	0.25	11	B	25
SB L	5	0.01	8	A	0	5	0.01	8	A	0	5	0.00	8	A	0
Bayview Street at Main Street															
Weekday Morning															
NB L/R	55	0.15	16	C	13	55	0.16	17	C	15	60	0.17	8	A	15
WB L	190	0.16	8	A	15	195	0.17	8	A	15	205	0.18	17	C	15
Weekday Evening															
NB L/R	240	0.46	17	C	60	245	0.52	19	C	75	255	0.54	20	C	80
WB L	45	0.04	8	A	3	45	0.04	8	A	3	50	0.05	8	A	5
Gleason Street at CC Hospital Driveway															
Weekday Morning															
NB L/R	70	0.11	10	B	10	70	0.09	10	A	8	95	0.13	10	B	13
WB L	10	0.01	8	A	0	10	0.01	8	A	0	20	0.02	8	A	0
Weekday Evening															
NB L/R	125	0.20	11	B	18	125	0.18	11	B	15	180	0.27	12	B	28
WB L	35	0.03	8	A	3	35	0.03	8	A	3	40	0.03	8	A	3

a Demand, in vehicles
b Volume to capacity ratio.
c Average total delay, in seconds per vehicle.
d Level-of-service.
e 95th percentile queue, in feet.
neg Negligible volume
N/A Not applicable

As shown in the Table 10, minimal operational impacts are expected with the addition of the proposed project traffic under average season conditions. All of the unsignalized study area intersections are expected to operate at LOS C or better under 2026 Build conditions during both peak hours.

Roadway Segment Capacity Analysis

Capacity analyses were conducted for the four two-lane roadway segments identified in the study area using HCS Two Lane Highways. Capacity analyses were conducted for 2019 Existing conditions, 2026 No-Build conditions, and 2026 Build conditions. The results of the peak summer and average season conditions are shown in Tables 11 and 12, respectively. The capacity analyses worksheets are included in the Appendix to this document.

Table 11 Two Lane Roadway Segment Capacity Analysis – Peak Summer Season

		2019 Existing Conditions		2026 No-Build Conditions		2026 Build Conditions	
Roadway Segment	Direction	v/c [a]	LOS [b]	v/c	LOS	v/c	LOS
Lewis Bay Road between Main Street and Gleason Street							
Weekday Morning	Northbound	0.34	C	0.35	D	0.37	D
	Southbound	0.13	C	0.14	C	0.15	C
Weekday Evening	Northbound	0.43	D	0.44	D	0.47	D
	Southbound	0.11	D	0.11	C	0.12	C
Lewis Bay Road between Gleason Street and South Street							
Weekday Morning	Northbound	0.32	C	0.34	C	0.34	C
	Southbound	0.05	C	0.05	C	0.05	C
Weekday Evening	Northbound	0.31	C	0.32	C	0.32	C
	Southbound	0.04	C	0.04	C	0.04	C
Bayview Street between Main Street and Willow Street							
Weekday Morning	Northbound	0.11	B	0.11	B	0.12	C
	Southbound	0.09	B	0.09	C	0.09	C
Weekday Evening	Northbound	0.11	C	0.12	C	0.12	C
	Southbound	0.13	C	0.13	C	0.13	C
Main Street between Lewis Bay Road / Camp Street and Bayview Street							
Weekday Morning	Eastbound	0.21	D	0.22	D	0.22	D
	Westbound	0.32	D	0.34	D	0.34	D
Weekday Evening	Eastbound	0.35	D	0.36	D	0.36	D
	Westbound	0.35	D	0.36	D	0.36	E
Main Street between Lewis Bay Road / Camp Street and Old Colony Road / Center Street							
Weekday Morning	Eastbound	0.23	E	0.24	E	0.24	E
	Westbound	0.63	E	0.65	E	0.66	E
Weekday Evening	Eastbound	0.40	E	0.42	E	0.42	E
	Westbound	0.94	E	0.98	E	1.00	E
Main Street between Old Colony Road / Center Street and Barnstable Road / Ocean Street							
Weekday Morning	Westbound	0.18	A	0.18	A	0.19	A
Weekday Evening	Westbound	0.22	B	0.23	B	0.24	B
Main Street between Barnstable Road / Ocean Street and High School Road							
Weekday Morning	Westbound	0.21	B	0.21	B	0.22	B
Weekday Evening	Westbound	0.27	B	0.28	B	0.29	B
South Street between Ocean Street / Old Colony Road and Lewis Bay Road							
Weekday Morning	Eastbound	0.13	A	0.14	A	0.14	A
Weekday Evening	Eastbound	0.13	A	0.14	A	0.14	A

a. Volume to capacity ratio.
b. Level-of-service.

Table 12 Two Lane Roadway Segment Capacity Analysis – Average Season

		2019 Existing Conditions		2026 No-Build Conditions		2026 Build Conditions	
Roadway Segment	Direction	v/c [a]	LOS [b]	v/c	LOS	v/c	LOS
Lewis Bay Road between Main Street and Gleason Street							
Weekday Morning	Northbound	0.26	C	0.27	D	0.28	D
	Southbound	0.10	C	0.11	C	0.12	C
Weekday Evening	Northbound	0.32	C	0.34	C	0.36	D
	Southbound	0.08	C	0.09	C	0.09	C
Lewis Bay Road between Gleason Street and South Street							
Weekday Morning	Northbound	0.25	C	0.26	C	0.26	C
	Southbound	0.04	C	0.04	C	0.04	C
Weekday Evening	Northbound	0.23	C	0.24	C	0.25	C
	Southbound	0.03	C	0.03	C	0.03	C
Bayview Street between Main Street and Willow Street							
Weekday Morning	Northbound	0.08	B	0.08	B	0.08	B
	Southbound	0.07	B	0.07	B	0.08	B
Weekday Evening	Northbound	0.08	C	0.09	C	0.09	C
	Southbound	0.10	B	0.10	B	0.11	C
Main Street between Lewis Bay Road / Camp Street and Bayview Street							
Weekday Morning	Eastbound	0.16	C	0.17	C	0.17	C
	Westbound	0.25	C	0.25	C	0.26	C
Weekday Evening	Eastbound	0.27	D	0.27	D	0.27	D
	Westbound	0.27	D	0.28	D	0.28	D
Main Street between Lewis Bay Road / Camp Street and Old Colony Road / Center Street							
Weekday Morning	Eastbound	0.18	D	0.19	D	0.19	D
	Westbound	0.48	D	0.50	D	0.51	D
Weekday Evening	Eastbound	0.30	E	0.32	E	0.32	E
	Westbound	0.72	E	0.74	E	0.76	E
Main Street between Old Colony Road / Center Street and Barnstable Road / Ocean Street							
Weekday Morning	Westbound	0.18	A	0.25	B	0.25	B
Weekday Evening	Westbound	0.22	B	0.23	B	0.31	B
Main Street between Barnstable Road / Ocean Street and High School Road							
Weekday Morning	Westbound	0.16	A	0.17	A	0.17	A
Weekday Evening	Westbound	0.21	B	0.22	B	0.22	B
South Street between Ocean Street / Old Colony Road and Lewis Bay Road							
Weekday Morning	Eastbound	0.10	A	0.10	A	0.11	A
Weekday Evening	Eastbound	0.10	A	0.11	A	0.11	A

a. Volume to capacity ratio.
b. Level-of-service.

As shown in Tables 11 and 12, all roadway segments operate at LOS D or better under 2019 Existing conditions during both peak hours except for the intersection of Main Street between Lewis Bay Road / Camp Street and Old Colony Road / Center Street. The intersection operates at LOS E during the evening period under the average season and both peak periods for the peak summer season. The operates for the intersection will maintain at LOS E during the 2026 No-Build and 2026 Build conditions. Under 2026 No-Build and 2026 Build conditions, all roadway segments

that operate at LOS D or better during Existing conditions are expected to continue operating at LOS D or better during both peak hours, except for westbound Main Street segment between Lewis Bay Road / Camp Street and Bayview Street during the weekday evening period under the peak summer season. While this intersection will degrade from LOS D to LOS E from the 2026 No-Build to 2026 Build condition, the volume-to-capacity ratio is maintained at 0.36 for both periods.

Parking

As part of the proposed project, the onsite parking utilization was assessed during a typical weekday between 10:00 AM and 3:00 PM. Occupancy counts were conducted for both on-campus parking lots and parking lots immediately adjacent. Table 13 summarizes the findings of the parking occupancy.

Table 13 Campus Parking Utilization

	Employee Satellite Lot	Physician Lot	IDCS Lot	Two Level Back Lot	Main Visitor / Patient Lot	Quinlan Way Visitor / Patient Lots	Quinlan Way Valet Lot	TOTAL	% of Capacity
Capacity	**729**	**78**	**45**	**45**	**189**	**195**	**111**	**1392**	
10:00 AM	687	72	27	45	187	179	46	1243	89%
11:00 AM	709	70	29	42	186	192	70	1298	93%
12:00 PM	707	75	28	46	178	172	60	1266	91%
1:00 PM	672	66	28	43	180	173	51	1213	87%
2:00 PM	670	69	29	37	181	162	49	1197	86%
3:00 PM	672	76	41	41	172	161	39	1202	86%
Peak Occupancy	709	76	41	46	187	192	70	1298	93%

*Note: shaded cells represent peak periods
Source: Parking counts conducted by VHB on Tuesday, November 28, 2017

As shown in Table 13, the peak parking period for most lots occurs at 11:00 AM. The occupancy during this period accounts for 93-percent of the total occupancy. During all of the hours observed the parking capacity is near full (86-percent of capacity or higher). It was noted in the field that the Quinlan Way Valet Lot is underutilized. During the hours observed the lot was typically less than 50-percent full. It is anticipated that valet parking will be a big part of access to the Project and as such there is available parking for this purpose.

The Project will result in an increase of 12 parking spaces. Currently, there are 1419 parking spaces on the campus with the proposed build providing 1431 parking spaces. The existing and proposed site plans with parking numbers is included in the

Appendix. Additionally, an inventory of parking controls throughout campus was completed and can be seen in the Appendix.

5 Mitigation

The preceding analysis of the 2019 Existing conditions and projected future traffic demands in the 2026 No-Build and 2026 Build conditions indicate that traffic volumes during the peak-hours show minor impacts within the study area. The proponent has proposed a combination of different mitigation measures to address the potential impacts of the proposed project. The proposed measures are identified below.

In terms of compliance with the Regional Policy Plan, there are three primary focus areas that may require traffic mitigation:

- Goal TR1: Safety
- Goal TR2: Trip Reduction/Transportation Balance and Efficiency
- Goal TR3: Efficient and Reliable Transportation System

The mitigation responsibilities of the project for each RPP Goal are identified below.

Safety

As stated in Section 6 of Goals and Objectives of the RPP (Transportation) and Objective TR1; the goal is "*To improve and promote a safe, reliable, and multi-modal transportation system that improves safety and eliminates hazards for all users of Cape Cod's transportation system"*. In Chapter 2, VHB provided a summary of the vehicular crash history for the study area locations.

Based on a review of the MassDOT crash data the Proponent proposes consideration of safety improvements at the following five safety deficient locations:

- Lewis Bay Road at Main Street
- Main Street at Center Street / Old Colony Road

- Main Street at Barnstable Road / Ocean Street
- Main Street at High School Road
- South Street at Ocean Street & Old Colony Road

To understand the safety enhancement needs at each location it is necessary to thoroughly review the crash reports from the local and state police departments to get a more detailed account of each incident. Local crash reports were requested from Town of Barnstable Police Department for the intersections of Main Street and Lewis Bay Road/Camp Street, Main Street at Center Street/Old Colony Road, Main Street at Barnstable Road/Ocean Street, Main Street at High School Road, and South Street at Ocean Street and Old Colony Road, which averaged more than three crashes per year. Using the local crash reports, collision diagrams will be created for the intersections to identify trends and determine appropriate safety mitigation measures. To date the crash reports have been requested but not provided to VHB. As such the crash reports, findings, and recommendations will be provided to the CCC under separate heading in the near future.

Main Street at Lewis Bay Road / Camp Street

There was a total of 17 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 17 crashes, six of them (35-percent) were rear-end collisions and four of them (24-percent) were angle collisions, which is common at signalized intersections.

Analysis of the local and state police reports for crashes at this intersection show that the rear-end collisions were mostly caused by weather conditions, vehicles slowed in traffic, distracted driving or driver fault. The majority of angle crashes occurred when vehicles turning left from Main Street onto Camp Street collided with opposing through vehicles. The other two crashes were caused by a broken traffic signal and a bicyclist driving against traffic. Two sideswipe crashes also occurred at this intersection. All of the sideswipe crashes can be attributed to vehicles attempting to travel through the intersection from the left turn only lane.

The rear-end collisions are likely due to congestion at the intersection, while the angle and sideswipe collisions are likely due to intersection geometrics. VHB recommends dashed pavement markings be installed along the taper length of the dedicated left turn storage lane to help motorists differentiate between the through and left-turn only lanes on the east, west and northbound approaches. Additionally, it is recommended that upgraded lane use signage be placed on approaches with dedicated left turn lanes. A final recommendation is to provide “signal ahead” signage and to provide a signal head on the westbound approach mounted on the post of the mast-arm. It is possible that drivers to the intersection do not have good visibility of the signals and are not aware of red lights.

Main Street at Center Street / Old Colony Road

There was a total of 16 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 16 crashes, five of them (31-percent) were rear-end collisions and four of them (25-percent) were single vehicle collisions. It should be noted that six of the crashes involved colliding with a fixed object.

Analysis of the local and state police reports for crashes at this intersection show that two of the rear-end collisions occurred after clearing the intersection. The fixed object crashes could be due to unfamiliarity with the intersection. The northbound approach has a skewed angle. Three of the crashes occurred involved bicyclists that did not yield the right of way to vehicles.

The rear-end collisions are likely due to congestion at the intersection, while the angle and sideswipe collisions are likely due to intersection geometrics. VHB recommends that upgraded lane use signage (diagrammatic) be placed on approaches with dedicated turn lanes, specifically on the northbound approach where a dedicated left-turn, a through, and dedicated right-turn are provided. Another recommendation is to provide "lane ahead" signage to provide warning to vehicles of a signalized intersection. An existing conditions review noticed that the northbound approach has vegetation overhead that could be obstructing the signals.

Main Street at Ocean Street / Barnstable Road

Utilizing the MassDOT crash portal tool, the total number of crashes that occurred at this intersection for the five years of data was 19. After communicating with the Barnstable Police Department (BPD), their query resulted in a total of 11 crashes. After comparing the MassDOT dataset to the BPD dataset, the BPD crashes indicated that many of the MassDOT crashes were geolocated incorrectly. This realization indicates that this intersection should not be labeled as a 'high crash' location.

Main Street at High School Road

There was a total of 22 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 22 crashes, nine of them (41-percent) were angle collisions and four of them (18-percent) were rear-end collisions, which is common at signalized intersections.

Analysis of the local and state police reports for crashes at this intersection show that the angle collisions occurred during the night periods. The sideswipe collisions occurred between westbound vehicles, where one of the vehicles was in the incorrect lane in order to make the desired turn.

The angle collisions could be due to vehicles running a red light. Also, there could be an issue with visibility of the signals. Additionally, it is recommended that upgraded lane use signage be placed on approaches with dedicated left turn lanes. A final recommendation is to provide "signal ahead" signage. It is possible that drivers to the intersection do not have good visibility of the signals and are not aware of red lights.

South Street at Ocean Street & Old Colony Road

There was a total of 37 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 37 crashes, 21 of them (57-percent) were angle collisions and eight of them (22-percent) were rear-end collisions, which is common at signalized intersections.

Analysis of the local and state police reports for crashes at this intersection show that the majority of rear-end collisions were injury crashes, which indicates higher than acceptable speed in the area and inattention on the roadway. Drivers on the roadway might not be prepared to approach a signal. The majority of angle crashes occurred when vehicles turning left from Ocean Street onto South Street and collided with opposing through vehicles. The southbound vehicle might not be expecting an opposing vehicle at this intersection. Five crashes involved left-turning vehicles from South Street onto Old Colony Road, with a vehicle in the right-lane attempting to make the left-turn. There were two crashes that involved a pedestrian in the crosswalk.

The rear-end collisions are likely due to lack of awareness of the upcoming intersection. The angle crashes are likely due to intersection geometrics. VHB proposes to provide signal ahead signage for the eastbound approach, as well as lane diagrammatic signage. The angle crashes at the intersection could be prevented to analyzing the red clearance times at the intersection as well as providing potentially providing split phase for the northbound movements (pending town approval). Providing a split phase for this movement should not cause significant delays at this intersection since this is a low-volume movement.

General TDM Measures

The Proponent will designate an employee (or employees) that will be responsible for managing the TDM program for the Project and who will coordinate with existing onsite TDM coordinator. The designated coordinator will encourage participation in

the program and will distribute information regarding all available trip reduction strategies. In addition, the Proponent will designate a physical or digital area where information can be posted.

Carpooling/Ridesharing

The Proponent will promote ridesharing to its employees. Information regarding carpooling and its benefits will be distributed to all employees and interested carpooler names will be managed by the TDM coordinator. Additionally, a guaranteed ride home program, in the case of an emergency for registered employee ride-sharers, will be provided via a local taxi service. Preferential parking spaces will be designated for employees who rideshare. Incentives for participation will also be explored to encourage employees to rideshare. The on-site transportation coordinator will continue to ensure that the ridesharing program is consistently promoted and provided.

Local Shuttles

The hospital currently operates a shuttle that provides access to the local regional travel hubs including the Hyannis Transportation Center, Barnstable Airport, Ferry Terminals, and provides access to remote parking areas for employees onsite. The shuttle system will be available to new employees and patients that will enter the site as a result of the Project.

Public Transit

Public transit may be an attractive way for some employees or visitors to access the facility. The H2O Hyannis-Orleans bus, which travels to the site or the Hyannis Transportation Center 0.6 miles to the north will be a good option for users to access the site. To encourage the use of transit by employees and visitors to the site, transit schedules and route information will be provided in common areas within the facility.

Bicycle Measures

Bicycling to the project site may be attractive to some employees. To facilitate bicycle access to the site, secure bicycle storage racks will be provided on the exterior of the building.

Pedestrian Accommodations

Pedestrian accommodations accessing the site are generally in place today. However, there is a Yarmouth/Barnstable Bayview Street enhancement project that is currently in the final design phase which will significantly enhance existing and add additional pedestrian amenities along Bayview Street between Main Street and Willow Street. The improvements include new sidewalk along the east side of Bayview Street, enhancement of existing sidewalk on the west side of the street and the introduction of two lighted crosswalks on the north and south side of Park Street. The lighted crosswalks will include 5-foot posts with APS Ped Push Buttons to engage the lights when pedestrians are present. The lighted crosswalks will bolster, significantly, hospital employee access between the main hospital campus and the primary hospital employee parking lot located northwest of the hospital campus on the east side of Bayview. This project is in the final design phase and is expected to be completed well in advance of the 2025 project. The Bayview Street planset is included in the Appendix.

On Site Amenities

The Project and existing facilities on site provide many amenities that allow patrons of the facility, employees, and vendors opportunities to conduct necessary business on site without the need to leave. Most notably, the campus has a full-service restaurant, and retail kiosks so patrons and visitors and employees can eat meals and pick up necessary items at their convenience on site. These and other amenities, will substantially reduce the need for employees and patrons to travel offsite, thereby minimizing trip making. The following is a summary of other key amenities that are proposed:

- Provide preferred/reserved parking for employees/patrons who rideshare/carpool
- On-site restaurant with full food and beverage services
- Bicycle storage – exterior bike racks

As proposed, this Trip Reduction Plan includes several unique amenities that will continue to offset a substantial amount of single occupancy vehicle trips. Conservative calculations estimating the potential trip reduction associated with the proposed TDM program are provided in the Appendix.

Efficient / Reliable System

Intersection Improvements

As shown in Table 6 of Chapter 4 *Traffic Operations Analysis*, only one of the study area intersections is expected to experience a minor increase in delay as a result of the proposed project during peak summer season conditions. During the weekday evening peak hour, the LOS for the northbound left turn movement is expected to worsen from LOS D to LOS E between the no-build and build conditions and overall intersection delay is to increase by just five seconds which will be virtually imperceptible to the user

The Project is consistent with Objective TR3 of the Transportation Technical Bulletin through a variety of methodologies, including:

- ✓ Location – The Project is an addition to Cape Cod Hospital which is appropriately sited in an approved Growth Incentive Zone.
- ✓ Minimal Impacts – As detailed in this document, the Project will have minimal congestion impacts at study area locations. Only one location is expected to experience a very minor increase in delay (seconds) as a result of the Project.
- ✓ TDM Plan – The Hospital proposes to extend its robust TDM plan to the Project. To be conservative, only a 12.5% credit is assumed, however it is likely that the measures would yield further reductions.

And, to the extent necessary, a waiver pursuant to Section 9 of the RPP is also requested from Objective TR3. Based on the foregoing criteria, together with the Hospital's non-profit, charitable status, the Project's purpose and public need, the provision of additional services/care on Cape Cod, such waiver is, if needed, appropriate given the minimal congestion impact.

Table 14 Mitigation Plan Cost Summary

Mitigation Action	Description	Approximate First Year Cost *
Transportation Demand Management Program		$10,000
Safety Improvements (MPS TR1.1)	Mitigation measures at 4 locations	$35,000

* The costs provided in Table 14 are estimates and may need to be modified during the review process. Cost estimates, specific mitigation commitments, and allocation of funds are subject to change based on CCC Staff review.

6

Conclusion

VHB, Inc. has prepared a traffic impact and access study (TIAS) for the proposed Project at Cape Cod Hospital. Primary access to the site would be provided via driveways on Lewis Bay Road (south of South Street) and Gleason Street (west of Park Street) with additional driveways on Willow Street and Bayview Street.

Based on a review of the anticipated trip generation and trip distribution for the proposed project, a study area was established. The study area was established also in part based on a review of the RPP and the RPP Functional Classification of Cape Cod Roadways Map, consultation with CCC staff and the Town of Barnstable. Using this approach, the project study area included the following 16 intersections and 8 roadway links:

Intersections:

- Lewis Bay Road at:
    - Site driveway
    - Proposed new site driveway
    - South Street
    - Gleason Street
    - Park Street
    - Main Street/Camp Street
- Bayview Street at:
    - Main Street
    - Main Parking Field driveway (south)
    - Main Parking Field driveway (north)
    - Park Street
    - Site driveway
    - Site driveway/Trenton Street

- Main Street at:
    - Old Colony Road/Center Street
    - Barnstable Road/Ocean Street
    - High School Road
  - Gleason Street at Site driveway
  - South Street at Ocean Street/Old Colony Road

Roadway Links:

- Lewis Bay Road – between Main Street and Gleason Street
- Lewis Bay Road – between Gleason Street and South Street
- Bayview Street – between Main Street and Willow Street
- Main Street – between Lewis Bay Road/Camp Street and Bayview Street
- Main Street – between Lewis Bay Road/Camp Street and Old Colony Road/Center Street
- Main Street – between Old Colony Road/Center Street and Barnstable Road/Ocean Street
- Main Street – between BarnStable Road/Ocean Street and High School Road
- South Street – between Ocean Street/Old Colony Road and Lewis Bay Road

Turning movement counts (TMC), collecting *peak hour* data, were conducted at each of the study area intersections during the weekday morning peak period from 7:00 AM to 9:00 AM and weekday evening peak period from 4:00 PM to 6:00 PM in November 2017. Volumes were then grown to 2019 Existing Conditions. Concurrent with the TMCs, 24-hour automatic traffic recorder (ATR) counts were conducted at the following location:

- Lewis Bay Road between Gleason Street and South Street

The proposed Project is expected to result in a total of 1,150 (575 entering/575 exiting) on a typical weekday with 91 net new trips (60 entering/31 exiting) during the weekday morning peak hour and 103 net new trips (35 entering/68 exiting) during the weekday evening peak hour.

Capacity analyses were conducted for each of the study area intersections and roadway segments under 2019 Existing conditions, 2026 No-Build conditions (without the proposed development), and 2026 Build conditions (with the proposed development) for both the average and peak season. Based on the results of these analyses and the anticipated site-generated traffic, the proponent proposes consideration of the following measures:

- Transportation Demand Management Program
- Intersection safety enhancements at:
  - Main Street at Lewis Bay Road
  - Main Street and Old Colony Road/Center Street
  - Main Street and High School Road
  - South Street at Ocean Street and Old Colony Road

Overall, VHB concludes that the Project proposes a robust TDM plan which meets the RPP's requirements and safety enhancements that fully offset the Project's impacts at the safety deficient study area intersection. VHB further concludes that the anticipated Project-related impacts at the other intersections within the Project's study area will experience very minimal, virtually imperceptible delays.

Memorandum

To: Cape Cod Commission
3225 Main Street
P.O. Box 226
Barnstable, MA 02630

Date: October 25, 2019

Project #: 14720.00

From: Randy Hart, Principal

Re: Project 2022
Cape Cod Hospital

In response to questions, comments, and requests made by Cape Cod Commission Transportation Staff at a September 10th, 2019 meeting at the Commission office, VHB has prepared this memorandum to provide additional detail and recommendations regarding key components of the proposed project. The following represents supplemental information and recommendations to materials contained in the Traffic Impact Assessment (TIA) for Project 2022 dated September 17, 2019.

Traffic Demand Management (TDM)

TDM measures that Project 2022 are outlined on pages of 62-64 of the September 17, 2019 TIA. However as requested from the CCC, more detail regarding the current and proposed TDM initiatives has been requested and is provided below. Cape Cod Hospital currently implements a robust onsite TDM for its employees. This program includes but is not limited to the following:

- TDM Coordinator onsite who is responsible for TDM plan implementation
- Carpool/rideshare program with guaranteed ride home
- Cape Cod Hospital Shuttle
- Public Transit connections
- Bicycle storage
- Pedestrian Accommodation
- Extensive Onsite Amenities

Carpooling/Ridesharing

The Proponent will continue to promote ridesharing to its employees. Information regarding carpooling and its benefits will be redistributed to all employees and interested carpooler names will be managed by the TDM coordinator. Additionally, a guaranteed ride home program, in the case of an emergency for registered employee ride-sharers, is provided via a local taxi service. New preferential parking spaces will be designated for employees who rideshare. Incentives for participation will also be explored to encourage employees to rideshare. The on-site transportation coordinator will continue to ensure that the ridesharing program is consistently promoted and provided.

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Local Shuttles

The hospital currently operates a free shuttle that provides access to the local regional travel hubs including the Hyannis Transportation Center, Barnstable Airport, Ferry Terminals, and provides access to remote parking areas for employees onsite. The shuttle system will be available to new employees and patients that will enter the site as a result of the Project. The shuttle runs between 5:30 AM and 8:00PM five days a week. The typical routes of the shuttle are through the campus and leading to the large employee parking lot at the northeast end of the campus. However, the shuttle is available, on call, between the Barnstable municipal airport, Hyannis transportation center, and the Ferry Terminals as necessary to be responsive to employee, patient, and visitors needs. There is a dispatch number that is provided to all who need the shuttle services.

Public Transit

Public transit may be an attractive way for some employees or visitors to access the facility. The H2O Hyannis-Orleans bus travels to the site and the Hyannis Transportation Center 0.6 miles. Currently the Hyannis Villager makes regularly scheduled stops at Cape Cod Hospital. On its route from the Hyannis Transportation Center, the Villager passes by the Cancer Center and stops at the main entrance to the hospital. Transit route and fare information is readily available inside the hospital for interested patrons and employees. The same will be true under proposed conditions and the potential for re-routing the Villager to the new addition will be discussed with CCRTA. As previously mentioned, the hospital runs a free shuttle service to the Transportation Center, so employees, patients, and visitors already have options for access to public transportation. To encourage the use of transit by employees and visitors to the site, transit schedules and route information will be provided in common areas within the facility.

Bicycle Measures

Bicycling to the project site may be attractive to some employees. To facilitate bicycle access to the site, secure bicycle storage racks will be provided on the exterior of the building. Refer to attached site plan which demonstrates the location of the proposed bicycle rack on the redevelopment plan.

Pedestrian Accommodations

Pedestrian accommodations accessing the site are generally in place today. However, there is a Yarmouth/Barnstable Bayview Street enhancement project that is currently in the final design phase which will significantly enhance existing and add additional pedestrian amenities along Bayview Street between Main Street and Willow Street. The improvements include new sidewalk along the east side of Bayview Street, enhancement of existing sidewalk on the west side of the street and the introduction of two lighted crosswalks on the north and south side of Park Street. The lighted crosswalks will include 5-foot posts with APS Ped Push Buttons to engage the lights when pedestrians are present. The lighted crosswalks will bolster, significantly, hospital employee access between the main hospital campus and the primary hospital employee parking lot located northwest of the hospital campus on the east side of

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Bayview. This project is in the final design phase and is expected to be completed in advance of the 2022 project. The Bayview Street plan set is included in the Appendix of the TIA.

On Site Amenities
The Project and existing facilities on site provide many amenities that allow patrons of the facility, employees, and vendors opportunities to conduct necessary business on site without the need to leave. Most notably, the campus has a full-service restaurant, and retail kiosks so patrons and visitors and employees can eat meals and pick up necessary items at their convenience on site. These and other amenities, will substantially reduce the need for employees and patrons to travel offsite, thereby minimizing trip making. The following is a summary of other key amenities that are
proposed:

- Provide preferred/reserved parking for employees/patrons who rideshare/carpool
- On-site restaurant with full food and beverage services
- On-site coffee shop
- Bicycle storage – exterior bike racks
- Showers
- Onsite sleeping pods for certain doctors and vendors

As part of Project 2022, a formal TDM Booklet will be prepared that highlights the various TDM initiatives that will be available to all employees who work on site. The booklets will be distributed to current employees and provided to new employees during the on-boarding process. Also, general information regarding TDM initiatives will be posted in common employee areas throughout the campus. Cape Cod Hospital is planning to reeducate all its staff regarding the various TDM initiatives and strongly encourage additional participation.

Parking Management Plan

Cape Cod Hospital has an Administrative Policy and Procedure Statement in place for onsite Parking Management that is in place today and will be part of the Project 2022 initiative. The Parking Management Plan primarily has three components including the following:

- Policy
- Procedure
- Parking and Violations

A copy of the parking management plan is provided as an attachment to this document for reference.

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Valet Parking

Because of parking demand at the campus, CCH has implemented free valet parking at all major entry points to the hospital: Emergency Department, Main Entrance, Cancer Center, and Mugar Building. VPNE Parking Solutions, the region's premier parking valet company operates the valet parking operations at Cape Cod Hospital. Valet parking is free to all users and its usage is encouraged to patients and visitors to the site through various notifications and signage on site. There is currently a valet only parking lot located in the southeast portion of the campus. Parking in this area is primarily done using only marked spaces today although dynamic parking has been implemented on occasion. Valet parking is offered 7 days a week between the primary parking demand hours 8 AM to 4 PM.

Project 2022 will require modification to the parking fields on the south side of the campus including the valet only parking lot. With the redevelopment project in place, valet parking will become even more important than it is today and, therefore, the Hospital proposes to bolster the valet option. This includes additional marketing and awareness of the valet program by providing information in packages that are sent to pending patients that highlight the need to use valet parking for all patrons to the campus. In addition, new signage at the major entry points to the hospital will be introduced as shown on the attached plan (Attachment A). Valet parking will be contained in the designated area on the south east side of the campus, near the proposed new building. The area that will be designated has approximately 77 parking spaces but can be expanded if necessary. While primary valet operations will be "static" parking that utilizes the marked parking spaces, the area can also, at times, be used for dynamic or "live parking" to maximize the number of vehicles that can be stored int the space. The valet parking area is in very close proximity to the proposed building and access between the drop area and designated valet parking area is well protected for pedestrians between facilities. See the attached graphics which identify the valet parking area.

Safety

As stated in Section 6 of Goals and Objectives of the RPP (Transportation) and Objective TR1; the goal is "*To improve and promote a safe, reliable, and multi-modal transportation system that improves safety and eliminates hazards for all users of Cape Cod's transportation system".* In Chapter 2, VHB provided a summary of the vehicular crash history for the study area locations.

Based on a review of the MassDOT crash data the Proponent proposes consideration of safety improvements at the following five safety deficient locations:

- Lewis Bay Road at Main Street
- Main Street at Center Street / Old Colony Road
- Main Street at Barnstable Road / Ocean Street
- Main Street at High School Road
- South Street at Ocean Street & Old Colony Road

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To understand the safety enhancement needs at each location it is necessary to thoroughly review the crash reports from the local and state police departments to get a more detailed account of each incident. Local crash reports were requested from Town of Barnstable Police Department for the intersections of Main Street and Lewis Bay Road/Camp Street, Main Street at Center Street/Old Colony Road, Main Street at Barnstable Road/Ocean Street, Main Street at High School Road, and South Street at Ocean Street and Old Colony Road, which averaged more than three crashes per year.

Main Street at Lewis Bay Road / Camp Street

There was a total of 17 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 17 crashes, six of them (35-percent) were rear-end collisions and four of them (24-percent) were angle collisions, which is common at signalized intersections. Analysis of the local and state police reports for crashes at this intersection show that the rear-end collisions were mostly caused by weather conditions, vehicles slowed in traffic, distracted driving or driver fault. The majority of angle crashes occurred when vehicles turning left from Main Street onto Camp Street collided with opposing through vehicles. The other two crashes were caused by a broken traffic signal and a bicyclist driving against traffic. Two sideswipe crashes also occurred at this intersection. All of the sideswipe crashes can be attributed to vehicles attempting to travel through the intersection from the left turn only lane. The rear-end collisions are likely due to congestion at the intersection, while the angle and sideswipe collisions are likely due to intersection geometrics. VHB recommends the following safety enhancements at this intersections:

- Install dashed pavement markings along the taper length of the dedicated left turn storage lane to help motorists differentiate between the through and left-turn only lanes on the east, west and northbound approaches.
- Install new lane use signage on all approaches with dedicated left turn lanes.
- Provide “signal ahead” signage
- Install a new supplemental signal head on the westbound approach mounted on the post of the mast-arm. It is possible that drivers to the intersection do not have good visibility of the signals and are not aware of red lights.
- Install R2-10 (left turn yield on green ball), on appropriate approaches (to be mounted on existing posts).
- While in field, Opticom was called by an approaching ambulance. While the Opticom worked for the ambulance, the strobe mounted on the mast arm did not work so if not replaced by the town prior to improvements outlined above, a new strobe will be installed to ensure proper operations.

Main Street at Center Street / Old Colony Road

There was a total of 16 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 16 crashes, five of them (31-percent) were rear-end collisions and four of them (25-percent) were single vehicle collisions. It should be noted that six of the crashes involved colliding with a fixed object. Analysis of the local and state police reports for crashes at this intersection show that two of the rear-end collisions occurred after clearing the intersection. The fixed object crashes could be due to unfamiliarity with the intersection. The northbound

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approach has a skewed angle. Three of the crashes occurred involved bicyclists that did not yield the right of way to vehicles. The rear-end collisions are likely due to congestion at the intersection, while the angle and sideswipe collisions are likely due to intersection geometrics. VHB recommends the following safety enhancements:

- Upgraded lane use signage (diagrammatic) be placed on approaches with dedicated turn lanes, specifically on the northbound approach where a dedicated left turn, a through, and dedicated right-turn are provided.
- Provide "lane ahead" signage to provide warning to vehicles of a signalized intersection. An existing conditions review noticed that the northbound approach has vegetation overhead that could be obstructing the signals. With permission of town trimming should be considered.
- Install lane designation striping along the westbound approach to better define lane usage along this approach.
- Install a directional sign on existing post in channelization island along the westbound approach that defines Hyannis Downtown straight ahead, and Route 6 to right.

Main Street at Ocean Street / Barnstable Road
Utilizing the MassDOT crash portal tool, the total number of crashes that occurred at this intersection for the five years of data was 19. After communicating with the Barnstable Police Department (BPD), their query resulted in a total of 11 crashes. After comparing the MassDOT dataset to the BPD dataset, the BPD crashes indicated that many of the MassDOT crashes were geolocated incorrectly. This realization indicates that this intersection should not be labeled as a 'high crash' location.

Main Street at High School Road
There was a total of 22 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 22 crashes, nine of them (41-percent) were angle collisions and four of them (18-percent) were rear-end collisions, which is common at signalized intersections.

Analysis of the local and state police reports for crashes at this intersection show that the angle collisions occurred during the night periods. The sideswipe collisions occurred between westbound vehicles, where one of the vehicles was in the incorrect lane in order to make the desired turn. The angle collisions could be due to vehicles running a red light. Also, there could be an issue with visibility of the signals. VHB recommends the following safety enhancements:

- Install new lane use signage on approaches.
- Install "signal ahead" signage. It is possible that drivers to the intersection do not have good visibility of the signals and are not aware of red lights.
- Trim vegetation to open sight lines to signage and signal heads as necessary. Assuming the town will allow.

South Street at Ocean Street & Old Colony Road
There was a total of 37 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 37 crashes, 21 of them (57-percent) were angle collisions and eight of them (22-percent) were rear-end

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collisions, which is common at signalized intersections. Analysis of the local and state police reports for crashes at this intersection show that the majority of rear-end collisions were injury crashes, which indicates higher than acceptable speed in the area and inattention on the roadway. Drivers on the roadway might not be prepared to approach a signal. The majority of angle crashes occurred when vehicles turning left from Ocean Street onto South Street and collided with opposing through vehicles. The southbound vehicle might not be expecting an opposing vehicle at this intersection. Five crashes involved left-turning vehicles from South Street onto Old Colony Road, with a vehicle in the right-lane attempting to make the left-turn. There were two crashes that involved a pedestrian in the crosswalk. The rear-end collisions are likely due to lack of awareness of the upcoming intersection. The angle crashes are likely due to intersection geometrics. VHB proposes the following safety enhancements:

- Install signal ahead signage for the eastbound approach, as well as lane diagrammatic signage.
- The angle crashes at the intersection could be prevented to analyzing the red clearance times at the intersection as well as providing potentially providing split phase for the northbound movements (pending town approval).

Providing a split phase for this movement should not cause significant delays at this intersection since this is a low-volume movement.

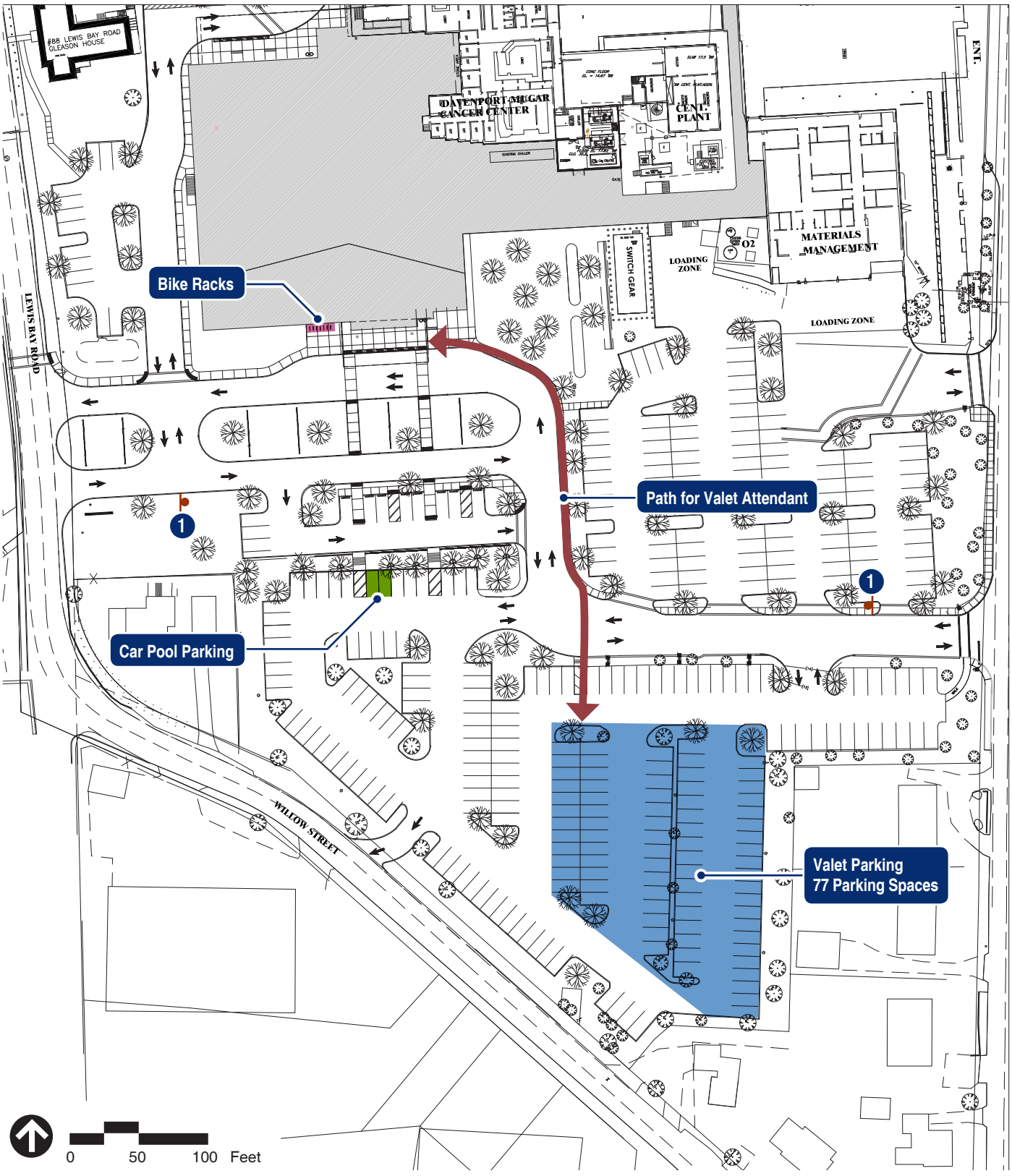
Sidewalk

As requested by commission staff, Cape Cod Hospital will upgrade a section of sidewalk along Lewis Bay Road. The section is between the driveway of 40 Lewis Bay Road and just north of the driveway to 44 Lewis Bay Road. The crosswalk and wheel chair ramps at Lewis Bay Road and Gleason Street were recently improved so no work is proposed for that section of the run. Refer to attached graphic for demonstration of area to be improved.

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Attachments

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1 PLEASE USE FREE VALET PARKING 8-4

vhb

Project 2022
Attachment A
10/23/19

SUBJECT: PARKING

POLICY:

Cape Cod Healthcare (CCHC) controls the use of hospital parking areas for optimum benefit of patients, visitors, medical staff, employees, volunteers, and vendors. It is the responsibility of each employee to help with this endeavor by allowing the needs of our patients and visitors to be a priority. The Security Department is responsible for implementing and managing CCHC's parking area programs.

Free parking for employees, medical staff, and volunteers is available at Cape Cod Hospital and Falmouth Hospital in designated areas. Employees, medical staff, and volunteers are not permitted to park in patient/visitor lots unless being seen as a patient or visiting or assisting a patient receiving care at the hospital.

PROCEDURE:

CCHC Security Officers will enforce the parking policy in all hospital parking areas. All Managers and Supervisors have the responsibility to enforce compliance with this Policy when alerted of an issue with employees that work in their department or areas of responsibility.

All employees, medical staff, and volunteers must register their vehicle(s) with the Security Department to obtain a CCHC Parking Permit. The Parking Permit must be visibly displayed on the rear window of the driver's side of the vehicle.

Employees driving vehicles "temporarily" (such as rental cars) must also obtain a temporary parking pass from Security.

Forms for registering vehicle(s) can be obtained from the Security Department.

Violation(s) of the Parking Policy:

1. Violations will be placed on the vehicle and a record of the violation will be recorded with the Security Department.

2. License plates numbers and an associated report will be documented for tracking purposes and submitted to administration for further action.

3. Parking violators (along with notification to their Managers) will receive an email from ParkingEnforcement@capecodhealth.org stating the violation date, time, and area of offense. These citations will be tracked by employee name and a daily report submitted to managers and the Chief Operating Officer of the facility where the infraction occurred.

4. Security personnel will inform the employee and the employee's manager that the vehicle must immediately be moved to the appropriate employee parking area. If an employee fails to do so, the vehicle will be towed at the employee's expense. Information concerning a towed vehicle can be obtained at the Security Department (Cape Cod Hospital: x22500; Falmouth Hospital: x73558).

5. Upon the second (2^{nd}) violation of this Policy, the employee will be subject to disciplinary action in accordance with the Hospital specific discipline policy.

6. Upon the (3^{rd}) violation of this policy the employee's vehicle will be towed without notice at their expense.

7. Employees who are not on work time at the facility and are here for non-work related reasons (Their own medical care or visiting a patient) will not be subject to the violations of this policy.

8. Vehicles parked in handicapped spaces without a valid state permit, or a fire lane, will receive a Hospital parking violation as well as being subject to towing and/or a monetary fine as issued by local or state law enforcement authorities.

The Parking Lot assignments are as follows by campus:

Cape Cod Hospital

1. Shift Parking:

   a. All day shift employees will park in their assigned employee parking lot (see attached parking diagrams).

   b. Evening shift employees may park in either the employee parking lots. In addition, the 34 Park Street gated lot and Bayview Street gated lot are available on a first come first serve basis beginning at 2:40 p.m. Sitting in line or idling of vehicles while waiting for gates to open is not allowed as it prohibits patient access to services that are supported by this lot.

   c. The 11:00 p.m. – 7:00 a.m. shift is allowed to park in the Hospital Main parking lot. (Night shift workers must remove their vehicles from the Main lot by 8:00 a.m.).

   d. Day shift volunteers will utilize the Bayview Street gated parking lot.

2. Employees working on weekends and on Hospital-recognized holidays will also be allowed to park in the Bayview Street and 34 Park Street gated lots.

3. All surrounding buildings and medical offices adjacent to the hospitals are for patients and staff specific to those facilities. Hospital employees and medical staff are not permitted to park in these areas.

4. The Physician parking lots are gated and are reserved for physicians.

5. Handicapped spaces are available for those individuals with valid permits from the Registry of Motor Vehicles.

6. Physician Extenders (i.e. PA's, NPs, midwives etc.) will park in either the 34 Park Street gated lot or the Bayview Street gated lot.

Falmouth Hospital

1. All employees should park in P4, P5, P11, P12, P13, and a designated portion of P3. In addition, employees working between the hours of 3pm to 8am, or during weekends or on holidays, may park in P10 and the back two rows of P1.
2. Night shift employees beginning at 7:00 p.m. and until 7:00 a.m. are allowed to park in P6.
3. Physician, NP & PA parking is in P7 and P14.
4. Volunteers can utilize any non-physician dedicated parking space on the campus.
5. Patient and visitor parking is reserved in P1, P2, P3, P6, P8, P9, and P10.
6. Contractors and vendors should park in P13.
7. All students should park in P13.

APPROVALS:

Michael N. Bundy
SVP & Chief Operating Officer
Cape Cod Healthcare

Francis Riccio
Director Security & Emergency Preparedness
Cape Cod Healthcare

Initiated: 04/17/02, previously APPS P-1; EC2.104
Revised and renumbered: 06/08/04; 1/24/17
Revised: 03/20/06; 01/09/07; 10/01/08; 8/9/10; 9/15/16; 2/22/17



Google Earth

feet 300
meters 100

Memorandum

To: Cape Cod Commission
3225 Main Street
P.O. Box 226
Barnstable, MA 02630

Date: December 4, 2019

Project #: 14720.00

From: Randy Hart, Principal

Re: Project 2022
Cape Cod Hospital

In response to questions, comments, and requests made by Cape Cod Commission (CCC) Transportation Staff and the Town of Barnstable at a November 7, 2018 meeting at the CCC office the Proponent is providing this supplemental memorandum with additional recommendations.

Parking Management Plan

Cape Cod Hospital has an Administrative Policy and Procedure Statement for onsite Parking Management that is in place today and will be part of the Project 2022 initiative. The Parking Management Plan primarily has three components including the following:

- Policy
- Procedure
- Parking and Violations

A copy of the Parking Management Plan is provided as an attachment to this document for reference.

Valet Parking

Because of parking demand at the campus, CCH has implemented free valet parking at all major entry points to the hospital: Emergency Department, Main Entrance, Cancer Center, and Mugar Building. VPNE Parking Solutions, the region's premier parking valet company operates, the valet parking operations at Cape Cod Hospital. Valet parking is free to all users and its usage is encouraged to patients and visitors to the site through various notifications and signage on site. There is currently a valet only parking lot located in the southeast portion of the campus. Parking in this area is primarily done using only marked spaces today although dynamic parking has been implemented on occasion. Valet parking is offered 7 days a week between the primary parking demand hours 8 AM to 4 PM.

Project 2022 will require modification to the parking fields on the south side of the campus including the valet only parking lot. With the redevelopment project in place, valet parking will become even more important than it is today and, therefore, the Hospital proposes to bolster the valet option. This includes additional marketing and awareness of the valet program by providing information in packages that are sent to pending patients that highlight the need to use valet parking for all patrons to the campus. In addition, new signage at the major entry points to the hospital will be introduced as shown on the attached plan (Attachment A). Valet parking will be contained in the designated area on the south east side of the campus, near the proposed new building. The area that will be designated has approximately 77 parking spaces but can be expanded if necessary. While primary valet operations will be "static" parking that utilizes the marked parking spaces, the area can also, when needed, be used for dynamic or "live parking"

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to maximize the number of vehicles that can be stored int the space. The valet parking area is in very close proximity to the proposed building and access between the drop area and designated valet parking area is well protected for pedestrians between facilities. See the attached graphics which identify the valet parking area.

Parking Monitoring Plan

To augment the current and proposed improvements that are already identified in the Traffic Impact Assessment and Supplemental Memorandum issued on October 25, 2019, the Proponent will implement parking management strategies moving forward with Project 2022. The following represents new initiatives that have been developed to be responsive to CCC and Town comments:

Parking Monitoring

Parking utilization has been observed on the campus numerous times over the years including and most recently in November 2017. However currently there is no a program in place to monitor parking on a regular basis. To assess parking and insure that general parking demands are being met, the Proponent is proposing to implement parking monitoring as described below:

- Prior to construction of Project 2022 an update of the parking utilization will be conducted on campus during a typical weekday. The parking monitoring will cover all parking on campus associated with patients, visitors, and employees. The parking counts will be conducted between the hour of 9 AM and 3 PM when parking demands are most prevalent. A summary of the pre-construction parking monitoring will be provided to the CCC and Town of Barnstable for informational purposes.
- During construction of the proposed building, interim parking monitoring will be conducted on a typical weekday during the same hour identified above to assess parking conditions during construction.
- Post construction and occupation of the proposed building, additional parking monitoring will be conducted on a typical weekday during average season conditions and during peak summer conditions. A summary of the post-construction parking monitoring will be provided to the CCC and Town of Barnstable for informational purposes.

During the parking monitoring activities, observations will be made surrounding the hospital campus to assess if people are parking at campus for non-hospital purposes and if people are parking in the surrounding neighborhood for hospital purposes.

If necessary, based on the results of parking management, the Proponent will meet with the CCC and Town of Barnstable to discuss additional parking strategies that may be considered to augment parking deficiencies. This could include any number of measures, including but not limited to increasing the valet operations on-site, expanding shuttle activities, increase parking supply, and utilizing parking attendants to help manage activities during crunch periods.

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Employee Parking Management

To assist in minimizing the parking required for employees, the Proponent will implement incentives to employees to use alternative transportation to get to and from the campus. This will include subsidizing the cost for employees who use CCRTA bus service, and lunch vouchers to employees who can demonstrate that they biked or walked to work. As already mentioned, there is, and will continued to be, a car-pool rideshare program on campus. For employees that can demonstrate they participate in that program on a regular basis, lunch vouchers will be provided on days when employees can demonstrate that they car-pooled to work.

Safety

To supplement the safety improvements proposed in the October 25, 2019 memorandum to the CCC, additional measures have been considered based on a discussion at a meeting with the CCC/Town of Barnstable, and a second meeting with Town staff. The following locations were discussed in detail and the updated proposal for improvements is discussed below:

Main Street at Center Street / Old Colony Road

There was a total of 16 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 16 crashes, five of them (31-percent) were rear-end collisions and four of them (25-percent) were single vehicle collisions. It should be noted that six of the crashes involved colliding with a fixed object. Analysis of the local and state police reports for crashes at this intersection show that two of the rear-end collisions occurred after clearing the intersection. The fixed object crashes could be due to unfamiliarity with the intersection. The northbound approach has a skewed angle. Three of the crashes occurred involved bicyclists that did not yield the right of way to vehicles. The rear-end collisions are likely due to congestion at the intersection, while the angle and sideswipe collisions are likely due to intersection geometrics. VHB recommends the following safety enhancements:

- Upgraded lane use signage (diagrammatic) be placed on approaches with dedicated turn lanes, specifically on the northbound approach where a dedicated left turn, a through, and dedicated right-turn are provided.
- Provide "lane ahead" signage to provide warning to vehicles of a signalized intersection. An existing conditions review noticed that the northbound approach has vegetation overhead that could be obstructing the signals. With the permission of town, trimming should be considered.
- Install lane designation striping along the westbound approach to better define lane usage along this approach.
- Install a directional sign on existing post in channelization island along the westbound approach that defines Hyannis Downtown straight ahead, and Route 6 to right.

Main Street between Old Colony/Center Street and Lewis Bay/Camp Street is a high crash location is listed by MassDOT as a 2007-2016 Bicycle/Pedestrian HISP Cluster. In addition, the Town currently includes this area in the ongoing Hyannis East End Improvement Project which is considering potential traffic/pedestrian/bicycle improvements in the area. To assist with the East End Improvement assessment, the Proponent will agree to prepare a

VHB
101 Walnut St.
PO Box 9151
Watertown, MA 02472

Roadway Safety Audit (RSA) along this section of Main Street to further inform the issues and potential improvement opportunities.

South Street at Ocean Street & Old Colony Road

There was a total of 37 crashes, based on the MassDOT data, identified at this intersection from 2012 through 2016. Of those 37 crashes, 21 of them (57-percent) were angle collisions and eight of them (22-percent) were rear-end collisions, which is common at signalized intersections. Analysis of the local and state police reports for crashes at this intersection show that the majority of rear-end collisions were injury crashes, which indicates higher than acceptable speed in the area and inattention on the roadway. Drivers on the roadway might not be prepared to approach a signal. The majority of angle crashes occurred when vehicles turning left from Ocean Street onto South Street and collided with opposing through vehicles. The southbound vehicle might not be expecting an opposing vehicle at this intersection. Five crashes involved left-turning vehicles from South Street onto Old Colony Road, with a vehicle in the right-lane attempting to make the left-turn. There were two crashes that involved a pedestrian in the crosswalk. The rear-end collisions are likely due to lack of awareness of the upcoming intersection. The angle crashes are likely due to intersection geometrics.

Based on ongoing discussion with the Town of Barnstable and the CCC, the Proponent proposes the following initiatives at this location as condition of approval:

Assist the Town of Barnstable by performing a detailed assessment of the intersection and potential short term and long-term needs. This will include the following:

- Inventory all intersection attributes including signal equipment, pedestrian infrastructure, striping, and signage. As part of this work the signal equipment will be tested to understand if components are not working properly. Also, compliance with current standards will be reviewed.
- Assess short term improvements that would include upgrading the intersection in current form or with minor adjustments. We anticipate this would include ADA compliance for pedestrians and upgrade to signal equipment.
- Assess long term improvements that would consider reconfiguration of the intersection, approaches, and pedestrian treatment.
- Prepare conceptual improvement plans for both short- and long-term improvement concepts. The concepts will be prepared based on base information that is available from the town or aerial photography.
- Prepare order of magnitude construction cost estimates.
- Summarize assessment in a Memorandum to the Town and the CCC.

In addition, the Town has requested that the pedestrian environment along South Street between the Old Colony/South Street/Ocean street intersection and the hospital campus be assessed. As part of the intersection study, this section will be included to assess the existing pedestrian environment and make recommendations regarding potential pedestrian enhancements.

VHB
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Additional TDM Initiatives

In addition to the TDM initiatives mentioned in the TIA, October 25, 2019 Supplemental Memorandum, and herein above, Cape Cod Healthcare (CCHC) is teaming up with Peter Pan Buses for a new initiative that would bolster access to CCHC facilities and the Hospital for Outer Cape residents. Currently, the Peter Pan Bus Line route starts at Ryder Street Extension in Provincetown and ends at the Hyannis Transportation Center off Main Street. The new initiative would add bus stops at the Outer Cape Health Services clinic in Wellfleet, Fontaine Medical Center in Harwich and Cape Cod Hospital. The initiative was announced on November 8th, 2019 but the date it will begin has not yet been set. This new option will allow patients, visitors, and perhaps even employees to use public transportation to gain access to the Hospital. CCHC is working on a plan to provide vouchers to make rides more affordable or potentially free to try and encourage participation. This is a significant add to the transportation access to the hospital and the overall TDM initiatives.

VHB
101 Walnut St.
PO Box 9151
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Project 2022
Cape Cod Hospital

Hyannis, Massachusetts

Appendix

PREPARED FOR

Cape Cod Healthcare
Hyannis, MA 02601

PREPARED BY

101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

July 31, 2019

APPENDIX: Transportation Supporting Documentation

Contents

- Traffic Volume Data
- Seasonal Adjustment Factors
- Historic Growth
- Vehicle Crash Data
- Public Transportation
- Planned/Approved Developments
- Synchro Capacity Analysis
- HCS Capacity Analysis
- Trip Generation
- Sight Distance
- Parking Analysis
- Bayview Street PS&E Planset
- Site Plan

Volume Report

Job 148_024_VHB_Loc 1
Area Barnstable, MA
Location Lewis Bay Road, between Gleason Street and South Street

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
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Tuesday, November 28, 2017

Time	Total		NB		SB		Time	Total		NB		SB	
0000	7		5		2		1200	91		83		8	
0015	6		6		0		1215	72		63		9	
0030	6		5		1		1230	82		70		12	
0045	3	22	3	19	0	3	1245	95	340	84	300	11	40
0100	2		2		0		1300	92		74		18	
0115	1		1		0		1315	75		61		14	
0130	3		2		1		1330	84		74		10	
0145	3	9	1	6	2	3	1345	88	339	76	285	12	54
0200	1		1		0		1400	107		91		16	
0215	2		2		0		1415	106		96		10	
0230	1		1		0		1430	111		98		13	
0245	2	6	2	6	0	0	1445	103	427	88	373	15	54
0300	0		0		0		1500	90		82		8	
0315	2		2		0		1515	84		79		5	
0330	1		1		0		1530	88		82		6	
0345	0	3	0	3	0	0	1545	80	342	69	312	11	30
0400	3		2		1		1600	83		68		15	
0415	0		0		0		1615	90		78		12	
0430	3		3		0		1630	101		92		9	
0445	4	10	3	8	1	2	1645	92	366	81	319	11	47
0500	5		4		1		1700	94		79		15	
0515	9		6		3		1715	79		70		9	
0530	14		12		2		1730	83		78		5	
0545	17	45	15	37	2	8	1745	82	338	77	304	5	34
0600	32		28		4		1800	64		54		10	
0615	31		30		1		1815	79		72		7	
0630	64		63		1		1830	40		36		4	
0645	86	213	67	188	19	25	1845	33	216	28	190	5	26
0700	76		71		5		1900	54		49		5	
0715	84		76		8		1915	31		27		4	
0730	108		93		15		1930	35		31		4	
0745	119	387	105	345	14	42	1945	30	150	27	134	3	16
0800	91		76		15		2000	34		34		0	
0815	80		71		9		2015	24		22		2	
0830	99		84		15		2030	22		19		3	
0845	108	378	88	319	20	59	2045	22	102	21	96	1	6
0900	91		77		14		2100	33		31		2	
0915	69		55		14		2115	14		13		1	
0930	90		79		11		2130	12		8		4	
0945	97	347	78	289	19	58	2145	13	72	13	65	0	7
1000	111		94		17		2200	8		7		1	
1015	87		78		9		2215	8		7		1	
1030	98		81		17		2230	15		13		2	
1045	100	396	88	341	12	55	2245	20	51	17	44	3	7
1100	84		70		14		2300	16		15		1	
1115	101		84		17		2315	16		15		1	
1130	106		95		11		2330	11		11		0	
1145	90	381	75	324	15	57	2345	2	45	1	42	1	3
							Total	**4985**		**4349**		**636**	

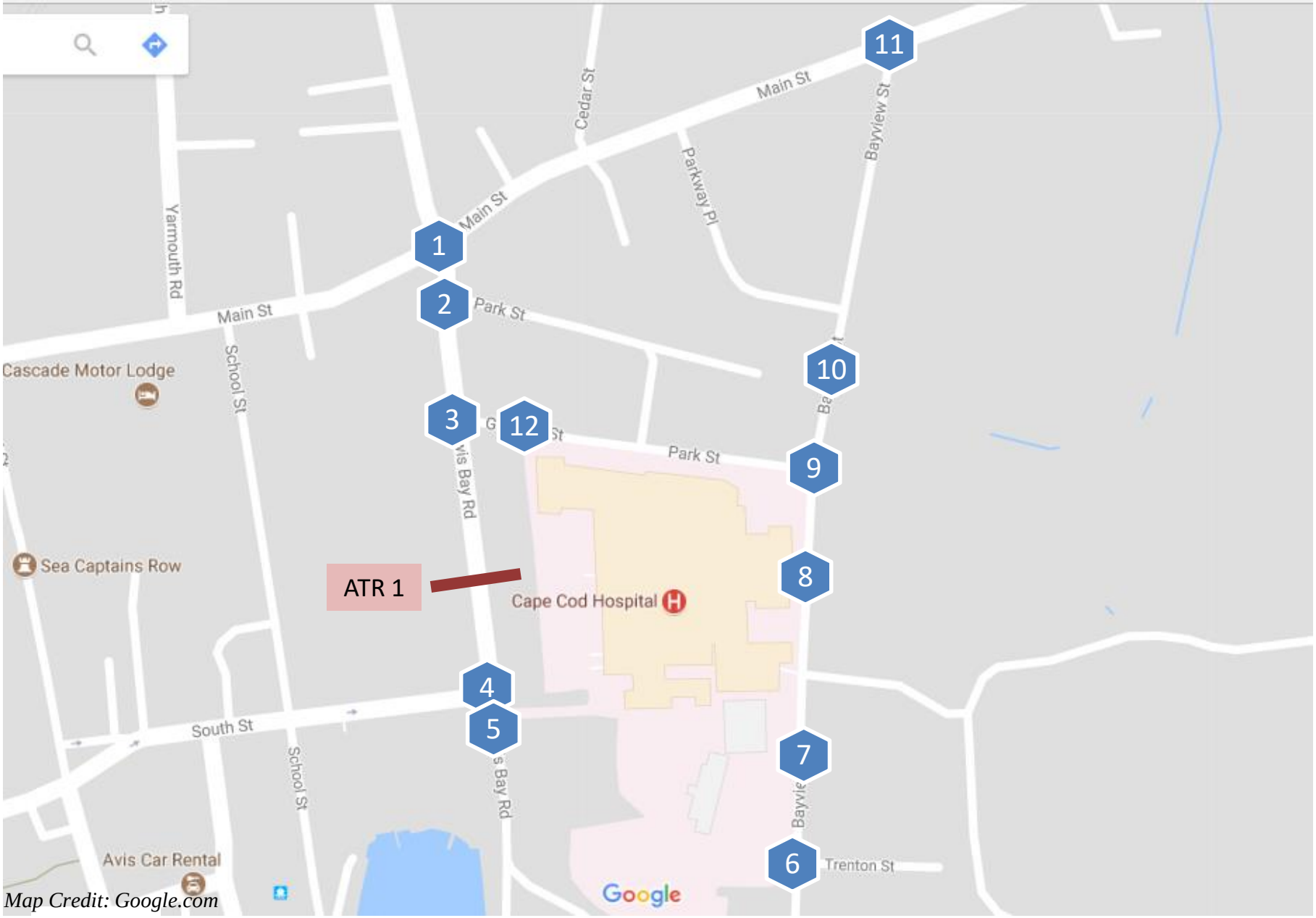
Volume Report

Job 148_024_VHB_Loc 1
Area Barnstable, MA
Location Lewis Bay Road, between Gleason Street and South Street

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
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Wednesday, November 29, 2017

Time	Total		NB		SB		Time	Total		NB		SB	
0000	7		7		0		1200	103		90		13	
0015	9		8		1		1215	81		72		9	
0030	4		3		1		1230	88		78		10	
0045	2	22	2	20	0	2	1245	93	365	80	320	13	45
0100	3		2		1		1300	93		83		10	
0115	3		3		0		1315	99		84		15	
0130	2		2		0		1330	87		75		12	
0145	1	9	1	8	0	1	1345	87	366	76	318	11	48
0200	1		1		0		1400	104		92		12	
0215	4		3		1		1415	100		87		13	
0230	2		2		0		1430	108		97		11	
0245	1	8	1	7	0	1	1445	105	417	88	364	17	53
0300	0		0		0		1500	128		111		17	
0315	2		2		0		1515	110		98		12	
0330	0		0		0		1530	97		91		6	
0345	0	2	0	2	0	0	1545	79	414	72	372	7	42
0400	1		1		0		1600	94		90		4	
0415	1		1		0		1615	65		59		6	
0430	4		2		2		1630	95		84		11	
0445	8	14	7	11	1	3	1645	79	333	76	309	3	24
0500	3		3		0		1700	98		92		6	
0515	6		6		0		1715	84		72		12	
0530	11		10		1		1730	68		66		2	
0545	23	43	20	39	3	4	1745	57	307	53	283	4	24
0600	27		23		4		1800	45		43		2	
0615	37		36		1		1815	51		47		4	
0630	62		61		1		1830	54		49		5	
0645	71	197	58	178	13	19	1845	44	194	34	173	10	21
0700	69		62		7		1900	43		42		1	
0715	80		70		10		1915	36		32		4	
0730	95		90		5		1930	41		31		10	
0745	109	353	93	315	16	38	1945	33	153	31	136	2	17
0800	99		91		8		2000	43		39		4	
0815	104		97		7		2015	27		24		3	
0830	98		81		17		2030	25		25		0	
0845	111	412	100	369	11	43	2045	23	118	19	107	4	11
0900	80		69		11		2100	22		19		3	
0915	79		60		19		2115	24		24		0	
0930	86		70		16		2130	13		12		1	
0945	77	322	67	266	10	56	2145	22	81	19	74	3	7
1000	73		63		10		2200	24		24		0	
1015	96		84		12		2215	12		10		2	
1030	94		85		9		2230	7		5		2	
1045	81	344	70	302	11	42	2245	15	58	11	50	4	8
1100	86		70		16		2300	12		12		0	
1115	100		87		13		2315	23		22		1	
1130	83		73		10		2330	7		6		1	
1145	105	374	94	324	11	50	2345	7	49	6	46	1	3
							Total	**4955**		**4393**		**562**	



BOSTON TRAFFIC DATA	BTD ID: 148_024_VHB	Barnstable, MA	# of TMC's: 12	Client: Vanasse Hangen Brustlin, Inc
		Collect on Nov. 28 to 29, 2017	# of ATR's: 01	Contact: Kirsten Braun

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 1
Location:	Barnstable, MA
Street 1:	Lewis Bay Road/ Camp Street
Street 2:	Main Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
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TOTAL (CARS & TRUCKS)

	Lewis Bay Road Northbound				Camp Street Southbound				Main Street Eastbound				Main Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	23	29	24	0	5	22	3	0	4	42	5	0	2	64	2
7:15 AM	0	22	30	27	0	6	24	4	0	5	44	6	0	2	69	3
7:30 AM	0	21	49	26	0	9	32	6	0	6	45	7	0	3	74	5
7:45 AM	0	23	55	28	0	7	33	8	0	8	47	9	0	3	77	4
8:00 AM	0	20	32	29	0	8	32	7	0	10	48	10	0	4	83	6
8:15 AM	0	19	29	30	0	7	29	5	0	9	45	9	0	3	85	5
8:30 AM	0	18	44	27	0	8	31	6	0	7	46	8	0	4	84	5
8:45 AM	0	17	49	25	0	6	35	4	0	6	43	7	0	2	81	4

	Lewis Bay Road Northbound				Camp Street Southbound				Main Street Eastbound				Main Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	57	41	26	0	3	20	13	0	28	70	11	0	3	84	9
4:15 PM	0	58	45	28	0	4	19	15	0	25	74	12	0	2	88	12
4:30 PM	0	55	55	29	0	6	17	14	0	26	77	10	0	3	87	10
4:45 PM	0	56	34	31	0	5	16	12	0	24	76	11	0	3	83	7
5:00 PM	0	52	30	32	0	6	20	10	0	21	72	9	0	4	81	6
5:15 PM	0	49	24	29	0	5	16	7	0	20	71	10	0	2	76	5
5:30 PM	0	51	26	31	0	7	13	8	0	19	69	8	0	3	75	6
5:45 PM	0	47	30	28	0	4	11	6	0	17	63	7	0	2	73	5

AM PEAK HOUR 7:45 AM to 8:45 AM	Lewis Bay Road Northbound				Camp Street Southbound				Main Street Eastbound				Main Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**80**	**160**	**114**	**0**	**30**	**125**	**26**	**0**	**34**	**186**	**36**	**0**	**14**	**329**	**20**
PHF	**0.83**				**0.94**				**0.94**				**0.98**			
HV %	**0.0%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.8%**	**3.8%**	**0.0%**	**0.0%**	**1.1%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**0.0%**

PM PEAK HOUR 4:00 PM to 5:00 PM	Lewis Bay Road Northbound				Camp Street Southbound				Main Street Eastbound				Main Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**226**	**175**	**114**	**0**	**18**	**72**	**54**	**0**	**103**	**297**	**44**	**0**	**11**	**342**	**38**
PHF	**0.93**				**0.95**				**0.98**				**0.96**			
HV %	**0.0%**	**0.0%**	**3.4%**	**0.0%**	**0.0%**	**0.0%**	**1.4%**	**0.0%**	**0.0%**	**1.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 1
Location:	Barnstable, MA
Street 1:	Lewis Bay Road/ Camp Street
Street 2:	Main Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Lewis Bay Road Northbound				Camp Street Southbound				Main Street Eastbound				Main Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0
8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Lewis Bay Road Northbound				Camp Street Southbound				Main Street Eastbound				Main Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:15 AM to 8:15 AM	Lewis Bay Road Northbound				Camp Street Southbound				Main Street Eastbound				Main Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**2**	**0**
PHF	**0.25**				**0.25**				**0.50**				**0.50**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Lewis Bay Road Northbound				Camp Street Southbound				Main Street Eastbound				Main Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**6**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**
PHF	**0.38**				**0.25**				**0.50**				**0.25**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 1
Location:	Barnstable, MA
Street 1:	Lewis Bay Road/ Camp Street
Street 2:	Main Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Lewis Bay Road Northbound					Camp Street Southbound					Main Street Eastbound					Main Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0	
7:15 AM	0	1	0	0		0	0	0	2		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	1		0	0	0	0		0	1	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
8:00 AM	0	0	0	0		0	2	0	3		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	1		0	0	0	3		0	0	0	0		0	1	0	0	
8:30 AM	0	1	0	0		0	0	0	1		0	0	0	0		0	1	0	0	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Lewis Bay Road Northbound					Camp Street Southbound					Main Street Eastbound					Main Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	1	0	0		0	0	0	4		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	7		0	0	0	1		0	0	0	1	
4:30 PM	0	0	0	0		0	0	0	3		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	2		0	1	0	0		0	0	0	2	
5:00 PM	0	0	0	2		0	0	0	1		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	2		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	2		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 7:45 AM to 8:45 AM	Lewis Bay Road Northbound					Camp Street Southbound					Main Street Eastbound					Main Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	1	0	1		0	2	0	7		0	0	0	0		0	2	0	1	

PM PEAK HOUR[1] 4:00 PM to 5:00 PM	Lewis Bay Road Northbound					Camp Street Southbound					Main Street Eastbound					Main Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	1	0	0		0	0	0	16		0	1	0	1		0	0	0	3	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 2
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	Park Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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Office: 978-746-1259
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TOTAL (CARS & TRUCKS)

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Park Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	75	4	0	5	24	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	78	6	0	4	28	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	93	5	0	6	36	0	0	0	0	0	0	0	0	3
7:45 AM	0	0	104	4	0	7	38	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	77	3	0	10	37	0	0	0	0	0	0	0	0	4
8:15 AM	0	0	75	2	0	12	29	0	0	0	0	0	0	0	0	5
8:30 AM	0	0	85	3	0	10	33	0	0	0	0	0	0	0	0	4
8:45 AM	0	0	88	3	0	8	36	0	0	0	0	0	0	0	0	3

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Park Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	115	0	0	2	32	0	0	0	0	0	0	0	0	9
4:15 PM	0	0	120	0	0	3	30	0	0	0	0	0	0	0	0	11
4:30 PM	0	0	126	1	0	3	27	0	0	0	0	0	0	0	0	13
4:45 PM	0	0	109	0	0	2	28	0	0	0	0	0	0	0	0	12
5:00 PM	0	0	103	1	0	2	31	0	0	0	0	0	0	0	0	11
5:15 PM	0	0	94	1	0	1	27	0	0	0	0	0	0	0	0	10
5:30 PM	0	0	97	0	0	2	22	0	0	0	0	0	0	0	0	11
5:45 PM	0	0	96	0	0	1	19	0	0	0	0	0	0	0	0	9

AM PEAK HOUR 7:30 AM to 8:30 AM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Park Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**349**	**14**	**0**	**35**	**140**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**
PHF	**0.84**				**0.93**				**0.00**				**0.70**			
HV %	**0.0%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:00 PM to 5:00 PM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Park Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**470**	**1**	**0**	**10**	**117**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**45**
PHF	**0.93**				**0.93**				**0.00**				**0.87**			
HV %	**0.0%**	**0.0%**	**1.3%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 2
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	Park Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Park Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Park Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:00 AM to 8:00 AM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Park Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.00**				**0.50**				**0.00**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Park Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**6**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.38**				**0.25**				**0.00**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 2
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	Park Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Park Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	2	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
8:30 AM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	

	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Park Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1]	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Park Street Westbound				
7:30 AM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
8:30 AM	0	0	0	0		0	2	0	0		0	0	0	0		0	0	0	1	

PM PEAK HOUR[1]	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Park Street Westbound				
4:00 PM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
5:00 PM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	0	1	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 3
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	Gleason Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TOTAL (CARS & TRUCKS)

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Gleason Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	59	12	0	19	5	0	0	0	0	0	0	0	0	20
7:15 AM	0	0	65	11	0	20	8	0	0	0	0	0	0	0	0	19
7:30 AM	0	0	80	13	0	21	15	0	0	0	0	0	0	0	0	18
7:45 AM	0	0	91	14	0	23	14	0	0	0	0	0	0	0	0	17
8:00 AM	0	0	64	12	0	22	15	0	0	0	0	0	0	0	0	16
8:15 AM	0	0	61	13	0	20	9	0	0	0	0	0	0	0	0	17
8:30 AM	0	0	73	11	0	18	15	0	0	0	0	0	0	0	0	15
8:45 AM	0	0	78	10	0	17	19	0	0	0	0	0	0	1	0	13

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Gleason Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	59	9	0	17	15	0	0	0	0	0	0	0	0	56
4:15 PM	0	0	70	8	0	19	11	0	0	0	0	0	0	1	0	50
4:30 PM	0	0	85	7	0	18	9	0	0	0	0	0	0	0	0	42
4:45 PM	0	0	72	9	0	16	11	0	0	0	0	0	0	0	0	37
5:00 PM	0	0	73	6	0	17	14	0	0	0	0	0	0	1	0	31
5:15 PM	0	0	66	7	0	18	9	0	0	0	0	0	0	0	0	30
5:30 PM	0	0	70	8	0	16	6	0	0	0	0	0	0	0	0	27
5:45 PM	0	0	71	6	0	14	5	0	0	0	0	0	0	0	0	25

AM PEAK HOUR 7:15 AM to 8:15 AM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Gleason Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**300**	**50**	**0**	**86**	**52**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**70**
PHF	**0.83**				**0.93**				**0.00**				**0.92**			
HV %	**0.0%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**1.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:00 PM to 5:00 PM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Gleason Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**286**	**33**	**0**	**70**	**46**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**185**
PHF	**0.87**				**0.91**				**0.00**				**0.83**			
HV %	**0.0%**	**0.0%**	**2.1%**	**0.0%**	**0.0%**	**0.0%**	**2.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 3
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	Gleason Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Gleason Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Gleason Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:00 AM to 8:00 AM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Gleason Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.00**				**0.50**				**0.00**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Gleason Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**6**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.38**				**0.25**				**0.00**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 3
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	Gleason Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Gleason Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
8:15 AM	0	0	0	0		0	2	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	1	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	1	

	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Gleason Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		1	0	0	0	
4:15 PM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 7:15 AM to 8:15 AM	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Gleason Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	1	0	0		0	0	0	0		0	0	0	0		0	0	1	1	

PM PEAK HOUR[1] 4:00 PM to 5:00 PM	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Gleason Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	1	0	0		0	0	0	0		0	0	0	0		1	0	1	1	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 4
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	South Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

BOSTON TRAFFIC DATA
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Office: 978-746-1259
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TOTAL (CARS & TRUCKS)

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				South Street Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	18	0	0	0	5	0	0	53	0	13	0	0	0	0
7:15 AM	0	0	20	0	0	0	8	0	0	56	0	15	0	0	0	0
7:30 AM	0	0	36	0	0	0	15	0	0	57	0	17	0	0	0	0
7:45 AM	0	0	33	0	0	0	14	0	0	71	0	19	0	0	0	0
8:00 AM	0	0	20	0	0	0	15	0	0	58	0	20	0	0	0	0
8:15 AM	0	0	22	0	0	0	9	0	0	52	0	19	0	0	0	0
8:30 AM	0	0	33	0	0	0	15	0	0	51	0	18	0	0	0	0
8:45 AM	0	0	34	0	0	0	20	0	0	54	0	16	0	0	0	0

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				South Street Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	16	0	0	0	15	0	0	52	0	26	0	0	0	0
4:15 PM	0	0	25	0	0	0	12	0	0	53	0	28	0	0	0	0
4:30 PM	0	0	35	0	0	0	9	0	0	57	0	27	0	0	0	0
4:45 PM	0	0	29	0	0	0	11	0	0	52	0	31	0	0	0	0
5:00 PM	0	0	32	0	0	0	15	0	0	47	0	29	0	0	0	0
5:15 PM	0	0	27	0	0	0	9	0	0	43	0	27	0	0	0	0
5:30 PM	0	0	33	0	0	0	5	0	0	45	0	28	0	0	0	0
5:45 PM	0	0	35	0	0	0	5	0	0	42	0	25	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				South Street Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**111**	**0**	**0**	**0**	**53**	**0**	**0**	**238**	**0**	**75**	**0**	**0**	**0**	**0**
PHF	**0.77**				**0.88**				**0.87**				**0.00**			
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**1.9%**	**0.0%**	**0.0%**	**0.4%**	**0.0%**	**1.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:15 PM to 5:15 PM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				South Street Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**121**	**0**	**0**	**0**	**47**	**0**	**0**	**209**	**0**	**115**	**0**	**0**	**0**	**0**
PHF	**0.86**				**0.78**				**0.96**				**0.00**			
HV %	**0.0%**	**0.0%**	**0.8%**	**0.0%**	**0.0%**	**0.0%**	**2.1%**	**0.0%**	**0.0%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 4
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	South Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				South Street Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				South Street Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:15 AM to 8:15 AM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				South Street Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.25**				**0.50**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				South Street Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.25**				**0.31**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 4
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	South Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Lewis Bay Road Northbound					Lewis Bay Road Southbound					South Street Eastbound					Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
8:30 AM	0	0	0	0		0	0	0	0		1	0	0	0		0	0	0	0	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Lewis Bay Road Northbound					Lewis Bay Road Southbound					South Street Eastbound					Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		1	0	0	0		0	0	0	0	
4:15 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	1		0	0	0	0		0	0	2	0		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1]	Lewis Bay Road Northbound					Lewis Bay Road Southbound					South Street Eastbound					Westbound				
7:30 AM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	

PM PEAK HOUR[1]	Lewis Bay Road Northbound					Lewis Bay Road Southbound					South Street Eastbound					Westbound				
4:15 PM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
5:15 PM	0	0	0	3		0	0	0	0		0	0	2	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 5
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TOTAL (CARS & TRUCKS)

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Cape Cod Hospital Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	15	0	0	10	8	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	16	0	0	13	10	0	0	0	0	0	0	0	0	4
7:30 AM	0	0	32	0	0	14	17	0	0	0	0	0	0	0	0	4
7:45 AM	0	0	29	0	0	15	19	0	0	0	0	0	0	0	0	3
8:00 AM	0	0	20	0	0	17	18	0	0	0	0	0	0	1	0	3
8:15 AM	0	0	18	0	0	18	10	0	0	0	0	0	0	0	0	3
8:30 AM	0	0	29	1	0	17	16	0	0	0	0	0	0	0	0	4
8:45 AM	0	0	30	0	0	16	20	0	0	0	0	0	0	0	0	4

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Cape Cod Hospital Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	7	0	0	17	24	0	0	0	0	0	0	0	0	9
4:15 PM	0	0	12	0	0	16	23	0	0	0	0	0	0	1	0	13
4:30 PM	0	0	19	0	0	18	19	0	0	0	0	0	0	0	0	15
4:45 PM	0	0	17	1	0	17	25	0	0	0	0	0	0	0	0	14
5:00 PM	0	0	16	0	0	18	26	0	0	0	0	0	0	1	0	16
5:15 PM	0	0	15	2	0	16	20	0	0	0	0	0	0	0	0	14
5:30 PM	0	0	18	1	0	15	18	0	0	0	0	0	0	0	0	15
5:45 PM	0	0	19	0	0	14	16	0	0	0	0	0	0	0	0	16

AM PEAK HOUR 8:00 AM to 9:00 AM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Cape Cod Hospital Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**97**	**1**	**0**	**68**	**64**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**14**
PHF	**0.82**				**0.92**				**0.00**				**0.94**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Cape Cod Hospital Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**67**	**3**	**0**	**69**	**90**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**59**
PHF	**0.92**				**0.90**				**0.00**				**0.88**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 5
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Cape Cod Hospital Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Cape Cod Hospital Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:00 AM to 8:00 AM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Cape Cod Hospital Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.50**				**0.00**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Lewis Bay Road Northbound				Lewis Bay Road Southbound				Eastbound				Cape Cod Hospital Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.25**				**0.00**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 5
Location:	Barnstable, MA
Street 1:	Lewis Bay Road
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Cape Cod Hospital Driveway Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Cape Cod Hospital Driveway Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	2		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		2	0	0	1		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 8:00 AM to 9:00 AM	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Cape Cod Hospital Driveway Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Lewis Bay Road Northbound					Lewis Bay Road Southbound					Eastbound					Cape Cod Hospital Driveway Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	0		2	0	0	1		0	0	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 6
Location:	Barnstable, MA
Street 1:	Bayview Street/ Trenton Street
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TOTAL (CARS & TRUCKS)

	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Trenton Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	3	0	0	0	6	4	0	6	0	0	0	0	0	0
7:15 AM	0	0	5	0	0	0	7	5	0	7	0	0	0	0	0	0
7:30 AM	0	0	6	0	0	0	9	6	0	6	0	0	0	0	0	0
7:45 AM	0	0	7	0	0	0	8	5	0	5	0	0	0	0	0	0
8:00 AM	0	0	8	0	0	0	9	6	0	4	0	0	0	0	0	0
8:15 AM	0	0	8	0	0	0	7	4	0	3	0	0	0	0	0	1
8:30 AM	0	0	7	0	0	0	8	5	0	3	0	0	0	0	0	0
8:45 AM	0	0	6	0	0	0	6	4	0	2	0	0	0	0	0	0

	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Trenton Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	3	18	0	0	0	6	2	0	12	0	0	0	0	0	0
4:15 PM	0	1	17	0	0	0	5	3	0	13	0	0	0	0	0	0
4:30 PM	0	2	15	0	0	1	6	3	0	11	0	0	0	0	0	0
4:45 PM	0	0	13	0	0	0	7	2	0	9	0	0	0	0	0	1
5:00 PM	0	0	11	0	0	0	9	2	0	7	0	1	0	0	0	0
5:15 PM	0	1	10	0	0	0	10	1	0	5	0	1	0	0	0	0
5:30 PM	0	0	9	0	0	0	8	2	0	6	0	1	0	0	0	0
5:45 PM	0	0	8	0	0	0	6	1	0	4	0	0	0	0	0	0

AM PEAK HOUR 7:15 AM to 8:15 AM	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Trenton Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**26**	**0**	**0**	**0**	**33**	**22**	**0**	**22**	**0**	**0**	**0**	**0**	**0**	**0**
PHF			**0.81**				**0.92**				**0.79**				**0.00**	
HV %	**0.0%**	**0.0%**	**3.8%**	**0.0%**	**0.0%**	**0.0%**	**3.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Trenton Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**6**	**63**	**0**	**0**	**1**	**24**	**10**	**0**	**45**	**0**	**0**	**0**	**0**	**0**	**1**
PHF			**0.82**				**0.88**				**0.87**				**0.25**	
HV %	**0.0%**	**0.0%**	**1.6%**	**0.0%**	**0.0%**	**0.0%**	**4.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 6
Location:	Barnstable, MA
Street 1:	Bayview Street/ Trenton Street
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Trenton Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Trenton Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:45 AM to 8:45 AM	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Trenton Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.50**				**0.00**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Trenton Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.25**				**0.00**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 6
Location:	Barnstable, MA
Street 1:	Bayview Street/ Trenton Street
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Bayview Street Northbound					Bayview Street Southbound					Cape Cod Hospital Driveway Eastbound					Trenton Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	1	0	0		0	0	0	0		0	0	1	0		0	0	0	0	

	Bayview Street Northbound					Bayview Street Southbound					Cape Cod Hospital Driveway Eastbound					Trenton Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	1		0	0	0	3		0	0	0	1	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 7:15 AM to 8:15 AM	Bayview Street Northbound					Bayview Street Southbound					Cape Cod Hospital Driveway Eastbound					Trenton Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	1	

PM PEAK HOUR[1] 4:00 PM to 5:00 PM	Bayview Street Northbound					Bayview Street Southbound					Cape Cod Hospital Driveway Eastbound					Trenton Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	0		0	0	0	1		0	0	0	5		0	0	0	2	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 7
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TOTAL (CARS & TRUCKS)

	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	9	0	0	0	10	1	0	4	0	0	0	0	0	0
7:15 AM	0	0	12	0	0	0	12	2	0	3	0	0	0	0	0	0
7:30 AM	0	0	13	0	0	0	15	2	0	3	0	0	0	0	0	0
7:45 AM	0	0	12	0	0	0	13	3	0	4	0	0	0	0	0	0
8:00 AM	0	0	12	0	0	0	15	3	0	4	0	0	0	0	0	0
8:15 AM	0	1	11	0	0	0	11	4	0	5	0	0	0	0	0	0
8:30 AM	0	0	10	0	0	0	12	2	0	3	0	1	0	0	0	0
8:45 AM	0	0	8	0	0	0	10	2	0	4	0	0	0	0	0	0

	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	2	28	0	0	0	7	3	0	3	0	1	0	0	0	0
4:15 PM	0	1	29	0	0	0	8	3	0	2	0	0	0	0	0	0
4:30 PM	0	1	25	0	0	0	9	2	0	3	0	1	0	0	0	0
4:45 PM	0	0	23	0	0	0	9	2	0	4	0	0	0	0	0	0
5:00 PM	0	0	18	0	0	0	10	3	0	3	0	1	0	0	0	0
5:15 PM	0	1	14	0	0	0	11	2	0	3	0	1	0	0	0	0
5:30 PM	0	0	15	0	0	0	10	1	0	2	0	0	0	0	0	0
5:45 PM	0	0	12	0	0	0	7	1	0	2	0	0	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**1**	**48**	**0**	**0**	**0**	**54**	**12**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.94**				**0.92**				**0.80**				**0.00**			
HV %	**0.0%**	**0.0%**	**2.1%**	**0.0%**	**0.0%**	**0.0%**	**1.9%**	**8.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**4**	**105**	**0**	**0**	**0**	**33**	**10**	**0**	**12**	**0**	**2**	**0**	**0**	**0**	**0**
PHF	**0.91**				**0.98**				**0.88**				**0.00**			
HV %	**0.0%**	**0.0%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**	**3.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 7
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:45 AM to 8:45 AM	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**2**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.75**				**0.25**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Bayview Street Southbound				Cape Cod Hospital Driveway Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.25**				**0.00**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 7
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Bayview Street Northbound					Bayview Street Southbound					Cape Cod Hospital Driveway Eastbound					Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	3		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Bayview Street Northbound					Bayview Street Southbound					Cape Cod Hospital Driveway Eastbound					Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	5		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1]	Bayview Street Northbound					Bayview Street Southbound					Cape Cod Hospital Driveway Eastbound					Westbound				
7:30 AM to 8:30 AM	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	

PM PEAK HOUR[1]	Bayview Street Northbound					Bayview Street Southbound					Cape Cod Hospital Driveway Eastbound					Westbound				
4:00 PM to 5:00 PM	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	0		0	0	0	0		0	0	0	10		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 8
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Main Parking Field Driveway (South)
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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Office: 978-746-1259
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TOTAL (CARS & TRUCKS)

	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (South) Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	12	1	0	6	11	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	14	1	0	7	14	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	13	2	0	6	17	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	15	1	0	5	16	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	16	1	0	4	18	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	14	2	0	3	14	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	12	1	0	4	15	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	13	0	0	3	12	0	0	0	0	0	0	0	0	0

	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (South) Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	30	1	1	3	10	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	31	0	0	0	11	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	27	1	0	1	10	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	26	1	0	1	12	0	0	0	0	0	0	0	0	1
5:00 PM	1	0	20	0	0	2	11	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	17	0	0	3	13	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	15	1	0	2	10	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	14	0	0	2	8	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:15 AM to 8:15 AM	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (South) Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**58**	**5**	**0**	**22**	**65**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.93**				**0.95**				**0.00**				**0.00**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (South) Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**114**	**3**	**1**	**5**	**43**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**
PHF	**0.94**				**0.88**				**0.00**				**0.38**			
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**2.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 8
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Main Parking Field Driveway (South)
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (South) Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (South) Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (South) Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.25**				**0.00**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (South) Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.25**				**0.00**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 8
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Main Parking Field Driveway (South)
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Bayview Street Northbound					Bayview Street Southbound					Eastbound					Main Parking Field Driveway (South) Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	1	0	3		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	3		0	0	0	1		0	0	0	0		0	0	0	1	
7:45 AM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	1	0	3		0	0	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	1	0	1		0	1	0	2		0	0	0	0		0	0	0	0	
8:45 AM	0	1	0	2		0	0	0	0		0	0	0	0		0	0	0	0	

	Bayview Street Northbound					Bayview Street Southbound					Eastbound					Main Parking Field Driveway (South) Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	3		0	0	0	2		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	3		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	1		0	0	0	1		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	3		0	1	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	2		0	0	0	2		0	0	0	0		0	0	0	2	
5:45 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1]	Bayview Street Northbound					Bayview Street Southbound					Eastbound					Main Parking Field Driveway (South) Westbound				
7:15 AM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
8:15 AM	0	1	0	9		0	0	0	1		0	0	0	0		0	0	0	1	

PM PEAK HOUR[1]	Bayview Street Northbound					Bayview Street Southbound					Eastbound					Main Parking Field Driveway (South) Westbound				
4:00 PM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
5:00 PM	0	0	0	9		0	0	0	3		0	0	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 9
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Park Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TOTAL (CARS & TRUCKS)

	Bayview Street Northbound				Bayview Street Southbound				Park Street Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	2	10	0	0	0	11	11	0	16	0	6	0	0	0	0
7:15 AM	0	3	11	0	0	0	14	10	0	15	0	7	0	0	0	0
7:30 AM	0	3	10	0	0	0	15	12	0	14	0	8	0	0	0	0
7:45 AM	0	2	13	0	0	0	12	11	0	13	0	9	0	0	0	0
8:00 AM	0	4	12	0	0	0	12	9	0	12	0	10	0	0	0	0
8:15 AM	0	3	11	0	0	0	6	8	0	13	0	11	0	0	0	0
8:30 AM	0	3	10	0	0	0	10	9	0	11	0	9	0	0	0	0
8:45 AM	0	2	11	0	0	0	7	8	0	10	0	8	0	0	0	0

	Bayview Street Northbound				Bayview Street Southbound				Park Street Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	1	30	0	0	0	6	32	0	19	0	8	0	0	0	0
4:15 PM	0	2	29	0	0	0	4	31	0	18	0	7	0	0	0	0
4:30 PM	0	3	26	0	0	0	5	29	0	17	0	6	0	0	0	0
4:45 PM	0	2	25	0	0	0	6	28	0	16	0	7	0	0	0	0
5:00 PM	0	3	19	0	0	0	8	25	0	14	0	5	0	0	0	0
5:15 PM	0	3	16	0	0	0	10	24	0	13	0	6	0	0	0	0
5:30 PM	0	2	14	0	0	0	8	23	0	12	0	4	0	0	0	0
5:45 PM	0	2	12	0	0	0	5	24	0	11	0	5	0	0	0	0

AM PEAK HOUR 7:15 AM to 8:15 AM	Bayview Street Northbound				Bayview Street Southbound				Park Street Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**12**	**46**	**0**	**0**	**0**	**53**	**42**	**0**	**54**	**0**	**34**	**0**	**0**	**0**	**0**
PHF		**0.91**				**0.88**				**1.00**				**0.00**		
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**2.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Bayview Street Southbound				Park Street Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**8**	**110**	**0**	**0**	**0**	**21**	**120**	**0**	**70**	**0**	**28**	**0**	**0**	**0**	**0**
PHF		**0.95**				**0.93**				**0.91**				**0.00**		
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**4.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 9
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Park Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Bayview Street Northbound				Bayview Street Southbound				Park Street Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bayview Street Northbound				Bayview Street Southbound				Park Street Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Bayview Street Northbound				Bayview Street Southbound				Park Street Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.00**				**0.25**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Bayview Street Southbound				Park Street Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.25**				**0.00**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 9
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Park Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Bayview Street Northbound					Bayview Street Southbound					Park Street Eastbound					Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	34		0	0	0	0		0	0	0	0	
7:15 AM	0	1	0	0		0	0	0	25		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	1		0	0	0	22		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	35		0	0	0	1		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	28		0	0	0	0		0	0	0	0	
8:15 AM	0	1	0	0		0	0	0	20		0	0	0	0		0	0	0	0	
8:30 AM	0	1	0	0		0	1	0	12		0	0	0	0		0	0	0	0	
8:45 AM	0	1	0	0		0	0	0	15		0	0	0	0		0	0	0	0	

	Bayview Street Northbound					Bayview Street Southbound					Park Street Eastbound					Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	2		0	0	0	42		0	0	0	1		0	0	0	0	
4:15 PM	0	0	0	1		0	0	0	28		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	25		0	0	0	1		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	22		0	0	0	1		0	0	0	0	
5:00 PM	0	0	0	1		0	0	0	15		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	1	0	18		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	12		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	10		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1]	Bayview Street Northbound					Bayview Street Southbound					Park Street Eastbound					Westbound				
7:15 AM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
8:15 AM	0	1	0	1		0	0	0	110		0	0	0	1		0	0	0	0	

PM PEAK HOUR[1]	Bayview Street Northbound					Bayview Street Southbound					Park Street Eastbound					Westbound				
4:00 PM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
5:00 PM	0	0	0	3		0	0	0	117		0	0	0	3		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 10
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Main Parking Field Driveway (North)
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TOTAL (CARS & TRUCKS)

	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (North) Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	8	12	0	13	20	0	0	0	0	0	0	3	0	5
7:15 AM	0	0	7	13	0	15	23	0	0	0	0	0	0	3	0	5
7:30 AM	0	0	10	23	0	27	25	0	0	0	0	0	0	4	0	4
7:45 AM	0	0	7	33	0	38	26	0	0	0	0	0	0	2	0	5
8:00 AM	0	0	9	19	0	25	23	0	0	0	0	0	0	2	0	4
8:15 AM	0	0	8	5	0	11	17	0	0	0	0	0	0	1	0	2
8:30 AM	0	0	9	6	0	12	21	0	0	0	0	0	0	2	0	2
8:45 AM	0	0	11	5	0	13	16	0	0	0	0	0	0	3	0	1

	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (North) Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	23	2	0	1	12	0	0	0	0	0	0	12	0	27
4:15 PM	0	0	25	2	0	1	11	0	0	0	0	0	0	14	0	26
4:30 PM	0	0	28	3	0	2	13	0	0	0	0	0	0	15	0	29
4:45 PM	0	0	27	2	0	1	10	0	0	0	0	0	0	16	0	27
5:00 PM	0	0	28	4	0	2	14	0	0	0	0	0	0	17	0	28
5:15 PM	0	0	26	3	0	2	12	0	0	0	0	0	0	18	0	27
5:30 PM	0	0	23	3	0	1	10	0	0	0	0	0	0	17	0	25
5:45 PM	0	0	21	2	0	1	11	0	0	0	0	0	0	16	0	26

AM PEAK HOUR 7:15 AM to 8:15 AM	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (North) Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**33**	**88**	**0**	**105**	**97**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**18**
PHF		**0.76**				**0.79**				**0.00**				**0.91**		
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (North) Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**109**	**12**	**0**	**7**	**49**	**0**	**0**	**0**	**0**	**0**	**0**	**66**	**0**	**111**
PHF		**0.95**				**0.88**				**0.00**				**0.98**		
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 10
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Main Parking Field Driveway (North)
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (North) Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (North) Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (North) Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.00**				**0.00**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Bayview Street Southbound				Eastbound				Main Parking Field Driveway (North) Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.25**				**0.25**				**0.00**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 10
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Main Parking Field Driveway (North)
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Bayview Street Northbound					Bayview Street Southbound					Eastbound					Main Parking Field Driveway (North) Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	1	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	1	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	1		0	1	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Bayview Street Northbound					Bayview Street Southbound					Eastbound					Main Parking Field Driveway (North) Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	1	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 7:15 AM to 8:15 AM	Bayview Street Northbound					Bayview Street Southbound					Eastbound					Main Parking Field Driveway (North) Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	1	0	1		0	0	0	0		0	0	0	0		0	0	0	0	

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Bayview Street Northbound					Bayview Street Southbound					Eastbound					Main Parking Field Driveway (North) Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	1		0	1	0	0		0	0	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 11
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Main Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TOTAL (CARS & TRUCKS)

	Bayview Street Northbound				Southbound				Main Street Eastbound				Main Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	8	0	7	0	0	0	0	0	0	47	3	0	30	67	0
7:15 AM	0	7	0	6	0	0	0	0	0	0	48	4	0	34	71	0
7:30 AM	0	6	0	8	0	0	0	0	0	0	50	5	0	47	73	0
7:45 AM	0	5	0	7	0	0	0	0	0	0	54	6	0	58	77	0
8:00 AM	0	4	0	10	0	0	0	0	0	0	52	6	0	42	78	0
8:15 AM	0	5	0	9	0	0	0	0	0	0	55	7	0	29	76	0
8:30 AM	0	4	0	7	0	0	0	0	0	0	53	5	0	28	74	0
8:45 AM	0	3	0	9	0	0	0	0	0	0	51	5	0	24	71	0

	Bayview Street Northbound				Southbound				Main Street Eastbound				Main Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	17	0	33	0	0	0	0	0	0	81	4	0	9	61	0
4:15 PM	0	15	0	36	0	0	0	0	0	0	87	5	0	7	58	0
4:30 PM	0	13	0	44	0	0	0	0	0	0	89	4	0	11	53	0
4:45 PM	0	12	0	42	0	0	0	0	0	0	92	6	0	9	50	0
5:00 PM	0	11	0	46	0	0	0	0	0	0	93	3	0	12	45	0
5:15 PM	0	12	0	41	0	0	0	0	0	0	92	4	0	10	44	0
5:30 PM	0	10	0	38	0	0	0	0	0	0	90	3	0	8	41	0
5:45 PM	0	9	0	36	0	0	0	0	0	0	87	2	0	9	39	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Bayview Street Northbound				Southbound				Main Street Eastbound				Main Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**20**	**0**	**34**	**0**	**0**	**0**	**0**	**0**	**0**	**211**	**24**	**0**	**176**	**304**	**0**
PHF	**0.96**				**0.00**				**0.95**				**0.89**			
HV %	**0.0%**	**0.0%**	**0.0%**	**2.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**0.0%**

PM PEAK HOUR 4:15 PM to 5:15 PM	Bayview Street Northbound				Southbound				Main Street Eastbound				Main Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**51**	**0**	**168**	**0**	**0**	**0**	**0**	**0**	**0**	**361**	**18**	**0**	**39**	**206**	**0**
PHF	**0.96**				**0.00**				**0.97**				**0.94**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**5.6%**	**0.0%**	**0.0%**	**0.5%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 11
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Main Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Bayview Street Northbound				Southbound				Main Street Eastbound				Main Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bayview Street Northbound				Southbound				Main Street Eastbound				Main Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:00 AM to 8:00 AM	Bayview Street Northbound				Southbound				Main Street Eastbound				Main Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**
PHF	**0.00**				**0.00**				**0.50**				**0.50**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Bayview Street Northbound				Southbound				Main Street Eastbound				Main Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**
PHF	**0.25**				**0.00**				**0.50**				**0.25**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 11
Location:	Barnstable, MA
Street 1:	Bayview Street
Street 2:	Main Street
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Bayview Street Northbound					Southbound					Main Street Eastbound					Main Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	1	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	4		0	0	0	0		0	0	0	0		0	2	0	1	
8:45 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Bayview Street Northbound					Southbound					Main Street Eastbound					Main Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1]	Bayview Street Northbound					Southbound					Main Street Eastbound					Main Street Westbound				
7:30 AM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
8:30 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	2	0	0	

PM PEAK HOUR[1]	Bayview Street Northbound					Southbound					Main Street Eastbound					Main Street Westbound				
4:15 PM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
5:15 PM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 12
Location:	Barnstable, MA
Street 1:	Gleason Street
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

BOSTON TRAFFIC DATA
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TOTAL (CARS & TRUCKS)

	Cape Cod Hospital Driveway Northbound				Southbound				Gleason Street Eastbound				Gleason Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	14	0	2	0	0	0	0	0	0	24	7	0	1	6	0
7:15 AM	0	16	0	3	0	0	0	0	0	0	23	8	0	1	3	0
7:30 AM	0	15	0	5	0	0	0	0	0	0	23	11	0	3	3	0
7:45 AM	0	13	0	4	0	0	0	0	0	0	24	13	0	2	4	0
8:00 AM	0	11	0	3	0	0	0	0	0	0	20	14	0	3	5	0
8:15 AM	0	9	0	2	0	0	0	0	0	0	18	15	0	3	8	0
8:30 AM	0	8	0	4	0	0	0	0	0	0	16	14	0	4	7	0
8:45 AM	0	7	0	3	0	0	0	0	0	0	15	12	0	2	7	0

	Cape Cod Hospital Driveway Northbound				Southbound				Gleason Street Eastbound				Gleason Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	27	0	9	0	0	0	0	0	0	13	12	0	6	29	0
4:15 PM	0	25	0	10	0	0	0	0	0	0	14	13	0	7	26	0
4:30 PM	0	22	0	9	0	0	0	0	0	0	10	15	0	8	20	0
4:45 PM	0	19	0	8	0	0	0	0	0	0	11	14	0	8	18	0
5:00 PM	0	16	0	7	0	0	0	0	0	0	10	13	0	7	16	0
5:15 PM	0	12	0	6	0	0	0	0	0	0	11	15	0	9	18	0
5:30 PM	0	13	0	6	0	0	0	0	0	0	10	14	0	9	14	0
5:45 PM	0	11	0	5	0	0	0	0	0	0	8	12	0	8	14	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Cape Cod Hospital Driveway Northbound				Southbound				Gleason Street Eastbound				Gleason Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**48**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**85**	**53**	**0**	**11**	**20**	**0**
PHF	**0.78**				**0.00**				**0.93**				**0.70**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:00 PM to 5:00 PM	Cape Cod Hospital Driveway Northbound				Southbound				Gleason Street Eastbound				Gleason Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**93**	**0**	**36**	**0**	**0**	**0**	**0**	**0**	**0**	**48**	**54**	**0**	**29**	**93**	**0**
PHF	**0.90**				**0.00**				**0.94**				**0.87**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 12
Location:	Barnstable, MA
Street 1:	Gleason Street
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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TRUCKS

	Cape Cod Hospital Driveway Northbound				Southbound				Gleason Street Eastbound				Gleason Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Cape Cod Hospital Driveway Northbound				Southbound				Gleason Street Eastbound				Gleason Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR	Cape Cod Hospital Driveway Northbound				Southbound				Gleason Street Eastbound				Gleason Street Westbound			
7:00 AM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.00**				**0.00**				**0.00**				**0.00**			

PM PEAK HOUR	Cape Cod Hospital Driveway Northbound				Southbound				Gleason Street Eastbound				Gleason Street Westbound			
4:00 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.00**				**0.00**				**0.00**				**0.00**			

Client:	Kirsten Braun
Project #:	148_024_VHB_Barnstable
BTD #:	Location 12
Location:	Barnstable, MA
Street 1:	Gleason Street
Street 2:	Cape Cod Hospital Driveway
Count Date:	11/28/2017
Day of Week:	Tuesday
Weather:	Partly Sunny, 40°F

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PEDESTRIANS & BICYCLES

	Cape Cod Hospital Driveway Northbound					Southbound					Gleason Street Eastbound					Gleason Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	2	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	2	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	2	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	2	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		1	0	0	0	
8:30 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	3	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Cape Cod Hospital Driveway Northbound					Southbound					Gleason Street Eastbound					Gleason Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	
4:15 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	2	
4:30 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	1	0	2	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 7:30 AM to 8:30 AM	Cape Cod Hospital Driveway Northbound					Southbound					Gleason Street Eastbound					Gleason Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	0		0	0	0	0		0	0	0	0		1	0	0	5	

PM PEAK HOUR[1] 4:00 PM to 5:00 PM	Cape Cod Hospital Driveway Northbound					Southbound					Gleason Street Eastbound					Gleason Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	3		0	0	0	0		0	0	0	0		0	2	0	4	

[1] *Peak hours corresponds to vehicular peak hours.*

PRECISION DATA INDUSTRIES, LLC
Office: 508.875.0100 Fax: 508.875.0118
Email: datarequests@pdillc.com

Traffic Counts with Precision



Client:	Engineer:	Site Code:	Date:	PDI Job Number:	City, State:
VHB	K. Keen	14072.0	Thursday 11/15/18	186599	Hyannis, MA

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	8	0	45	0	53	46	71	0	0	117	24	15	11	0	50	0	0	0	0	0	220
7:15 AM	11	0	42	0	53	35	84	1	0	120	29	14	14	0	57	0	0	0	0	0	230
7:30 AM	18	0	50	0	68	25	111	0	0	136	43	21	5	0	69	0	0	0	0	0	273
7:45 AM	15	0	70	0	85	74	129	0	0	203	30	32	13	0	75	0	0	0	0	0	363
Total	52	0	207	0	259	180	395	1	0	576	126	82	43	0	251	0	0	0	0	0	1086
8:00 AM	15	0	68	0	83	67	125	0	0	192	40	27	17	0	84	0	0	0	0	0	359
8:15 AM	11	0	49	0	60	61	104	0	0	165	45	19	14	0	78	0	0	0	0	0	303
8:30 AM	15	0	64	0	79	74	98	0	0	172	41	32	9	0	82	0	0	0	0	0	333
8:45 AM	12	0	59	0	71	89	118	0	0	207	38	58	28	0	124	0	0	0	0	0	402
Total	53	0	240	0	293	291	445	0	0	736	164	136	68	0	368	0	0	0	0	0	1397
Grand Total	105	0	447	0	552	471	840	1	0	1312	290	218	111	0	619	0	0	0	0	0	2483
Approach %	19.0	0.0	81.0	0.0		35.9	64.0	0.1	0.0		46.8	35.2	17.9	0.0		0.0	0.0	0.0	0.0		
Total %	4.2	0.0	18.0	0.0	22.2	19.0	33.8	0.0	0.0	52.8	11.7	8.8	4.5	0.0	24.9	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					689					737					1					1056	2483
Cars	92	0	425	0	517	441	804	1	0	1246	275	202	104	0	581	0	0	0	0	0	2344
% Cars	87.6	0.0	95.1	0.0	93.7	93.6	95.7	100.0	0.0	95.0	94.8	92.7	93.7	0.0	93.9	0.0	0.0	0.0	0.0	0.0	94.4
Exiting Leg Total					643					700					1					1000	2344
Heavy Vehicles	13	0	22	0	35	30	36	0	0	66	15	16	7	0	38	0	0	0	0	0	139
% Heavy Vehicles	12.4	0.0	4.9	0.0	6.3	6.4	4.3	0.0	0.0	5.0	5.2	7.3	6.3	0.0	6.1	0.0	0.0	0.0	0.0	0.0	5.6
Exiting Leg Total					46					37					0					56	139

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	15	0	68	0	83	67	125	0	0	192	40	27	17	0	84	0	0	0	0	0	359
8:15 AM	11	0	49	0	60	61	104	0	0	165	45	19	14	0	78	0	0	0	0	0	303
8:30 AM	15	0	64	0	79	74	98	0	0	172	41	32	9	0	82	0	0	0	0	0	333
8:45 AM	12	0	59	0	71	89	118	0	0	207	38	58	28	0	124	0	0	0	0	0	402
Total Volume	53	0	240	0	293	291	445	0	0	736	164	136	68	0	368	0	0	0	0	0	1397
% Approach Total	18.1	0.0	81.9	0.0		39.5	60.5	0.0	0.0		44.6	37.0	18.5	0.0		0.0	0.0	0.0	0.0		
PHF	0.883	0.000	0.882	0.000	0.883	0.817	0.890	0.000	0.000	0.889	0.911	0.586	0.607	0.000	0.742	0.000	0.000	0.000	0.000	0.000	0.869
Cars	44	0	230	0	274	272	428	0	0	700	155	126	62	0	343	0	0	0	0	0	1317
Cars %	83.0	0.0	95.8	0.0	93.5	93.5	96.2	0.0	0.0	95.1	94.5	92.6	91.2	0.0	93.2	0.0	0.0	0.0	0.0	0.0	94.3
Heavy Vehicles	9	0	10	0	19	19	17	0	0	36	9	10	6	0	25	0	0	0	0	0	80
Heavy Vehicles %	17.0	0.0	4.2	0.0	6.5	6.5	3.8	0.0	0.0	4.9	5.5	7.4	8.8	0.0	6.8	0.0	0.0	0.0	0.0	0.0	5.7
Cars Enter Leg	44	0	230	0	274	272	428	0	0	700	155	126	62	0	343	0	0	0	0	0	1317
Heavy Enter Leg	9	0	10	0	19	19	17	0	0	36	9	10	6	0	25	0	0	0	0	0	80
Total Entering Leg	53	0	240	0	293	291	445	0	0	736	164	136	68	0	368	0	0	0	0	0	1397
Cars Exiting Leg					398					385					0					534	1317
Heavy Exiting Leg					29					19					0					32	80
Total Exiting Leg					427					404					0					566	1397

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	7	0	42	0	49	45	69	0	0	114	24	13	11	0	48	0	0	0	0	0	211
7:15 AM	9	0	39	0	48	30	79	1	0	110	27	14	14	0	55	0	0	0	0	0	213
7:30 AM	18	0	47	0	65	25	106	0	0	131	41	20	5	0	66	0	0	0	0	0	262
7:45 AM	14	0	67	0	81	69	122	0	0	191	28	29	12	0	69	0	0	0	0	0	341
Total	48	0	195	0	243	169	376	1	0	546	120	76	42	0	238	0	0	0	0	0	1027
8:00 AM	14	0	64	0	78	58	119	0	0	177	37	21	16	0	74	0	0	0	0	0	329
8:15 AM	10	0	48	0	58	56	100	0	0	156	44	18	14	0	76	0	0	0	0	0	290
8:30 AM	12	0	62	0	74	71	95	0	0	166	38	30	7	0	75	0	0	0	0	0	315
8:45 AM	8	0	56	0	64	87	114	0	0	201	36	57	25	0	118	0	0	0	0	0	383
Total	44	0	230	0	274	272	428	0	0	700	155	126	62	0	343	0	0	0	0	0	1317
Grand Total	92	0	425	0	517	441	804	1	0	1246	275	202	104	0	581	0	0	0	0	0	2344
Approach %	17.8	0.0	82.2	0.0		35.4	64.5	0.1	0.0		47.3	34.8	17.9	0.0		0.0	0.0	0.0	0.0		
Total %	3.9	0.0	18.1	0.0	22.1	18.8	34.3	0.0	0.0	53.2	11.7	8.6	4.4	0.0	24.8	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					643					700					1					1000	2344

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	14	0	64	0	78	58	119	0	0	177	37	21	16	0	74	0	0	0	0	0	329
8:15 AM	10	0	48	0	58	56	100	0	0	156	44	18	14	0	76	0	0	0	0	0	290
8:30 AM	12	0	62	0	74	71	95	0	0	166	38	30	7	0	75	0	0	0	0	0	315
8:45 AM	8	0	56	0	64	87	114	0	0	201	36	57	25	0	118	0	0	0	0	0	383
Total Volume	44	0	230	0	274	272	428	0	0	700	155	126	62	0	343	0	0	0	0	0	1317
% Approach Total	16.1	0.0	83.9	0.0		38.9	61.1	0.0	0.0		45.2	36.7	18.1	0.0		0.0	0.0	0.0	0.0		
PHF	0.786	0.000	0.898	0.000	0.878	0.782	0.899	0.000	0.000	0.871	0.881	0.553	0.620	0.000	0.727	0.000	0.000	0.000	0.000	0.000	0.860
Entering Leg	44	0	230	0	274	272	428	0	0	700	155	126	62	0	343	0	0	0	0	0	1317
Exiting Leg					398					385					0					534	1317
Total					672					1085					343					534	2634

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	3	0	4	1	2	0	0	3	0	2	0	0	2	0	0	0	0	0	9
7:15 AM	2	0	3	0	5	5	5	0	0	10	2	0	0	0	2	0	0	0	0	0	17
7:30 AM	0	0	3	0	3	0	5	0	0	5	2	1	0	0	3	0	0	0	0	0	11
7:45 AM	1	0	3	0	4	5	7	0	0	12	2	3	1	0	6	0	0	0	0	0	22
Total	4	0	12	0	16	11	19	0	0	30	6	6	1	0	13	0	0	0	0	0	59
8:00 AM	1	0	4	0	5	9	6	0	0	15	3	6	1	0	10	0	0	0	0	0	30
8:15 AM	1	0	1	0	2	5	4	0	0	9	1	1	0	0	2	0	0	0	0	0	13
8:30 AM	3	0	2	0	5	3	3	0	0	6	3	2	2	0	7	0	0	0	0	0	18
8:45 AM	4	0	3	0	7	2	4	0	0	6	2	1	3	0	6	0	0	0	0	0	19
Total	9	0	10	0	19	19	17	0	0	36	9	10	6	0	25	0	0	0	0	0	80
Grand Total	13	0	22	0	35	30	36	0	0	66	15	16	7	0	38	0	0	0	0	0	139
Approach %	37.1	0.0	62.9	0.0		45.5	54.5	0.0	0.0		39.5	42.1	18.4	0.0		0.0	0.0	0.0	0.0		
Total %	9.4	0.0	15.8	0.0	25.2	21.6	25.9	0.0	0.0	47.5	10.8	11.5	5.0	0.0	27.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					46					37					0					56	139
Buses	5	0	9	0	14	14	8	0	0	22	2	11	3	0	16	0	0	0	0	0	52
% Buses	38.5	0.0	40.9	0.0	40.0	46.7	22.2	0.0	0.0	33.3	13.3	68.8	42.9	0.0	42.1	0.0	0.0	0.0	0.0	0.0	37.4
Exiting Leg Total					25					11					0					16	52
Single-Unit Trucks	8	0	11	0	19	15	25	0	0	40	11	4	4	0	19	0	0	0	0	0	78
% Single-Unit	61.5	0.0	50.0	0.0	54.3	50.0	69.4	0.0	0.0	60.6	73.3	25.0	57.1	0.0	50.0	0.0	0.0	0.0	0.0	0.0	56.1
Exiting Leg Total					19					22					0					37	78
Articulated Trucks	0	0	2	0	2	1	3	0	0	4	2	1	0	0	3	0	0	0	0	0	9
% Articulated	0.0	0.0	9.1	0.0	5.7	3.3	8.3	0.0	0.0	6.1	13.3	6.3	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0	6.5
Exiting Leg Total					2					4					0					3	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	1	0	3	0	4	5	7	0	0	12	2	3	1	0	6	0	0	0	0	0	22
8:00 AM	1	0	4	0	5	9	6	0	0	15	3	6	1	0	10	0	0	0	0	0	30
8:15 AM	1	0	1	0	2	5	4	0	0	9	1	1	0	0	2	0	0	0	0	0	13
8:30 AM	3	0	2	0	5	3	3	0	0	6	3	2	2	0	7	0	0	0	0	0	18
Total Volume	6	0	10	0	16	22	20	0	0	42	9	12	4	0	25	0	0	0	0	0	83
% Approach Total	37.5	0.0	62.5	0.0		52.4	47.6	0.0	0.0		36.0	48.0	16.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.500	0.000	0.625	0.000	0.800	0.611	0.714	0.000	0.000	0.700	0.750	0.500	0.500	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.692
Buses	3	0	5	0	8	9	4	0	0	13	1	8	3	0	12	0	0	0	0	0	33
Buses %	50.0	0.0	50.0	0.0	50.0	40.9	20.0	0.0	0.0	31.0	11.1	66.7	75.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	39.8
Single-Unit Trucks	3	0	4	0	7	12	16	0	0	28	6	4	1	0	11	0	0	0	0	0	46
Single-Unit %	50.0	0.0	40.0	0.0	43.8	54.5	80.0	0.0	0.0	66.7	66.7	33.3	25.0	0.0	44.0	0.0	0.0	0.0	0.0	0.0	55.4
Articulated Trucks	0	0	1	0	1	1	0	0	0	1	2	0	0	0	2	0	0	0	0	0	4
Articulated %	0.0	0.0	10.0	0.0	6.3	4.5	0.0	0.0	0.0	2.4	22.2	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	4.8
Buses	3	0	5	0	8	9	4	0	0	13	1	8	3	0	12	0	0	0	0	0	33
Single-Unit Trucks	3	0	4	0	7	12	16	0	0	28	6	4	1	0	11	0	0	0	0	0	46
Articulated Trucks	0	0	1	0	1	1	0	0	0	1	2	0	0	0	2	0	0	0	0	0	4
Total Entering Leg	6	0	10	0	16	22	20	0	0	42	9	12	4	0	25	0	0	0	0	0	83
Buses					17					6					0					10	33
Single-Unit Trucks					16					10					0					20	46
Articulated Trucks					1					3					0					0	4
Total Exiting Leg					34					19					0					30	83

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	6	0	28	0	34	34	55	0	0	89	17	11	5	0	33	0	0	0	0	0	156
7:15 AM	7	0	26	0	33	27	60	0	0	87	19	10	13	0	42	0	0	0	0	0	162
7:30 AM	15	0	38	0	53	20	90	0	0	110	33	19	4	0	56	0	0	0	0	0	219
7:45 AM	12	0	54	0	66	62	101	0	0	163	20	25	10	0	55	0	0	0	0	0	284
Total	40	0	146	0	186	143	306	0	0	449	89	65	32	0	186	0	0	0	0	0	821
8:00 AM	8	0	46	0	54	47	96	0	0	143	30	20	14	0	64	0	0	0	0	0	261
8:15 AM	8	0	39	0	47	42	82	0	0	124	36	13	10	0	59	0	0	0	0	0	230
8:30 AM	10	0	45	0	55	56	75	0	0	131	27	19	7	0	53	0	0	0	0	0	239
8:45 AM	6	0	50	0	56	70	102	0	0	172	30	51	21	0	102	0	0	0	0	0	330
Total	32	0	180	0	212	215	355	0	0	570	123	103	52	0	278	0	0	0	0	0	1060
Grand Total	72	0	326	0	398	358	661	0	0	1019	212	168	84	0	464	0	0	0	0	0	1881
Approach %	18.1	0.0	81.9	0.0		35.1	64.9	0.0	0.0		45.7	36.2	18.1	0.0		0.0	0.0	0.0	0.0		
Total %	3.8	0.0	17.3	0.0	21.2	19.0	35.1	0.0	0.0	54.2	11.3	8.9	4.5	0.0	24.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					526					538					0					817	1881

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	8	0	46	0	54	47	96	0	0	143	30	20	14	0	64	0	0	0	0	0	261
8:15 AM	8	0	39	0	47	42	82	0	0	124	36	13	10	0	59	0	0	0	0	0	230
8:30 AM	10	0	45	0	55	56	75	0	0	131	27	19	7	0	53	0	0	0	0	0	239
8:45 AM	6	0	50	0	56	70	102	0	0	172	30	51	21	0	102	0	0	0	0	0	330
Total Volume	32	0	180	0	212	215	355	0	0	570	123	103	52	0	278	0	0	0	0	0	1060
% Approach Total	15.1	0.0	84.9	0.0		37.7	62.3	0.0	0.0		44.2	37.1	18.7	0.0		0.0	0.0	0.0	0.0		
PHF	0.800	0.000	0.900	0.000	0.946	0.768	0.870	0.000	0.000	0.828	0.854	0.505	0.619	0.000	0.681	0.000	0.000	0.000	0.000	0.000	0.803
Entering Leg	32	0	180	0	212	215	355	0	0	570	123	103	52	0	278	0	0	0	0	0	1060
Exiting Leg					318					303					0					439	1060
Total					530					873					278					439	2120

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Center Street					Main Street					Old Colony Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	14	0	15	11	14	0	0	25	7	2	6	0	15	0	0	0	0	0	55
7:15 AM	2	0	13	0	15	3	19	1	0	23	8	4	1	0	13	0	0	0	0	0	51
7:30 AM	3	0	9	0	12	5	16	0	0	21	8	1	1	0	10	0	0	0	0	0	43
7:45 AM	2	0	13	0	15	7	21	0	0	28	8	4	2	0	14	0	0	0	0	0	57
Total	8	0	49	0	57	26	70	1	0	97	31	11	10	0	52	0	0	0	0	0	206
8:00 AM	6	0	18	0	24	11	23	0	0	34	7	1	2	0	10	0	0	0	0	0	68
8:15 AM	2	0	9	0	11	14	18	0	0	32	8	5	4	0	17	0	0	0	0	0	60
8:30 AM	2	0	17	0	19	15	20	0	0	35	11	11	0	0	22	0	0	0	0	0	76
8:45 AM	2	0	6	0	8	17	12	0	0	29	6	6	4	0	16	0	0	0	0	0	53
Total	12	0	50	0	62	57	73	0	0	130	32	23	10	0	65	0	0	0	0	0	257
Grand Total	20	0	99	0	119	83	143	1	0	227	63	34	20	0	117	0	0	0	0	0	463
Approach %	16.8	0.0	83.2	0.0		36.6	63.0	0.4	0.0		53.8	29.1	17.1	0.0		0.0	0.0	0.0	0.0		
Total %	4.3	0.0	21.4	0.0	25.7	17.9	30.9	0.2	0.0	49.0	13.6	7.3	4.3	0.0	25.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					117					162					1					183	463

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Center Street					Main Street					Old Colony Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	2	0	13	0	15	7	21	0	0	28	8	4	2	0	14	0	0	0	0	0	57
8:00 AM	6	0	18	0	24	11	23	0	0	34	7	1	2	0	10	0	0	0	0	0	68
8:15 AM	2	0	9	0	11	14	18	0	0	32	8	5	4	0	17	0	0	0	0	0	60
8:30 AM	2	0	17	0	19	15	20	0	0	35	11	11	0	0	22	0	0	0	0	0	76
Total Volume	12	0	57	0	69	47	82	0	0	129	34	21	8	0	63	0	0	0	0	0	261
% Approach Total	17.4	0.0	82.6	0.0		36.4	63.6	0.0	0.0		54.0	33.3	12.7	0.0		0.0	0.0	0.0	0.0		
PHF	0.500	0.000	0.792	0.000	0.719	0.783	0.891	0.000	0.000	0.921	0.773	0.477	0.500	0.000	0.716	0.000	0.000	0.000	0.000	0.000	0.859
Entering Leg	12	0	57	0	69	47	82	0	0	129	34	21	8	0	63	0	0	0	0	0	261
Exiting Leg					68					91					0					102	261
Total					137					220					63					102	522

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Center Street					Main Street					Old Colony Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	1	0	2	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	5
7:15 AM	1	0	0	0	1	3	0	0	0	3	1	0	0	0	1	0	0	0	0	0	5
7:30 AM	0	0	1	0	1	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	5
7:45 AM	0	0	1	0	1	3	1	0	0	4	0	1	1	0	2	0	0	0	0	0	7
Total	2	0	3	0	5	7	5	0	0	12	1	3	1	0	5	0	0	0	0	0	22
8:00 AM	1	0	1	0	2	4	1	0	0	5	0	5	1	0	6	0	0	0	0	0	13
8:15 AM	1	0	1	0	2	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	5
8:30 AM	1	0	2	0	3	1	1	0	0	2	1	1	1	0	3	0	0	0	0	0	8
8:45 AM	0	0	2	0	2	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	4
Total	3	0	6	0	9	7	3	0	0	10	1	8	2	0	11	0	0	0	0	0	30
Grand Total	5	0	9	0	14	14	8	0	0	22	2	11	3	0	16	0	0	0	0	0	52
Approach %	35.7	0.0	64.3	0.0		63.6	36.4	0.0	0.0		12.5	68.8	18.8	0.0		0.0	0.0	0.0	0.0		
Total %	9.6	0.0	17.3	0.0	26.9	26.9	15.4	0.0	0.0	42.3	3.8	21.2	5.8	0.0	30.8	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					25					11					0					16	52

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Center Street					Main Street					Old Colony Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	1	0	1	3	1	0	0	4	0	1	1	0	2	0	0	0	0	0	7
8:00 AM	1	0	1	0	2	4	1	0	0	5	0	5	1	0	6	0	0	0	0	0	13
8:15 AM	1	0	1	0	2	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	5
8:30 AM	1	0	2	0	3	1	1	0	0	2	1	1	1	0	3	0	0	0	0	0	8
Total Volume	3	0	5	0	8	9	4	0	0	13	1	8	3	0	12	0	0	0	0	0	33
% Approach Total	37.5	0.0	62.5	0.0		69.2	30.8	0.0	0.0		8.3	66.7	25.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.750	0.000	0.625	0.000	0.667	0.563	1.000	0.000	0.000	0.650	0.250	0.400	0.750	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.635
Entering Leg	3	0	5	0	8	9	4	0	0	13	1	8	3	0	12	0	0	0	0	0	33
Exiting Leg					17					6					0					10	33
Total					25					19					12					10	66

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	1	0	3	0	4	2	3	0	0	5	1	0	0	0	1	0	0	0	0	0	10
7:30 AM	0	0	2	0	2	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0	6
7:45 AM	1	0	1	0	2	2	6	0	0	8	2	2	0	0	4	0	0	0	0	0	14
Total	2	0	7	0	9	4	12	0	0	16	5	2	0	0	7	0	0	0	0	0	32
8:00 AM	0	0	3	0	3	4	5	0	0	9	2	1	0	0	3	0	0	0	0	0	15
8:15 AM	0	0	0	0	0	4	3	0	0	7	0	0	0	0	0	0	0	0	0	0	7
8:30 AM	2	0	0	0	2	2	2	0	0	4	2	1	1	0	4	0	0	0	0	0	10
8:45 AM	4	0	1	0	5	1	3	0	0	4	2	0	3	0	5	0	0	0	0	0	14
Total	6	0	4	0	10	11	13	0	0	24	6	2	4	0	12	0	0	0	0	0	46
Grand Total	8	0	11	0	19	15	25	0	0	40	11	4	4	0	19	0	0	0	0	0	78
Approach %	42.1	0.0	57.9	0.0		37.5	62.5	0.0	0.0		57.9	21.1	21.1	0.0		0.0	0.0	0.0	0.0		
Total %	10.3	0.0	14.1	0.0	24.4	19.2	32.1	0.0	0.0	51.3	14.1	5.1	5.1	0.0	24.4	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					19					22					0					37	78

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	1	0	1	0	2	2	6	0	0	8	2	2	0	0	4	0	0	0	0	0	14
8:00 AM	0	0	3	0	3	4	5	0	0	9	2	1	0	0	3	0	0	0	0	0	15
8:15 AM	0	0	0	0	0	4	3	0	0	7	0	0	0	0	0	0	0	0	0	0	7
8:30 AM	2	0	0	0	2	2	2	0	0	4	2	1	1	0	4	0	0	0	0	0	10
Total Volume	3	0	4	0	7	12	16	0	0	28	6	4	1	0	11	0	0	0	0	0	46
% Approach Total	42.9	0.0	57.1	0.0		42.9	57.1	0.0	0.0		54.5	36.4	9.1	0.0		0.0	0.0	0.0	0.0		
PHF	0.375	0.000	0.333	0.000	0.583	0.750	0.667	0.000	0.000	0.778	0.750	0.500	0.250	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.767
Entering Leg	3	0	4	0	7	12	16	0	0	28	6	4	1	0	11	0	0	0	0	0	46
Exiting Leg					16					10					0					20	46
Total					23					38					11					20	92

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	2	0	2	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	5
8:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	1	0	0	2	2	0	0	0	2	0	0	0	0	0	4
Grand Total	0	0	2	0	2	1	3	0	0	4	2	1	0	0	3	0	0	0	0	0	9
Approach %	0.0	0.0	100.0	0.0		25.0	75.0	0.0	0.0		66.7	33.3	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	22.2	0.0	22.2	11.1	33.3	0.0	0.0	44.4	22.2	11.1	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					2					4					0					3	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	2	0	2	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	5
% Approach Total	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.500	0.000	0.500	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	0	2	0	2	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	5
Exiting Leg					1					2					0					2	5
Total					3					4					1					2	10

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Center Street from North							Main Street from East							Old Colony Road from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	3
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
Grand Total	0	0	0	0	0	1	1	0	1	0	0	1	0	2	0	0	0	0	2	0	2	0	0	1	0	0	0	1	6
Approach %	0.0	0.0	0.0	0.0	0.0	100.0		0.0	50.0	0.0	0.0	50.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	16.7	16.7	0.0	16.7	0.0	0.0	16.7	0.0	33.3	0.0	0.0	0.0	0.0	33.3	0.0	33.3	0.0	0.0	16.7	0.0	0.0	0.0	16.7	
Exiting Leg Total							2							1							2							1	6

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Center Street from North							Main Street from East							Old Colony Road from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	3
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.375
Entering Leg	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	3
Exiting Leg							2							0							1							0	3
Total							3							0							2							1	6

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Center Street from North							Main Street from East							Old Colony Road from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
7:30 AM	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	2	6
7:45 AM	0	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Total	0	0	0	0	7	11	18	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3	0	3	22
8:00 AM	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2	2	10
8:15 AM	0	0	0	0	2	3	5	0	0	0	0	2	1	3	0	0	0	0	2	0	2	0	0	0	0	1	2	3	13
8:30 AM	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	2	2	9
8:45 AM	0	0	0	0	2	1	3	0	0	0	0	1	2	3	0	0	0	0	6	1	7	0	0	0	0	0	2	2	15
Total	0	0	0	0	5	13	18	0	0	0	0	3	3	6	0	0	0	0	9	5	14	0	0	0	0	1	8	9	47
Grand Total	0	0	0	0	12	24	36	0	0	0	0	3	3	6	0	0	0	0	9	6	15	0	0	0	0	4	8	12	69
Approach %	0	0	0	0	33.3	66.7		0	0	0	0	50	50		0	0	0	0	60	40		0	0	0	0	33.3	66.7		
Total %	0	0	0	0	17.4	34.8	52.2	0	0	0	0	4.35	4.35	8.7	0	0	0	0	13	8.7	21.7	0	0	0	0	5.8	11.6	17.4	
Exiting Leg Total							36							6							15							12	69

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Center Street from North							Main Street from East							Old Colony Road from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2	2	10
8:15 AM	0	0	0	0	2	3	5	0	0	0	0	2	1	3	0	0	0	0	2	0	2	0	0	0	0	1	2	3	13
8:30 AM	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	2	2	9
8:45 AM	0	0	0	0	2	1	3	0	0	0	0	1	2	3	0	0	0	0	6	1	7	0	0	0	0	0	2	2	15
Total Volume	0	0	0	0	5	13	18	0	0	0	0	3	3	6	0	0	0	0	9	5	14	0	0	0	0	1	8	9	47
% Approach Total	0.0	0.0	0.0	0.0	27.8	72.2		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	64.3	35.7		0.0	0.0	0.0	0.0	11.1	88.9		
PHF	0.000	0.000	0.000	0.000	0.625	0.542	0.750	0.000	0.000	0.000	0.000	0.375	0.375	0.500	0.000	0.000	0.000	0.000	0.375	0.625	0.500	0.000	0.000	0.000	0.000	0.250	1.000	0.750	0.783
Entering Leg	0	0	0	0	5	13	18	0	0	0	0	3	3	6	0	0	0	0	9	5	14	0	0	0	0	1	8	9	47
Exiting Leg							18							6							14							9	47
Total							36							12							28							18	94

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	17	0	103	0	120	99	94	0	0	193	44	34	19	0	97	0	0	0	0	0	410
4:15 PM	16	0	81	0	97	111	139	0	0	250	51	41	22	0	114	0	0	0	0	0	461
4:30 PM	17	1	86	0	104	110	141	0	0	251	59	25	21	0	105	0	0	0	0	0	460
4:45 PM	15	0	121	0	136	129	147	0	0	276	49	43	23	0	115	0	0	0	0	0	527
Total	65	1	391	0	457	449	521	0	0	970	203	143	85	0	431	0	0	0	0	0	1858
5:00 PM	15	0	101	0	116	121	133	0	0	254	58	37	15	0	110	0	0	0	0	0	480
5:15 PM	16	0	118	0	134	78	127	0	0	205	48	27	14	0	89	0	0	0	0	0	428
5:30 PM	12	0	82	0	94	69	118	0	0	187	33	36	15	0	84	0	0	0	0	0	365
5:45 PM	9	0	61	0	70	62	95	0	0	157	55	76	26	0	157	0	0	0	0	0	384
Total	52	0	362	0	414	330	473	0	0	803	194	176	70	0	440	0	0	0	0	0	1657
Grand Total	117	1	753	0	871	779	994	0	0	1773	397	319	155	0	871	0	0	0	0	0	3515
Approach %	13.4	0.1	86.5	0.0		43.9	56.1	0.0	0.0		45.6	36.6	17.8	0.0		0.0	0.0	0.0	0.0		
Total %	3.3	0.0	21.4	0.0	24.8	22.2	28.3	0.0	0.0	50.4	11.3	9.1	4.4	0.0	24.8	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1098					1150					1					1266	3515
Cars	113	1	737	0	851	750	978	0	0	1728	382	309	152	0	843	0	0	0	0	0	3422
% Cars	96.6	100.0	97.9	0.0	97.7	96.3	98.4	0.0	0.0	97.5	96.2	96.9	98.1	0.0	96.8	0.0	0.0	0.0	0.0	0.0	97.4
Exiting Leg Total					1059					1119					1					1243	3422
Heavy Vehicles	4	0	16	0	20	29	16	0	0	45	15	10	3	0	28	0	0	0	0	0	93
% Heavy Vehicles	3.4	0.0	2.1	0.0	2.3	3.7	1.6	0.0	0.0	2.5	3.8	3.1	1.9	0.0	3.2	0.0	0.0	0.0	0.0	0.0	2.6
Exiting Leg Total					39					31					0					23	93

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	16	0	81	0	97	111	139	0	0	250	51	41	22	0	114	0	0	0	0	0	461
4:30 PM	17	1	86	0	104	110	141	0	0	251	59	25	21	0	105	0	0	0	0	0	460
4:45 PM	15	0	121	0	136	129	147	0	0	276	49	43	23	0	115	0	0	0	0	0	527
5:00 PM	15	0	101	0	116	121	133	0	0	254	58	37	15	0	110	0	0	0	0	0	480
Total Volume	63	1	389	0	453	471	560	0	0	1031	217	146	81	0	444	0	0	0	0	0	1928
% Approach Total	13.9	0.2	85.9	0.0		45.7	54.3	0.0	0.0		48.9	32.9	18.2	0.0		0.0	0.0	0.0	0.0		
PHF	0.926	0.250	0.804	0.000	0.833	0.913	0.952	0.000	0.000	0.934	0.919	0.849	0.880	0.000	0.965	0.000	0.000	0.000	0.000	0.000	0.915
Cars	61	1	382	0	444	448	551	0	0	999	208	143	79	0	430	0	0	0	0	0	1873
Cars %	96.8	100.0	98.2	0.0	98.0	95.1	98.4	0.0	0.0	96.9	95.9	97.9	97.5	0.0	96.8	0.0	0.0	0.0	0.0	0.0	97.1
Heavy Vehicles	2	0	7	0	9	23	9	0	0	32	9	3	2	0	14	0	0	0	0	0	55
Heavy Vehicles %	3.2	0.0	1.8	0.0	2.0	4.9	1.6	0.0	0.0	3.1	4.1	2.1	2.5	0.0	3.2	0.0	0.0	0.0	0.0	0.0	2.9
Cars Enter Leg	61	1	382	0	444	448	551	0	0	999	208	143	79	0	430	0	0	0	0	0	1873
Heavy Enter Leg	2	0	7	0	9	23	9	0	0	32	9	3	2	0	14	0	0	0	0	0	55
Total Entering Leg	63	1	389	0	453	471	560	0	0	1031	217	146	81	0	444	0	0	0	0	0	1928
Cars Exiting Leg					591					590					1					691	1873
Heavy Exiting Leg					26					16					0					13	55
Total Exiting Leg					617					606					1					704	1928

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	15	0	102	0	117	94	91	0	0	185	39	31	18	0	88	0	0	0	0	0	390
4:15 PM	16	0	80	0	96	102	137	0	0	239	49	40	21	0	110	0	0	0	0	0	445
4:30 PM	17	1	85	0	103	103	138	0	0	241	54	24	20	0	98	0	0	0	0	0	442
4:45 PM	15	0	120	0	135	128	144	0	0	272	48	42	23	0	113	0	0	0	0	0	520
Total	63	1	387	0	451	427	510	0	0	937	190	137	82	0	409	0	0	0	0	0	1797
5:00 PM	13	0	97	0	110	115	132	0	0	247	57	37	15	0	109	0	0	0	0	0	466
5:15 PM	16	0	114	0	130	77	125	0	0	202	48	23	14	0	85	0	0	0	0	0	417
5:30 PM	12	0	80	0	92	69	118	0	0	187	32	36	15	0	83	0	0	0	0	0	362
5:45 PM	9	0	59	0	68	62	93	0	0	155	55	76	26	0	157	0	0	0	0	0	380
Total	50	0	350	0	400	323	468	0	0	791	192	172	70	0	434	0	0	0	0	0	1625
Grand Total	113	1	737	0	851	750	978	0	0	1728	382	309	152	0	843	0	0	0	0	0	3422
Approach %	13.3	0.1	86.6	0.0		43.4	56.6	0.0	0.0		45.3	36.7	18.0	0.0		0.0	0.0	0.0	0.0		
Total %	3.3	0.0	21.5	0.0	24.9	21.9	28.6	0.0	0.0	50.5	11.2	9.0	4.4	0.0	24.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1059					1119					1					1243	3422

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	16	0	80	0	96	102	137	0	0	239	49	40	21	0	110	0	0	0	0	0	445
4:30 PM	17	1	85	0	103	103	138	0	0	241	54	24	20	0	98	0	0	0	0	0	442
4:45 PM	15	0	120	0	135	128	144	0	0	272	48	42	23	0	113	0	0	0	0	0	520
5:00 PM	13	0	97	0	110	115	132	0	0	247	57	37	15	0	109	0	0	0	0	0	466
Total Volume	61	1	382	0	444	448	551	0	0	999	208	143	79	0	430	0	0	0	0	0	1873
% Approach Total	13.7	0.2	86.0	0.0		44.8	55.2	0.0	0.0		48.4	33.3	18.4	0.0		0.0	0.0	0.0	0.0		
PHF	0.897	0.250	0.796	0.000	0.822	0.875	0.957	0.000	0.000	0.918	0.912	0.851	0.859	0.000	0.951	0.000	0.000	0.000	0.000	0.000	0.900
Entering Leg	61	1	382	0	444	448	551	0	0	999	208	143	79	0	430	0	0	0	0	0	1873
Exiting Leg					591					590					1					691	1873
Total					1035					1589					431					691	3746

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	0	1	0	3	5	3	0	0	8	5	3	1	0	9	0	0	0	0	0	20
4:15 PM	0	0	1	0	1	9	2	0	0	11	2	1	1	0	4	0	0	0	0	0	16
4:30 PM	0	0	1	0	1	7	3	0	0	10	5	1	1	0	7	0	0	0	0	0	18
4:45 PM	0	0	1	0	1	1	3	0	0	4	1	1	0	0	2	0	0	0	0	0	7
Total	2	0	4	0	6	22	11	0	0	33	13	6	3	0	22	0	0	0	0	0	61
5:00 PM	2	0	4	0	6	6	1	0	0	7	1	0	0	0	1	0	0	0	0	0	14
5:15 PM	0	0	4	0	4	1	2	0	0	3	0	4	0	0	4	0	0	0	0	0	11
5:30 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
5:45 PM	0	0	2	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
Total	2	0	12	0	14	7	5	0	0	12	2	4	0	0	6	0	0	0	0	0	32
Grand Total	4	0	16	0	20	29	16	0	0	45	15	10	3	0	28	0	0	0	0	0	93
Approach %	20.0	0.0	80.0	0.0		64.4	35.6	0.0	0.0		53.6	35.7	10.7	0.0		0.0	0.0	0.0	0.0		
Total %	4.3	0.0	17.2	0.0	21.5	31.2	17.2	0.0	0.0	48.4	16.1	10.8	3.2	0.0	30.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					39					31					0					23	93
Buses	3	0	9	0	12	9	5	0	0	14	4	6	2	0	12	0	0	0	0	0	38
% Buses	75.0	0.0	56.3	0.0	60.0	31.0	31.3	0.0	0.0	31.1	26.7	60.0	66.7	0.0	42.9	0.0	0.0	0.0	0.0	0.0	40.9
Exiting Leg Total					15					13					0					10	38
Single-Unit Trucks	1	0	7	0	8	15	10	0	0	25	10	4	1	0	15	0	0	0	0	0	48
% Single-Unit	25.0	0.0	43.8	0.0	40.0	51.7	62.5	0.0	0.0	55.6	66.7	40.0	33.3	0.0	53.6	0.0	0.0	0.0	0.0	0.0	51.6
Exiting Leg Total					19					17					0					12	48
Articulated Trucks	0	0	0	0	0	5	1	0	0	6	1	0	0	0	1	0	0	0	0	0	7
% Articulated	0.0	0.0	0.0	0.0	0.0	17.2	6.3	0.0	0.0	13.3	6.7	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	7.5
Exiting Leg Total					5					1					0					1	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	0	1	0	3	5	3	0	0	8	5	3	1	0	9	0	0	0	0	0	20
4:15 PM	0	0	1	0	1	9	2	0	0	11	2	1	1	0	4	0	0	0	0	0	16
4:30 PM	0	0	1	0	1	7	3	0	0	10	5	1	1	0	7	0	0	0	0	0	18
4:45 PM	0	0	1	0	1	1	3	0	0	4	1	1	0	0	2	0	0	0	0	0	7
Total Volume	2	0	4	0	6	22	11	0	0	33	13	6	3	0	22	0	0	0	0	0	61
% Approach Total	33.3	0.0	66.7	0.0		66.7	33.3	0.0	0.0		59.1	27.3	13.6	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.000	1.000	0.000	0.500	0.611	0.917	0.000	0.000	0.750	0.650	0.500	0.750	0.000	0.611	0.000	0.000	0.000	0.000	0.000	0.763
Buses	2	0	3	0	5	7	5	0	0	12	3	4	2	0	9	0	0	0	0	0	26
Buses %	100.0	0.0	75.0	0.0	83.3	31.8	45.5	0.0	0.0	36.4	23.1	66.7	66.7	0.0	40.9	0.0	0.0	0.0	0.0	0.0	42.6
Single-Unit Trucks	0	0	1	0	1	10	5	0	0	15	9	2	1	0	12	0	0	0	0	0	28
Single-Unit %	0.0	0.0	25.0	0.0	16.7	45.5	45.5	0.0	0.0	45.5	69.2	33.3	33.3	0.0	54.5	0.0	0.0	0.0	0.0	0.0	45.9
Articulated Trucks	0	0	0	0	0	5	1	0	0	6	1	0	0	0	1	0	0	0	0	0	7
Articulated %	0.0	0.0	0.0	0.0	0.0	22.7	9.1	0.0	0.0	18.2	7.7	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	11.5
Buses	2	0	3	0	5	7	5	0	0	12	3	4	2	0	9	0	0	0	0	0	26
Single-Unit Trucks	0	0	1	0	1	10	5	0	0	15	9	2	1	0	12	0	0	0	0	0	28
Articulated Trucks	0	0	0	0	0	5	1	0	0	6	1	0	0	0	1	0	0	0	0	0	7
Total Entering Leg	2	0	4	0	6	22	11	0	0	33	13	6	3	0	22	0	0	0	0	0	61
Buses					11					6					0					9	26
Single-Unit Trucks					12					10					0					6	28
Articulated Trucks					5					1					0					1	7
Total Exiting Leg					28					17					0					16	61

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	9	0	79	0	88	81	75	0	0	156	29	27	15	0	71	0	0	0	0	0	315
4:15 PM	16	0	68	0	84	92	119	0	0	211	44	37	20	0	101	0	0	0	0	0	396
4:30 PM	15	1	76	0	92	96	122	0	0	218	46	19	18	0	83	0	0	0	0	0	393
4:45 PM	12	0	97	0	109	100	117	0	0	217	39	34	22	0	95	0	0	0	0	0	421
Total	52	1	320	0	373	369	433	0	0	802	158	117	75	0	350	0	0	0	0	0	1525
5:00 PM	13	0	84	0	97	92	112	0	0	204	48	33	15	0	96	0	0	0	0	0	397
5:15 PM	14	0	92	0	106	71	104	0	0	175	42	16	13	0	71	0	0	0	0	0	352
5:30 PM	8	0	68	0	76	60	98	0	0	158	21	28	14	0	63	0	0	0	0	0	297
5:45 PM	9	0	48	0	57	54	72	0	0	126	44	61	23	0	128	0	0	0	0	0	311
Total	44	0	292	0	336	277	386	0	0	663	155	138	65	0	358	0	0	0	0	0	1357
Grand Total	96	1	612	0	709	646	819	0	0	1465	313	255	140	0	708	0	0	0	0	0	2882
Approach %	13.5	0.1	86.3	0.0		44.1	55.9	0.0	0.0		44.2	36.0	19.8	0.0		0.0	0.0	0.0	0.0		
Total %	3.3	0.0	21.2	0.0	24.6	22.4	28.4	0.0	0.0	50.8	10.9	8.8	4.9	0.0	24.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					901					925					1					1055	2882

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	16	0	68	0	84	92	119	0	0	211	44	37	20	0	101	0	0	0	0	0	396
4:30 PM	15	1	76	0	92	96	122	0	0	218	46	19	18	0	83	0	0	0	0	0	393
4:45 PM	12	0	97	0	109	100	117	0	0	217	39	34	22	0	95	0	0	0	0	0	421
5:00 PM	13	0	84	0	97	92	112	0	0	204	48	33	15	0	96	0	0	0	0	0	397
Total Volume	56	1	325	0	382	380	470	0	0	850	177	123	75	0	375	0	0	0	0	0	1607
% Approach Total	14.7	0.3	85.1	0.0		44.7	55.3	0.0	0.0		47.2	32.8	20.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.875	0.250	0.838	0.000	0.876	0.950	0.963	0.000	0.000	0.975	0.922	0.831	0.852	0.000	0.928	0.000	0.000	0.000	0.000	0.000	0.954
Entering Leg	56	1	325	0	382	380	470	0	0	850	177	123	75	0	375	0	0	0	0	0	1607
Exiting Leg					503					502					1					601	1607
Total					885					1352					376					601	3214

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	6	0	23	0	29	13	16	0	0	29	10	4	3	0	17	0	0	0	0	0	75
4:15 PM	0	0	12	0	12	10	18	0	0	28	5	3	1	0	9	0	0	0	0	0	49
4:30 PM	2	0	9	0	11	7	16	0	0	23	8	5	2	0	15	0	0	0	0	0	49
4:45 PM	3	0	22	0	25	28	27	0	0	55	9	8	1	0	18	0	0	0	0	0	98
Total	11	0	66	0	77	58	77	0	0	135	32	20	7	0	59	0	0	0	0	0	271
5:00 PM	0	0	13	0	13	23	20	0	0	43	9	4	0	0	13	0	0	0	0	0	69
5:15 PM	2	0	22	0	24	6	21	0	0	27	6	7	1	0	14	0	0	0	0	0	65
5:30 PM	4	0	11	0	15	9	20	0	0	29	11	8	1	0	20	0	0	0	0	0	64
5:45 PM	0	0	10	0	10	8	21	0	0	29	11	15	3	0	29	0	0	0	0	0	68
Total	6	0	56	0	62	46	82	0	0	128	37	34	5	0	76	0	0	0	0	0	266
Grand Total	17	0	122	0	139	104	159	0	0	263	69	54	12	0	135	0	0	0	0	0	537
Approach %	12.2	0.0	87.8	0.0		39.5	60.5	0.0	0.0		51.1	40.0	8.9	0.0		0.0	0.0	0.0	0.0		
Total %	3.2	0.0	22.7	0.0	25.9	19.4	29.6	0.0	0.0	49.0	12.8	10.1	2.2	0.0	25.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					158					191					0					188	537

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	3	0	22	0	25	28	27	0	0	55	9	8	1	0	18	0	0	0	0	0	98
5:00 PM	0	0	13	0	13	23	20	0	0	43	9	4	0	0	13	0	0	0	0	0	69
5:15 PM	2	0	22	0	24	6	21	0	0	27	6	7	1	0	14	0	0	0	0	0	65
5:30 PM	4	0	11	0	15	9	20	0	0	29	11	8	1	0	20	0	0	0	0	0	64
Total Volume	9	0	68	0	77	66	88	0	0	154	35	27	3	0	65	0	0	0	0	0	296
% Approach Total	11.7	0.0	88.3	0.0		42.9	57.1	0.0	0.0		53.8	41.5	4.6	0.0		0.0	0.0	0.0	0.0		
PHF	0.563	0.000	0.773	0.000	0.770	0.589	0.815	0.000	0.000	0.700	0.795	0.844	0.750	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.755
Entering Leg	9	0	68	0	77	66	88	0	0	154	35	27	3	0	65	0	0	0	0	0	296
Exiting Leg					93					103					0					100	296
Total					170					257					65					100	592

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Center Street					Main Street					Old Colony Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	0	0	0	2	3	3	0	0	6	1	3	1	0	5	0	0	0	0	0	13
4:15 PM	0	0	1	0	1	1	1	0	0	2	1	1	1	0	3	0	0	0	0	0	6
4:30 PM	0	0	1	0	1	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	0	1	0	1	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	3
Total	2	0	3	0	5	7	5	0	0	12	3	4	2	0	9	0	0	0	0	0	26
5:00 PM	1	0	1	0	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
5:30 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
5:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	0	6	0	7	2	0	0	0	2	1	2	0	0	3	0	0	0	0	0	12
Grand Total	3	0	9	0	12	9	5	0	0	14	4	6	2	0	12	0	0	0	0	0	38
Approach %	25.0	0.0	75.0	0.0		64.3	35.7	0.0	0.0		33.3	50.0	16.7	0.0		0.0	0.0	0.0	0.0		
Total %	7.9	0.0	23.7	0.0	31.6	23.7	13.2	0.0	0.0	36.8	10.5	15.8	5.3	0.0	31.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					15					13					0					10	38

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Center Street					Main Street					Old Colony Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	0	0	0	2	3	3	0	0	6	1	3	1	0	5	0	0	0	0	0	13
4:15 PM	0	0	1	0	1	1	1	0	0	2	1	1	1	0	3	0	0	0	0	0	6
4:30 PM	0	0	1	0	1	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	0	1	0	1	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	3
Total Volume	2	0	3	0	5	7	5	0	0	12	3	4	2	0	9	0	0	0	0	0	26
% Approach Total	40.0	0.0	60.0	0.0		58.3	41.7	0.0	0.0		33.3	44.4	22.2	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.000	0.750	0.000	0.625	0.583	0.417	0.000	0.000	0.500	0.750	0.333	0.500	0.000	0.450	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	2	0	3	0	5	7	5	0	0	12	3	4	2	0	9	0	0	0	0	0	26
Exiting Leg					11					6					0					9	26
Total					16					18					9					9	52

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Center Street					Main Street					Old Colony Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	1	0	1	2	0	0	0	2	3	0	0	0	3	0	0	0	0	0	6
4:15 PM	0	0	0	0	0	4	1	0	0	5	1	0	0	0	1	0	0	0	0	0	6
4:30 PM	0	0	0	0	0	4	2	0	0	6	5	1	1	0	7	0	0	0	0	0	13
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	3
Total	0	0	1	0	1	10	5	0	0	15	9	2	1	0	12	0	0	0	0	0	28
5:00 PM	1	0	3	0	4	4	1	0	0	5	1	0	0	0	1	0	0	0	0	0	10
5:15 PM	0	0	3	0	3	1	2	0	0	3	0	2	0	0	2	0	0	0	0	0	8
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	1	0	6	0	7	5	5	0	0	10	1	2	0	0	3	0	0	0	0	0	20
Grand Total	1	0	7	0	8	15	10	0	0	25	10	4	1	0	15	0	0	0	0	0	48
Approach %	12.5	0.0	87.5	0.0		60.0	40.0	0.0	0.0		66.7	26.7	6.7	0.0		0.0	0.0	0.0	0.0		
Total %	2.1	0.0	14.6	0.0	16.7	31.3	20.8	0.0	0.0	52.1	20.8	8.3	2.1	0.0	31.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					19					17					0					12	48

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Center Street					Main Street					Old Colony Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	0	0	0	0	0	4	2	0	0	6	5	1	1	0	7	0	0	0	0	0	13
4:45 PM	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	3
5:00 PM	1	0	3	0	4	4	1	0	0	5	1	0	0	0	1	0	0	0	0	0	10
5:15 PM	0	0	3	0	3	1	2	0	0	3	0	2	0	0	2	0	0	0	0	0	8
Total Volume	1	0	6	0	7	9	7	0	0	16	6	4	1	0	11	0	0	0	0	0	34
% Approach Total	14.3	0.0	85.7	0.0		56.3	43.8	0.0	0.0		54.5	36.4	9.1	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.000	0.500	0.000	0.438	0.563	0.875	0.000	0.000	0.667	0.300	0.500	0.250	0.000	0.393	0.000	0.000	0.000	0.000	0.000	0.654
Entering Leg	1	0	6	0	7	9	7	0	0	16	6	4	1	0	11	0	0	0	0	0	34
Exiting Leg					13					12					0					9	34
Total					20					28					11					9	68

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	5	1	0	0	6	1	0	0	0	1	0	0	0	0	0	7
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	5	1	0	0	6	1	0	0	0	1	0	0	0	0	0	7
Approach %	0.0	0.0	0.0	0.0		83.3	16.7	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	71.4	14.3	0.0	0.0	85.7	14.3	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					5					1					0					1	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Center Street from North					Main Street from East					Old Colony Road from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	5	1	0	0	6	1	0	0	0	1	0	0	0	0	0	7
% Approach Total	0.0	0.0	0.0	0.0		83.3	16.7	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.313	0.250	0.000	0.000	0.375	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.438
Entering Leg	0	0	0	0	0	5	1	0	0	6	1	0	0	0	1	0	0	0	0	0	7
Exiting Leg					5					1					0					1	7
Total					5					7					1					1	14

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Center Street from North							Main Street from East							Old Colony Road from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
5:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
Grand Total	0	0	2	0	2	0	4	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6
Approach %	0.0	0.0	50.0	0.0	50.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	33.3	0.0	33.3	0.0	66.7	16.7	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	16.7	
Exiting Leg Total							3							3							0							0	6

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Center Street from North							Main Street from East							Old Colony Road from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
% Approach Total	0.0	0.0	33.3	0.0	66.7	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.250	0.000	0.500	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Exiting Leg							2							1							0							0	3
Total							5							1							0							0	6

PDI File #: **186599 A**
Location: **N: Center Street S: Old Colony Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Center Street from North							Main Street from East							Old Colony Road from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	7	1	8	0	0	0	0	0	1	1	0	0	0	0	1	3	4	0	0	0	0	0	0	0	13
4:15 PM	0	0	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	9
4:30 PM	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
Total	0	0	0	0	13	8	21	0	0	0	0	0	1	1	0	0	0	0	3	3	6	0	0	0	0	0	1	1	29
5:00 PM	0	0	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	9
5:15 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
5:30 PM	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	4
5:45 PM	0	0	0	0	1	2	3	0	0	0	0	0	4	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0	8
Total	0	0	0	0	7	8	15	0	0	0	0	0	4	4	0	0	0	0	1	2	3	0	0	0	0	0	2	2	24
Grand Total	0	0	0	0	20	16	36	0	0	0	0	0	5	5	0	0	0	0	4	5	9	0	0	0	0	0	3	3	53
Approach %	0	0	0	0	55.6	44.4		0	0	0	0	0	100		0	0	0	0	44.4	55.6		0	0	0	0	0	100		
Total %	0	0	0	0	37.7	30.2	67.9	0	0	0	0	0	9.43	9.43	0	0	0	0	7.55	9.43	17	0	0	0	0	0	5.66	5.66	
Exiting Leg Total							36							5							9							3	53

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Center Street from North							Main Street from East							Old Colony Road from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	7	1	8	0	0	0	0	0	1	1	0	0	0	0	1	3	4	0	0	0	0	0	0	0	13
4:15 PM	0	0	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	9
4:30 PM	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
Total Volume	0	0	0	0	13	8	21	0	0	0	0	0	1	1	0	0	0	0	3	3	6	0	0	0	0	0	1	1	29
% Approach Total	0.0	0.0	0.0	0.0	61.9	38.1		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.000	0.464	0.500	0.656	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.750	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.558
Entering Leg	0	0	0	0	13	8	21	0	0	0	0	0	1	1	0	0	0	0	3	3	6	0	0	0	0	0	1	1	29
Exiting Leg							21							1							6							1	29
Total							42							2							12							2	58

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	15	13	0	0	28	9	64	8	0	81	0	0	1	0	1	0	0	0	0	0	110
7:15 AM	17	9	0	0	26	11	91	6	0	108	0	0	0	0	0	0	0	0	0	0	134
7:30 AM	9	19	0	0	28	9	112	11	0	132	0	0	0	0	0	0	0	0	0	0	160
7:45 AM	26	33	0	0	59	12	117	21	0	150	0	0	0	0	0	0	0	0	0	0	209
Total	67	74	0	0	141	41	384	46	0	471	0	0	1	0	1	0	0	0	0	0	613
8:00 AM	26	44	0	0	70	16	116	24	0	156	0	0	0	0	0	0	0	0	0	0	226
8:15 AM	24	31	0	0	55	17	87	25	0	129	0	0	0	0	0	0	0	0	0	0	184
8:30 AM	11	42	0	0	53	16	86	20	0	122	0	0	0	0	0	0	0	0	0	0	175
8:45 AM	15	32	0	0	47	27	105	14	0	146	0	0	0	0	0	0	0	0	0	0	193
Total	76	149	0	0	225	76	394	83	0	553	0	0	0	0	0	0	0	0	0	0	778
Grand Total	143	223	0	0	366	117	778	129	0	1024	0	0	1	0	1	0	0	0	0	0	1391
Approach %	39.1	60.9	0.0	0.0		11.4	76.0	12.6	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	10.3	16.0	0.0	0.0	26.3	8.4	55.9	9.3	0.0	73.6	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					117					0					352					922	1391
Cars	138	207	0	0	345	114	742	115	0	971	0	0	0	0	0	0	0	0	0	0	1316
% Cars	96.5	92.8	0.0	0.0	94.3	97.4	95.4	89.1	0.0	94.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.6
Exiting Leg Total					114					0					322					880	1316
Heavy Vehicles	5	16	0	0	21	3	36	14	0	53	0	0	1	0	1	0	0	0	0	0	75
% Heavy Vehicles	3.5	7.2	0.0	0.0	5.7	2.6	4.6	10.9	0.0	5.2	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	5.4
Exiting Leg Total					3					0					30					42	75

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	26	33	0	0	59	12	117	21	0	150	0	0	0	0	0	0	0	0	0	0	209
8:00 AM	26	44	0	0	70	16	116	24	0	156	0	0	0	0	0	0	0	0	0	0	226
8:15 AM	24	31	0	0	55	17	87	25	0	129	0	0	0	0	0	0	0	0	0	0	184
8:30 AM	11	42	0	0	53	16	86	20	0	122	0	0	0	0	0	0	0	0	0	0	175
Total Volume	87	150	0	0	237	61	406	90	0	557	0	0	0	0	0	0	0	0	0	0	794
% Approach Total	36.7	63.3	0.0	0.0		11.0	72.9	16.2	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.837	0.852	0.000	0.000	0.846	0.897	0.868	0.900	0.000	0.893	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.878
Cars	85	137	0	0	222	60	386	82	0	528	0	0	0	0	0	0	0	0	0	0	750
Cars %	97.7	91.3	0.0	0.0	93.7	98.4	95.1	91.1	0.0	94.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.5
Heavy Vehicles	2	13	0	0	15	1	20	8	0	29	0	0	0	0	0	0	0	0	0	0	44
Heavy Vehicles %	2.3	8.7	0.0	0.0	6.3	1.6	4.9	8.9	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
Cars Enter Leg	85	137	0	0	222	60	386	82	0	528	0	0	0	0	0	0	0	0	0	0	750
Heavy Enter Leg	2	13	0	0	15	1	20	8	0	29	0	0	0	0	0	0	0	0	0	0	44
Total Entering Leg	87	150	0	0	237	61	406	90	0	557	0	0	0	0	0	0	0	0	0	0	794
Cars Exiting Leg					60					0					219					471	750
Heavy Exiting Leg					1					0					21					22	44
Total Exiting Leg					61					0					240					493	794

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	14	13	0	0	27	9	61	6	0	76	0	0	0	0	0	0	0	0	0	0	103
7:15 AM	16	9	0	0	25	11	86	5	0	102	0	0	0	0	0	0	0	0	0	0	127
7:30 AM	8	18	0	0	26	9	109	10	0	128	0	0	0	0	0	0	0	0	0	0	154
7:45 AM	26	29	0	0	55	12	113	16	0	141	0	0	0	0	0	0	0	0	0	0	196
Total	64	69	0	0	133	41	369	37	0	447	0	0	0	0	0	0	0	0	0	0	580
8:00 AM	24	42	0	0	66	16	109	23	0	148	0	0	0	0	0	0	0	0	0	0	214
8:15 AM	24	27	0	0	51	17	84	24	0	125	0	0	0	0	0	0	0	0	0	0	176
8:30 AM	11	39	0	0	50	15	80	19	0	114	0	0	0	0	0	0	0	0	0	0	164
8:45 AM	15	30	0	0	45	25	100	12	0	137	0	0	0	0	0	0	0	0	0	0	182
Total	74	138	0	0	212	73	373	78	0	524	0	0	0	0	0	0	0	0	0	0	736
Grand Total	138	207	0	0	345	114	742	115	0	971	0	0	0	0	0	0	0	0	0	0	1316
Approach %	40.0	60.0	0.0	0.0		11.7	76.4	11.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	10.5	15.7	0.0	0.0	26.2	8.7	56.4	8.7	0.0	73.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					114					0					322					880	1316

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	26	29	0	0	55	12	113	16	0	141	0	0	0	0	0	0	0	0	0	0	196
8:00 AM	24	42	0	0	66	16	109	23	0	148	0	0	0	0	0	0	0	0	0	0	214
8:15 AM	24	27	0	0	51	17	84	24	0	125	0	0	0	0	0	0	0	0	0	0	176
8:30 AM	11	39	0	0	50	15	80	19	0	114	0	0	0	0	0	0	0	0	0	0	164
Total Volume	85	137	0	0	222	60	386	82	0	528	0	0	0	0	0	0	0	0	0	0	750
% Approach Total	38.3	61.7	0.0	0.0		11.4	73.1	15.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.817	0.815	0.000	0.000	0.841	0.882	0.854	0.854	0.000	0.892	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.876
Entering Leg	85	137	0	0	222	60	386	82	0	528	0	0	0	0	0	0	0	0	0	0	750
Exiting Leg					60					0					219					471	750
Total					282					528					219					471	1500

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	0	1	0	3	2	0	5	0	0	1	0	1	0	0	0	0	0	7
7:15 AM	1	0	0	0	1	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	7
7:30 AM	1	1	0	0	2	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	4	0	0	4	0	4	5	0	9	0	0	0	0	0	0	0	0	0	0	13
Total	3	5	0	0	8	0	15	9	0	24	0	0	1	0	1	0	0	0	0	0	33
8:00 AM	2	2	0	0	4	0	7	1	0	8	0	0	0	0	0	0	0	0	0	0	12
8:15 AM	0	4	0	0	4	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	8
8:30 AM	0	3	0	0	3	1	6	1	0	8	0	0	0	0	0	0	0	0	0	0	11
8:45 AM	0	2	0	0	2	2	5	2	0	9	0	0	0	0	0	0	0	0	0	0	11
Total	2	11	0	0	13	3	21	5	0	29	0	0	0	0	0	0	0	0	0	0	42
Grand Total	5	16	0	0	21	3	36	14	0	53	0	0	1	0	1	0	0	0	0	0	75
Approach %	23.8	76.2	0.0	0.0		5.7	67.9	26.4	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	6.7	21.3	0.0	0.0	28.0	4.0	48.0	18.7	0.0	70.7	0.0	0.0	1.3	0.0	1.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					3					0					30					42	75
Buses	0	4	0	0	4	1	14	3	0	18	0	0	0	0	0	0	0	0	0	0	22
% Buses	0.0	25.0	0.0	0.0	19.0	33.3	38.9	21.4	0.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.3
Exiting Leg Total					1					0					7					14	22
Single-Unit Trucks	5	9	0	0	14	2	20	11	0	33	0	0	1	0	1	0	0	0	0	0	48
% Single-Unit	100.0	56.3	0.0	0.0	66.7	66.7	55.6	78.6	0.0	62.3	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	64.0
Exiting Leg Total					2					0					20					26	48
Articulated Trucks	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
% Articulated	0.0	18.8	0.0	0.0	14.3	0.0	5.6	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
Exiting Leg Total					0					0					3					2	5

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	4	0	0	4	0	4	5	0	9	0	0	0	0	0	0	0	0	0	0	13
8:00 AM	2	2	0	0	4	0	7	1	0	8	0	0	0	0	0	0	0	0	0	0	12
8:15 AM	0	4	0	0	4	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	8
8:30 AM	0	3	0	0	3	1	6	1	0	8	0	0	0	0	0	0	0	0	0	0	11
Total Volume	2	13	0	0	15	1	20	8	0	29	0	0	0	0	0	0	0	0	0	0	44
% Approach Total	13.3	86.7	0.0	0.0		3.4	69.0	27.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.813	0.000	0.000	0.938	0.250	0.714	0.400	0.000	0.806	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.846
Buses	0	3	0	0	3	1	8	2	0	11	0	0	0	0	0	0	0	0	0	0	14
Buses %	0.0	23.1	0.0	0.0	20.0	100.0	40.0	25.0	0.0	37.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.8
Single-Unit Trucks	2	8	0	0	10	0	12	6	0	18	0	0	0	0	0	0	0	0	0	0	28
Single-Unit %	100.0	61.5	0.0	0.0	66.7	0.0	60.0	75.0	0.0	62.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.6
Articulated Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Articulated %	0.0	15.4	0.0	0.0	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
Buses	0	3	0	0	3	1	8	2	0	11	0	0	0	0	0	0	0	0	0	0	14
Single-Unit Trucks	2	8	0	0	10	0	12	6	0	18	0	0	0	0	0	0	0	0	0	0	28
Articulated Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Entering Leg	2	13	0	0	15	1	20	8	0	29	0	0	0	0	0	0	0	0	0	0	44
Buses					1					0					5					8	14
Single-Unit Trucks					0					0					14					14	28
Articulated Trucks					0					0					2					0	2
Total Exiting Leg					1					0					21					22	44

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	10	8	0	0	18	7	42	3	0	52	0	0	0	0	0	0	0	0	0	0	70
7:15 AM	13	7	0	0	20	11	64	4	0	79	0	0	0	0	0	0	0	0	0	0	99
7:30 AM	5	14	0	0	19	8	93	6	0	107	0	0	0	0	0	0	0	0	0	0	126
7:45 AM	22	25	0	0	47	9	96	10	0	115	0	0	0	0	0	0	0	0	0	0	162
Total	50	54	0	0	104	35	295	23	0	353	0	0	0	0	0	0	0	0	0	0	457
8:00 AM	18	36	0	0	54	16	89	13	0	118	0	0	0	0	0	0	0	0	0	0	172
8:15 AM	20	24	0	0	44	15	69	19	0	103	0	0	0	0	0	0	0	0	0	0	147
8:30 AM	9	29	0	0	38	12	67	12	0	91	0	0	0	0	0	0	0	0	0	0	129
8:45 AM	14	24	0	0	38	24	85	10	0	119	0	0	0	0	0	0	0	0	0	0	157
Total	61	113	0	0	174	67	310	54	0	431	0	0	0	0	0	0	0	0	0	0	605
Grand Total	111	167	0	0	278	102	605	77	0	784	0	0	0	0	0	0	0	0	0	0	1062
Approach %	39.9	60.1	0.0	0.0		13.0	77.2	9.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	10.5	15.7	0.0	0.0	26.2	9.6	57.0	7.3	0.0	73.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					102					0					244					716	1062

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	22	25	0	0	47	9	96	10	0	115	0	0	0	0	0	0	0	0	0	0	162
8:00 AM	18	36	0	0	54	16	89	13	0	118	0	0	0	0	0	0	0	0	0	0	172
8:15 AM	20	24	0	0	44	15	69	19	0	103	0	0	0	0	0	0	0	0	0	0	147
8:30 AM	9	29	0	0	38	12	67	12	0	91	0	0	0	0	0	0	0	0	0	0	129
Total Volume	69	114	0	0	183	52	321	54	0	427	0	0	0	0	0	0	0	0	0	0	610
% Approach Total	37.7	62.3	0.0	0.0		12.2	75.2	12.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.784	0.792	0.000	0.000	0.847	0.813	0.836	0.711	0.000	0.905	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.887
Entering Leg	69	114	0	0	183	52	321	54	0	427	0	0	0	0	0	0	0	0	0	0	610
Exiting Leg					52					0					168					390	610
Total					235					427					168					390	1220

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	4	5	0	0	9	2	19	3	0	24	0	0	0	0	0	0	0	0	0	0	33
7:15 AM	3	2	0	0	5	0	22	1	0	23	0	0	0	0	0	0	0	0	0	0	28
7:30 AM	3	4	0	0	7	1	16	4	0	21	0	0	0	0	0	0	0	0	0	0	28
7:45 AM	4	4	0	0	8	3	17	6	0	26	0	0	0	0	0	0	0	0	0	0	34
Total	14	15	0	0	29	6	74	14	0	94	0	0	0	0	0	0	0	0	0	0	123
8:00 AM	6	6	0	0	12	0	20	10	0	30	0	0	0	0	0	0	0	0	0	0	42
8:15 AM	4	3	0	0	7	2	15	5	0	22	0	0	0	0	0	0	0	0	0	0	29
8:30 AM	2	10	0	0	12	3	13	7	0	23	0	0	0	0	0	0	0	0	0	0	35
8:45 AM	1	6	0	0	7	1	15	2	0	18	0	0	0	0	0	0	0	0	0	0	25
Total	13	25	0	0	38	6	63	24	0	93	0	0	0	0	0	0	0	0	0	0	131
Grand Total	27	40	0	0	67	12	137	38	0	187	0	0	0	0	0	0	0	0	0	0	254
Approach %	40.3	59.7	0.0	0.0		6.4	73.3	20.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	10.6	15.7	0.0	0.0	26.4	4.7	53.9	15.0	0.0	73.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					12					0					78					164	254

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	4	4	0	0	8	3	17	6	0	26	0	0	0	0	0	0	0	0	0	0	34
8:00 AM	6	6	0	0	12	0	20	10	0	30	0	0	0	0	0	0	0	0	0	0	42
8:15 AM	4	3	0	0	7	2	15	5	0	22	0	0	0	0	0	0	0	0	0	0	29
8:30 AM	2	10	0	0	12	3	13	7	0	23	0	0	0	0	0	0	0	0	0	0	35
Total Volume	16	23	0	0	39	8	65	28	0	101	0	0	0	0	0	0	0	0	0	0	140
% Approach Total	41.0	59.0	0.0	0.0		7.9	64.4	27.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.667	0.575	0.000	0.000	0.813	0.667	0.813	0.700	0.000	0.842	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.833
Entering Leg	16	23	0	0	39	8	65	28	0	101	0	0	0	0	0	0	0	0	0	0	140
Exiting Leg					8					0					51					81	140
Total					47					101					51					81	280

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	8	2	0	10	0	0	0	0	0	0	0	0	0	0	10
8:00 AM	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
8:15 AM	0	1	0	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	1	0	0	1	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	4	0	0	4	1	6	1	0	8	0	0	0	0	0	0	0	0	0	0	12
Grand Total	0	4	0	0	4	1	14	3	0	18	0	0	0	0	0	0	0	0	0	0	22
Approach %	0.0	100.0	0.0	0.0		5.6	77.8	16.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	18.2	0.0	0.0	18.2	4.5	63.6	13.6	0.0	81.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1					0					7					14	22

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
8:15 AM	0	1	0	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	1	0	0	1	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	3	0	0	3	1	8	2	0	11	0	0	0	0	0	0	0	0	0	0	14
% Approach Total	0.0	100.0	0.0	0.0		9.1	72.7	18.2	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.250	0.667	0.500	0.000	0.917	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.875
Entering Leg	0	3	0	0	3	1	8	2	0	11	0	0	0	0	0	0	0	0	0	0	14
Exiting Leg					1					0					5					8	14
Total					4					11					5					8	28

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	3
7:15 AM	1	0	0	0	1	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	5
7:30 AM	1	1	0	0	2	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	4	0	0	4	0	2	4	0	6	0	0	0	0	0	0	0	0	0	0	10
Total	3	5	0	0	8	0	6	7	0	13	0	0	1	0	1	0	0	0	0	0	22
8:00 AM	2	1	0	0	3	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	8
8:15 AM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	2	0	0	2	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	7
8:45 AM	0	0	0	0	0	2	4	2	0	8	0	0	0	0	0	0	0	0	0	0	8
Total	2	4	0	0	6	2	14	4	0	20	0	0	0	0	0	0	0	0	0	0	26
Grand Total	5	9	0	0	14	2	20	11	0	33	0	0	1	0	1	0	0	0	0	0	48
Approach %	35.7	64.3	0.0	0.0		6.1	60.6	33.3	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	10.4	18.8	0.0	0.0	29.2	4.2	41.7	22.9	0.0	68.8	0.0	0.0	2.1	0.0	2.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					2					0					20					26	48

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	4	0	0	4	0	2	4	0	6	0	0	0	0	0	0	0	0	0	0	10
8:00 AM	2	1	0	0	3	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	8
8:15 AM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	2	0	0	2	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	7
Total Volume	2	8	0	0	10	0	12	6	0	18	0	0	0	0	0	0	0	0	0	0	28
% Approach Total	20.0	80.0	0.0	0.0		0.0	66.7	33.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.500	0.000	0.000	0.625	0.000	0.750	0.375	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.700
Entering Leg	2	8	0	0	10	0	12	6	0	18	0	0	0	0	0	0	0	0	0	0	28
Exiting Leg					0					0					14					14	28
Total					10					18					14					14	56

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
Grand Total	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
Approach %	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	60.0	0.0	0.0	60.0	0.0	40.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					3					2	5

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
% Approach Total	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.375	0.000	0.000	0.375	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
Exiting Leg					0					0					3					1	4
Total					3					1					3					1	8

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Barnstable Road from North							Main Street from East							Ocean Street from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	1	0	3	0	0	0	0	3	0	0	0	0	1	0	1	0	1	0	0	1	0	2	7
Grand Total	0	0	0	0	0	2	2	0	3	0	0	0	0	3	0	0	0	0	1	0	1	0	2	0	0	1	0	3	9
Approach %	0.0	0.0	0.0	0.0	0.0	100.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	66.7	0.0	0.0	33.3	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	22.2	22.2	0.0	33.3	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	11.1	0.0	11.1	0.0	22.2	0.0	0.0	11.1	0.0	33.3	
Exiting Leg Total							2							2							1							4	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Barnstable Road from North							Main Street from East							Ocean Street from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	1	1	0	3	0	0	0	0	3	0	0	0	0	1	0	1	0	1	0	0	1	0	2	7
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	50.0	0.0	0.0	50.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.750	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.500	0.875
Entering Leg	0	0	0	0	0	1	1	0	3	0	0	0	0	3	0	0	0	0	1	0	1	0	1	0	0	1	0	2	7
Exiting Leg							1							1							1							4	7
Total							2							4							2							6	14

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Barnstable Road							Main Street							Ocean Street							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5
7:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8
7:45 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	7	7	14	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	0	1	17
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
8:15 AM	0	0	0	0	1	3	4	0	0	0	0	0	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	0	8
8:30 AM	0	0	0	0	1	2	3	0	0	0	0	1	0	1	0	0	0	0	4	1	5	0	0	0	0	0	1	1	10
8:45 AM	0	0	0	0	4	3	7	0	0	0	0	2	2	4	0	0	0	0	3	1	4	0	0	0	0	0	0	0	15
Total	0	0	0	0	7	8	15	0	0	0	0	3	4	7	0	0	0	0	7	5	12	0	0	0	0	1	1	2	36
Grand Total	0	0	0	0	14	15	29	0	0	0	0	3	4	7	0	0	0	0	7	7	14	0	0	0	0	2	1	3	53
Approach %	0	0	0	0	48.3	51.7		0	0	0	0	42.9	57.1		0	0	0	0	50	50		0	0	0	0	66.7	33.3		
Total %	0	0	0	0	26.4	28.3	54.7	0	0	0	0	5.66	7.55	13.2	0	0	0	0	13.2	13.2	26.4	0	0	0	0	3.77	1.89	5.66	
Exiting Leg Total							29							7							14							3	53

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Barnstable Road							Main Street							Ocean Street							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
8:15 AM	0	0	0	0	1	3	4	0	0	0	0	0	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	0	8
8:30 AM	0	0	0	0	1	2	3	0	0	0	0	1	0	1	0	0	0	0	4	1	5	0	0	0	0	0	1	1	10
8:45 AM	0	0	0	0	4	3	7	0	0	0	0	2	2	4	0	0	0	0	3	1	4	0	0	0	0	0	0	0	15
Total Volume	0	0	0	0	7	8	15	0	0	0	0	3	4	7	0	0	0	0	7	5	12	0	0	0	0	1	1	2	36
% Approach Total	0.0	0.0	0.0	0.0	46.7	53.3		0.0	0.0	0.0	0.0	42.9	57.1		0.0	0.0	0.0	0.0	58.3	41.7		0.0	0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.000	0.000	0.000	0.438	0.667	0.536	0.000	0.000	0.000	0.000	0.375	0.500	0.438	0.000	0.000	0.000	0.000	0.438	0.417	0.600	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.600
Entering Leg	0	0	0	0	7	8	15	0	0	0	0	3	4	7	0	0	0	0	7	5	12	0	0	0	0	1	1	2	36
Exiting Leg							15							7							12							2	36
Total							30							14							24							4	72

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	23	22	0	0	45	8	105	16	0	129	0	0	0	0	0	0	0	0	0	0	174
4:15 PM	23	23	0	0	46	15	142	19	0	176	0	0	0	0	0	0	0	0	0	0	222
4:30 PM	26	24	0	0	50	16	133	25	0	174	0	0	0	0	0	0	0	0	0	0	224
4:45 PM	33	17	0	0	50	13	137	28	0	178	0	0	0	0	0	0	0	0	0	0	228
Total	105	86	0	0	191	52	517	88	0	657	0	0	0	0	0	0	0	0	0	0	848
5:00 PM	18	23	0	0	41	12	137	22	0	171	0	0	0	0	0	0	0	0	0	0	212
5:15 PM	25	33	0	0	58	12	122	17	0	151	0	0	0	0	0	0	0	0	0	0	209
5:30 PM	27	30	0	0	57	14	111	26	0	151	0	0	0	0	0	0	0	0	0	0	208
5:45 PM	18	32	0	0	50	11	91	27	0	129	0	0	0	0	0	0	0	0	0	0	179
Total	88	118	0	0	206	49	461	92	0	602	0	0	0	0	0	0	0	0	0	0	808
Grand Total	193	204	0	0	397	101	978	180	0	1259	0	0	0	0	0	0	0	0	0	0	1656
Approach %	48.6	51.4	0.0	0.0		8.0	77.7	14.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	11.7	12.3	0.0	0.0	24.0	6.1	59.1	10.9	0.0	76.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					101					0					384					1171	1656
Cars	187	197	0	0	384	99	964	174	0	1237	0	0	0	0	0	0	0	0	0	0	1621
% Cars	96.9	96.6	0.0	0.0	96.7	98.0	98.6	96.7	0.0	98.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.9
Exiting Leg Total					99					0					371					1151	1621
Heavy Vehicles	6	7	0	0	13	2	14	6	0	22	0	0	0	0	0	0	0	0	0	0	35
% Heavy Vehicles	3.1	3.4	0.0	0.0	3.3	2.0	1.4	3.3	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
Exiting Leg Total					2					0					13					20	35

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	23	23	0	0	46	15	142	19	0	176	0	0	0	0	0	0	0	0	0	0	222
4:30 PM	26	24	0	0	50	16	133	25	0	174	0	0	0	0	0	0	0	0	0	0	224
4:45 PM	33	17	0	0	50	13	137	28	0	178	0	0	0	0	0	0	0	0	0	0	228
5:00 PM	18	23	0	0	41	12	137	22	0	171	0	0	0	0	0	0	0	0	0	0	212
Total Volume	100	87	0	0	187	56	549	94	0	699	0	0	0	0	0	0	0	0	0	0	886
% Approach Total	53.5	46.5	0.0	0.0		8.0	78.5	13.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.758	0.906	0.000	0.000	0.935	0.875	0.967	0.839	0.000	0.982	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.971
Cars	97	82	0	0	179	55	544	90	0	689	0	0	0	0	0	0	0	0	0	0	868
Cars %	97.0	94.3	0.0	0.0	95.7	98.2	99.1	95.7	0.0	98.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.0
Heavy Vehicles	3	5	0	0	8	1	5	4	0	10	0	0	0	0	0	0	0	0	0	0	18
Heavy Vehicles %	3.0	5.7	0.0	0.0	4.3	1.8	0.9	4.3	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Cars Enter Leg	97	82	0	0	179	55	544	90	0	689	0	0	0	0	0	0	0	0	0	0	868
Heavy Enter Leg	3	5	0	0	8	1	5	4	0	10	0	0	0	0	0	0	0	0	0	0	18
Total Entering Leg	100	87	0	0	187	56	549	94	0	699	0	0	0	0	0	0	0	0	0	0	886
Cars Exiting Leg					55					0					172					641	868
Heavy Exiting Leg					1					0					9					8	18
Total Exiting Leg					56					0					181					649	886

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	22	21	0	0	43	7	102	14	0	123	0	0	0	0	0	0	0	0	0	0	166
4:15 PM	22	22	0	0	44	15	139	19	0	173	0	0	0	0	0	0	0	0	0	0	217
4:30 PM	26	22	0	0	48	15	133	23	0	171	0	0	0	0	0	0	0	0	0	0	219
4:45 PM	32	15	0	0	47	13	136	27	0	176	0	0	0	0	0	0	0	0	0	0	223
Total	102	80	0	0	182	50	510	83	0	643	0	0	0	0	0	0	0	0	0	0	825
5:00 PM	17	23	0	0	40	12	136	21	0	169	0	0	0	0	0	0	0	0	0	0	209
5:15 PM	25	33	0	0	58	12	120	17	0	149	0	0	0	0	0	0	0	0	0	0	207
5:30 PM	26	29	0	0	55	14	111	26	0	151	0	0	0	0	0	0	0	0	0	0	206
5:45 PM	17	32	0	0	49	11	87	27	0	125	0	0	0	0	0	0	0	0	0	0	174
Total	85	117	0	0	202	49	454	91	0	594	0	0	0	0	0	0	0	0	0	0	796
Grand Total	187	197	0	0	384	99	964	174	0	1237	0	0	0	0	0	0	0	0	0	0	1621
Approach %	48.7	51.3	0.0	0.0		8.0	77.9	14.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	11.5	12.2	0.0	0.0	23.7	6.1	59.5	10.7	0.0	76.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					99					0					371					1151	1621

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	22	22	0	0	44	15	139	19	0	173	0	0	0	0	0	0	0	0	0	0	217
4:30 PM	26	22	0	0	48	15	133	23	0	171	0	0	0	0	0	0	0	0	0	0	219
4:45 PM	32	15	0	0	47	13	136	27	0	176	0	0	0	0	0	0	0	0	0	0	223
5:00 PM	17	23	0	0	40	12	136	21	0	169	0	0	0	0	0	0	0	0	0	0	209
Total Volume	97	82	0	0	179	55	544	90	0	689	0	0	0	0	0	0	0	0	0	0	868
% Approach Total	54.2	45.8	0.0	0.0		8.0	79.0	13.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.758	0.891	0.000	0.000	0.932	0.917	0.978	0.833	0.000	0.979	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.973
Entering Leg	97	82	0	0	179	55	544	90	0	689	0	0	0	0	0	0	0	0	0	0	868
Exiting Leg					55					0					172					641	868
Total					234					689					172					641	1736

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	1	0	0	2	1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	8
4:15 PM	1	1	0	0	2	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5
4:30 PM	0	2	0	0	2	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	5
4:45 PM	1	2	0	0	3	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	5
Total	3	6	0	0	9	2	7	5	0	14	0	0	0	0	0	0	0	0	0	0	23
5:00 PM	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	5
Total	3	1	0	0	4	0	7	1	0	8	0	0	0	0	0	0	0	0	0	0	12
Grand Total	6	7	0	0	13	2	14	6	0	22	0	0	0	0	0	0	0	0	0	0	35
Approach %	46.2	53.8	0.0	0.0		9.1	63.6	27.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	17.1	20.0	0.0	0.0	37.1	5.7	40.0	17.1	0.0	62.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					2					0					13					20	35
Buses	1	3	0	0	4	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	9
% Buses	16.7	42.9	0.0	0.0	30.8	0.0	28.6	16.7	0.0	22.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.7
Exiting Leg Total					0					0					4					5	9
Single-Unit Trucks	5	3	0	0	8	2	9	5	0	16	0	0	0	0	0	0	0	0	0	0	24
% Single-Unit	83.3	42.9	0.0	0.0	61.5	100.0	64.3	83.3	0.0	72.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.6
Exiting Leg Total					2					0					8					14	24
Articulated Trucks	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
% Articulated	0.0	14.3	0.0	0.0	7.7	0.0	7.1	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
Exiting Leg Total					0					0					1					1	2

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	1	0	0	2	1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	8
4:15 PM	1	1	0	0	2	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5
4:30 PM	0	2	0	0	2	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	5
4:45 PM	1	2	0	0	3	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	5
Total Volume	3	6	0	0	9	2	7	5	0	14	0	0	0	0	0	0	0	0	0	0	23
% Approach Total	33.3	66.7	0.0	0.0		14.3	50.0	35.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.750	0.750	0.000	0.000	0.750	0.500	0.583	0.625	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.719
Buses	0	3	0	0	3	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	7
Buses %	0.0	50.0	0.0	0.0	33.3	0.0	42.9	20.0	0.0	28.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.4
Single-Unit Trucks	3	2	0	0	5	2	3	4	0	9	0	0	0	0	0	0	0	0	0	0	14
Single-Unit %	100.0	33.3	0.0	0.0	55.6	100.0	42.9	80.0	0.0	64.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.9
Articulated Trucks	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Articulated %	0.0	16.7	0.0	0.0	11.1	0.0	14.3	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
Buses	0	3	0	0	3	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	7
Single-Unit Trucks	3	2	0	0	5	2	3	4	0	9	0	0	0	0	0	0	0	0	0	0	14
Articulated Trucks	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total Entering Leg	3	6	0	0	9	2	7	5	0	14	0	0	0	0	0	0	0	0	0	0	23
Buses					0					0					4					3	7
Single-Unit Trucks					2					0					6					6	14
Articulated Trucks					0					0					1					1	2
Total Exiting Leg					2					0					11					10	23

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	19	19	0	0	38	5	82	10	0	97	0	0	0	0	0	0	0	0	0	0	135
4:15 PM	19	21	0	0	40	14	120	17	0	151	0	0	0	0	0	0	0	0	0	0	191
4:30 PM	22	20	0	0	42	15	114	17	0	146	0	0	0	0	0	0	0	0	0	0	188
4:45 PM	30	14	0	0	44	12	114	24	0	150	0	0	0	0	0	0	0	0	0	0	194
Total	90	74	0	0	164	46	430	68	0	544	0	0	0	0	0	0	0	0	0	0	708
5:00 PM	10	19	0	0	29	10	124	16	0	150	0	0	0	0	0	0	0	0	0	0	179
5:15 PM	25	27	0	0	52	12	107	12	0	131	0	0	0	0	0	0	0	0	0	0	183
5:30 PM	23	29	0	0	52	13	99	20	0	132	0	0	0	0	0	0	0	0	0	0	184
5:45 PM	16	28	0	0	44	9	71	25	0	105	0	0	0	0	0	0	0	0	0	0	149
Total	74	103	0	0	177	44	401	73	0	518	0	0	0	0	0	0	0	0	0	0	695
Grand Total	164	177	0	0	341	90	831	141	0	1062	0	0	0	0	0	0	0	0	0	0	1403
Approach %	48.1	51.9	0.0	0.0		8.5	78.2	13.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	11.7	12.6	0.0	0.0	24.3	6.4	59.2	10.0	0.0	75.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					90					0					318					995	1403

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	19	21	0	0	40	14	120	17	0	151	0	0	0	0	0	0	0	0	0	0	191
4:30 PM	22	20	0	0	42	15	114	17	0	146	0	0	0	0	0	0	0	0	0	0	188
4:45 PM	30	14	0	0	44	12	114	24	0	150	0	0	0	0	0	0	0	0	0	0	194
5:00 PM	10	19	0	0	29	10	124	16	0	150	0	0	0	0	0	0	0	0	0	0	179
Total Volume	81	74	0	0	155	51	472	74	0	597	0	0	0	0	0	0	0	0	0	0	752
% Approach Total	52.3	47.7	0.0	0.0		8.5	79.1	12.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.675	0.881	0.000	0.000	0.881	0.850	0.952	0.771	0.000	0.988	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.969
Entering Leg	81	74	0	0	155	51	472	74	0	597	0	0	0	0	0	0	0	0	0	0	752
Exiting Leg					51					0					148					553	752
Total					206					597					148					553	1504

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	3	2	0	0	5	2	20	4	0	26	0	0	0	0	0	0	0	0	0	0	31
4:15 PM	3	1	0	0	4	1	19	2	0	22	0	0	0	0	0	0	0	0	0	0	26
4:30 PM	4	2	0	0	6	0	19	6	0	25	0	0	0	0	0	0	0	0	0	0	31
4:45 PM	2	1	0	0	3	1	22	3	0	26	0	0	0	0	0	0	0	0	0	0	29
Total	12	6	0	0	18	4	80	15	0	99	0	0	0	0	0	0	0	0	0	0	117
5:00 PM	7	4	0	0	11	2	12	5	0	19	0	0	0	0	0	0	0	0	0	0	30
5:15 PM	0	6	0	0	6	0	13	5	0	18	0	0	0	0	0	0	0	0	0	0	24
5:30 PM	3	0	0	0	3	1	12	6	0	19	0	0	0	0	0	0	0	0	0	0	22
5:45 PM	1	4	0	0	5	2	16	2	0	20	0	0	0	0	0	0	0	0	0	0	25
Total	11	14	0	0	25	5	53	18	0	76	0	0	0	0	0	0	0	0	0	0	101
Grand Total	23	20	0	0	43	9	133	33	0	175	0	0	0	0	0	0	0	0	0	0	218
Approach %	53.5	46.5	0.0	0.0		5.1	76.0	18.9	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	10.6	9.2	0.0	0.0	19.7	4.1	61.0	15.1	0.0	80.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					9					0					53					156	218

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	3	2	0	0	5	2	20	4	0	26	0	0	0	0	0	0	0	0	0	0	31
4:15 PM	3	1	0	0	4	1	19	2	0	22	0	0	0	0	0	0	0	0	0	0	26
4:30 PM	4	2	0	0	6	0	19	6	0	25	0	0	0	0	0	0	0	0	0	0	31
4:45 PM	2	1	0	0	3	1	22	3	0	26	0	0	0	0	0	0	0	0	0	0	29
Total Volume	12	6	0	0	18	4	80	15	0	99	0	0	0	0	0	0	0	0	0	0	117
% Approach Total	66.7	33.3	0.0	0.0		4.0	80.8	15.2	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.750	0.750	0.000	0.000	0.750	0.500	0.909	0.625	0.000	0.952	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.944
Entering Leg	12	6	0	0	18	4	80	15	0	99	0	0	0	0	0	0	0	0	0	0	117
Exiting Leg					4					0					21					92	117
Total					22					99					21					92	234

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Barnstable Road					Main Street					Ocean Street					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	0	0	1	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	3	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	7
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Grand Total	1	3	0	0	4	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	9
Approach %	25.0	75.0	0.0	0.0		0.0	80.0	20.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	11.1	33.3	0.0	0.0	44.4	0.0	44.4	11.1	0.0	55.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					4					5	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Barnstable Road					Main Street					Ocean Street					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	0	0	1	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	0	0	3	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	7
% Approach Total	0.0	100.0	0.0	0.0		0.0	75.0	25.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.000	0.375	0.250	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.438
Entering Leg	0	3	0	0	3	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	7
Exiting Leg					0					0					4					3	7
Total					3					4					4					3	14

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	0	1	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	1	2	0	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
Total	3	2	0	0	5	2	3	4	0	9	0	0	0	0	0	0	0	0	0	0	14
5:00 PM	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	5
Total	2	1	0	0	3	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	10
Grand Total	5	3	0	0	8	2	9	5	0	16	0	0	0	0	0	0	0	0	0	0	24
Approach %	62.5	37.5	0.0	0.0		12.5	56.3	31.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	20.8	12.5	0.0	0.0	33.3	8.3	37.5	20.8	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					2					0					8					14	24

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Barnstable Road from North					Main Street from East					Ocean Street from South					Main Street from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	0	0	0	1	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	1	2	0	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
Total Volume	3	2	0	0	5	2	3	4	0	9	0	0	0	0	0	0	0	0	0	0	14
% Approach Total	60.0	40.0	0.0	0.0		22.2	33.3	44.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.750	0.250	0.000	0.000	0.417	0.500	0.375	0.500	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.875
Entering Leg	3	2	0	0	5	2	3	4	0	9	0	0	0	0	0	0	0	0	0	0	14
Exiting Leg					2					0					6					6	14
Total					7					9					6					6	28

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Barnstable Road					Main Street					Ocean Street					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					1					1	2

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Barnstable Road					Main Street					Ocean Street					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
% Approach Total	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Exiting Leg					0					0					1					1	2
Total					1					1					1					1	4

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Barnstable Road from North							Main Street from East							Ocean Street from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
5:00 PM	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	0	0	0	1	1	3	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Grand Total	1	0	0	0	3	2	6	0	0	1	0	0	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	9
Approach %	16.7	0.0	0.0	0.0	50.0	33.3		0.0	0.0	50.0	0.0	0.0	50.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	11.1	0.0	0.0	0.0	33.3	22.2	66.7	0.0	0.0	11.1	0.0	0.0	11.1	22.2	0.0	0.0	0.0	0.0	0.0	11.1	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							5							1							2							1	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Barnstable Road from North							Main Street from East							Ocean Street from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	1	0	0	0	1	1	3	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
% Approach Total	33.3	0.0	0.0	0.0	33.3	33.3		0.0	0.0	50.0	0.0	0.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.250	0.750	0.000	0.000	0.250	0.000	0.000	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
Entering Leg	1	0	0	0	1	1	3	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Exiting Leg							2							1							1							1	5
Total							5							3							1							1	10

PDI File #: **186599 B**
Location: **N: Barnstable Road S: Ocean Street**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Barnstable Road from North							Main Street from East							Ocean Street from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	5	2	7	0	0	0	0	1	1	2	0	0	0	0	1	1	2	0	0	0	0	2	0	2	13
4:15 PM	0	0	0	0	1	2	3	0	0	0	0	1	1	2	0	0	0	0	2	2	4	0	0	0	0	0	0	0	9
4:30 PM	0	0	0	0	1	6	7	0	0	0	0	0	1	1	0	0	0	0	1	2	3	0	0	0	0	0	2	2	13
4:45 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	6
Total	0	0	0	0	8	11	19	0	0	0	0	2	3	5	0	0	0	0	6	7	13	0	0	0	0	2	2	4	41
5:00 PM	0	0	0	0	2	4	6	0	0	0	0	0	3	3	0	0	0	0	0	3	3	0	0	0	0	4	1	5	17
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
Total	0	0	0	0	5	6	11	0	0	0	0	2	3	5	0	0	0	0	1	3	4	0	0	0	0	5	1	6	26
Grand Total	0	0	0	0	13	17	30	0	0	0	0	4	6	10	0	0	0	0	7	10	17	0	0	0	0	7	3	10	67
Approach %	0	0	0	0	43.3	56.7		0	0	0	0	40	60		0	0	0	0	41.2	58.8		0	0	0	0	70	30		
Total %	0	0	0	0	19.4	25.4	44.8	0	0	0	0	5.97	8.96	14.9	0	0	0	0	10.4	14.9	25.4	0	0	0	0	10.4	4.48	14.9	
Exiting Leg Total							30							10							17							10	67

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Barnstable Road from North							Main Street from East							Ocean Street from South							Main Street from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	0	1	2	3	0	0	0	0	1	1	2	0	0	0	0	2	2	4	0	0	0	0	0	0	0	9
4:30 PM	0	0	0	0	1	6	7	0	0	0	0	0	1	1	0	0	0	0	1	2	3	0	0	0	0	0	2	2	13
4:45 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	6
5:00 PM	0	0	0	0	2	4	6	0	0	0	0	0	3	3	0	0	0	0	0	3	3	0	0	0	0	4	1	5	17
Total Volume	0	0	0	0	5	13	18	0	0	0	0	1	5	6	0	0	0	0	5	9	14	0	0	0	0	4	3	7	45
% Approach Total	0.0	0.0	0.0	0.0	27.8	72.2		0.0	0.0	0.0	0.0	16.7	83.3		0.0	0.0	0.0	0.0	35.7	64.3		0.0	0.0	0.0	0.0	57.1	42.9		
PHF	0.000	0.000	0.000	0.000	0.625	0.542	0.643	0.000	0.000	0.000	0.000	0.250	0.417	0.500	0.000	0.000	0.000	0.000	0.625	0.750	0.875	0.000	0.000	0.000	0.000	0.250	0.375	0.350	0.662
Entering Leg	0	0	0	0	5	13	18	0	0	0	0	1	5	6	0	0	0	0	5	9	14	0	0	0	0	4	3	7	45
Exiting Leg							18							6							14							7	45
Total							36							12							28							14	90

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	8	7	0	0	15	10	59	3	0	72	0	7	8	0	15	0	0	0	0	0	102
7:15 AM	12	25	0	0	37	13	77	10	0	100	0	20	5	1	26	0	0	0	0	0	163
7:30 AM	28	21	0	0	49	14	89	19	0	122	0	30	22	0	52	0	0	0	0	0	223
7:45 AM	18	27	0	0	45	17	100	15	0	132	0	47	19	0	66	0	0	0	0	0	243
Total	66	80	0	0	146	54	325	47	0	426	0	104	54	1	159	0	0	0	0	0	731
8:00 AM	3	29	0	0	32	34	99	11	0	144	0	17	13	0	30	0	0	0	0	0	206
8:15 AM	7	30	0	0	37	17	70	13	0	100	0	14	5	0	19	0	0	0	0	0	156
8:30 AM	6	12	0	0	18	11	68	5	0	84	0	13	6	0	19	0	0	0	0	0	121
8:45 AM	5	15	0	0	20	27	92	9	0	128	0	14	6	0	20	0	0	0	0	0	168
Total	21	86	0	0	107	89	329	38	0	456	0	58	30	0	88	0	0	0	0	0	651
Grand Total	87	166	0	0	253	143	654	85	0	882	0	162	84	1	247	0	0	0	0	0	1382
Approach %	34.4	65.6	0.0	0.0		16.2	74.1	9.6	0.0		0.0	65.6	34.0	0.4		0.0	0.0	0.0	0.0		
Total %	6.3	12.0	0.0	0.0	18.3	10.3	47.3	6.2	0.0	63.8	0.0	11.7	6.1	0.1	17.9	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					305					0					252					825	1382
Cars	84	161	0	0	245	128	619	82	0	829	0	162	80	1	243	0	0	0	0	0	1317
% Cars	96.6	97.0	0.0	0.0	96.8	89.5	94.6	96.5	0.0	94.0	0.0	100.0	95.2	100.0	98.4	0.0	0.0	0.0	0.0	0.0	95.3
Exiting Leg Total					290					0					244					783	1317
Heavy Vehicles	3	5	0	0	8	15	35	3	0	53	0	0	4	0	4	0	0	0	0	0	65
% Heavy Vehicles	3.4	3.0	0.0	0.0	3.2	10.5	5.4	3.5	0.0	6.0	0.0	0.0	4.8	0.0	1.6	0.0	0.0	0.0	0.0	0.0	4.7
Exiting Leg Total					15					0					8					42	65

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	12	25	0	0	37	13	77	10	0	100	0	20	5	1	26	0	0	0	0	0	163
7:30 AM	28	21	0	0	49	14	89	19	0	122	0	30	22	0	52	0	0	0	0	0	223
7:45 AM	18	27	0	0	45	17	100	15	0	132	0	47	19	0	66	0	0	0	0	0	243
8:00 AM	3	29	0	0	32	34	99	11	0	144	0	17	13	0	30	0	0	0	0	0	206
Total Volume	61	102	0	0	163	78	365	55	0	498	0	114	59	1	174	0	0	0	0	0	835
% Approach Total	37.4	62.6	0.0	0.0		15.7	73.3	11.0	0.0		0.0	65.5	33.9	0.6		0.0	0.0	0.0	0.0		
PHF	0.545	0.879	0.000	0.000	0.832	0.574	0.913	0.724	0.000	0.865	0.000	0.606	0.670	0.250	0.659	0.000	0.000	0.000	0.000	0.000	0.859
Cars	59	97	0	0	156	69	343	54	0	466	0	114	57	1	172	0	0	0	0	0	794
Cars %	96.7	95.1	0.0	0.0	95.7	88.5	94.0	98.2	0.0	93.6	0.0	100.0	96.6	100.0	98.9	0.0	0.0	0.0	0.0	0.0	95.1
Heavy Vehicles	2	5	0	0	7	9	22	1	0	32	0	0	2	0	2	0	0	0	0	0	41
Heavy Vehicles %	3.3	4.9	0.0	0.0	4.3	11.5	6.0	1.8	0.0	6.4	0.0	0.0	3.4	0.0	1.1	0.0	0.0	0.0	0.0	0.0	4.9
Cars Enter Leg	59	97	0	0	156	69	343	54	0	466	0	114	57	1	172	0	0	0	0	0	794
Heavy Enter Leg	2	5	0	0	7	9	22	1	0	32	0	0	2	0	2	0	0	0	0	0	41
Total Entering Leg	61	102	0	0	163	78	365	55	0	498	0	114	59	1	174	0	0	0	0	0	835
Cars Exiting Leg					183					0					152					459	794
Heavy Exiting Leg					9					0					6					26	41
Total Exiting Leg					192					0					158					485	835

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	7	7	0	0	14	8	58	2	0	68	0	7	7	0	14	0	0	0	0	0	96
7:15 AM	12	24	0	0	36	11	72	10	0	93	0	20	4	1	25	0	0	0	0	0	154
7:30 AM	27	20	0	0	47	12	84	19	0	115	0	30	22	0	52	0	0	0	0	0	214
7:45 AM	18	25	0	0	43	15	97	15	0	127	0	47	18	0	65	0	0	0	0	0	235
Total	64	76	0	0	140	46	311	46	0	403	0	104	51	1	156	0	0	0	0	0	699
8:00 AM	2	28	0	0	30	31	90	10	0	131	0	17	13	0	30	0	0	0	0	0	191
8:15 AM	7	30	0	0	37	17	67	12	0	96	0	14	5	0	19	0	0	0	0	0	152
8:30 AM	6	12	0	0	18	10	61	5	0	76	0	13	5	0	18	0	0	0	0	0	112
8:45 AM	5	15	0	0	20	24	90	9	0	123	0	14	6	0	20	0	0	0	0	0	163
Total	20	85	0	0	105	82	308	36	0	426	0	58	29	0	87	0	0	0	0	0	618
Grand Total	84	161	0	0	245	128	619	82	0	829	0	162	80	1	243	0	0	0	0	0	1317
Approach %	34.3	65.7	0.0	0.0		15.4	74.7	9.9	0.0		0.0	66.7	32.9	0.4		0.0	0.0	0.0	0.0		
Total %	6.4	12.2	0.0	0.0	18.6	9.7	47.0	6.2	0.0	62.9	0.0	12.3	6.1	0.1	18.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					290					0					244					783	1317

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	12	24	0	0	36	11	72	10	0	93	0	20	4	1	25	0	0	0	0	0	154
7:30 AM	27	20	0	0	47	12	84	19	0	115	0	30	22	0	52	0	0	0	0	0	214
7:45 AM	18	25	0	0	43	15	97	15	0	127	0	47	18	0	65	0	0	0	0	0	235
8:00 AM	2	28	0	0	30	31	90	10	0	131	0	17	13	0	30	0	0	0	0	0	191
Total Volume	59	97	0	0	156	69	343	54	0	466	0	114	57	1	172	0	0	0	0	0	794
% Approach Total	37.8	62.2	0.0	0.0		14.8	73.6	11.6	0.0		0.0	66.3	33.1	0.6		0.0	0.0	0.0	0.0		
PHF	0.546	0.866	0.000	0.000	0.830	0.556	0.884	0.711	0.000	0.889	0.000	0.606	0.648	0.250	0.662	0.000	0.000	0.000	0.000	0.000	0.845
Entering Leg	59	97	0	0	156	69	343	54	0	466	0	114	57	1	172	0	0	0	0	0	794
Exiting Leg					183					0					152					459	794
Total					339					466					324					459	1588

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	0	1	2	1	1	0	4	0	0	1	0	1	0	0	0	0	0	6
7:15 AM	0	1	0	0	1	2	5	0	0	7	0	0	1	0	1	0	0	0	0	0	9
7:30 AM	1	1	0	0	2	2	5	0	0	7	0	0	0	0	0	0	0	0	0	0	9
7:45 AM	0	2	0	0	2	2	3	0	0	5	0	0	1	0	1	0	0	0	0	0	8
Total	2	4	0	0	6	8	14	1	0	23	0	0	3	0	3	0	0	0	0	0	32
8:00 AM	1	1	0	0	2	3	9	1	0	13	0	0	0	0	0	0	0	0	0	0	15
8:15 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	4
8:30 AM	0	0	0	0	0	1	7	0	0	8	0	0	1	0	1	0	0	0	0	0	9
8:45 AM	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Total	1	1	0	0	2	7	21	2	0	30	0	0	1	0	1	0	0	0	0	0	33
Grand Total	3	5	0	0	8	15	35	3	0	53	0	0	4	0	4	0	0	0	0	0	65
Approach %	37.5	62.5	0.0	0.0		28.3	66.0	5.7	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	4.6	7.7	0.0	0.0	12.3	23.1	53.8	4.6	0.0	81.5	0.0	0.0	6.2	0.0	6.2	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					15					0					8					42	65
Buses	1	5	0	0	6	7	18	2	0	27	0	0	3	0	3	0	0	0	0	0	36
% Buses	33.3	100.0	0.0	0.0	75.0	46.7	51.4	66.7	0.0	50.9	0.0	0.0	75.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	55.4
Exiting Leg Total					7					0					7					22	36
Single-Unit Trucks	2	0	0	0	2	8	17	1	0	26	0	0	1	0	1	0	0	0	0	0	29
% Single-Unit	66.7	0.0	0.0	0.0	25.0	53.3	48.6	33.3	0.0	49.1	0.0	0.0	25.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	44.6
Exiting Leg Total					8					0					1					20	29
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	1	0	0	1	2	5	0	0	7	0	0	1	0	1	0	0	0	0	0	9
7:30 AM	1	1	0	0	2	2	5	0	0	7	0	0	0	0	0	0	0	0	0	0	9
7:45 AM	0	2	0	0	2	2	3	0	0	5	0	0	1	0	1	0	0	0	0	0	8
8:00 AM	1	1	0	0	2	3	9	1	0	13	0	0	0	0	0	0	0	0	0	0	15
Total Volume	2	5	0	0	7	9	22	1	0	32	0	0	2	0	2	0	0	0	0	0	41
% Approach Total	28.6	71.4	0.0	0.0		28.1	68.8	3.1	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.500	0.625	0.000	0.000	0.875	0.750	0.611	0.250	0.000	0.615	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.683
Buses	1	5	0	0	6	6	13	1	0	20	0	0	1	0	1	0	0	0	0	0	27
Buses %	50.0	100.0	0.0	0.0	85.7	66.7	59.1	100.0	0.0	62.5	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	65.9
Single-Unit Trucks	1	0	0	0	1	3	9	0	0	12	0	0	1	0	1	0	0	0	0	0	14
Single-Unit %	50.0	0.0	0.0	0.0	14.3	33.3	40.9	0.0	0.0	37.5	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	34.1
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	1	5	0	0	6	6	13	1	0	20	0	0	1	0	1	0	0	0	0	0	27
Single-Unit Trucks	1	0	0	0	1	3	9	0	0	12	0	0	1	0	1	0	0	0	0	0	14
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	2	5	0	0	7	9	22	1	0	32	0	0	2	0	2	0	0	0	0	0	41
Buses					6					0					6					15	27
Single-Unit Trucks					3					0					0					11	14
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					9					0					6					26	41

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	7	6	0	0	13	5	45	2	0	52	0	4	6	0	10	0	0	0	0	0	75
7:15 AM	10	20	0	0	30	8	49	10	0	67	0	18	1	1	20	0	0	0	0	0	117
7:30 AM	25	18	0	0	43	10	72	18	0	100	0	28	17	0	45	0	0	0	0	0	188
7:45 AM	16	22	0	0	38	14	85	14	0	113	0	43	17	0	60	0	0	0	0	0	211
Total	58	66	0	0	124	37	251	44	0	332	0	93	41	1	135	0	0	0	0	0	591
8:00 AM	2	24	0	0	26	25	81	10	0	116	0	13	13	0	26	0	0	0	0	0	168
8:15 AM	7	25	0	0	32	13	62	11	0	86	0	13	5	0	18	0	0	0	0	0	136
8:30 AM	4	10	0	0	14	9	55	4	0	68	0	12	4	0	16	0	0	0	0	0	98
8:45 AM	4	13	0	0	17	23	82	9	0	114	0	12	6	0	18	0	0	0	0	0	149
Total	17	72	0	0	89	70	280	34	0	384	0	50	28	0	78	0	0	0	0	0	551
Grand Total	75	138	0	0	213	107	531	78	0	716	0	143	69	1	213	0	0	0	0	0	1142
Approach %	35.2	64.8	0.0	0.0		14.9	74.2	10.9	0.0		0.0	67.1	32.4	0.5		0.0	0.0	0.0	0.0		
Total %	6.6	12.1	0.0	0.0	18.7	9.4	46.5	6.8	0.0	62.7	0.0	12.5	6.0	0.1	18.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					250					0					217					675	1142

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	25	18	0	0	43	10	72	18	0	100	0	28	17	0	45	0	0	0	0	0	188
7:45 AM	16	22	0	0	38	14	85	14	0	113	0	43	17	0	60	0	0	0	0	0	211
8:00 AM	2	24	0	0	26	25	81	10	0	116	0	13	13	0	26	0	0	0	0	0	168
8:15 AM	7	25	0	0	32	13	62	11	0	86	0	13	5	0	18	0	0	0	0	0	136
Total Volume	50	89	0	0	139	62	300	53	0	415	0	97	52	0	149	0	0	0	0	0	703
% Approach Total	36.0	64.0	0.0	0.0		14.9	72.3	12.8	0.0		0.0	65.1	34.9	0.0		0.0	0.0	0.0	0.0		
PHF	0.500	0.890	0.000	0.000	0.808	0.620	0.882	0.736	0.000	0.894	0.000	0.564	0.765	0.000	0.621	0.000	0.000	0.000	0.000	0.000	0.833
Entering Leg	50	89	0	0	139	62	300	53	0	415	0	97	52	0	149	0	0	0	0	0	703
Exiting Leg					159					0					142					402	703
Total					298					415					291					402	1406

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	0	0	1	3	13	0	0	16	0	3	1	0	4	0	0	0	0	0	21
7:15 AM	2	4	0	0	6	3	23	0	0	26	0	1	3	0	4	0	0	0	0	0	36
7:30 AM	2	2	0	0	4	2	12	1	0	15	0	2	5	0	7	0	0	0	0	0	26
7:45 AM	2	3	0	0	5	1	12	1	0	14	0	4	1	0	5	0	0	0	0	0	24
Total	6	10	0	0	16	9	60	2	0	71	0	10	10	0	20	0	0	0	0	0	107
8:00 AM	0	4	0	0	4	6	9	0	0	15	0	4	0	0	4	0	0	0	0	0	23
8:15 AM	0	5	0	0	5	4	5	1	0	10	0	1	0	0	1	0	0	0	0	0	16
8:30 AM	2	2	0	0	4	1	6	1	0	8	0	1	1	0	2	0	0	0	0	0	14
8:45 AM	1	2	0	0	3	1	8	0	0	9	0	2	0	0	2	0	0	0	0	0	14
Total	3	13	0	0	16	12	28	2	0	42	0	8	1	0	9	0	0	0	0	0	67
Grand Total	9	23	0	0	32	21	88	4	0	113	0	18	11	0	29	0	0	0	0	0	174
Approach %	28.1	71.9	0.0	0.0		18.6	77.9	3.5	0.0		0.0	62.1	37.9	0.0		0.0	0.0	0.0	0.0		
Total %	5.2	13.2	0.0	0.0	18.4	12.1	50.6	2.3	0.0	64.9	0.0	10.3	6.3	0.0	16.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					39					0					27					108	174

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	2	4	0	0	6	3	23	0	0	26	0	1	3	0	4	0	0	0	0	0	36
7:30 AM	2	2	0	0	4	2	12	1	0	15	0	2	5	0	7	0	0	0	0	0	26
7:45 AM	2	3	0	0	5	1	12	1	0	14	0	4	1	0	5	0	0	0	0	0	24
8:00 AM	0	4	0	0	4	6	9	0	0	15	0	4	0	0	4	0	0	0	0	0	23
Total Volume	6	13	0	0	19	12	56	2	0	70	0	11	9	0	20	0	0	0	0	0	109
% Approach Total	31.6	68.4	0.0	0.0		17.1	80.0	2.9	0.0		0.0	55.0	45.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.750	0.813	0.000	0.000	0.792	0.500	0.609	0.500	0.000	0.673	0.000	0.688	0.450	0.000	0.714	0.000	0.000	0.000	0.000	0.000	0.757
Entering Leg	6	13	0	0	19	12	56	2	0	70	0	11	9	0	20	0	0	0	0	0	109
Exiting Leg					23					0					15					71	109
Total					42					70					35					71	218

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	1	1	0	3	0	0	1	0	1	0	0	0	0	0	4
7:15 AM	0	1	0	0	1	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	1	1	0	0	2	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	7
7:45 AM	0	2	0	0	2	2	3	0	0	5	0	0	1	0	1	0	0	0	0	0	8
Total	1	4	0	0	5	6	9	1	0	16	0	0	2	0	2	0	0	0	0	0	23
8:00 AM	0	1	0	0	1	1	5	1	0	7	0	0	0	0	0	0	0	0	0	0	8
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	1	9	1	0	11	0	0	1	0	1	0	0	0	0	0	13
Grand Total	1	5	0	0	6	7	18	2	0	27	0	0	3	0	3	0	0	0	0	0	36
Approach %	16.7	83.3	0.0	0.0		25.9	66.7	7.4	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	2.8	13.9	0.0	0.0	16.7	19.4	50.0	5.6	0.0	75.0	0.0	0.0	8.3	0.0	8.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					7					0					7					22	36

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	1	0	0	1	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	1	1	0	0	2	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	7
7:45 AM	0	2	0	0	2	2	3	0	0	5	0	0	1	0	1	0	0	0	0	0	8
8:00 AM	0	1	0	0	1	1	5	1	0	7	0	0	0	0	0	0	0	0	0	0	8
Total Volume	1	5	0	0	6	6	13	1	0	20	0	0	1	0	1	0	0	0	0	0	27
% Approach Total	16.7	83.3	0.0	0.0		30.0	65.0	5.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.625	0.000	0.000	0.750	0.750	0.650	0.250	0.000	0.714	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.844
Entering Leg	1	5	0	0	6	6	13	1	0	20	0	0	1	0	1	0	0	0	0	0	27
Exiting Leg					6					0					6					15	27
Total					12					20					7					15	54

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	0	0	0	0	0	5
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	2	5	0	0	7	0	0	1	0	1	0	0	0	0	0	9
8:00 AM	1	0	0	0	1	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0	7
8:15 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	5
8:45 AM	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Total	1	0	0	0	1	6	12	1	0	19	0	0	0	0	0	0	0	0	0	0	20
Grand Total	2	0	0	0	2	8	17	1	0	26	0	0	1	0	1	0	0	0	0	0	29
Approach %	100.0	0.0	0.0	0.0		30.8	65.4	3.8	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	6.9	0.0	0.0	0.0	6.9	27.6	58.6	3.4	0.0	89.7	0.0	0.0	3.4	0.0	3.4	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					8					0					1					20	29

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	1	0	0	0	1	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0	7
8:15 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	5
8:45 AM	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Total Volume	1	0	0	0	1	6	12	1	0	19	0	0	0	0	0	0	0	0	0	0	20
% Approach Total	100.0	0.0	0.0	0.0		31.6	63.2	5.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.500	0.750	0.250	0.000	0.792	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.714
Entering Leg	1	0	0	0	1	6	12	1	0	19	0	0	0	0	0	0	0	0	0	0	20
Exiting Leg					6					0					1					13	20
Total					7					19					1					13	40

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	High School Road Ext							Main Street							High School Road							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	1	2	1	0	0	0	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5
Grand Total	0	0	0	0	0	0	0	1	2	1	0	0	0	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		25.0	50.0	25.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	40.0	20.0	0.0	0.0	0.0	80.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							1							0							2							2	5

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	High School Road Ext							Main Street							High School Road							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	1	2	1	0	0	0	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		25.0	50.0	25.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	0	0	0	0	0	0	1	2	1	0	0	0	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5
Exiting Leg							1							0							2							2	5
Total							1							4							3							2	10

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	High School Road Ext							Main Street							High School Road							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	8
7:30 AM	0	0	0	0	2	2	4	0	0	0	0	1	2	3	0	0	0	0	1	1	2	0	0	0	0	0	0	0	9
7:45 AM	0	0	0	0	4	0	4	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
Total	0	0	0	0	6	7	13	0	0	0	0	1	4	5	0	0	0	0	5	2	7	0	0	0	0	1	0	1	26
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	5
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
8:45 AM	0	0	0	0	2	0	2	0	0	0	0	0	2	2	0	0	0	0	1	3	4	0	0	0	0	0	1	1	9
Total	0	0	0	0	3	3	6	0	0	0	0	0	2	2	0	0	0	0	1	4	5	0	0	0	0	0	3	3	16
Grand Total	0	0	0	0	9	10	19	0	0	0	0	1	6	7	0	0	0	0	6	6	12	0	0	0	0	1	3	4	42
Approach %	0	0	0	0	47.4	52.6		0	0	0	0	14.3	85.7		0	0	0	0	50	50		0	0	0	0	25	75		
Total %	0	0	0	0	21.4	23.8	45.2	0	0	0	0	2.38	14.3	16.7	0	0	0	0	14.3	14.3	28.6	0	0	0	0	2.38	7.14	9.52	
Exiting Leg Total							19							7							12							4	42

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	High School Road Ext							Main Street							High School Road							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	8
7:30 AM	0	0	0	0	2	2	4	0	0	0	0	1	2	3	0	0	0	0	1	1	2	0	0	0	0	0	0	0	9
7:45 AM	0	0	0	0	4	0	4	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
Total Volume	0	0	0	0	6	7	13	0	0	0	0	1	4	5	0	0	0	0	5	2	7	0	0	0	0	1	0	1	26
% Approach Total	0.0	0.0	0.0	0.0	46.2	53.8		0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	71.4	28.6		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.375	0.438	0.813	0.000	0.000	0.000	0.000	0.250	0.500	0.417	0.000	0.000	0.000	0.000	0.417	0.500	0.438	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.722
Entering Leg	0	0	0	0	6	7	13	0	0	0	0	1	4	5	0	0	0	0	5	2	7	0	0	0	0	1	0	1	26
Exiting Leg							13							5							7							1	26
Total							26							10							14							2	52

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	5	17	0	0	22	21	107	11	0	139	0	25	19	0	44	0	0	0	0	0	205
4:15 PM	4	21	0	0	25	17	126	7	0	150	0	15	9	0	24	0	0	0	0	0	199
4:30 PM	6	14	0	0	20	23	154	8	0	185	0	12	8	0	20	0	0	0	0	0	225
4:45 PM	8	12	0	0	20	18	140	9	0	167	0	12	9	0	21	0	0	0	0	0	208
Total	23	64	0	0	87	79	527	35	0	641	0	64	45	0	109	0	0	0	0	0	837
5:00 PM	8	24	0	0	32	20	133	9	0	162	0	14	12	0	26	0	0	0	0	0	220
5:15 PM	9	12	0	0	21	18	131	12	0	161	0	8	14	0	22	0	0	0	0	0	204
5:30 PM	4	8	0	0	12	14	117	12	0	143	0	11	9	0	20	0	0	0	0	0	175
5:45 PM	3	12	0	0	15	15	114	5	0	134	0	23	9	0	32	0	0	0	0	0	181
Total	24	56	0	0	80	67	495	38	0	600	0	56	44	0	100	0	0	0	0	0	780
Grand Total	47	120	0	0	167	146	1022	73	0	1241	0	120	89	0	209	0	0	0	0	0	1617
Approach %	28.1	71.9	0.0	0.0		11.8	82.4	5.9	0.0		0.0	57.4	42.6	0.0		0.0	0.0	0.0	0.0		
Total %	2.9	7.4	0.0	0.0	10.3	9.0	63.2	4.5	0.0	76.7	0.0	7.4	5.5	0.0	12.9	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					266					0					193					1158	1617
Cars	47	119	0	0	166	142	1011	71	0	1224	0	118	89	0	207	0	0	0	0	0	1597
% Cars	100.0	99.2	0.0	0.0	99.4	97.3	98.9	97.3	0.0	98.6	0.0	98.3	100.0	0.0	99.0	0.0	0.0	0.0	0.0	0.0	98.8
Exiting Leg Total					260					0					190					1147	1597
Heavy Vehicles	0	1	0	0	1	4	11	2	0	17	0	2	0	0	2	0	0	0	0	0	20
% Heavy Vehicles	0.0	0.8	0.0	0.0	0.6	2.7	1.1	2.7	0.0	1.4	0.0	1.7	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.2
Exiting Leg Total					6					0					3					11	20

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	6	14	0	0	20	23	154	8	0	185	0	12	8	0	20	0	0	0	0	0	225
4:45 PM	8	12	0	0	20	18	140	9	0	167	0	12	9	0	21	0	0	0	0	0	208
5:00 PM	8	24	0	0	32	20	133	9	0	162	0	14	12	0	26	0	0	0	0	0	220
5:15 PM	9	12	0	0	21	18	131	12	0	161	0	8	14	0	22	0	0	0	0	0	204
Total Volume	31	62	0	0	93	79	558	38	0	675	0	46	43	0	89	0	0	0	0	0	857
% Approach Total	33.3	66.7	0.0	0.0		11.7	82.7	5.6	0.0		0.0	51.7	48.3	0.0		0.0	0.0	0.0	0.0		
PHF	0.861	0.646	0.000	0.000	0.727	0.859	0.906	0.792	0.000	0.912	0.000	0.821	0.768	0.000	0.856	0.000	0.000	0.000	0.000	0.000	0.952
Cars	31	61	0	0	92	77	555	36	0	668	0	44	43	0	87	0	0	0	0	0	847
Cars %	100.0	98.4	0.0	0.0	98.9	97.5	99.5	94.7	0.0	99.0	0.0	95.7	100.0	0.0	97.8	0.0	0.0	0.0	0.0	0.0	98.8
Heavy Vehicles	0	1	0	0	1	2	3	2	0	7	0	2	0	0	2	0	0	0	0	0	10
Heavy Vehicles %	0.0	1.6	0.0	0.0	1.1	2.5	0.5	5.3	0.0	1.0	0.0	4.3	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	1.2
Cars Enter Leg	31	61	0	0	92	77	555	36	0	668	0	44	43	0	87	0	0	0	0	0	847
Heavy Enter Leg	0	1	0	0	1	2	3	2	0	7	0	2	0	0	2	0	0	0	0	0	10
Total Entering Leg	31	62	0	0	93	79	558	38	0	675	0	46	43	0	89	0	0	0	0	0	857
Cars Exiting Leg					121					0					97					629	847
Heavy Exiting Leg					4					0					3					3	10
Total Exiting Leg					125					0					100					632	857

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	5	17	0	0	22	19	105	11	0	135	0	25	19	0	44	0	0	0	0	0	201
4:15 PM	4	21	0	0	25	17	122	7	0	146	0	15	9	0	24	0	0	0	0	0	195
4:30 PM	6	13	0	0	19	23	154	8	0	185	0	12	8	0	20	0	0	0	0	0	224
4:45 PM	8	12	0	0	20	17	138	9	0	164	0	10	9	0	19	0	0	0	0	0	203
Total	23	63	0	0	86	76	519	35	0	630	0	62	45	0	107	0	0	0	0	0	823
5:00 PM	8	24	0	0	32	20	132	8	0	160	0	14	12	0	26	0	0	0	0	0	218
5:15 PM	9	12	0	0	21	17	131	11	0	159	0	8	14	0	22	0	0	0	0	0	202
5:30 PM	4	8	0	0	12	14	116	12	0	142	0	11	9	0	20	0	0	0	0	0	174
5:45 PM	3	12	0	0	15	15	113	5	0	133	0	23	9	0	32	0	0	0	0	0	180
Total	24	56	0	0	80	66	492	36	0	594	0	56	44	0	100	0	0	0	0	0	774
Grand Total	47	119	0	0	166	142	1011	71	0	1224	0	118	89	0	207	0	0	0	0	0	1597
Approach %	28.3	71.7	0.0	0.0		11.6	82.6	5.8	0.0		0.0	57.0	43.0	0.0		0.0	0.0	0.0	0.0		
Total %	2.9	7.5	0.0	0.0	10.4	8.9	63.3	4.4	0.0	76.6	0.0	7.4	5.6	0.0	13.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					260					0					190					1147	1597

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	6	13	0	0	19	23	154	8	0	185	0	12	8	0	20	0	0	0	0	0	224
4:45 PM	8	12	0	0	20	17	138	9	0	164	0	10	9	0	19	0	0	0	0	0	203
5:00 PM	8	24	0	0	32	20	132	8	0	160	0	14	12	0	26	0	0	0	0	0	218
5:15 PM	9	12	0	0	21	17	131	11	0	159	0	8	14	0	22	0	0	0	0	0	202
Total Volume	31	61	0	0	92	77	555	36	0	668	0	44	43	0	87	0	0	0	0	0	847
% Approach Total	33.7	66.3	0.0	0.0		11.5	83.1	5.4	0.0		0.0	50.6	49.4	0.0		0.0	0.0	0.0	0.0		
PHF	0.861	0.635	0.000	0.000	0.719	0.837	0.901	0.818	0.000	0.903	0.000	0.786	0.768	0.000	0.837	0.000	0.000	0.000	0.000	0.000	0.945
Entering Leg	31	61	0	0	92	77	555	36	0	668	0	44	43	0	87	0	0	0	0	0	847
Exiting Leg					121					0					97					629	847
Total					213					668					184					629	1694

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	2	0	0	3	0	2	0	0	2	0	0	0	0	0	5
Total	0	1	0	0	1	3	8	0	0	11	0	2	0	0	2	0	0	0	0	0	14
5:00 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	6
Grand Total	0	1	0	0	1	4	11	2	0	17	0	2	0	0	2	0	0	0	0	0	20
Approach %	0.0	100.0	0.0	0.0		23.5	64.7	11.8	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	5.0	0.0	0.0	5.0	20.0	55.0	10.0	0.0	85.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					6					0					3					11	20
Buses	0	0	0	0	0	2	3	1	0	6	0	1	0	0	1	0	0	0	0	0	7
% Buses	0.0	0.0	0.0	0.0	0.0	50.0	27.3	50.0	0.0	35.3	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	35.0
Exiting Leg Total					3					0					1					3	7
Single-Unit Trucks	0	1	0	0	1	2	8	1	0	11	0	1	0	0	1	0	0	0	0	0	13
% Single-Unit	0.0	100.0	0.0	0.0	100.0	50.0	72.7	50.0	0.0	64.7	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	65.0
Exiting Leg Total					3					0					2					8	13
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	2	0	0	3	0	2	0	0	2	0	0	0	0	0	5
Total Volume	0	1	0	0	1	3	8	0	0	11	0	2	0	0	2	0	0	0	0	0	14
% Approach Total	0.0	100.0	0.0	0.0		27.3	72.7	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.375	0.500	0.000	0.000	0.688	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.700
Buses	0	0	0	0	0	2	2	0	0	4	0	1	0	0	1	0	0	0	0	0	5
Buses %	0.0	0.0	0.0	0.0	0.0	66.7	25.0	0.0	0.0	36.4	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	35.7
Single-Unit Trucks	0	1	0	0	1	1	6	0	0	7	0	1	0	0	1	0	0	0	0	0	9
Single-Unit %	0.0	100.0	0.0	0.0	100.0	33.3	75.0	0.0	0.0	63.6	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	64.3
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	2	2	0	0	4	0	1	0	0	1	0	0	0	0	0	5
Single-Unit Trucks	0	1	0	0	1	1	6	0	0	7	0	1	0	0	1	0	0	0	0	0	9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	1	0	0	1	3	8	0	0	11	0	2	0	0	2	0	0	0	0	0	14
Buses					3					0					0					2	5
Single-Unit Trucks					2					0					1					6	9
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					5					0					1					8	14

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	5	15	0	0	20	17	90	8	0	115	0	23	19	0	42	0	0	0	0	0	177
4:15 PM	3	20	0	0	23	15	106	6	0	127	0	13	7	0	20	0	0	0	0	0	170
4:30 PM	5	13	0	0	18	23	137	8	0	168	0	11	7	0	18	0	0	0	0	0	204
4:45 PM	7	11	0	0	18	13	117	5	0	135	0	10	9	0	19	0	0	0	0	0	172
Total	20	59	0	0	79	68	450	27	0	545	0	57	42	0	99	0	0	0	0	0	723
5:00 PM	6	23	0	0	29	19	121	8	0	148	0	12	12	0	24	0	0	0	0	0	201
5:15 PM	9	11	0	0	20	14	129	11	0	154	0	7	13	0	20	0	0	0	0	0	194
5:30 PM	3	7	0	0	10	13	105	12	0	130	0	10	8	0	18	0	0	0	0	0	158
5:45 PM	2	12	0	0	14	15	106	5	0	126	0	23	7	0	30	0	0	0	0	0	170
Total	20	53	0	0	73	61	461	36	0	558	0	52	40	0	92	0	0	0	0	0	723
Grand Total	40	112	0	0	152	129	911	63	0	1103	0	109	82	0	191	0	0	0	0	0	1446
Approach %	26.3	73.7	0.0	0.0		11.7	82.6	5.7	0.0		0.0	57.1	42.9	0.0		0.0	0.0	0.0	0.0		
Total %	2.8	7.7	0.0	0.0	10.5	8.9	63.0	4.4	0.0	76.3	0.0	7.5	5.7	0.0	13.2	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					238					0					175					1033	1446

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	5	13	0	0	18	23	137	8	0	168	0	11	7	0	18	0	0	0	0	0	204
4:45 PM	7	11	0	0	18	13	117	5	0	135	0	10	9	0	19	0	0	0	0	0	172
5:00 PM	6	23	0	0	29	19	121	8	0	148	0	12	12	0	24	0	0	0	0	0	201
5:15 PM	9	11	0	0	20	14	129	11	0	154	0	7	13	0	20	0	0	0	0	0	194
Total Volume	27	58	0	0	85	69	504	32	0	605	0	40	41	0	81	0	0	0	0	0	771
% Approach Total	31.8	68.2	0.0	0.0		11.4	83.3	5.3	0.0		0.0	49.4	50.6	0.0		0.0	0.0	0.0	0.0		
PHF	0.750	0.630	0.000	0.000	0.733	0.750	0.920	0.727	0.000	0.900	0.000	0.833	0.788	0.000	0.844	0.000	0.000	0.000	0.000	0.000	0.945
Entering Leg	27	58	0	0	85	69	504	32	0	605	0	40	41	0	81	0	0	0	0	0	771
Exiting Leg					109					0					90					572	771
Total					194					605					171					572	1542

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
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Class:

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46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	2	0	0	2	2	15	3	0	20	0	2	0	0	2	0	0	0	0	0	24
4:15 PM	1	1	0	0	2	2	16	1	0	19	0	2	2	0	4	0	0	0	0	0	25
4:30 PM	1	0	0	0	1	0	17	0	0	17	0	1	1	0	2	0	0	0	0	0	20
4:45 PM	1	1	0	0	2	4	21	4	0	29	0	0	0	0	0	0	0	0	0	0	31
Total	3	4	0	0	7	8	69	8	0	85	0	5	3	0	8	0	0	0	0	0	100
5:00 PM	2	1	0	0	3	1	11	0	0	12	0	2	0	0	2	0	0	0	0	0	17
5:15 PM	0	1	0	0	1	3	2	0	0	5	0	1	1	0	2	0	0	0	0	0	8
5:30 PM	1	1	0	0	2	1	11	0	0	12	0	1	1	0	2	0	0	0	0	0	16
5:45 PM	1	0	0	0	1	0	7	0	0	7	0	0	2	0	2	0	0	0	0	0	10
Total	4	3	0	0	7	5	31	0	0	36	0	4	4	0	8	0	0	0	0	0	51
Grand Total	7	7	0	0	14	13	100	8	0	121	0	9	7	0	16	0	0	0	0	0	151
Approach %	50.0	50.0	0.0	0.0		10.7	82.6	6.6	0.0		0.0	56.3	43.8	0.0		0.0	0.0	0.0	0.0		
Total %	4.6	4.6	0.0	0.0	9.3	8.6	66.2	5.3	0.0	80.1	0.0	6.0	4.6	0.0	10.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					22					0					15					114	151

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	2	0	0	2	2	15	3	0	20	0	2	0	0	2	0	0	0	0	0	24
4:15 PM	1	1	0	0	2	2	16	1	0	19	0	2	2	0	4	0	0	0	0	0	25
4:30 PM	1	0	0	0	1	0	17	0	0	17	0	1	1	0	2	0	0	0	0	0	20
4:45 PM	1	1	0	0	2	4	21	4	0	29	0	0	0	0	0	0	0	0	0	0	31
Total Volume	3	4	0	0	7	8	69	8	0	85	0	5	3	0	8	0	0	0	0	0	100
% Approach Total	42.9	57.1	0.0	0.0		9.4	81.2	9.4	0.0		0.0	62.5	37.5	0.0		0.0	0.0	0.0	0.0		
PHF	0.750	0.500	0.000	0.000	0.875	0.500	0.821	0.500	0.000	0.733	0.000	0.625	0.375	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.806
Entering Leg	3	4	0	0	7	8	69	8	0	85	0	5	3	0	8	0	0	0	0	0	100
Exiting Leg					13					0					12					75	100
Total					20					85					20					75	200

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	2	2	0	0	4	0	1	0	0	1	0	0	0	0	0	5
5:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	2	3	1	0	6	0	1	0	0	1	0	0	0	0	0	7
Approach %	0.0	0.0	0.0	0.0		33.3	50.0	16.7	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	28.6	42.9	14.3	0.0	85.7	0.0	14.3	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					3					0					1					3	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	2	2	0	0	4	0	1	0	0	1	0	0	0	0	0	5
% Approach Total	0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.000	0.333	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.417
Entering Leg	0	0	0	0	0	2	2	0	0	4	0	1	0	0	1	0	0	0	0	0	5
Exiting Leg					3					0					0					2	5
Total					3					4					1					2	10

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	2	0	0	3	0	1	0	0	1	0	0	0	0	0	4
Total	0	1	0	0	1	1	6	0	0	7	0	1	0	0	1	0	0	0	0	0	9
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	2	1	0	4	0	0	0	0	0	0	0	0	0	0	4
Grand Total	0	1	0	0	1	2	8	1	0	11	0	1	0	0	1	0	0	0	0	0	13
Approach %	0.0	100.0	0.0	0.0		18.2	72.7	9.1	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	7.7	0.0	0.0	7.7	15.4	61.5	7.7	0.0	84.6	0.0	7.7	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					3					0					2					8	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	2	0	0	3	0	1	0	0	1	0	0	0	0	0	4
Total Volume	0	1	0	0	1	1	6	0	0	7	0	1	0	0	1	0	0	0	0	0	9
% Approach Total	0.0	100.0	0.0	0.0		14.3	85.7	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.583	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.563
Entering Leg	0	1	0	0	1	1	6	0	0	7	0	1	0	0	1	0	0	0	0	0	9
Exiting Leg					2					0					1					6	9
Total					3					7					2					6	18

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	High School Road Ext					Main Street					High School Road					Main Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Bicycles (on Roadway and Crosswalks)**

	High School Road Ext							Main Street							High School Road							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	6
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	2	3	5	0	1	0	0	0	0	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	8
Approach %	0.0	0.0	0.0	0.0	40.0	60.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	25.0	37.5	62.5	0.0	12.5	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	12.5	12.5	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							5							0							2							1	8

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	High School Road Ext							Main Street							High School Road							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	6
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.500	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	6
Exiting Leg							4							0							2							0	6
Total							8							0							4							0	12

PDI File #: **186599 C**
Location: **N: High School Road Ext S: High School Road**
Location: **E: Main Street W: Main Street**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	High School Road Ext							Main Street							High School Road							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0	0	3	7	10	0	0	0	0	4	2	6	22
4:15 PM	0	0	0	0	3	2	5	0	0	0	0	2	0	2	0	0	0	0	2	2	4	0	0	0	0	1	1	2	13
4:30 PM	0	0	0	0	1	1	2	0	0	0	0	2	0	2	0	0	0	0	2	2	4	0	0	0	0	0	0	0	8
4:45 PM	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	1	0	1	6
Total	0	0	0	0	8	8	16	0	0	0	0	4	0	4	0	0	0	0	9	11	20	0	0	0	0	6	3	9	49
5:00 PM	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	1	0	1	9
5:30 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	1	0	1	3
Total	0	0	0	0	7	4	11	0	0	0	0	0	0	0	0	0	0	0	6	0	6	0	0	0	0	2	0	2	19
Grand Total	0	0	0	0	15	12	27	0	0	0	0	4	0	4	0	0	0	0	15	11	26	0	0	0	0	8	3	11	68
Approach %	0	0	0	0	55.6	44.4		0	0	0	0	100	0		0	0	0	0	57.7	42.3		0	0	0	0	72.7	27.3		
Total %	0	0	0	0	22.1	17.6	39.7	0	0	0	0	5.88	0	5.88	0	0	0	0	22.1	16.2	38.2	0	0	0	0	11.8	4.41	16.2	
Exiting Leg Total							27							4							26							11	68

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	High School Road Ext							Main Street							High School Road							Main Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0	0	3	7	10	0	0	0	0	4	2	6	22
4:15 PM	0	0	0	0	3	2	5	0	0	0	0	2	0	2	0	0	0	0	2	2	4	0	0	0	0	1	1	2	13
4:30 PM	0	0	0	0	1	1	2	0	0	0	0	2	0	2	0	0	0	0	2	2	4	0	0	0	0	0	0	0	8
4:45 PM	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	1	0	1	6
Total Volume	0	0	0	0	8	8	16	0	0	0	0	4	0	4	0	0	0	0	9	11	20	0	0	0	0	6	3	9	49
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	45.0	55.0		0.0	0.0	0.0	0.0	66.7	33.3		
PHF	0.000	0.000	0.000	0.000	0.667	0.500	0.667	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.750	0.393	0.500	0.000	0.000	0.000	0.000	0.375	0.375	0.375	0.557
Entering Leg	0	0	0	0	8	8	16	0	0	0	0	4	0	4	0	0	0	0	9	11	20	0	0	0	0	6	3	9	49
Exiting Leg							16							4							20							9	49
Total							32							8							40							18	98

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:00 AM	0	1	5	10	1	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	13	0	0	0	0	17	0	6	7	0	0	0	13	0	1	56	27	0	0	84	131
7:15 AM	0	1	6	7	2	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15	0	0	0	0	20	0	6	6	0	0	0	12	0	0	71	34	0	0	105	153
7:30 AM	0	6	8	11	1	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	14	0	0	0	0	20	0	8	8	0	0	0	16	0	1	77	46	0	0	124	186
7:45 AM	0	10	17	15	6	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	18	0	0	0	0	27	0	10	6	0	0	0	16	0	6	112	44	0	0	162	253
Total	0	18	36	43	10	0	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	60	0	0	0	0	84	0	30	27	0	0	0	57	0	8	316	151	0	0	475	723
8:00 AM	0	8	36	8	2	0	54	0	0	0	2	0	0	2	0	0	0	0	0	0	0	10	17	0	0	0	0	27	0	6	6	0	0	0	12	0	6	106	59	0	0	171	266
8:15 AM	0	14	24	13	3	0	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	14	0	0	0	0	21	0	0	10	0	0	0	10	0	8	87	52	0	0	147	232
8:30 AM	0	1	44	14	3	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	27	0	0	0	0	34	0	3	13	0	0	0	16	0	12	79	39	0	0	130	242
8:45 AM	0	4	20	17	4	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	73	0	0	0	0	79	0	4	11	0	0	0	15	1	10	89	43	0	0	143	282
Total	0	27	124	52	12	0	215	0	0	0	2	0	0	2	0	0	0	0	0	0	0	30	131	0	0	0	0	161	0	13	40	0	0	0	53	1	36	361	193	0	0	591	1022
Grand Total	0	45	160	95	22	0	322	0	0	0	2	0	0	2	0	0	0	0	0	0	0	54	191	0	0	0	0	245	0	43	67	0	0	0	110	1	44	677	344	0	0	1066	1745
Approach %	0.0	14.0	49.7	29.5	6.8	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		22.0	78.0	0.0	0.0	0.0	0.0		0.0	39.1	60.9	0.0	0.0	0.0		0.1	4.1	63.5	32.3	0.0	0.0		
Total %	0.0	2.6	9.2	5.4	1.3	0.0	18.5	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	10.9	0.0	0.0	0.0	0.0	14.0	0.0	2.5	3.8	0.0	0.0	0.0	6.3	0.1	2.5	38.8	19.7	0.0	0.0	61.1	
Exiting Leg Total							0							624							869							206							46							0	1745
Cars	0	39	152	83	19	0	293	0	0	0	2	0	0	2	0	0	0	0	0	0	0	50	182	0	0	0	0	232	0	42	65	0	0	0	107	0	41	649	322	0	0	1012	1646
% Cars	0.0	86.7	95.0	87.4	86.4	0.0	91.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.6	95.3	0.0	0.0	0.0	0.0	94.7	0.0	97.7	97.0	0.0	0.0	0.0	97.3	0.0	93.2	95.9	93.6	0.0	0.0	94.9	94.3
Exiting Leg Total							0							588							824							195							39							0	1646
Heavy Vehicles	0	6	8	12	3	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	9	0	0	0	0	13	0	1	2	0	0	0	3	1	3	28	22	0	0	54	99
% Heavy Vehicles	0.0	13.3	5.0	12.6	13.6	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	4.7	0.0	0.0	0.0	0.0	5.3	0.0	2.3	3.0	0.0	0.0	0.0	2.7	100.0	6.8	4.1	6.4	0.0	0.0	5.1	5.7
Exiting Leg Total							0							36							45							11							7							0	99

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
8:00 AM	0	8	36	8	2	0	54	0	0	0	2	0	0	2	0	0	0	0	0	0	0	10	17	0	0	0	0	27	0	6	6	0	0	0	12	0	6	106	59	0	0	171	266
8:15 AM	0	14	24	13	3	0	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	14	0	0	0	0	21	0	0	10	0	0	0	10	0	8	87	52	0	0	147	232
8:30 AM	0	1	44	14	3	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	27	0	0	0	0	34	0	3	13	0	0	0	16	0	12	79	39	0	0	130	242
8:45 AM	0	4	20	17	4	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	73	0	0	0	0	79	0	4	11	0	0	0	15	1	10	89	43	0	0	143	282
Total Volume	0	27	124	52	12	0	215	0	0	0	2	0	0	2	0	0	0	0	0	0	0	30	131	0	0	0	0	161	0	13	40	0	0	0	53	1	36	361	193	0	0	591	1022
% Approach Total	0.0	12.6	57.7	24.2	5.6	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		18.6	81.4	0.0	0.0	0.0	0.0		0.0	24.5	75.5	0.0	0.0	0.0		0.2	6.1	61.1	32.7	0.0	0.0		
PHF	0.000	0.482	0.705	0.765	0.750	0.000	0.867	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.449	0.000	0.000	0.000	0.000	0.509	0.000	0.542	0.769	0.000	0.000	0.000	0.828	0.250	0.750	0.851	0.818	0.000	0.000	0.864	0.906
Cars	0	25	118	44	11	0	198	0	0	0	2	0	0	2	0	0	0	0	0	0	0	29	125	0	0	0	0	154	0	13	38	0	0	0	51	0	34	345	177	0	0	556	961
Cars %	0.0	92.6	95.2	84.6	91.7	0.0	92.1	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.7	95.4	0.0	0.0	0.0	0.0	95.7	0.0	100.0	95.0	0.0	0.0	0.0	96.2	0.0	94.4	95.6	91.7	0.0	0.0	94.1	94.0
Heavy Vehicles	0	2	6	8	1	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7	0	0	2	0	0	0	2	1	2	16	16	0	0	35	61
Heavy Vehicles %	0.0	7.4	4.8	15.4	8.3	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	4.6	0.0	0.0	0.0	0.0	4.3	0.0	0.0	5.0	0.0	0.0	0.0	3.8	100.0	5.6	4.4	8.3	0.0	0.0	5.9	6.0
Cars Enter Leg	0	25	118	44	11	0	198	0	0	0	2	0	0	2	0	0	0	0	0	0	0	29	125	0	0	0	0	154	0	13	38	0	0	0	51	0	34	345	177	0	0	556	961
Heavy Enter Leg	0	2	6	8	1	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7	0	0	2	0	0	0	2	1	2	16	16	0	0	35	61
Total Entering Leg	0	27	124	52	12	0	215	0	0	0	2	0	0	2	0	0	0	0	0	0	0	30	131	0	0	0	0	161	0	13	40	0	0	0	53	1	36	361	193	0	0	591	1022
Cars Exiting Leg							0							351							431							154							25							0	961
Heavy Exiting Leg							0							25							25							8							3							0	61
Total Exiting Leg							0							376							456							162							28							0	1022

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:00 AM	0	0	4	10	1	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	0	0	0	0	15	0	5	7	0	0	0	12	0	1	53	26	0	0	80	122
7:15 AM	0	1	6	7	1	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	14	0	0	0	0	19	0	6	6	0	0	0	12	0	0	70	34	0	0	104	150
7:30 AM	0	6	8	9	1	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	14	0	0	0	0	18	0	8	8	0	0	0	16	0	1	72	44	0	0	117	175
7:45 AM	0	7	16	13	5	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	17	0	0	0	0	26	0	10	6	0	0	0	16	0	5	109	41	0	0	155	238
Total	0	14	34	39	8	0	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	57	0	0	0	0	78	0	29	27	0	0	0	56	0	7	304	145	0	0	456	685
8:00 AM	0	8	34	7	2	0	51	0	0	0	2	0	0	2	0	0	0	0	0	0	0	9	17	0	0	0	0	26	0	6	5	0	0	0	11	0	5	100	49	0	0	154	244
8:15 AM	0	13	23	10	3	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	13	0	0	0	0	20	0	0	10	0	0	0	10	0	7	83	52	0	0	142	221
8:30 AM	0	0	42	13	2	0	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	24	0	0	0	0	31	0	3	12	0	0	0	15	0	12	77	37	0	0	126	229
8:45 AM	0	4	19	14	4	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	71	0	0	0	0	77	0	4	11	0	0	0	15	0	10	85	39	0	0	134	267
Total	0	25	118	44	11	0	198	0	0	0	2	0	0	2	0	0	0	0	0	0	0	29	125	0	0	0	0	154	0	13	38	0	0	0	51	0	34	345	177	0	0	556	961
Grand Total	0	39	152	83	19	0	293	0	0	0	2	0	0	2	0	0	0	0	0	0	0	50	182	0	0	0	0	232	0	42	65	0	0	0	107	0	41	649	322	0	0	1012	1646
Approach %	0.0	13.3	51.9	28.3	6.5	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		21.6	78.4	0.0	0.0	0.0	0.0		0.0	39.3	60.7	0.0	0.0	0.0		0.0	4.1	64.1	31.8	0.0	0.0		
Total %	0.0	2.4	9.2	5.0	1.2	0.0	17.8	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	11.1	0.0	0.0	0.0	0.0	14.1	0.0	2.6	3.9	0.0	0.0	0.0	6.5	0.0	2.5	39.4	19.6	0.0	0.0	61.5	
Exiting Leg Total							0							588							824							195							39							0	1646

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
8:00 AM	0	8	34	7	2	0	51	0	0	0	2	0	0	2	0	0	0	0	0	0	0	9	17	0	0	0	0	26	0	6	5	0	0	0	11	0	5	100	49	0	0	154	244
8:15 AM	0	13	23	10	3	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	13	0	0	0	0	20	0	0	10	0	0	0	10	0	7	83	52	0	0	142	221
8:30 AM	0	0	42	13	2	0	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	24	0	0	0	0	31	0	3	12	0	0	0	15	0	12	77	37	0	0	126	229
8:45 AM	0	4	19	14	4	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	71	0	0	0	0	77	0	4	11	0	0	0	15	0	10	85	39	0	0	134	267
Total Volume	0	25	118	44	11	0	198	0	0	0	2	0	0	2	0	0	0	0	0	0	0	29	125	0	0	0	0	154	0	13	38	0	0	0	51	0	34	345	177	0	0	556	961
% Approach Total	0.0	12.6	59.6	22.2	5.6	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		18.8	81.2	0.0	0.0	0.0	0.0		0.0	25.5	74.5	0.0	0.0	0.0		0.0	6.1	62.1	31.8	0.0	0.0		
PHF	0.000	0.481	0.702	0.786	0.688	0.000	0.868	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.806	0.440	0.000	0.000	0.000	0.000	0.500	0.000	0.542	0.792	0.000	0.000	0.000	0.850	0.000	0.708	0.863	0.851	0.000	0.000	0.903	0.900
Entering Leg	0	25	118	44	11	0	198	0	0	0	2	0	0	2	0	0	0	0	0	0	0	29	125	0	0	0	0	154	0	13	38	0	0	0	51	0	34	345	177	0	0	556	961
Exiting Leg							0							351							431							154							25							0	961
Total							198							353							431							308							76							556	1922

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:00 AM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	1	0	0	0	0	1	0	0	3	1	0	0	4	9
7:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
7:30 AM	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5	2	0	0	7	11
7:45 AM	0	3	1	2	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	3	0	0	7	15
Total	0	4	2	4	2	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	6	0	1	0	0	0	0	1	0	1	12	6	0	0	19	38
8:00 AM	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	6	10	0	0	17	22
8:15 AM	0	1	1	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	4	0	0	0	5	11
8:30 AM	0	1	2	1	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	1	0	0	0	1	0	0	2	2	0	0	4	13
8:45 AM	0	0	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	4	4	0	0	9	15
Total	0	2	6	8	1	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7	0	0	2	0	0	0	2	1	2	16	16	0	0	35	61
Grand Total	0	6	8	12	3	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	9	0	0	0	0	13	0	1	2	0	0	0	3	1	3	28	22	0	0	54	99
Approach %	0.0	20.7	27.6	41.4	10.3	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		30.8	69.2	0.0	0.0	0.0	0.0		0.0	33.3	66.7	0.0	0.0	0.0		1.9	5.6	51.9	40.7	0.0	0.0		
Total %	0.0	6.1	8.1	12.1	3.0	0.0	29.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	9.1	0.0	0.0	0.0	0.0	13.1	0.0	1.0	2.0	0.0	0.0	0.0	3.0	1.0	3.0	28.3	22.2	0.0	0.0	54.5	
Exiting Leg Total							0							36							45							11							7							0	99
Buses	0	2	2	2	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	6	0	1	0	0	0	0	1	0	0	9	11	0	0	20	34
% Buses	0.0	33.3	25.0	16.7	33.3	0.0	24.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	44.4	0.0	0.0	0.0	0.0	46.2	0.0	100.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	32.1	50.0	0.0	0.0	37.0	34.3
Exiting Leg Total							0							16							14							2							2							0	34
Single-Unit Trucks	0	4	6	7	2	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0	0	0	7	0	0	2	0	0	0	2	0	3	15	9	0	0	27	55
% Single-Unit	0.0	66.7	75.0	58.3	66.7	0.0	65.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	55.6	0.0	0.0	0.0	0.0	53.8	0.0	0.0	100.0	0.0	0.0	0.0	66.7	0.0	100.0	53.6	40.9	0.0	0.0	50.0	55.6
Exiting Leg Total							0							18							24							9							4							0	55
Articulated Trucks	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	2	0	0	7	10
% Articulated	0.0	0.0	0.0	25.0	0.0	0.0	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	14.3	9.1	0.0	0.0	13.0	10.1
Exiting Leg Total							0							2							7							0							1							0	10

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:45 AM	0	3	1	2	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	3	0	0	7	15
8:00 AM	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	6	10	0	0	17	22
8:15 AM	0	1	1	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	4	0	0	0	5	11
8:30 AM	0	1	2	1	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	1	0	0	0	1	0	0	2	2	0	0	4	13
Total Volume	0	5	6	7	2	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	6	0	0	2	0	0	0	2	0	3	15	15	0	0	33	61
% Approach Total	0.0	25.0	30.0	35.0	10.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		16.7	83.3	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	9.1	45.5	45.5	0.0	0.0		
PHF	0.000	0.417	0.750	0.583	0.500	0.000	0.714	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.417	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.750	0.625	0.375	0.000	0.000	0.485	0.693
Buses	0	1	1	2	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5	9	0	0	14	21
Buses %	0.0	20.0	16.7	28.6	50.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	60.0	0.0	0.0	42.4	34.4
Single-Unit Trucks	0	4	5	3	1	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	2	0	0	0	2	0	3	8	4	0	0	15	34
Single-Unit %	0.0	80.0	83.3	42.9	50.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	60.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	100.0	53.3	26.7	0.0	0.0	45.5	55.7
Articulated Trucks	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	6
Articulated %	0.0	0.0	0.0	28.6	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3	13.3	0.0	0.0	12.1	9.8
Buses	0	1	1	2	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5	9	0	0	14	21
Single-Unit Trucks	0	4	5	3	1	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	2	0	0	0	2	0	3	8	4	0	0	15	34
Articulated Trucks	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	6
Total Entering Leg	0	5	6	7	2	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	6	0	0	2	0	0	0	2	0	3	15	15	0	0	33	61
Buses							0							12							7							1							1							0	21
Single-Unit Trucks							0							10							12							8							4							0	34
Articulated Trucks							0							2							4							0							0							0	6
Total Exiting Leg							0							24							23							9							5							0	61

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:00 AM	0	0	3	7	1	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	0	0	0	0	15	0	4	5	0	0	0	9	0	0	37	17	0	0	54	89
7:15 AM	0	1	4	6	1	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14	0	0	0	0	16	0	6	4	0	0	0	10	0	0	56	27	0	0	83	121
7:30 AM	0	3	6	7	1	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	0	0	0	0	15	0	6	7	0	0	0	13	0	1	61	38	0	0	100	145
7:45 AM	0	6	10	11	4	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	16	0	0	0	0	25	0	8	6	0	0	0	14	0	5	96	33	0	0	134	204
Total	0	10	23	31	7	0	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	54	0	0	0	0	71	0	24	22	0	0	0	46	0	6	250	115	0	0	371	559
8:00 AM	0	4	24	7	1	0	36	0	0	0	2	0	0	2	0	0	0	0	0	0	0	5	14	0	0	0	0	19	0	4	4	0	0	0	8	0	4	80	40	0	0	124	189
8:15 AM	0	9	21	10	1	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10	0	0	0	0	15	0	0	6	0	0	0	6	0	3	71	41	0	0	115	177
8:30 AM	0	0	30	8	2	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	18	0	0	0	0	24	0	3	8	0	0	0	11	0	11	65	24	0	0	100	175
8:45 AM	0	2	16	11	4	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	59	0	0	0	0	63	0	3	9	0	0	0	12	0	7	74	31	0	0	112	220
Total	0	15	91	36	8	0	150	0	0	0	2	0	0	2	0	0	0	0	0	0	0	20	101	0	0	0	0	121	0	10	27	0	0	0	37	0	25	290	136	0	0	451	761
Grand Total	0	25	114	67	15	0	221	0	0	0	2	0	0	2	0	0	0	0	0	0	0	37	155	0	0	0	0	192	0	34	49	0	0	0	83	0	31	540	251	0	0	822	1320
Approach %	0.0	11.3	51.6	30.3	6.8	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		19.3	80.7	0.0	0.0	0.0	0.0		0.0	41.0	59.0	0.0	0.0	0.0		0.0	3.8	65.7	30.5	0.0	0.0		
Total %	0.0	1.9	8.6	5.1	1.1	0.0	16.7	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	11.7	0.0	0.0	0.0	0.0	14.5	0.0	2.6	3.7	0.0	0.0	0.0	6.3	0.0	2.3	40.9	19.0	0.0	0.0	62.3	
Exiting Leg Total							0							470							678							147							25							0	1320

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
8:00 AM	0	4	24	7	1	0	36	0	0	0	2	0	0	2	0	0	0	0	0	0	0	5	14	0	0	0	0	19	0	4	4	0	0	0	8	0	4	80	40	0	0	124	189
8:15 AM	0	9	21	10	1	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10	0	0	0	0	15	0	0	6	0	0	0	6	0	3	71	41	0	0	115	177
8:30 AM	0	0	30	8	2	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	18	0	0	0	0	24	0	3	8	0	0	0	11	0	11	65	24	0	0	100	175
8:45 AM	0	2	16	11	4	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	59	0	0	0	0	63	0	3	9	0	0	0	12	0	7	74	31	0	0	112	220
Total Volume	0	15	91	36	8	0	150	0	0	0	2	0	0	2	0	0	0	0	0	0	0	20	101	0	0	0	0	121	0	10	27	0	0	0	37	0	25	290	136	0	0	451	761
% Approach Total	0.0	10.0	60.7	24.0	5.3	0.0		0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		16.5	83.5	0.0	0.0	0.0	0.0		0.0	27.0	73.0	0.0	0.0	0.0		0.0	5.5	64.3	30.2	0.0	0.0		
PHF	0.000	0.417	0.758	0.818	0.500	0.000	0.915	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.428	0.000	0.000	0.000	0.000	0.480	0.000	0.625	0.750	0.000	0.000	0.000	0.771	0.000	0.568	0.906	0.829	0.000	0.000	0.909	0.865
Entering Leg	0	15	91	36	8	0	150	0	0	0	2	0	0	2	0	0	0	0	0	0	0	20	101	0	0	0	0	121	0	10	27	0	0	0	37	0	25	290	136	0	0	451	761
Exiting Leg							0							272							356							118							15							0	761
Total							150							274							356							239							52							451	1522

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:00 AM	0	0	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	0	1	16	9	0	0	26	33
7:15 AM	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	2	0	0	0	2	0	0	14	7	0	0	21	29
7:30 AM	0	3	2	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0	2	1	0	0	0	3	0	0	11	6	0	0	17	30
7:45 AM	0	1	6	2	1	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	0	2	0	0	13	8	0	0	21	34
Total	0	4	11	8	1	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	7	0	5	5	0	0	0	10	0	1	54	30	0	0	85	126
8:00 AM	0	4	10	0	1	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	7	0	2	1	0	0	0	3	0	1	20	9	0	0	30	55
8:15 AM	0	4	2	0	2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	5	0	0	4	0	0	0	4	0	4	12	11	0	0	27	44
8:30 AM	0	0	12	5	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7	0	0	4	0	0	0	4	0	1	12	13	0	0	26	54
8:45 AM	0	2	3	3	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12	0	0	0	0	14	0	1	2	0	0	0	3	0	3	11	8	0	0	22	47
Total	0	10	27	8	3	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	24	0	0	0	0	33	0	3	11	0	0	0	14	0	9	55	41	0	0	105	200
Grand Total	0	14	38	16	4	0	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	27	0	0	0	0	40	0	8	16	0	0	0	24	0	10	109	71	0	0	190	326
Approach %	0.0	19.4	52.8	22.2	5.6	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		32.5	67.5	0.0	0.0	0.0	0.0		0.0	33.3	66.7	0.0	0.0	0.0		0.0	5.3	57.4	37.4	0.0	0.0		
Total %	0.0	4.3	11.7	4.9	1.2	0.0	22.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	8.3	0.0	0.0	0.0	0.0	12.3	0.0	2.5	4.9	0.0	0.0	0.0	7.4	0.0	3.1	33.4	21.8	0.0	0.0	58.3	
Exiting Leg Total							0							118							146							48							14							0	326

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
8:00 AM	0	4	10	0	1	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	7	0	2	1	0	0	0	3	0	1	20	9	0	0	30	55
8:15 AM	0	4	2	0	2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	5	0	0	4	0	0	0	4	0	4	12	11	0	0	27	44
8:30 AM	0	0	12	5	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7	0	0	4	0	0	0	4	0	1	12	13	0	0	26	54
8:45 AM	0	2	3	3	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12	0	0	0	0	14	0	1	2	0	0	0	3	0	3	11	8	0	0	22	47
Total Volume	0	10	27	8	3	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	24	0	0	0	0	33	0	3	11	0	0	0	14	0	9	55	41	0	0	105	200
% Approach Total	0.0	20.8	56.3	16.7	6.3	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		27.3	72.7	0.0	0.0	0.0	0.0		0.0	21.4	78.6	0.0	0.0	0.0		0.0	8.6	52.4	39.0	0.0	0.0		
PHF	0.000	0.625	0.563	0.400	0.375	0.000	0.706	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.500	0.000	0.000	0.000	0.000	0.589	0.000	0.375	0.688	0.000	0.000	0.000	0.875	0.000	0.563	0.688	0.788	0.000	0.000	0.875	0.909
Entering Leg	0	10	27	8	3	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	24	0	0	0	0	33	0	3	11	0	0	0	14	0	9	55	41	0	0	105	200
Exiting Leg							0							79							75							36							10							0	200
Total							48							79							75							69							24							105	400

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	1	0	0	2	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	1	0	0	3	4
7:45 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	4
Total	0	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0	1	0	0	0	0	1	0	0	4	4	0	0	8	14
8:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0	8	9
8:15 AM	0	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	2	5
8:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Total	0	1	2	1	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	5	7	0	0	12	20
Grand Total	0	2	2	2	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	6	0	1	0	0	0	0	1	0	0	9	11	0	0	20	34
Approach %	0.0	28.6	28.6	28.6	14.3	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	45.0	55.0	0.0	0.0		
Total %	0.0	5.9	5.9	5.9	2.9	0.0	20.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	11.8	0.0	0.0	0.0	0.0	17.6	0.0	2.9	0.0	0.0	0.0	0.0	2.9	0.0	0.0	26.5	32.4	0.0	0.0	58.8	
Exiting Leg Total							0							16							14							2							2							0	34

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	1	0	0	3	4
7:45 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	4
8:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0	8	9
8:15 AM	0	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	2	5
Total Volume	0	1	1	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	7	9	0	0	16	22
% Approach Total	0.0	25.0	25.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	43.8	56.3	0.0	0.0		
PHF	0.000	0.250	0.250	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.875	0.375	0.000	0.000	0.500	0.611
Entering Leg	0	1	1	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	7	9	0	0	16	22
Exiting Leg							0							10							10							1							1							0	22
Total							4							10							10							3							1							16	44

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	2	4
7:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
7:30 AM	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	1	0	0	3	6
7:45 AM	0	3	1	1	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	1	0	0	4	11
Total	0	3	2	3	2	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0	0	0	0	0	0	0	0	1	7	2	0	0	10	23
8:00 AM	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	2	2	0	0	5	9
8:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	4
8:30 AM	0	1	2	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	2	1	0	0	3	10
8:45 AM	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	4	0	0	6	9
Total	0	1	4	4	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	2	0	0	0	2	0	2	8	7	0	0	17	32
Grand Total	0	4	6	7	2	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0	0	0	7	0	0	2	0	0	0	2	0	3	15	9	0	0	27	55
Approach %	0.0	21.1	31.6	36.8	10.5	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		28.6	71.4	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	11.1	55.6	33.3	0.0	0.0		
Total %	0.0	7.3	10.9	12.7	3.6	0.0	34.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	9.1	0.0	0.0	0.0	0.0	12.7	0.0	0.0	3.6	0.0	0.0	0.0	3.6	0.0	5.5	27.3	16.4	0.0	0.0	49.1	
Exiting Leg Total							0							18							24							9							4							0	55

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:45 AM	0	3	1	1	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	1	0	0	4	11
8:00 AM	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	2	2	0	0	5	9
8:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	4
8:30 AM	0	1	2	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	2	1	0	0	3	10
Total Volume	0	4	5	3	1	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	2	0	0	0	2	0	3	8	4	0	0	15	34
% Approach Total	0.0	30.8	38.5	23.1	7.7	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		25.0	75.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	20.0	53.3	26.7	0.0	0.0		
PHF	0.000	0.333	0.625	0.750	0.250	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.375	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.750	1.000	0.500	0.000	0.000	0.750	0.773
Entering Leg	0	4	5	3	1	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	2	0	0	0	2	0	3	8	4	0	0	15	34
Exiting Leg							0							10							12							8							4							0	34
Total							13							10							12							12							6							15	68

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4	4
8:15 AM	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	3
Total	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	6	0	1	0	3	2	0	9
Grand Total	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	7	0	1	0	4	2	0	10
Approach %	0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		14.3	0.0	57.1	28.6	0.0	0.0	
Total %	0.0	0.0	0.0	30.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	40.0	20.0	0.0	0.0	70.0	
Exiting Leg Total							0							2							7							0							1							0	10

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4	4
8:15 AM	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	3
Total Volume	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	6	0	1	0	3	2	0	9
% Approach Total	0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		16.7	0.0	50.0	33.3	0.0	0.0	
PHF	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.375	0.250	0.000	0.000	0.375	0.563
Entering Leg	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	3	2	0	9
Exiting Leg							0							2							6							0							1							0	9
Total							3							2							6							0							1							6	18

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

| | Ocean Street from North | | | | | | | | | | Old Colony Road from Northeast | | | | | | | | | | South Street from East | | | | | | | | | | Ocean Street from South | | | | | | | | | | Old Colony Road from Southwest | | | | | | | | | | South Street from West | | | | | | | | | | |
|---|---|---

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **7:00 AM**
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Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Ocean Street from North									Old Colony Road from Northeast									South Street from East									Ocean Street from South									Old Colony Road from Southwest									South Street from West									
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	9
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Grand Total	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	4	9	13	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	21
Approach %	0	0	0	0	0	0	50	50		0	0	0	0	0	0	50	50		0	0	0	0	0	0	31	69		0	0	0	0	0	0	0	100		0	0	0	0	0	0	0	100		0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	4.8	4.8	9.5	0	0	0	0	0	0	4.8	4.8	9.5	0	0	0	0	0	0	19	43	62	0	0	0	0	0	0	0	9.5	9.5	0	0	0	0	0	0	0	9.5	9.5	0	0	0	0	0	0	0	0	
Exiting Leg Total									2									2									13									2									2									0	21

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Ocean Street from North									Old Colony Road from Northeast									South Street from East									Ocean Street from South									Old Colony Road from Southwest									South Street from West									
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total Volume	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Exiting Leg									2									2									8									0									0									0	12
Total									4									4									16									0									0									0	24

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	7	17	9	6	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	14	0	0	0	0	19	1	3	6	0	0	0	10	0	7	77	61	0	0	145	213
4:15 PM	0	14	22	2	6	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	29	0	0	0	0	32	0	3	6	0	0	0	9	0	7	76	66	0	0	149	234
4:30 PM	0	13	26	9	1	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	29	0	0	0	0	31	0	6	13	0	0	0	19	0	5	71	47	0	0	123	222
4:45 PM	0	20	14	6	2	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	32	0	0	0	0	38	0	6	13	0	0	0	19	0	10	69	58	0	0	137	236
Total	0	54	79	26	15	0	174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	104	0	0	0	0	120	1	18	38	0	0	0	57	0	29	293	232	0	0	554	905
5:00 PM	0	16	13	8	3	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	0	1	10	0	0	0	11	0	5	77	74	0	0	156	224
5:15 PM	0	17	20	8	7	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12	0	0	0	0	14	0	2	2	0	0	0	4	0	13	52	58	0	0	123	193
5:30 PM	0	15	23	14	5	0	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	35	0	0	0	0	41	0	4	12	0	0	0	16	0	9	49	40	0	0	98	212
5:45 PM	0	13	27	12	3	0	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	74	0	0	0	0	77	0	6	22	0	0	0	28	0	4	58	42	0	0	104	264
Total	0	61	83	42	18	0	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	138	0	0	0	0	149	0	13	46	0	0	0	59	0	31	236	214	0	0	481	893
Grand Total	0	115	162	68	33	0	378	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	242	0	0	0	0	269	1	31	84	0	0	0	116	0	60	529	446	0	0	1035	1798
Approach %	0.0	30.4	42.9	18.0	8.7	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		10.0	90.0	0.0	0.0	0.0	0.0		0.9	26.7	72.4	0.0	0.0	0.0		0.0	5.8	51.1	43.1	0.0	0.0		
Total %	0.0	6.4	9.0	3.8	1.8	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	13.5	0.0	0.0	0.0	0.0	15.0	0.1	1.7	4.7	0.0	0.0	0.0	6.5	0.0	3.3	29.4	24.8	0.0	0.0	57.6	
Exiting Leg Total							0							805							655							223							115							0	1798
Cars	0	112	158	64	32	0	366	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	237	0	0	0	0	263	1	30	80	0	0	0	111	0	60	509	435	0	0	1004	1744
% Cars	0.0	97.4	97.5	94.1	97.0	0.0	96.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.3	97.9	0.0	0.0	0.0	0.0	97.8	100.0	96.8	95.2	0.0	0.0	0.0	95.7	0.0	100.0	96.2	97.5	0.0	0.0	97.0	97.0
Exiting Leg Total							0							784							629							219							112							0	1744
Heavy Vehicles	0	3	4	4	1	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	6	0	1	4	0	0	0	5	0	0	20	11	0	0	31	54
% Heavy Vehicles	0.0	2.6	2.5	5.9	3.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	2.1	0.0	0.0	0.0	0.0	2.2	0.0	3.2	4.8	0.0	0.0	0.0	4.3	0.0	0.0	3.8	2.5	0.0	0.0	3.0	3.0
Exiting Leg Total							0							21							26							4							3							0	54

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:15 PM	0	14	22	2	6	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	29	0	0	0	0	32	0	3	6	0	0	0	9	0	7	76	66	0	0	149	234
4:30 PM	0	13	26	9	1	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	29	0	0	0	0	31	0	6	13	0	0	0	19	0	5	71	47	0	0	123	222
4:45 PM	0	20	14	6	2	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	32	0	0	0	0	38	0	6	13	0	0	0	19	0	10	69	58	0	0	137	236
5:00 PM	0	16	13	8	3	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	0	1	10	0	0	0	11	0	5	77	74	0	0	156	224
Total Volume	0	63	75	25	12	0	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	107	0	0	0	0	118	0	16	42	0	0	0	58	0	27	293	245	0	0	565	916
% Approach Total	0.0	36.0	42.9	14.3	6.9	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		9.3	90.7	0.0	0.0	0.0	0.0		0.0	27.6	72.4	0.0	0.0	0.0		0.0	4.8	51.9	43.4	0.0	0.0		
PHF	0.000	0.788	0.721	0.694	0.500	0.000	0.893	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.458	0.836	0.000	0.000	0.000	0.000	0.776	0.000	0.667	0.808	0.000	0.000	0.000	0.763	0.000	0.675	0.951	0.828	0.000	0.000	0.905	0.970
Cars	0	60	72	24	12	0	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	105	0	0	0	0	115	0	16	38	0	0	0	54	0	27	284	239	0	0	550	887
Cars %	0.0	95.2	96.0	96.0	100.0	0.0	96.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.9	98.1	0.0	0.0	0.0	0.0	97.5	0.0	100.0	90.5	0.0	0.0	0.0	93.1	0.0	100.0	96.9	97.6	0.0	0.0	97.3	96.8
Heavy Vehicles	0	3	3	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0	0	4	0	0	0	4	0	0	9	6	0	0	15	29
Heavy Vehicles %	0.0	4.8	4.0	4.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	1.9	0.0	0.0	0.0	0.0	2.5	0.0	0.0	9.5	0.0	0.0	0.0	6.9	0.0	0.0	3.1	2.4	0.0	0.0	2.7	3.2
Cars Enter Leg	0	60	72	24	12	0	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	105	0	0	0	0	115	0	16	38	0	0	0	54	0	27	284	239	0	0	550	887
Heavy Enter Leg	0	3	3	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0	0	4	0	0	0	4	0	0	9	6	0	0	15	29
Total Entering Leg	0	63	75	25	12	0	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	107	0	0	0	0	118	0	16	42	0	0	0	58	0	27	293	245	0	0	565	916
Cars Exiting Leg							0							394							334							99							60							0	887
Heavy Exiting Leg							0							12							11							3							3							0	29
Total Exiting Leg							0							406							345							102							63							0	916

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	7	16	8	5	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	12	0	0	0	0	17	1	3	6	0	0	0	10	0	7	72	60	0	0	139	202
4:15 PM	0	13	22	2	6	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	28	0	0	0	0	31	0	3	5	0	0	0	8	0	7	75	64	0	0	146	228
4:30 PM	0	12	24	8	1	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	28	0	0	0	0	29	0	6	12	0	0	0	18	0	5	69	44	0	0	118	210
4:45 PM	0	19	13	6	2	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	32	0	0	0	0	38	0	6	12	0	0	0	18	0	10	66	58	0	0	134	230
Total	0	51	75	24	14	0	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	100	0	0	0	0	115	1	18	35	0	0	0	54	0	29	282	226	0	0	537	870
5:00 PM	0	16	13	8	3	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	0	1	9	0	0	0	10	0	5	74	73	0	0	152	219
5:15 PM	0	17	20	7	7	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11	0	0	0	0	13	0	2	2	0	0	0	4	0	13	51	55	0	0	119	187
5:30 PM	0	15	23	13	5	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	35	0	0	0	0	41	0	3	12	0	0	0	15	0	9	49	39	0	0	97	209
5:45 PM	0	13	27	12	3	0	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	74	0	0	0	0	77	0	6	22	0	0	0	28	0	4	53	42	0	0	99	259
Total	0	61	83	40	18	0	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	137	0	0	0	0	148	0	12	45	0	0	0	57	0	31	227	209	0	0	467	874
Grand Total	0	112	158	64	32	0	366	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	237	0	0	0	0	263	1	30	80	0	0	0	111	0	60	509	435	0	0	1004	1744
Approach %	0.0	30.6	43.2	17.5	8.7	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		9.9	90.1	0.0	0.0	0.0	0.0		0.9	27.0	72.1	0.0	0.0	0.0		0.0	6.0	50.7	43.3	0.0	0.0		
Total %	0.0	6.4	9.1	3.7	1.8	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	13.6	0.0	0.0	0.0	0.0	15.1	0.1	1.7	4.6	0.0	0.0	0.0	6.4	0.0	3.4	29.2	24.9	0.0	0.0	57.6	
Exiting Leg Total							0							784							629							219							112							0	1744

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:15 PM	0	13	22	2	6	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	28	0	0	0	0	31	0	3	5	0	0	0	8	0	7	75	64	0	0	146	228
4:30 PM	0	12	24	8	1	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	28	0	0	0	0	29	0	6	12	0	0	0	18	0	5	69	44	0	0	118	210
4:45 PM	0	19	13	6	2	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	32	0	0	0	0	38	0	6	12	0	0	0	18	0	10	66	58	0	0	134	230
5:00 PM	0	16	13	8	3	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	0	1	9	0	0	0	10	0	5	74	73	0	0	152	219
Total Volume	0	60	72	24	12	0	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	105	0	0	0	0	115	0	16	38	0	0	0	54	0	27	284	239	0	0	550	887
% Approach Total	0.0	35.7	42.9	14.3	7.1	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		8.7	91.3	0.0	0.0	0.0	0.0		0.0	29.6	70.4	0.0	0.0	0.0		0.0	4.9	51.6	43.5	0.0	0.0		
PHF	0.000	0.789	0.750	0.750	0.500	0.000	0.933	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.820	0.000	0.000	0.000	0.000	0.757	0.000	0.667	0.792	0.000	0.000	0.000	0.750	0.000	0.675	0.947	0.818	0.000	0.000	0.905	0.964
Entering Leg	0	60	72	24	12	0	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	105	0	0	0	0	115	0	16	38	0	0	0	54	0	27	284	239	0	0	550	887
Exiting Leg							0							394							334							99							60							0	887
Total							168							394							334							214							114							550	1774

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5	1	0	0	6	11
4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	2	0	0	3	6
4:30 PM	0	1	2	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	1	0	0	0	1	0	0	2	3	0	0	5	12
4:45 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3	0	0	0	3	6
Total	0	3	4	2	1	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	0	0	3	0	0	0	3	0	0	11	6	0	0	17	35
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3	1	0	0	4	5
5:15 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3	0	0	4	6
5:30 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5
Total	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0	2	0	0	9	5	0	0	14	19
Grand Total	0	3	4	4	1	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	6	0	1	4	0	0	0	5	0	0	20	11	0	0	31	54
Approach %	0.0	25.0	33.3	33.3	8.3	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		16.7	83.3	0.0	0.0	0.0	0.0		0.0	20.0	80.0	0.0	0.0	0.0		0.0	0.0	64.5	35.5	0.0	0.0		
Total %	0.0	5.6	7.4	7.4	1.9	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	9.3	0.0	0.0	0.0	0.0	11.1	0.0	1.9	7.4	0.0	0.0	0.0	9.3	0.0	0.0	37.0	20.4	0.0	0.0	57.4	
Exiting Leg Total							0							21							26							4							3							0	54
Buses	0	2	1	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	3	5	0	0	8	15
% Buses	0.0	66.7	25.0	0.0	100.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	25.0	0.0	0.0	0.0	20.0	0.0	0.0	15.0	45.5	0.0	0.0	25.8	27.8
Exiting Leg Total							0							9							3							1							2							0	15
Single-Unit Trucks	0	1	3	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	1	3	0	0	0	4	0	0	15	6	0	0	21	35
% Single-Unit	0.0	33.3	75.0	75.0	0.0	0.0	58.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	50.0	0.0	100.0	75.0	0.0	0.0	0.0	80.0	0.0	0.0	75.0	54.5	0.0	0.0	67.7	64.8
Exiting Leg Total							0							12							19							3							1							0	35
Articulated Trucks	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	2	4
% Articulated	0.0	0.0	0.0	25.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	6.5	7.4
Exiting Leg Total							0							0							4							0							0							0	4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5	1	0	0	6	11
4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	2	0	0	3	6
4:30 PM	0	1	2	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	1	0	0	0	1	0	0	2	3	0	0	5	12
4:45 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3	0	0	0	3	6
Total Volume	0	3	4	2	1	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	0	0	3	0	0	0	3	0	0	11	6	0	0	17	35
% Approach Total	0.0	30.0	40.0	20.0	10.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		20.0	80.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	64.7	35.3	0.0	0.0		
PHF	0.000	0.750	0.500	0.500	0.250	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.750	0.000	0.000	0.000	0.750	0.000	0.000	0.550	0.500	0.000	0.000	0.708	0.729
Buses	0	2	1	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	2	2	0	0	4	11
Buses %	0.0	66.7	25.0	0.0	100.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	18.2	33.3	0.0	0.0	23.5	31.4
Single-Unit Trucks	0	1	3	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2	0	0	0	2	0	0	9	4	0	0	13	22
Single-Unit %	0.0	33.3	75.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	66.7	0.0	0.0	0.0	66.7	0.0	0.0	81.8	66.7	0.0	0.0	76.5	62.9
Articulated Trucks	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Articulated %	0.0	0.0	0.0	50.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
Buses	0	2	1	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	2	2	0	0	4	11
Single-Unit Trucks	0	1	3	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2	0	0	0	2	0	0	9	4	0	0	13	22
Articulated Trucks	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Entering Leg	0	3	4	2	1	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	0	0	3	0	0	0	3	0	0	11	6	0	0	17	35
Buses							0							6							2							1							2							0	11
Single-Unit Trucks							0							8							10							3							1							0	22
Articulated Trucks							0							0							2							0							0							0	2
Total Exiting Leg							0							14							14							4							3							0	35

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	7	14	8	3	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	9	0	0	0	0	14	1	3	2	0	0	0	6	0	5	59	52	0	0	116	168
4:15 PM	0	13	21	2	6	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	26	0	0	0	0	29	0	1	5	0	0	0	6	0	7	64	58	0	0	129	206
4:30 PM	0	11	20	6	1	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	20	0	0	0	0	21	0	6	10	0	0	0	16	0	4	58	37	0	0	99	174
4:45 PM	0	15	11	5	2	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	29	0	0	0	0	33	0	5	7	0	0	0	12	0	10	55	45	0	0	110	188
Total	0	46	66	21	12	0	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	84	0	0	0	0	97	1	15	24	0	0	0	40	0	26	236	192	0	0	454	736
5:00 PM	0	11	12	6	3	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	0	1	9	0	0	0	10	0	5	64	60	0	0	129	186
5:15 PM	0	10	15	6	7	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	0	2	2	0	0	0	4	0	9	39	45	0	0	93	145
5:30 PM	0	12	22	13	5	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	27	0	0	0	0	33	0	2	6	0	0	0	8	0	7	43	30	0	0	80	173
5:45 PM	0	13	23	9	3	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	58	0	0	0	0	61	0	3	12	0	0	0	15	0	4	44	40	0	0	88	212
Total	0	46	72	34	18	0	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	110	0	0	0	0	119	0	8	29	0	0	0	37	0	25	190	175	0	0	390	716
Grand Total	0	92	138	55	30	0	315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	194	0	0	0	0	216	1	23	53	0	0	0	77	0	51	426	367	0	0	844	1452
Approach %	0.0	29.2	43.8	17.5	9.5	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		10.2	89.8	0.0	0.0	0.0	0.0		1.3	29.9	68.8	0.0	0.0	0.0		0.0	6.0	50.5	43.5	0.0	0.0		
Total %	0.0	6.3	9.5	3.8	2.1	0.0	21.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	13.4	0.0	0.0	0.0	0.0	14.9	0.1	1.6	3.7	0.0	0.0	0.0	5.3	0.0	3.5	29.3	25.3	0.0	0.0	58.1	
Exiting Leg Total							0							644							526							190							92							0	1452

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:15 PM	0	13	21	2	6	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	26	0	0	0	0	29	0	1	5	0	0	0	6	0	7	64	58	0	0	129	206
4:30 PM	0	11	20	6	1	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	20	0	0	0	0	21	0	6	10	0	0	0	16	0	4	58	37	0	0	99	174
4:45 PM	0	15	11	5	2	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	29	0	0	0	0	33	0	5	7	0	0	0	12	0	10	55	45	0	0	110	188
5:00 PM	0	11	12	6	3	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	0	1	9	0	0	0	10	0	5	64	60	0	0	129	186
Total Volume	0	50	64	19	12	0	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	90	0	0	0	0	98	0	13	31	0	0	0	44	0	26	241	200	0	0	467	754
% Approach Total	0.0	34.5	44.1	13.1	8.3	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		8.2	91.8	0.0	0.0	0.0	0.0		0.0	29.5	70.5	0.0	0.0	0.0		0.0	5.6	51.6	42.8	0.0	0.0		
PHF	0.000	0.833	0.762	0.792	0.500	0.000	0.863	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.776	0.000	0.000	0.000	0.000	0.742	0.000	0.542	0.775	0.000	0.000	0.000	0.688	0.000	0.650	0.941	0.833	0.000	0.000	0.905	0.915
Entering Leg	0	50	64	19	12	0	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	90	0	0	0	0	98	0	13	31	0	0	0	44	0	26	241	200	0	0	467	754
Exiting Leg							0							333							281							90							50							0	754
Total							145							333							281							188							94							467	1508

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	0	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	4	0	0	0	4	0	2	13	8	0	0	23	34
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2	0	0	0	0	2	0	0	11	6	0	0	17	22
4:30 PM	0	1	4	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	0	2	0	0	0	2	0	1	11	7	0	0	19	36
4:45 PM	0	4	2	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	5	0	1	5	0	0	0	6	0	0	11	13	0	0	24	42
Total	0	5	9	3	2	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	16	0	0	0	0	18	0	3	11	0	0	0	14	0	3	46	34	0	0	83	134
5:00 PM	0	5	1	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	10	13	0	0	23	33
5:15 PM	0	7	5	1	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0	0	0	0	0	0	0	0	4	12	10	0	0	26	42
5:30 PM	0	3	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	1	6	0	0	0	7	0	2	6	9	0	0	17	36
5:45 PM	0	0	4	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	0	3	10	0	0	0	13	0	0	9	2	0	0	11	47
Total	0	15	11	6	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	27	0	0	0	0	29	0	4	16	0	0	0	20	0	6	37	34	0	0	77	158
Grand Total	0	20	20	9	2	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	43	0	0	0	0	47	0	7	27	0	0	0	34	0	9	83	68	0	0	160	292
Approach %	0.0	39.2	39.2	17.6	3.9	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		8.5	91.5	0.0	0.0	0.0	0.0		0.0	20.6	79.4	0.0	0.0	0.0		0.0	5.6	51.9	42.5	0.0	0.0		
Total %	0.0	6.8	6.8	3.1	0.7	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	14.7	0.0	0.0	0.0	0.0	16.1	0.0	2.4	9.2	0.0	0.0	0.0	11.6	0.0	3.1	28.4	23.3	0.0	0.0	54.8	
Exiting Leg Total							0							140							103							29							20							0	292

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
5:00 PM	0	5	1	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	10	13	0	0	23	33
5:15 PM	0	7	5	1	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0	0	0	0	0	0	0	0	4	12	10	0	0	26	42
5:30 PM	0	3	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	1	6	0	0	0	7	0	2	6	9	0	0	17	36
5:45 PM	0	0	4	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	0	3	10	0	0	0	13	0	0	9	2	0	0	11	47
Total Volume	0	15	11	6	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	27	0	0	0	0	29	0	4	16	0	0	0	20	0	6	37	34	0	0	77	158
% Approach Total	0.0	46.9	34.4	18.8	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		6.9	93.1	0.0	0.0	0.0	0.0		0.0	20.0	80.0	0.0	0.0	0.0		0.0	7.8	48.1	44.2	0.0	0.0		
PHF	0.000	0.536	0.550	0.500	0.000	0.000	0.615	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.422	0.000	0.000	0.000	0.000	0.453	0.000	0.333	0.400	0.000	0.000	0.000	0.385	0.000	0.375	0.771	0.654	0.000	0.000	0.740	0.840
Entering Leg	0	15	11	6	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	27	0	0	0	0	29	0	4	16	0	0	0	20	0	6	37	34	0	0	77	158
Exiting Leg							0							77							49							17							15							0	158
Total							32							77							49							46							35							77	316

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	5
4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	4
4:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	2	1	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	2	2	0	0	4	11
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	4
Grand Total	0	2	1	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	3	5	0	0	8	15
Approach %	0.0	50.0	25.0	0.0	25.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	37.5	62.5	0.0	0.0		
Total %	0.0	13.3	6.7	0.0	6.7	0.0	26.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3	0.0	0.0	0.0	0.0	13.3	0.0	0.0	6.7	0.0	0.0	0.0	6.7	0.0	0.0	20.0	33.3	0.0	0.0	53.3	
Exiting Leg Total							0							9							3							1							2							0	15

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	5
4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	4
4:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1
Total Volume	0	2	1	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	2	2	0	0	4	11
% Approach Total	0.0	50.0	25.0	0.0	25.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	50.0	50.0	0.0	0.0		
PHF	0.000	0.500	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.500	0.250	0.000	0.000	0.333	0.550
Entering Leg	0	2	1	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	2	2	0	0	4	11
Exiting Leg							0							6							2							1							2							0	11
Total							4							6							2							3							3							4	22

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	6
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
4:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	2	3	0	0	5	9
4:45 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	5
Total	0	1	3	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2	0	0	0	2	0	0	9	4	0	0	13	22
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0	2	3
5:15 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	2	4
5:30 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
Total	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0	2	0	0	6	2	0	0	8	13
Grand Total	0	1	3	3	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	1	3	0	0	0	4	0	0	15	6	0	0	21	35
Approach %	0.0	14.3	42.9	42.9	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	25.0	75.0	0.0	0.0	0.0		0.0	0.0	71.4	28.6	0.0	0.0		
Total %	0.0	2.9	8.6	8.6	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	8.6	0.0	2.9	8.6	0.0	0.0	0.0	11.4	0.0	0.0	42.9	17.1	0.0	0.0	60.0	
Exiting Leg Total							0							12							19							3							1							0	35

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	6
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
4:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	2	3	0	0	5	9
4:45 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	5
Total Volume	0	1	3	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2	0	0	0	2	0	0	9	4	0	0	13	22
% Approach Total	0.0	20.0	60.0	20.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	69.2	30.8	0.0	0.0		
PHF	0.000	0.250	0.375	0.250	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.563	0.333	0.000	0.000	0.650	0.611
Entering Leg	0	1	3	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2	0	0	0	2	0	0	9	4	0	0	13	22
Exiting Leg							0							8							10							3							1							0	22
Total							5							8							10							5							3							13	44

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	2
Grand Total	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
Approach %	0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	
Exiting Leg Total							0							0							4							0							0							0	4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Ocean Street from North							Old Colony Road from Northeast							South Street from East							Ocean Street from South							Old Colony Road from Southwest							South Street from West							
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
Total Volume	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
% Approach Total	0.0	0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.375
Entering Leg	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Exiting Leg							0							0							3							0							0							0	3
Total							1							0							3							1							0							1	6

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Ocean Street from North									Old Colony Road from Northeast									South Street from East									Ocean Street from South									Old Colony Road from Southwest									South Street from West									
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-SES	CW-NWB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total									0									0								0									0									1								0	1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Ocean Street from North									Old Colony Road from Northeast									South Street from East									Ocean Street from South									Old Colony Road from Southwest									South Street from West									
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-SES	CW-NWB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Exiting Leg									0									0								0									0									1								0	1
Total									0									0								0									0									2								0	2

PDI File #: **186599 D**
Location: **N: Ocean Street S: Ocean Street NE: Old Colony Road**
Location: **E: South Street W: South Street SW: Old Colony Road**
City, State: **Hyannis, MA**
Client: **VHB/ K. Keen**
Site Code: **14072.0**
Count Date: **Thursday, November 15, 2018**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Ocean Street from North									Old Colony Road from Northeast									South Street from East									Ocean Street from South									Old Colony Road from Southwest									South Street from West									
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	5	1	6	0	0	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	12
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	3
Total	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0	6	1	7	0	0	0	0	0	5	1	6	0	0	0	0	0	1	0	1	0	18
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	8
5:45 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	5
Total	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	0	15
Grand Total	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	9	9	0	0	0	0	0	0	6	1	7	0	0	0	0	0	0	7	1	8	0	0	0	0	0	0	4	0	4	33
Approach %	0	0	0	0	0	0	33	67		0	0	0	0	0	0	50	50		0	0	0	0	0	0	0	100		0	0	0	0	0	0	86	14		0	0	0	0	0	0	88	13		0	0	0	0	0	0	100	0		
Total %	0	0	0	0	0	0	3	6.1	9.1	0	0	0	0	0	0	3	3	6.1	0	0	0	0	0	0	0	27	27	0	0	0	0	0	0	18	3	21	0	0	0	0	0	0	21	3	24	0	0	0	0	0	0	12	0	12	
Exiting Leg Total									3									2									9									7									8									4	33

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Ocean Street from North									Old Colony Road from Northeast									South Street from East									Ocean Street from South									Old Colony Road from Southwest									South Street from West									
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-SEB	CW-NWB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	5	1	6	0	0	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	12
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	3
Total Volume	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0	6	1	7	0	0	0	0	0	5	1	6	0	0	0	0	0	1	0	1	0	18
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0	85.7	14.3		0.0	0.0	0.0	0.0	0.0	0.0	83.3	16.7		0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.300	0.250	0.292	0.000	0.000	0.000	0.000	0.000	0.000	0.313	0.250	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.375
Entering Leg	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0	6	1	7	0	0	0	0	0	5	1	6	0	0	0	0	0	1	0	1	0	18
Exiting Leg									1									1									2									7									6									1	18
Total									2									2									4									14									12									2	36

Table 5: Monthly Adjustment Factors for Cape Cod

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011*	1.26	1.25	1.20	1.06	0.96	0.89	0.76	0.76	0.92	0.99	1.08	1.14
2010	1.26	1.25	1.19	1.08	0.95	0.88	0.77	0.76	0.93	1.00	1.08	1.15
2009	1.26	1.25	1.19	1.08	0.95	0.88	0.77	0.76	0.93	1.00	1.08	1.15
2008	1.21	1.25	1.19	1.08	0.96	0.89	0.78	0.76	0.93	1.00	1.07	1.14
2007	1.25	1.21	1.17	1.06	0.96	0.86	0.78	0.79	0.93	1.00	1.08	1.14
2006	1.26	1.20	1.18	1.04	0.96	0.86	0.78	0.79	0.93	0.99	1.07	1.12
2005	1.27	1.23	1.18	1.06	0.96	0.85	0.77	0.78	0.93	0.99	1.08	1.15
2004	1.27	1.23	1.18	1.06	0.96	0.85	0.77	0.78	0.93	0.99	1.08	1.15
2003	1.29	1.23	1.16	1.06	0.99	0.87	0.79	0.77	0.95	0.99	1.07	1.14
2002	1.30	1.24	1.16	1.06	0.98	0.86	0.79	0.78	0.93	0.97	1.08	1.14
2001	1.34	1.27	1.18	1.06	0.97	0.86	0.78	0.78	0.94	0.97	1.08	1.13
2000	1.37	1.28	1.20	1.07	0.96	0.87	0.77	0.78	0.93	0.97	1.09	1.14
1999	1.37	1.29	1.23	1.09	0.96	0.87	0.76	0.77	0.94	0.99	1.10	1.15
1998	1.39	1.27	1.23	1.11	0.95	0.87	0.76	0.76	0.93	0.99	1.10	1.16
1997	1.38	1.29	1.22	1.10	0.96	0.86	0.76	0.75	0.92	0.99	1.10	1.19
1996	1.41	1.30	1.22	1.07	0.96	0.86	0.75	0.75	0.91	0.99	1.10	1.19
1995	1.36	1.33	1.24	1.07	0.97	0.86	0.75	0.75	0.90	0.99	1.10	1.19
1994	1.35	1.31	1.25	1.06	0.93	0.86	0.73	0.74	0.89	0.97	1.09	1.15
1993	1.35	1.30	1.24	1.07	0.92	0.85	0.75	0.75	0.90	0.99	1.10	1.17
1992	1.37	1.32	1.29	1.08	0.94	0.87	0.75	0.76	0.90	1.01	1.14	1.21
1991	1.39	1.30	1.22	1.08	0.94	0.87	0.76	0.77	0.95	1.02	1.12	1.20
1990	1.31	1.26	1.16	1.06	0.96	0.85	0.73	0.74	0.94	0.99	1.10	1.22
1989	1.37	1.38	1.25	1.13	0.99	0.89	0.72	0.73	0.94	1.03	1.15	1.17
1988	1.38	1.30	1.21	1.10	0.99	0.83	0.72	0.73	0.91	1.02	1.11	1.15
1987	1.40	1.39	1.23	1.10	0.94	0.85	0.71	0.73	0.96	1.02	1.18	1.25
1986	1.35	1.31	1.21	1.09	1.05	0.84	0.73	0.75	0.96	1.04	1.17	1.22
1985	1.31	1.26	1.17	1.07	0.96	0.92	0.84	0.83	0.97	0.97	1.14	1.16
1984	1.55	1.36	1.46	1.12	1.03	0.85	0.73	0.73	0.94	1.07	1.14	1.24
1983	1.53	1.51	1.30	1.15	0.98	0.82	0.65	0.66	0.87	1.07	1.23	1.30

Source: Massachusetts Highway Department / Mass DOT
*2011 is the last year that MassDOT has supplied monthly adjustment factors

for the period. Cape-wide traffic actually increased from 2008 to 2009 by 2.9%.

The following table shows the growth rates for various sub-regions and roads of Cape Cod over a 10-year period. The average annual growth rate between 2008 and 2018 is 0.44% for all of Cape Cod. From 2008 to 2018 all four regions on Cape Cod showed positive growth. All four regions showed positive one-year growth, with the highest being the Outer-Cape.

Table 8: Cape Cod Summer Traffic Growth by Subregion

Region*	Number of Comparisons**	10-Year Total Growth (%)	10-Year Annual Average Growth Rate (%)	One-Year Growth Rate 2017-2018 (%)
Upper Cape	168	5.59	0.54	3.85
Mid-Cape	152	2.70	0.26	1.26
Lower Cape	120	3.65	0.35	1.84
Outer Cape	81	8.80	0.84	4.66
All Roads	**518**	**4.54**	**0.44**	**2.92**

*Upper = Bourne, Sandwich, Falmouth, Mashpee | Mid = Barnstable, Yarmouth, Dennis
Lower = Harwich, Chatham, Brewster, Orleans | Outer = Eastham, Wellfleet, Truro, Provincetown

** Corresponds to ten-year analysis only

Regarding the modest traffic volume change from 2008 to 2018 (0.44% per year), it is unclear what is responsible for the stagnation. The Cape-wide population has shown a moderate decline during a portion this time period (see following table), but conventional trip generators (commercial establishments, residences, etc.) have not been reduced.

Table 9: Barnstable County Population Estimate

	1990	2000	2010	% Change 2000-2010
Population	186,605	222,230	215,888	-2.85%

Source: U.S. Census Bureau, Census 2010, Census 2000, Census 1990

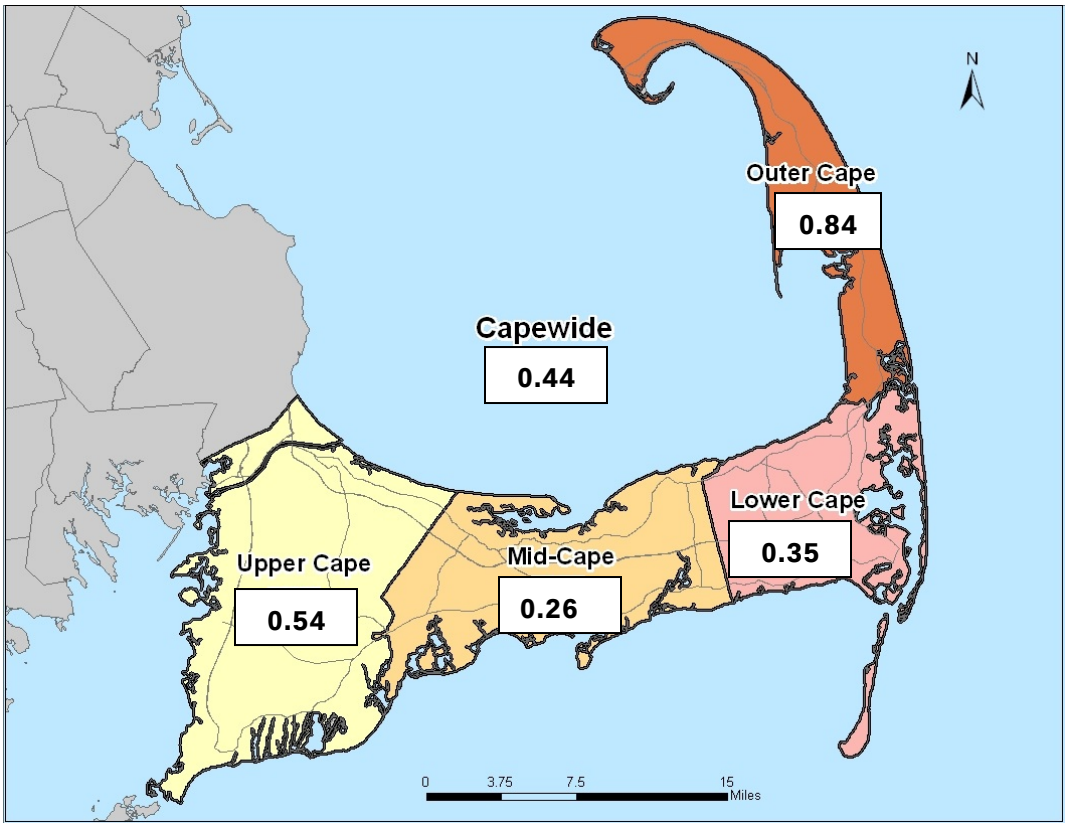


Figure 5: Sub regions' 10-year Average Annual Growth Rate (%)

Crash Number	Crash Date	Crash Time	Crash Severity	Maximum Injury Severity Reported	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Sequence of Events	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
Main Street at Lewis Bay Road / Camp Street																		
3069110	Thursday, January 5, 2012	8:08 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		MAIN ST / CAMP ST
3069221	Monday, February 6, 2012	3:37 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	3	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic	V1:8 / V2:8 / V3:8	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic),(Collision with moped) V3:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		CAMP STREET / MAIN STREET
3245326	Friday, August 24, 2012	5:42 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		MAIN ST / LEWIS BAY RD
3265381	Friday, September 28, 2012	7:00 PM	Non-fatal injury	Non-fatal injury - Possible	2	0	2	Head-on	V1: Turning left / V2:Travelling straight ahead	V1:N / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Dark - lighted roadway	Rain/Cloudy	3	CAMP ST
3451089	Wednesday, May 29, 2013	9:27 AM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Daylight	Rain	94	MAIN ST
3527916	Sunday, July 7, 2013	7:48 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:S / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		PARK ST / MAIN ST / CAMP ST
3549001	Saturday, August 3, 2013	3:14 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Cloudy		MAIN ST / CAMP ST
3714207	Sunday, December 15, 2013	1:53 AM	Property damage only (none injured)	No injury	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:W	V1:(Collision with utility pole)	V1:(Collision with utility pole)		Snow	Dark - lighted roadway	Snow	96	MAIN ST
3731984	Friday, February 7, 2014	9:18 PM	Non-fatal injury	Non-fatal injury - Possible	3	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:W / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		MAIN STREET / CAMP STREET
3732563	Saturday, January 25, 2014	8:23 PM	Property damage only (none injured)	No injury	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:E	V1:(Collision with tree)	V1:(Collision with tree)		Snow	Dark - unknown roadway lighting	Snow/Unknown	115	MAIN ST
3748534	Monday, February 24, 2014	2:40 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Backing / V2:Travelling straight ahead	V1:N / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	94	MAIN ST
3761617	Friday, March 14, 2014	5:23 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Head-on	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	125	MAIN ST
3782197	Saturday, March 29, 2014	7:39 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	1	Single vehicle crash	V1: Slowing or stopped in traffic	V1:E	V1:(Collision with curb)	V1:(Collision with curb),(Collision with other fixed object(wall, building, tunnel, etc.))		Wet	Dark - lighted roadway	Rain	110	MAIN ST
3887435	Monday, July 7, 2014	1:03 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Leaving traffic lane / V2:Slowing or stopped in traffic	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear/Cloudy		CAMP ST / MAIN ST
3925015	Friday, August 29, 2014	10:41 PM	Property damage only (none injured)	No injury	0	0	1	Sideswipe, same direction	V1: Travelling straight ahead	V1:N	V1:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		MAIN ST / LEWIS BAY RD
3984417	Tuesday, December 9, 2014	12:01 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Daylight	Rain/Severe crosswinds		MAIN ST / LEWIS BAY RD
3999297	Sunday, January 25, 2015	7:59 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:N / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		CAMP ST / MAIN ST
4037945	Thursday, March 12, 2015	7:47 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:N / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Dark - lighted roadway	Rain/Unknown	120	MAIN ST
4153707	Friday, February 12, 2016	9:35 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear	100	MAIN STREET
4254576	Tuesday, September 27, 2016	7:23 AM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Head-on	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:S / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Daylight	Rain	100	MAIN ST
Lewis Bay Road at Park Street																		
3244521	Wednesday, August 15, 2012	10:56 AM	Non-fatal injury	Non-fatal injury - Non-incapacitating	2	0	3	Angle	V1: Turning left / V2:Travelling straight ahead / V3:Travelling straight ahead	V1:E / V2:N / V3:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)		Wet	Daylight	Cloudy/Rain		PARK STREET / LEWIS BAY RD

Crash Number	Crash Date	Crash Time	Crash Severity	Maximum Injury Severity Reported	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Sequence of Events	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
Lewis Bay Road at Gleason Street																		
3452542	Thursday, June 6, 2013	1:15 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	1	Angle	V1: Travelling straight ahead	V1:W	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Collision with cyclist)	P2:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Daylight	Clear		LEWIS BAY RD / GLEASON ST
3968786	Thursday, October 23, 2014	1:32 PM	Property damage only (none injured)	No injury	0	0	1	Angle	V1: Turning left	V1:W	V1:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	40	LEWIS BAY RD
4027952	Sunday, March 29, 2015	1:30 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Backing / V2:Parked	V1:S / V2:8	V1:(Collision with parked motor vehicle) V2:(Collision with motor vehicle in traffic)	V1:(Collision with parked motor vehicle) V2:(Collision with motor vehicle in traffic)		Dry	Dark - roadway not lighted	Clear	21	LEWIS BAY RD
4057665	Thursday, July 2, 2015	7:12 AM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	12	GLEASON ST
4219150	Sunday, July 17, 2016	7:36 PM	Property damage only (none injured)	No injury	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:N	V1:(Collision with other fixed object (wall, building, tunnel, etc.))	V1:(Collision with other fixed object(wall, building, tunnel, etc.))	P2:Other non-motorist (wheelchair, etc.)	Dry	Daylight	Clear/Cloudy	40	LEWIS BAY RD
Lewis Bay Road at South Street																		
3240349	Thursday, August 9, 2012	10:27 AM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, opposite direction	V1: Travelling straight ahead / V2:Turning left	V1:S / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		LEWIS BAY ROAD / SOUTH STREET HYANNIS
3241504	Saturday, July 28, 2012	1:14 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic),(Collision with curb),(Collision with fence) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		LEWIS BAY ROAD / SOUTH STREET HYANNIS
Lewis Bay Road at Cape Cod Hospital Driveway																		
No Crashes																		
Bayview Street at Trenton Street / Cape Cod Driveway																		
No Crashes																		
Bayview Street at Cape Cod Hospital Driveway																		
No Crashes																		
Bayview Street at Parking (South)																		
No Crashes																		
Bayview Street at Park Street																		
No Crashes																		
Bayview Street at Parking (North)																		
No Crashes																		

Crash Number	Crash Date	Crash Time	Crash Severity	Maximum Injury Severity Reported	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Sequence of Events	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
Main Street at Bayview Street																		
3069098	Friday, January 20, 2012	3:46 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	1	Angle	V1: Turning left	V1:W	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Collision with cyclist)	P4:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Daylight	Clear		MAIN ST / BAY VIEW ST
3124872	Friday, January 20, 2012	3:46 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	1	Angle	V1: Turning left	V1:W	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Collision with cyclist)	P4:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Daylight	Clear		MAIN ST / BAY VIEW ST
3246756	Tuesday, August 28, 2012	12:37 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:E / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		MAIN ST / BAY VIEW ST
3277720	Monday, October 8, 2012	7:39 AM	Non-fatal injury	Non-fatal injury - Possible	2	0	2	Head-on	V1: Turning left / V2:Travelling straight ahead	V1:W / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Daylight	Clear		MAIN STREET / BAYVIEW STREET
3322123	Wednesday, November 28, 2012	9:17 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with pedestrian)	V1:(Collision with pedestrian)	P2:Pedestrian	Dry	Daylight	Clear	10	MAIN ST
3463694	Monday, June 17, 2013	4:06 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:N / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		BAY VIEW STREET / MAIN STREET
3872067	Saturday, July 5, 2014	6:20 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	6	MAIN ST
3947241	Wednesday, September 17, 2014	9:12 AM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:W / V2:W	V1:(Collision with parked motor vehicle) V2:(Collision with motor vehicle in traffic)	V1:(Collision with parked motor vehicle) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear/Other		BAYVIEW STREET / MAIN STREET
4180756	Thursday, April 14, 2016	12:17 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Rear-end	V1: Turning right / V2:Turning left	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		BAYVIEW STREET / MAIN STREET
4185260	Sunday, April 17, 2016	2:39 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	1	Angle	V1: Turning left	V1:S	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Collision with cyclist)	P2:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Daylight	Clear		MAIN STREET / BAYVIEW STREET
Park Street at Cape Cod Hospital Driveway																		
No Crashes																		

Crash Number	Crash Date	Crash Time	Crash Severity	Maximum Injury Severity Reported	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Sequence of Events	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
Main Street at Center Street / Old Colony Road																		
3068999	Tuesday, February 14, 2012	5:27 PM	Property damage only (none injured)	No injury	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with other fixed object (wall, building, tunnel, etc.))	V1:(Collision with pedestrian)		Dry	Daylight	Clear		MAIN ST / CENTER ST
3153044	Monday, June 18, 2012	4:45 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		OLD COLONY RD / MAIN ST
3242606	Thursday, August 16, 2012	3:56 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		MAIN ST / CENTER ST
3249917	Wednesday, September 5, 2012	8:16 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:N	V1:(Collision with other fixed object (wall, building, tunnel, etc.))	V1:(Collision with other fixed object(wall, building, tunnel, etc.))		Wet	Dark - lighted roadway	Rain/Cloudy	278	MAIN ST
3265200	Wednesday, September 19, 2012	6:22 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	1	Head-on	V1: Travelling straight ahead	V1:W	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Collision with cyclist)	P2:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Dawn	Clear		MAIN ST / OLD COLONY RD
3288868	Monday, October 22, 2012	2:15 PM	Non-fatal injury	Non-fatal injury - Incapacitating	1	0	1	Unknown	V1: Travelling straight ahead	V1:S	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Collision with cyclist)	P2:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Daylight	Clear		MAIN ST / CENTER ST
3381811	Thursday, April 4, 2013	6:07 PM	Property damage only (none injured)	No injury	0	0	1	Single vehicle crash	V1: Turning left	V1:N	V1:(Collision with highway traffic sign post)	V1:(Collision with highway traffic sign post)		Dry	Daylight	Clear		MAIN ST / OLD COLONY RD
3422784	Friday, May 17, 2013	6:11 PM	Property damage only (none injured)	No injury	0	0	3	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic	V1:N / V2:N / V3:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	580	OLD COLONY RD
3560016	Wednesday, August 14, 2013	2:55 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	1	Unknown	V1: Leaving traffic lane	V1:E	V1:(Other non-collision)	V1:(Ran off road left)		Dry	Daylight	Clear		MAIN ST / OLD COLONY RD
3641217	Friday, November 1, 2013	12:54 AM	Property damage only (none injured)	No injury	0	0	2	Single vehicle crash	V1: Entering traffic lane / V2:Travelling straight ahead	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Dark - lighted roadway	Rain/Cloudy	302	MAIN ST
3689094	Wednesday, December 4, 2013	12:58 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		MAIN ST / CENTER ST / OLD COLONY RD
3869199	Friday, June 20, 2014	12:38 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		MAIN ST / OLD COLONY RD / CENTER ST
4053878	Tuesday, June 16, 2015	9:14 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	1	Angle	V1: Turning left	V1:S	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Collision with cyclist)	P1:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Dark - roadway not lighted	Clear	259	MAIN STREET
4057659	Monday, June 29, 2015	2:56 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	302	MAIN ST
4065442	Tuesday, July 21, 2015	12:30 AM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Parked	V1:W	V1:(Collision with parked motor vehicle) V2:(Unknown)	V1:(Collision with parked motor vehicle) V2:		Dry	Dark - lighted roadway	Clear	302	MAIN ST
4213355	Monday, July 4, 2016	7:54 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Changing lanes / V2:Travelling straight ahead	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	290	MAIN ST
4298946	Monday, December 5, 2016	7:28 PM	Property damage only (none injured)	No injury	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:N	V1:(Collision with median barrier)	V1:(Collision with median barrier),(Collision with other fixed object(wall, building, tunnel, etc.))		Wet	Dark - lighted roadway	Cloudy/Rain		MAIN ST / CENTER ST

Crash Number	Crash Date	Crash Time	Crash Severity	Maximum Injury Severity Reported	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Sequence of Events	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
Main Street at Barnstable Road / Ocean Street																		
3069079	Saturday, March 31, 2012	2:48 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	362	MAIN ST
3153042	Wednesday, June 13, 2012	3:06 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	1	Single vehicle crash	V1: Turning left	V1:S	V1:(Collision with pedestrian)	V1:(Collision with pedestrian)	P2:Pedestrian	Dry	Daylight	Clear/Unknown		MAIN ST / OCEAN ST
3186761	Thursday, July 12, 2012	9:27 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Parked / V2:Travelling straight ahead	V1:8 / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with parked motor vehicle)	V1:(Collision with motor vehicle in traffic) V2:(Collision with parked motor vehicle)		Dry	Daylight	Clear	360	MAIN ST
3244651	Wednesday, August 22, 2012	5:10 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Turning right / V2:Turning right	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		BARNSTABLE ROAD / MAIN STREET
3493070	Tuesday, June 25, 2013	1:41 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	360	MAIN STREET
3588828	Monday, May 6, 2013	1:24 PM	Property damage only (none injured)	No injury	0	0	2	Not reported	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Not reported	Not reported	Not Reported	325	MAIN STREET
3667521	Friday, November 29, 2013	11:07 AM	Non-fatal injury	Non-fatal injury - Possible	1	0	3	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Parked	V1:W / V2:W / V3:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic),(Collision with parked motor vehicle) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	319	MAIN ST
3736527	Saturday, February 15, 2014	4:35 AM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:W	V1:(Collision with other movable object)	V1:(Collision with other movable object),(Collision with curb)		Dry	Dark - lighted roadway	Clear	319	MAIN ST
3754204	Wednesday, March 5, 2014	6:30 PM	Property damage only (none injured)	No injury	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:N	V1:(Collision with tree)	V1:(Collision with tree)		Snow	Dark - lighted roadway	Snow	350	MAIN ST
3810955	Sunday, May 18, 2014	1:36 PM	Property damage only (none injured)	No injury	0	0	3	Sideswipe, same direction	V1: Parked / V2:Slowing or stopped in traffic / V3:Travelling straight ahead	V1:8 / V2:W / V3:W	V1:(Other) V2:(Collision with parked motor vehicle) V3:(Collision with parked motor vehicle)	V1:(Other) V2:(Collision with parked motor vehicle) V3:(Collision with parked motor vehicle)		Dry	Daylight	Clear	331	MAIN STREET / OCEAN DRIVE / MAIN STREET
3887445	Saturday, July 12, 2014	12:48 PM	Property damage only (none injured)	No injury	0	0	1	Angle	V1: Backing	V1:S	V1:(Collision with highway traffic sign post)	V1:(Collision with curb),(Collision with highway traffic sign post)		Dry	Daylight	Clear		MAIN ST / BARNSTABLE RD
3912322	Tuesday, August 19, 2014	6:17 PM	Property damage only (none injured)	No injury	0	0	1	Sideswipe, opposite direction	V1: Travelling straight ahead	V1:S	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	V1:(Collision with cyclist)	P2:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Daylight	Clear	1	BARNSTABLE RD
3985886	Friday, December 12, 2014	7:45 AM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:S / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	354	MAIN STREET COTUIT
4014616	Monday, February 16, 2015	8:01 PM	Not Reported		0	0	1	Sideswipe, same direction		V1:E				Snow	Dark - lighted roadway	Snow	319	MAIN ST
4100665	Tuesday, October 20, 2015	2:00 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	319	MAIN STREET
4151550	Sunday, February 14, 2016	6:37 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:S / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		MAIN ST / BARNSTABLE RD
4229102	Tuesday, August 2, 2016	9:46 PM	Property damage only (none injured)	No injury	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with pedestrian)	V1:(Collision with pedestrian)	P2:Pedestrian	Dry	Dark - lighted roadway	Clear		MAIN ST / OCEAN ST
4242322	Thursday, September 1, 2016	2:57 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:W / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	319	MAIN ST
4248503	Wednesday, September 7, 2016	12:20 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:S / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Dark - lighted roadway	Cloudy		MAIN ST / OCEAN ST

Crash Number	Crash Date	Crash Time	Crash Severity	Maximum Injury Severity Reported	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Sequence of Events	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
Main Street at High School Road																		
3124327	Wednesday, May 23, 2012	11:57 AM	Non-fatal injury	Non-fatal injury - Possible	1	0	1	Angle	V1: Slowing or stopped in traffic	V1:N	Collision with pedalcycle (bicycle, tricycle, unicycle, pedal car)	V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))	P2:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	Dry	Daylight	Clear		MAIN ST / HIGH SCHOOL RD
3124851	Friday, June 1, 2012	12:54 AM	Property damage only (none injured)	No injury	0	0	1	Angle	V1: Travelling straight ahead	V1:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		MAIN ST / HIGH SCHOOL RD
3241506	Friday, August 3, 2012	6:45 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Turning right / V2:Travelling straight ahead	V1:S / V2:S	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		HIGH SCHOOL ROAD / MAIN STREET
3322506	Monday, December 24, 2012	11:10 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:N / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Rain/Cloudy		MAIN ST / HIGH SCHOOL RD EXT
3330806	Monday, January 7, 2013	8:13 AM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Travelling straight ahead / V2:Changing lanes	V1:W / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		HIGH SCHOOL RD EXT / MAIN ST
3362981	Monday, February 25, 2013	10:09 AM	Property damage only (none injured)	No injury	0	0	2	Head-on	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:W / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	480	MAIN ST
3370228	Tuesday, March 12, 2013	10:44 AM	Not Reported	Not reported	0	0	1	Sideswipe, opposite direction	V1: Parked	V1:8	Collision with parked motor vehicle	V1:(Collision with parked motor vehicle)		Dry	Daylight	Clear	491	MAIN ST
3394378	Tuesday, April 23, 2013	10:22 AM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Parked	V1:N / V2:8	Collision with parked motor vehicle	V1:(Collision with parked motor vehicle) V2:(Collision with parked motor vehicle)		Wet	Daylight	Rain	5	HIGH SCHOOL RD
3722346	Monday, January 20, 2014	1:57 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:W / V2:S	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear/Cloudy		MAIN STREET / HIGH SCHOOL ROAD EXTENSION
3787174	Sunday, April 6, 2014	9:28 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:W / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		MAIN ST / HIGH SCHOOL RD
3794280	Tuesday, April 22, 2014	2:31 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, opposite direction	V1: Leaving traffic lane / V2:Travelling straight ahead	V1:S / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	489	MAIN ST
3794285	Thursday, April 24, 2014	12:18 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:W / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear/Severe crosswinds	473	MAIN ST
3822596	Saturday, May 24, 2014	1:02 AM	Property damage only (none injured)	No injury	0	0	2	Single vehicle crash	V1: Backing / V2:Slowing or stopped in traffic	V1:N / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear	481	MAIN ST
3966369	Thursday, October 23, 2014	10:07 AM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:W / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Daylight	Rain		HIGH SCHOOL RD / MAIN ST
3995024	Wednesday, November 19, 2014	1:15 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:W / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	491	MAIN ST
4021758	Sunday, March 15, 2015	12:01 AM	Non-fatal injury	Non-fatal injury - Possible	3	0	2	Sideswipe, opposite direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:N / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Dark - lighted roadway	Cloudy/Rain		MAIN ST / HIGH SCHOOL RD
4055849	Saturday, May 30, 2015	12:14 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	2	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:N	Collision with motor vehicle in traffic	V1:(Collision with utility pole)		Dry	Daylight	Clear	481	MAIN ST
4057668	Friday, July 3, 2015	7:18 PM	Property damage only (none injured)	No injury	0	0	3	Sideswipe, same direction	V1: Travelling straight ahead / V2:Travelling straight ahead / V3:Travelling straight ahead	V1:W / V2:W / V3:W	Collision with motor vehicle in traffic	V1:(Collision with utility pole) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	491	MAIN ST
4124408	Wednesday, December 16, 2015	11:05 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:N / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Dark - lighted roadway	Rain		MAIN STREET / HIGH SCHOOL ROAD / HIGH SCHOOL ROAD EXTENSION

Crash Number	Crash Date	Crash Time	Crash Severity	Maximum Injury Severity Reported	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Sequence of Events	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
4244573	Monday, August 22, 2016	10:15 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:S / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear/Unknown		MAIN STREET / HIGH SCHOOL ROAD
4260324	Wednesday, October 5, 2016	9:14 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:N / V2:W	Collision with motor vehicle in traffic	V1:(Overturn/rollover) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		MAIN ST / HIGH SCHOOL RD
4277296	Sunday, October 30, 2016	10:10 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:N / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Dark - lighted roadway	Rain		MAIN ST / HIGH SCHOOL RD
South Street at Ocean Street and Old Colony Road																		
3068928	Sunday, January 22, 2012	12:41 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	1	Unknown	V1: Travelling straight ahead		Collision with pedestrian	V1:(Collision with pedestrian)	P2:Pedestrian	Snow	Daylight	Clear		OCEAN ST / SOUTH ST
3069010	Thursday, February 16, 2012	10:41 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	4	0	3	Rear-end	V1: Unknown / V2:Unknown / V3:Unknown	V1:E / V2:E / V3:E	Collision with motor vehicle in traffic	V1:(Unknown) V2:(Unknown) V3:(Unknown)		Wet	Dark - lighted roadway	Rain		SOUTH ST / OCEAN ST
3069434	Thursday, February 16, 2012	2:52 AM	Non-fatal injury	Non-fatal injury - Incapacitating	2	0	1	Single vehicle crash	V1: Unknown	V1:E	Collision with utility pole	V1:(Collision with utility pole)		Wet	Dark - lighted roadway	Cloudy		SOUTH STREET HYANNIS / OLD COLONY ROAD
3124855	Friday, June 1, 2012	2:01 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:N / V2:S	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		SOUTH ST / OLD COLONY RD
3168379	Thursday, June 28, 2012	1:17 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		SOUTH ST / OCEAN ST
3182543	Wednesday, July 4, 2012	10:35 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:E / V2:W	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - roadway not lighted	Clear		SOUTH ST / OCEAN ST
3201766	Thursday, July 19, 2012	6:57 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:N / V2:S	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	50	OCEAN ST
3229717	Saturday, August 4, 2012	11:27 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		SOUTH STREET HYANNIS / OCEAN STREET HYANNIS
3240441	Monday, August 6, 2012	5:13 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	184	SOUTH STREET HYANNIS
3248115	Thursday, August 30, 2012	9:27 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	184	SOUTH STREET HYANNIS
3251060	Monday, September 3, 2012	2:57 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		OCEAN STREET HYANNIS / SOUTH STREET HYANNIS
3297763	Friday, November 30, 2012	9:15 AM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		SOUTH STREET HYANNIS / OLD COLONY ROAD / OCEAN STREET HYANNIS
3368101	Thursday, March 7, 2013	11:23 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:E / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Daylight	Rain		SOUTH STREET HYANNIS / OLD COLONY ROAD
3451095	Sunday, June 2, 2013	8:01 PM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:S / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dusk	Cloudy		SOUTH ST / OLD COLONY RD

Crash Number	Crash Date	Crash Time	Crash Severity	Maximum Injury Severity Reported	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Sequence of Events	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
3451097	Monday, June 3, 2013	9:25 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:S / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Cloudy		SOUTH STREET HYANNIS / OCEAN STREET HYANNIS
3451103	Wednesday, June 5, 2013	3:29 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	Collision with pedestrian	V1:(Collision with pedestrian)	P2:Pedestrian	Dry	Daylight	Clear	184	SOUTH STREET HYANNIS
3452538	Sunday, June 2, 2013	1:56 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Changing lanes / V2:Travelling straight ahead	V1:S / V2:S	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		SOUTH STREET HYANNIS
3484358	Sunday, June 23, 2013	10:56 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:S / V2:S	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	100	OCEAN ST
3573138	Friday, August 23, 2013	1:35 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		OLD COLONY ROAD / SOUTH STREET HYANNIS
3726790	Friday, January 24, 2014	12:57 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:E / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Dark - roadway not lighted	Clear		SOUTH ST / OLD COLONY ROAD / OCEAN ST
3729296	Thursday, January 30, 2014	9:17 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		SOUTH ST / OLD COLONY RD
3869264	Wednesday, June 25, 2014	9:07 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:N / V2:S	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		OCEAN ST / SOUTH ST
3888506	Saturday, July 26, 2014	1:39 AM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Travelling straight ahead / V2:Turning left	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		SOUTH ST / OLD COLONY RD / OCEAN ST
3941855	Monday, September 8, 2014	8:01 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Sideswipe, opposite direction	V1: Travelling straight ahead / V2:Turning left	V1:N / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		SOUTH ST / OLD COLONY RD
3958290	Friday, October 10, 2014	7:16 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		OLD COLONY RD / SOUTH ST
3978922	Thursday, November 13, 2014	3:21 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	184	SOUTH STREET HYANNIS
4014597	Friday, February 6, 2015	11:01 AM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:N / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		OCEAN ST / SOUTH ST / OLD COLONY RD
4052367	Sunday, June 7, 2015	11:09 AM	Non-fatal injury	Non-fatal injury - Non-incapacitating	1	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear	184	SOUTH ST
4071561	Wednesday, August 5, 2015	8:53 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:S / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		SOUTH STREET / OCEAN STREET
4073816	Wednesday, July 22, 2015	12:00 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Travelling straight ahead / V2:Changing lanes	V1:N / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		SOUTH ST / OLD COLONY RD
4073822	Monday, August 10, 2015	1:37 PM	Property damage only (none injured)	No injury	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear		SOUTH ST / OLD COLONY RD
4088943	Wednesday, September 23, 2015	8:13 AM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Turning left	V1:N / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear/Unknown	184	SOUTH ST
4103259	Friday, October 2, 2015	9:45 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Sideswipe, same direction	V1: Travelling straight ahead / V2:Turning left	V1:N / V2:N	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Wet	Daylight	Cloudy	184	SOUTH ST
4210849	Friday, June 24, 2016	1:01 PM	Property damage only (none injured)	No injury	0	0	2	Angle	V1: Turning left / V2:Turning left	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Cloudy		SOUTH ST / OLD COLONY RD
4219139	Tuesday, July 12, 2016	5:41 PM	Property damage only (none injured)	No injury	0	0	2	Sideswipe, same direction	V1: Travelling straight ahead / V2:Entering traffic lane	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Daylight	Clear/Cloudy		OCEAN ST / SOUTH ST

Crash Number	Crash Date	Crash Time	Crash Severity	Maximum Injury Severity Reported	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Sequence of Events	Non Motorist Type	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway
4219143	Wednesday, July 13, 2016	7:08 PM	Property damage only (none injured)	No injury	0	0	2	Unknown	V1: Travelling straight ahead / V2:Turning left	V1:E / V2:N	Other non-collision	V1:(Other non-collision) V2:(Other non-collision)		Dry	Daylight	Clear/Other		SOUTH ST / OCEAN ST
4234216	Sunday, August 14, 2016	11:07 PM	Non-fatal injury	Non-fatal injury - Possible	1	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:E / V2:E	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear	184	SOUTH ST
4236225	Friday, August 19, 2016	11:41 PM	Property damage only (none injured)	No injury	0	0	2	Head-on	V1: Turning right / V2:Travelling straight ahead	V1:S / V2:S	Collision with motor vehicle in traffic	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)		Dry	Dark - lighted roadway	Clear		OCEAN ST / OLD COLONY RD

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

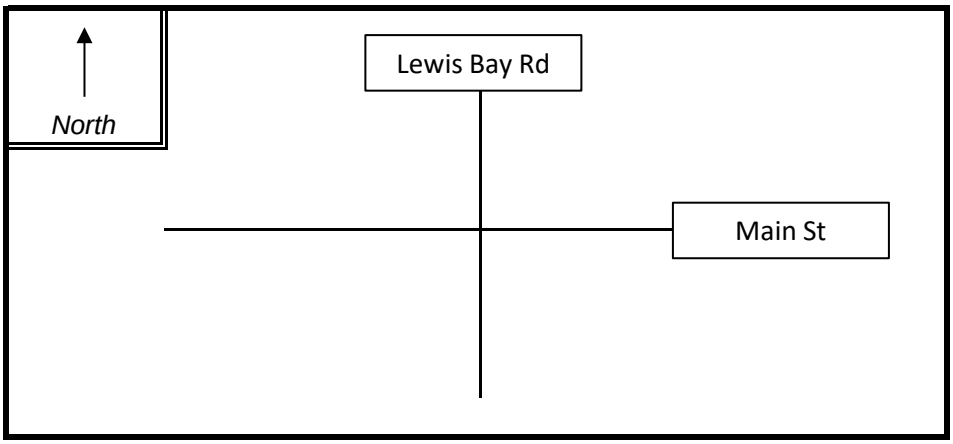
DISTRICT : 5 UNSIGNALIZED : [ ] 0.57 SIGNALIZED : [X] 0.75

~ INTERSECTION DATA ~

MAJOR STREET : Lewis Bay Road

MINOR STREET(S) : Main Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/**PM**) :	625	545	720	200		**2,090**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **23,222**

TOTAL # OF CRASHES : 20 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **4.00**

CRASH RATE CALCULATION : **0.47** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

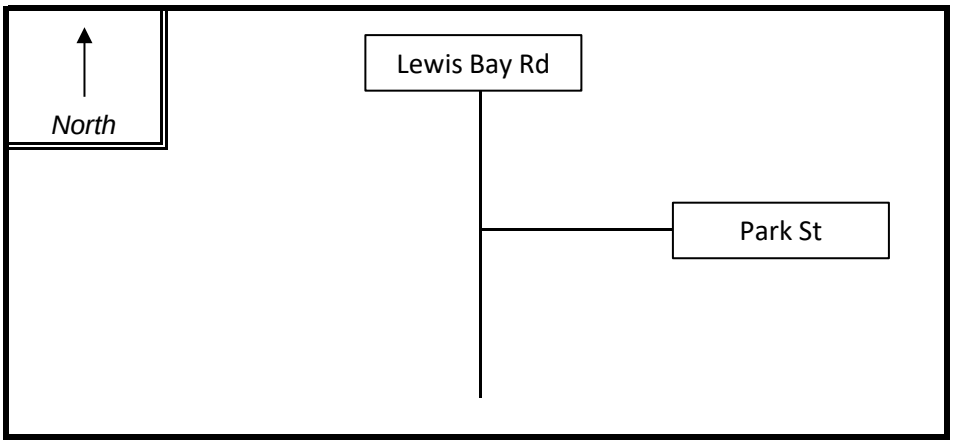
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Lewis Bay Road

MINOR STREET(S) : Park Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (AM/**PM**) :	65	655	180			**900**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **10,000**

TOTAL # OF CRASHES : 1 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.20**

CRASH RATE CALCULATION : **0.05** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

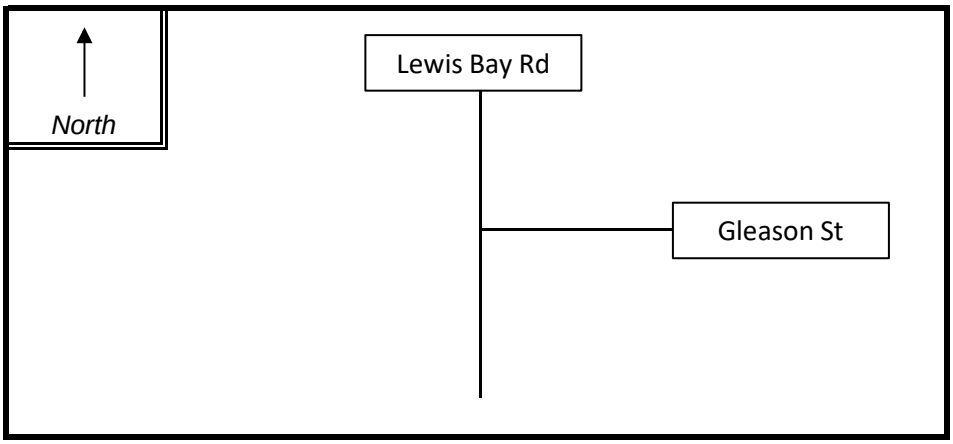
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Lewis Bay Road

MINOR STREET(S) : Gleason Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (AM/**PM**) :	230	470	165			**865**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **9,611**

TOTAL # OF CRASHES : 5

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **1.00**

CRASH RATE CALCULATION : 0.29

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

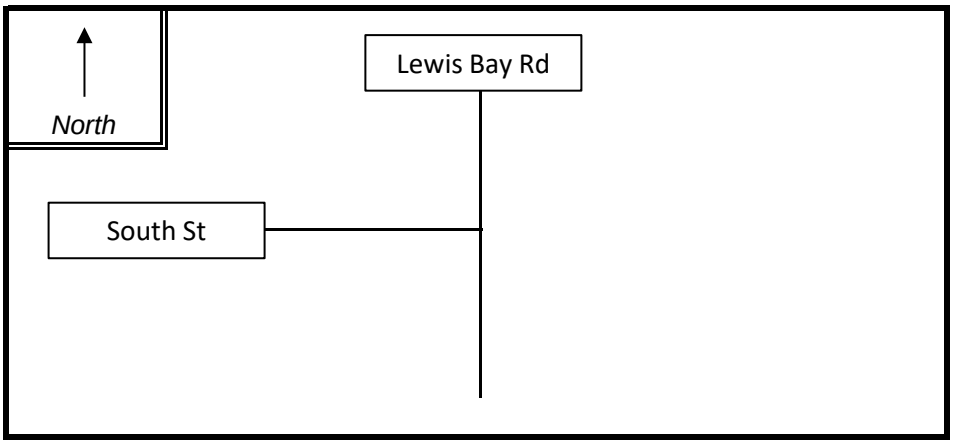
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Lewis Bay Road

MINOR STREET(S) : South Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	SB			
PEAK HOURLY VOLUMES (AM/**PM**) :	460	170	65			**695**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **7,722**

TOTAL # OF CRASHES : 2

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.40**

CRASH RATE CALCULATION : **0.14**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

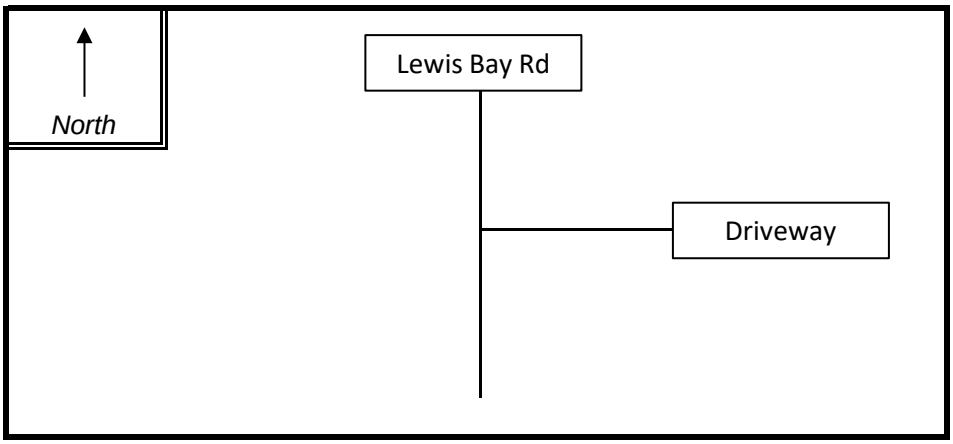
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Lewis Bay Road

MINOR STREET(S) : CC Hospital Driveway

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (AM/**PM**) :	85	90	230			**405**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **4,500**

TOTAL # OF CRASHES : 0 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : **0.00** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : West Yarmouth, MA COUNT DATE : Nov 2017

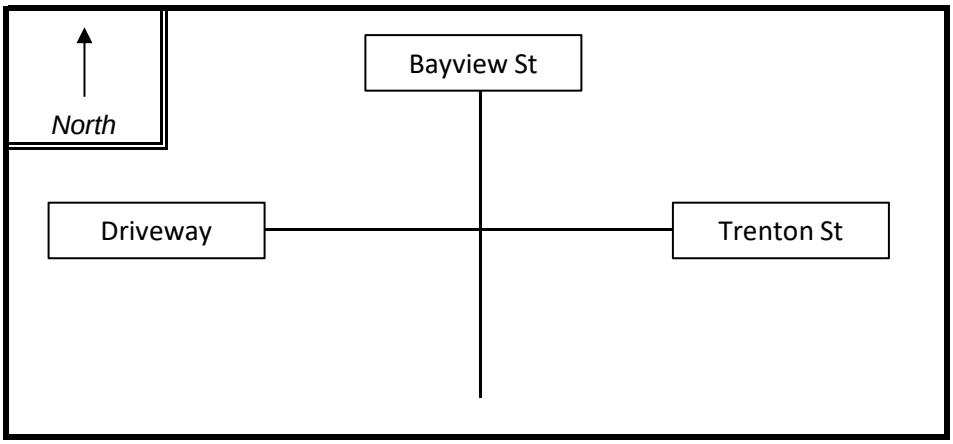
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Bayview Street

MINOR STREET(S) : Trenton Street, CC Hospital Driveway

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/**PM**) :	55	0	80	55		**190**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **2,111**

TOTAL # OF CRASHES : 0 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : **0.00** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : West Yarmouth, MA COUNT DATE : Nov 2017

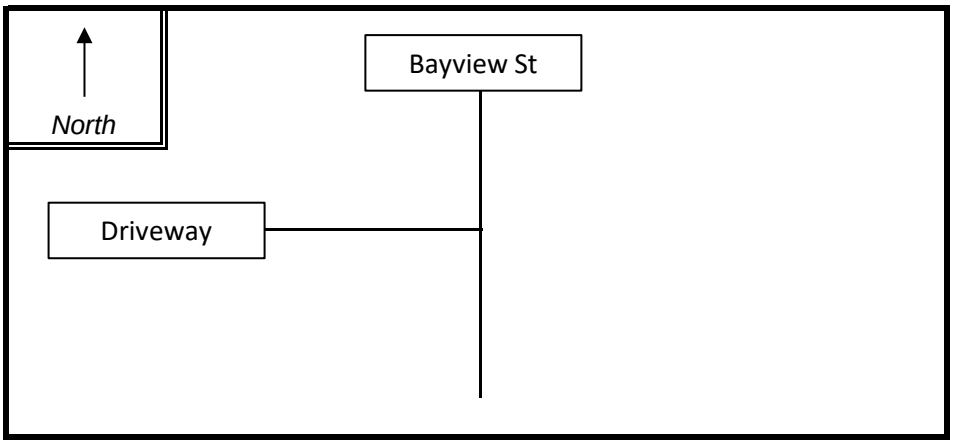
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Bayview Street

MINOR STREET(S) : CC Hospital Driveway

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	SB			
PEAK HOURLY VOLUMES (AM/**PM**) :	20	140	65			**225**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **2,500**

TOTAL # OF CRASHES : 0

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : **0.00**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

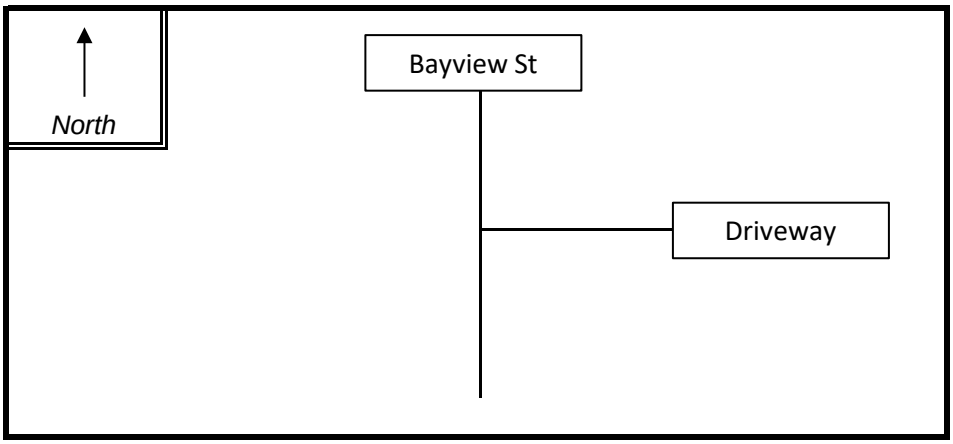
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Bayview Street

MINOR STREET(S) : Main Parking Field Driveway (South)

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB				
PEAK HOURLY VOLUMES (AM/**PM**) :	155	65				**220**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **2,444**

TOTAL # OF CRASHES : 0

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : **0.00**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

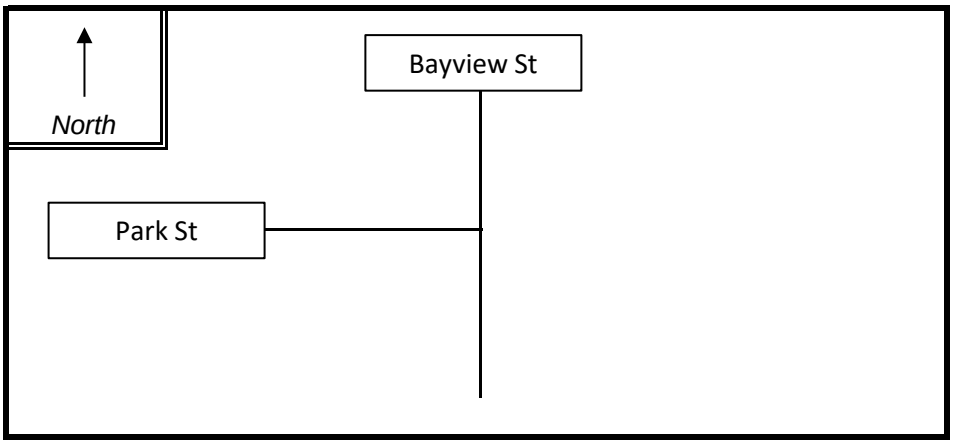
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Bayview Street

MINOR STREET(S) : Park Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	SB			
PEAK HOURLY VOLUMES (AM/**PM**) :	125	155	195			**475**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **5,278**

TOTAL # OF CRASHES : 0

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : **0.00**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

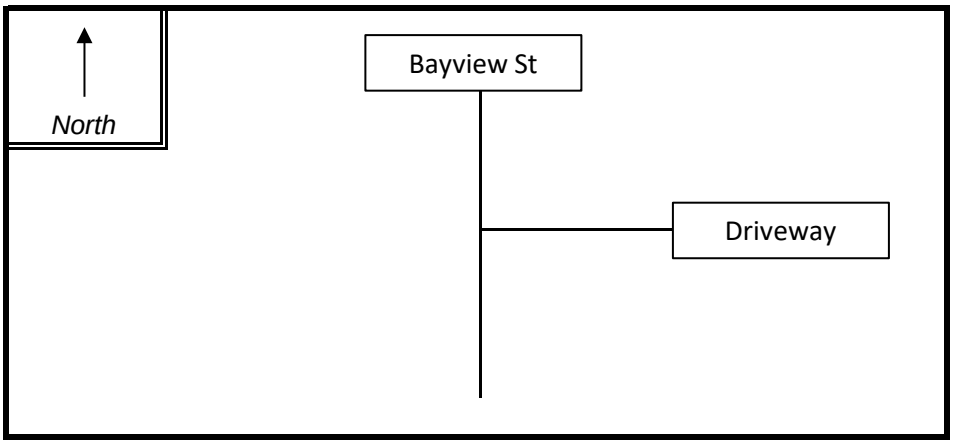
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Bayview Street

MINOR STREET(S) : Main Parking Field Driveway (North)

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (AM/**PM**) :	245	170	80			**495**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **5,500**

TOTAL # OF CRASHES : 0

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : 0.00

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

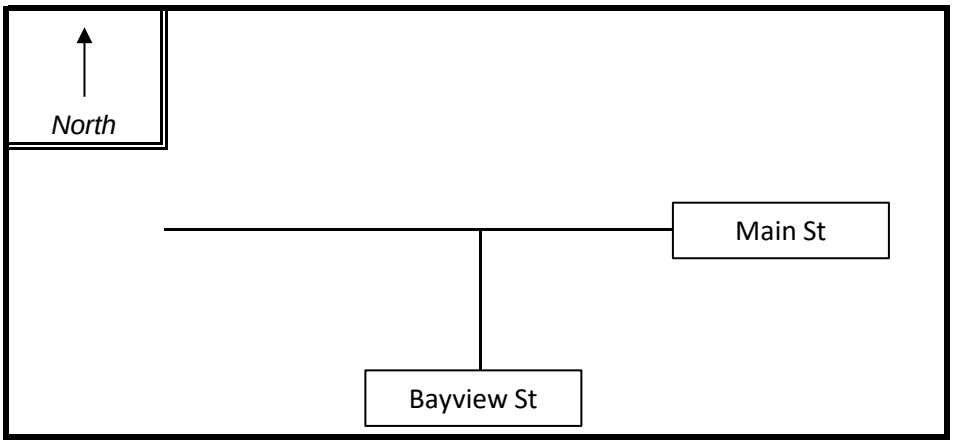
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Bayview Street

MINOR STREET(S) : Main Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB			
PEAK HOURLY VOLUMES (AM/**PM**) :	540	350	310			**1,200**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **13,333**

TOTAL # OF CRASHES : 10

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **2.00**

CRASH RATE CALCULATION : 0.41

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2017

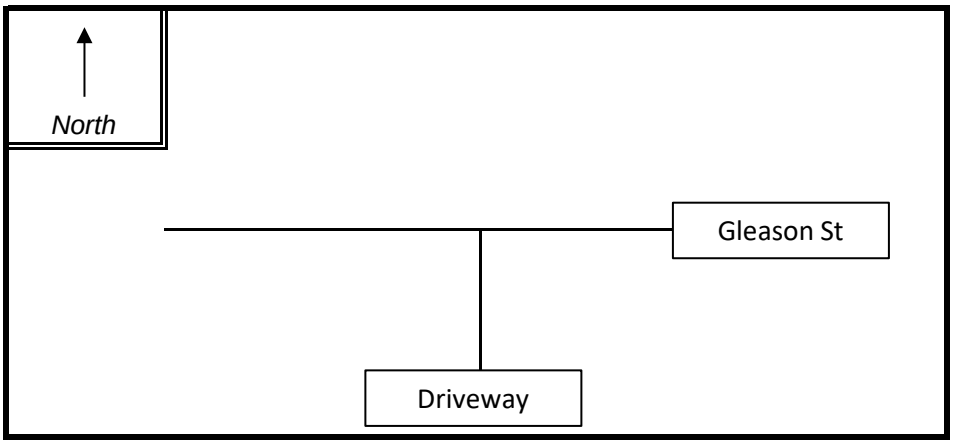
DISTRICT : 5 UNSIGNALIZED : X (0.57) SIGNALIZED : (0.75)

~ INTERSECTION DATA ~

MAJOR STREET : Gleason Street

MINOR STREET(S) : CC Hospital Driveway

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB			
PEAK HOURLY VOLUMES (AM/**PM**) :	145	160	165			**470**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **5,222**

TOTAL # OF CRASHES : 0

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.00**

CRASH RATE CALCULATION : 0.00

RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2018

DISTRICT : 5 UNSIGNALIZED : [ ] 0.57 SIGNALIZED : [X] 0.75

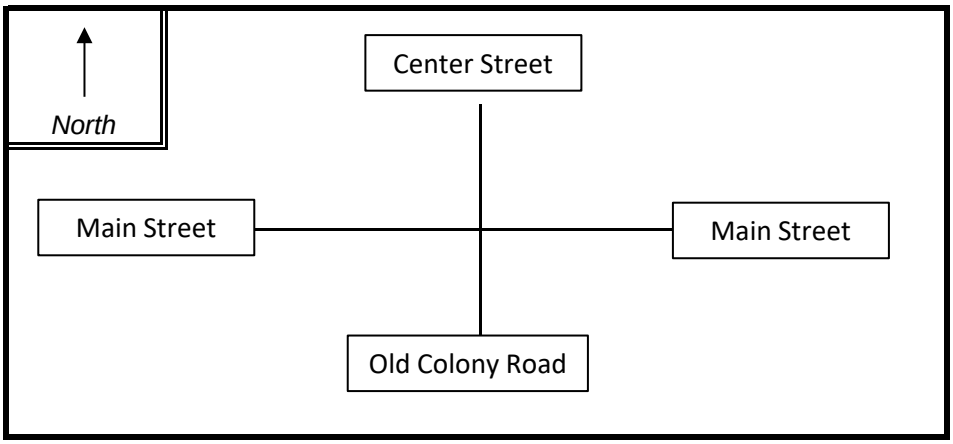
~ INTERSECTION DATA ~

MAJOR STREET : Main Street

MINOR STREET(S) : Center Street

Old Colony Road

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (AM/**PM**) :	1,465	630	640			**2,735**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **30,389**

TOTAL # OF CRASHES : 17

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **3.40**

CRASH RATE CALCULATION : **0.31**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2018

DISTRICT : 5 UNSIGNALIZED : [ ] 0.57 SIGNALIZED : [X] 0.75

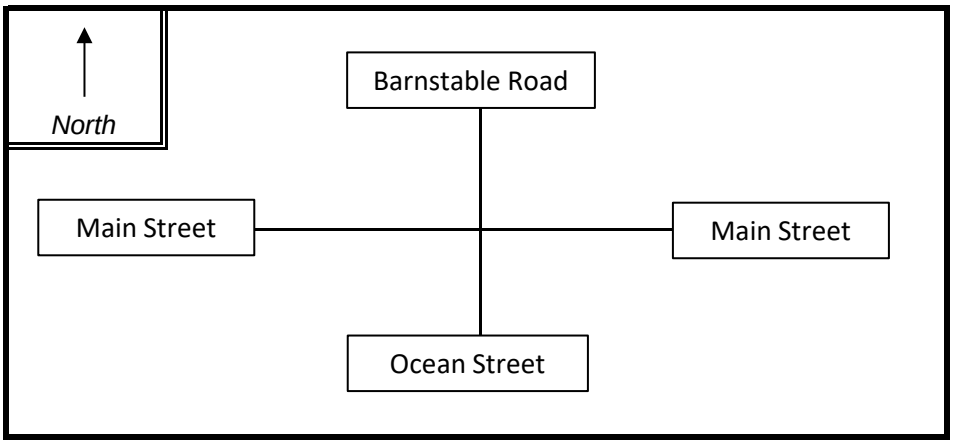
~ INTERSECTION DATA ~

MAJOR STREET : Main Street

MINOR STREET(S) : Barnstable Road

Ocean Street

INTERSECTION DIAGRAM (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	SB				
PEAK HOURLY VOLUMES (AM/**PM**) :	995	265				**1,260**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **14,000**

TOTAL # OF CRASHES : 19 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **3.80**

CRASH RATE CALCULATION : **0.74** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA COUNT DATE : Nov 2018

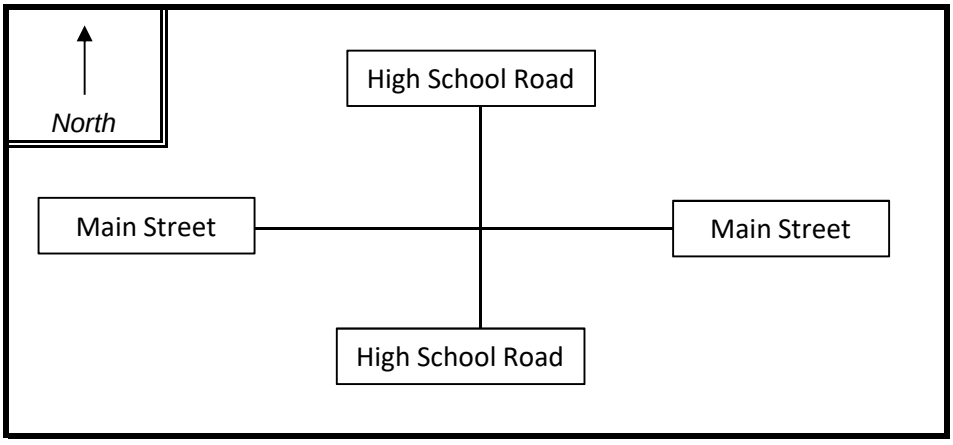
DISTRICT : 5 UNSIGNALIZED : [ ] 0.57 SIGNALIZED : [X] 0.75

~ INTERSECTION DATA ~

MAJOR STREET : Main Street

MINOR STREET(S) : High School Road

INTERSECTION DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	WB	NB	SB			
PEAK HOURLY VOLUMES (AM/**PM**) :	940	130	135			**1,205**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **13,389**

TOTAL # OF CRASHES : 22

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **4.40**

CRASH RATE CALCULATION : **0.90**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Hyannis, MA | COUNT DATE : Nov 2018

DISTRICT : 5 | UNSIGNALIZED : | SIGNALIZED : X

0.57 | 0.75

~ INTERSECTION DATA ~

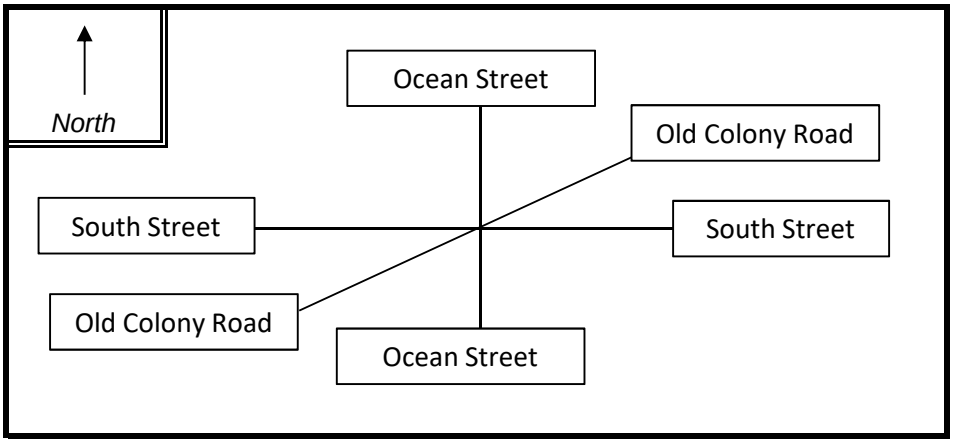
MAJOR STREET : South Street

MINOR STREET(S) : Ocean Street

Old Colony Road

INTERSECTION DIAGRAM

(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	NB	SB	NEB		
PEAK HOURLY VOLUMES (AM/**PM**) :	805	165	245	85		**1,300**

" K " FACTOR : **0.090**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **14,444**

TOTAL # OF CRASHES : 38

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **7.60**

CRASH RATE CALCULATION : **1.44**

RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT Accident Data (2012-2016)

Project Title & Date: Project 2022, 14072.00

COLLISION DIAGRAM

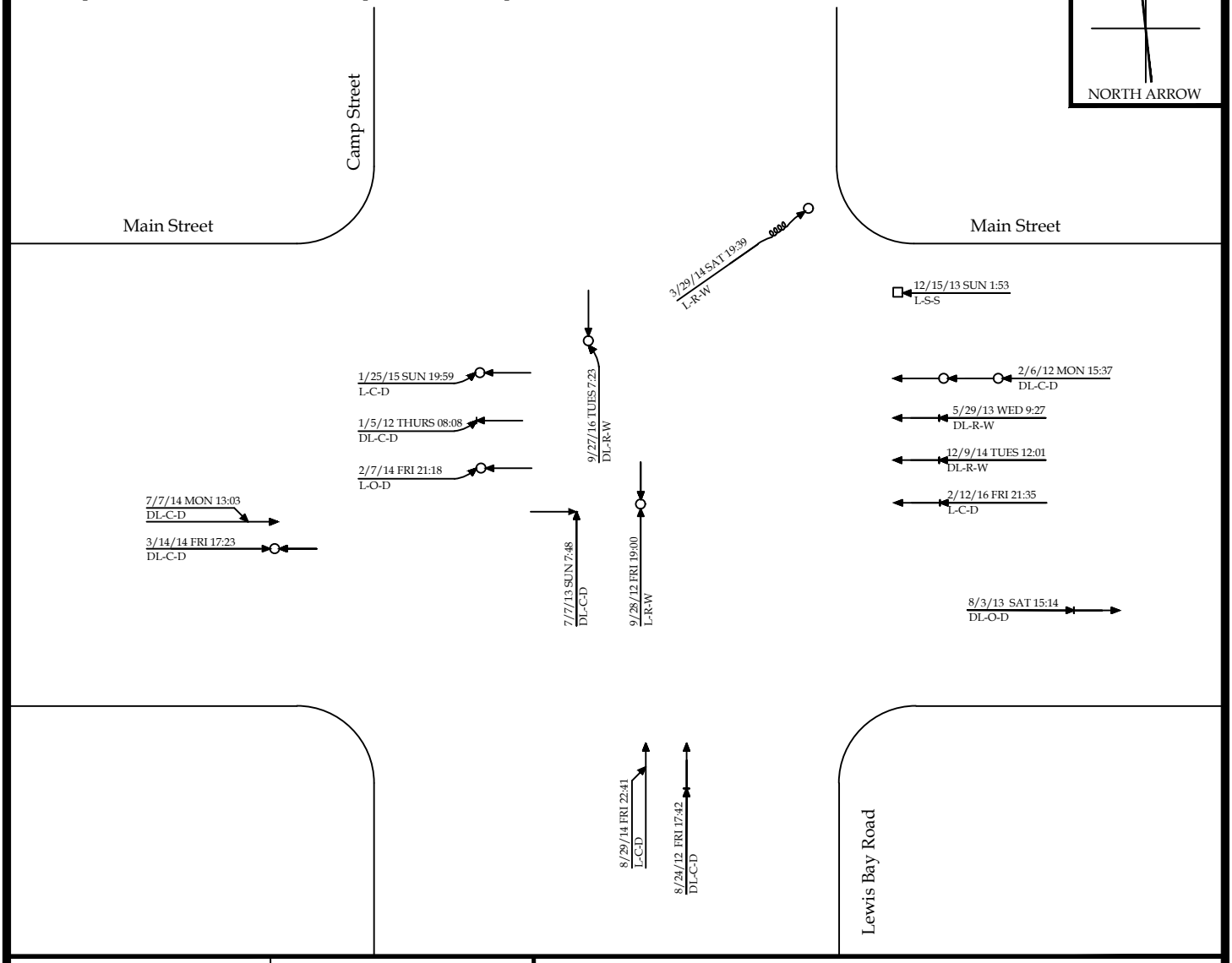
INTERSECTION Main Street at Lewis Bay Road

PERIOD 5 years FROM 2012 TO 2016

MUNICIPALITY Town of Barnstable, Massachusetts PREPARED BY A. Prichard

JOB NUMBER 14072.00 DATE PREPARED 07/26/2019

Note: Collision diagram prepared based on local and state crash data obtained from the Town of Barnstable Police Department and the Massachusetts Department of Transportation.



PAVEMENT/WEATHER/LIGHTING

D	DRY
C	CLEAR
W	WET
R	RAIN
F	FOGGY
S	SNOWY, ICY
O	OTHER
DL	DAYLIGHT
N	DARK - NO LIGHTS
L	DARK - LIGHTED

TYPES OF COLLISION

- REAR END
- HEAD ON
- SIDE SWIPE
- OUT OF CONTROL
- LEFT TURN
- RIGHT ANGLE

SYMBOLS

- MOVING VEHICLE
- BACKING VEHICLE
- PEDESTRIAN
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH

CRASH SUMMARY

	DAYLIGHT			NIGHT			TOTALS			
TYPE	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	TOTAL
ANGLE			2		2			2	2	4
REAR-END		1	5					1	5	6
HEAD-ON		1			1			2		2
LEFT TURN								1		1
SIDESWIPE			1			1			2	2
FIXED OBJECT						1			1	1
SINGLE VEH					1			1		1
OTHER										
TOTAL		3	8		4	2		7	10	17

COLLISION DIAGRAM

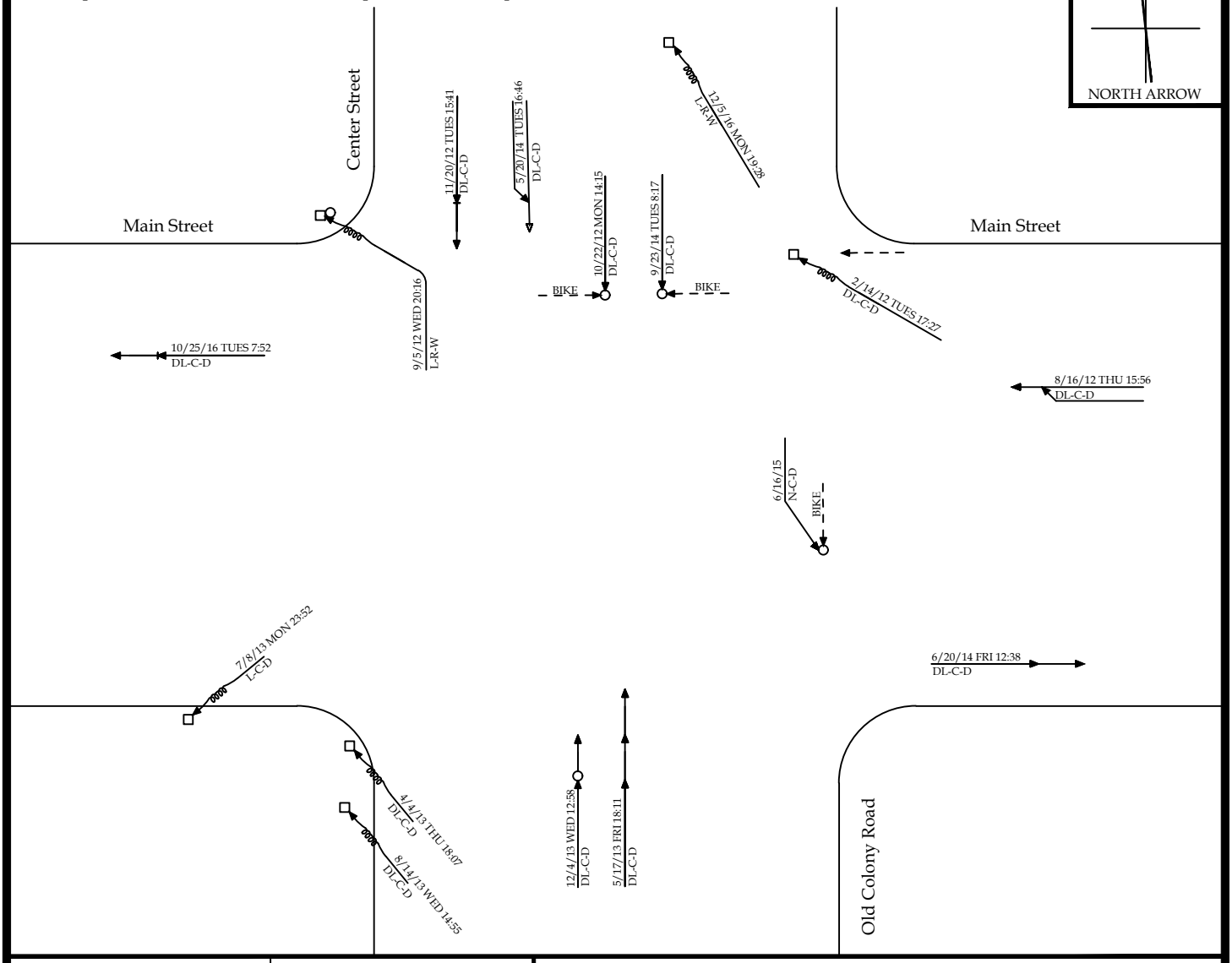
INTERSECTION Main Street at Center Street / Old Colony Road

PERIOD 5 years FROM 2012 TO 2016

MUNICIPALITY Town of Barnstable, Massachusetts PREPARED BY A. Prichard

JOB NUMBER 14072.00 DATE PREPARED 07/26/2019

Note: Collision diagram prepared based on local and state crash data obtained from the Town of Barnstable Police Department and the Massachusetts Department of Transportation.



PAVEMENT/WEATHER/LIGHTING	
D	DRY
C	CLEAR
W	WET
R	RAIN
F	FOGGY
S	SNOWY, ICY
O	OTHER
DL	DAYLIGHT
N	DARK - NO LIGHTS
L	DARK - LIGHTED

TYPES OF COLLISION

- REAR END
- HEAD ON
- SIDE SWIPE
- OUT OF CONTROL
- LEFT TURN
- RIGHT ANGLE

SYMBOLS

- MOVING VEHICLE
- BACKING VEHICLE
- PEDESTRIAN
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH

CRASH SUMMARY

	DAYLIGHT			NIGHT			TOTALS			
TYPE	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	TOTAL
ANGLE		2						2		2
REAR-END		1	4					1	4	5
HEAD-ON										
LEFT TURN					1			1		1
SIDESWIPE			2						2	2
FIXED OBJECT			2						2	2
SINGLE VEH		1			2	1		3	1	4
OTHER										
TOTAL		4	8		3	1		7	9	16

COLLISION DIAGRAM

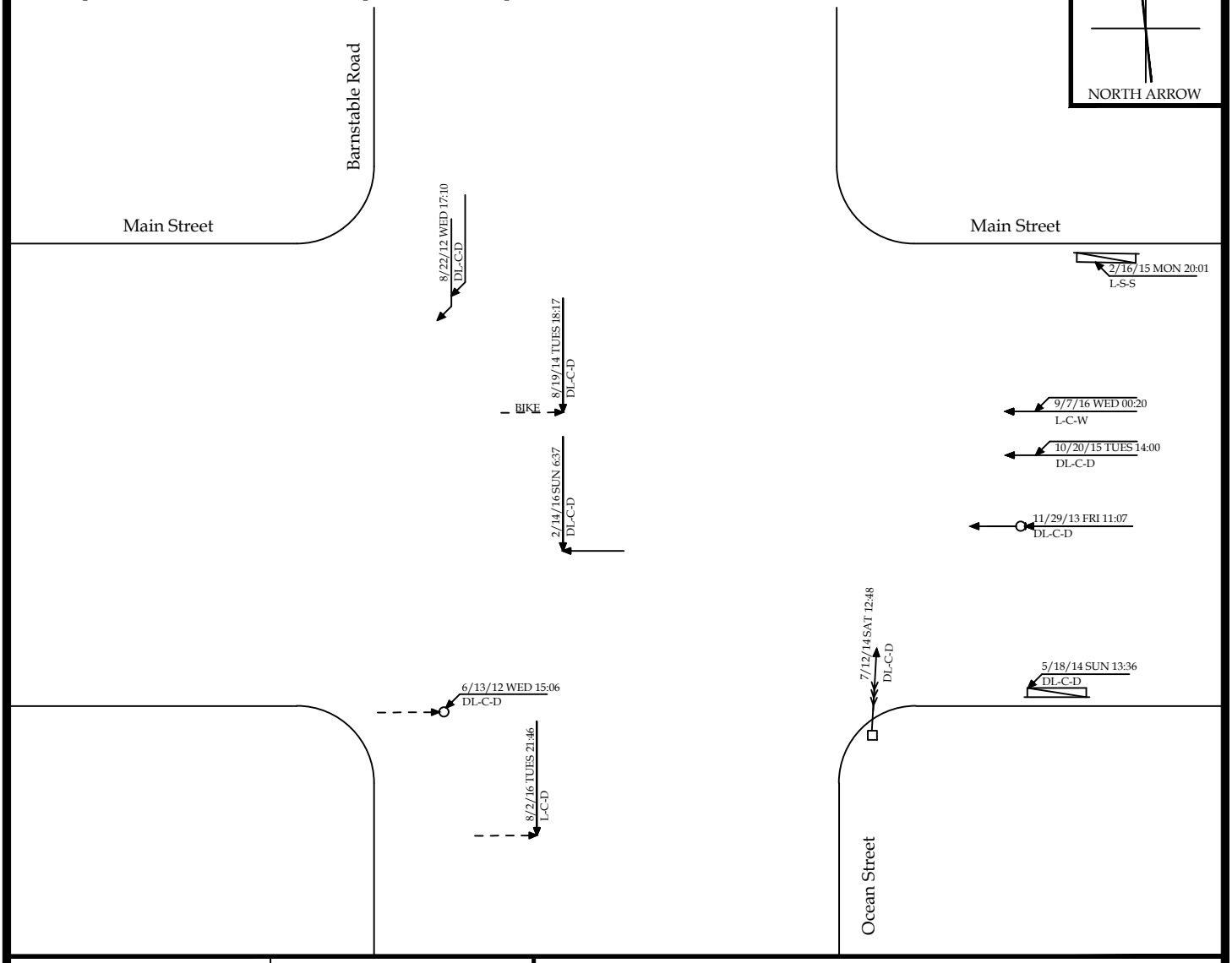
INTERSECTION Main Street at Barnstable Road / Ocean Street

PERIOD 5 years FROM 2012 TO 2016

MUNICIPALITY Town of Barnstable, Massachusetts PREPARED BY A. Prichard

JOB NUMBER 14072.00 DATE PREPARED 07/26/2019

Note: Collision diagram prepared based on local and state crash data obtained from the Town of Barnstable Police Department and the Massachusetts Department of Transportation.



PAVEMENT/WEATHER/LIGHTING

D	DRY
C	CLEAR
W	WET
R	RAIN
F	FOGGY
S	SNOWY, ICY
O	OTHER
DL	DAYLIGHT
N	DARK - NO LIGHTS
L	DARK - LIGHTED

TYPES OF COLLISION

- REAR END
- HEAD ON
- SIDE SWIPE
- OUT OF CONTROL
- LEFT TURN
- RIGHT ANGLE

SYMBOLS

- MOVING VEHICLE
- BACKING VEHICLE
- PEDESTRIAN
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH

CRASH SUMMARY

	DAYLIGHT			NIGHT			TOTALS			
TYPE	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	TOTAL
ANGLE			3						3	3
REAR-END		1						1		1
HEAD-ON										
LEFT TURN		1						1		1
SIDESWIPE			4			1			5	5
FIXED OBJECT										
SINGLE VEH			1						1	1
OTHER										
TOTAL		2	8			1		2	9	11

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Police Report No. | Total Pictures Submitted

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
01/05/2012	0808 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < **LOCATION** > **NOT AT INTERSECTION:**

1 1 — Route# — Direction — MAIN ST — Name of Roadway/Street
At
CAMP ST — Name of Intersecting Roadway/Street
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street

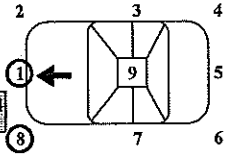
Route# — Direction — Address # — Name of Roadway/Street (1 9)
Feet N S E W of — Mile Marker — or Exit Number (2 10)
Feet N S E W of — Route# — Intersecting Roadway/Street
Feet N S E W of — Landmark (3 11)

3 — Please Select One of the Following: ☒ Vehicle 1 — 2 #Occupants ☐ Hit/Run ☐ Moped — **12-8-AC**

License # S44169565 St MA DOB/Age [redacted]
Sex F Lic. Class D (18 18) Lic. Restrictions (19) CDL Endorsement
4 3 — Operator THORNE, DAWN L (Last First Middle)
Address 24 WINDSOR DR
City WAREHAM State MA Zip 02571
Insurance Company PHILADELPHIA INDEM
5 1 — Vehicle Travel Direction: N S ☒ W — Responding to Emergency? 2
Citation # (If Issued)
6 1 — Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub / Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # 43275 Reg Type SB Reg State MA
Veh Year 2001 Veh Make FORD Veh Config. 2 (20)
Owner CHURCHILL, RICHARD W (Last First Middle) (1 12)
Address BOX 67
City WEST WAREHAM State MA Zip 02576
Vehicle Action Prior to Crash 4 (21)
Event Sequence 1 (22 22 22 22)
Most Harmful Event 1 (23)
Driver Contributing Code 99 (24 24)
Underride/Override 1 (25) Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator / See Above	---------	---	---	99	4	99	0	0	5	1	
[redacted]			8	99	4	99	0	0	5	1	

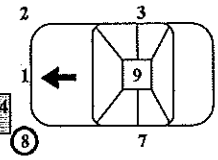
Please fill out for operator and all occupants involved (1 13)

7 2 — Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type (14) Action (15) Location (16) Condition (17) ☐ Hit/Run ☐ Moped

License # S44975962 St MA DOB/Age [redacted]
Sex F Lic. Class D (18 18) Lic. Restrictions (19) CDL Endorsement
8 1 — Operator MAIOLINO, ROSE P (Last First Middle)
Address 39 GROUSE LN
City WEST YARMOUTH State MA Zip 02673
Insurance Company COMMERCE INS
Vehicle Travel Direction: N S E ☒ W — Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub / Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # 7SJ780 Reg Type PC Reg State MA
Veh Year 1997 Veh Make FORD Veh Config. 1 (20)
Owner MAIOLINO, ROSE P (Last First Middle)
Address 39 GROUSE LN
City WEST YARMOUTH State MA Zip 02673
Vehicle Action Prior to Crash 1 (21)
Event Sequence 1 (22 22 22 22)
Most Harmful Event 1 (23)
Driver Contributing Code 99 (24 24)
Underride/Override 1 (25) Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist / See Above	---------	---	---	1	1	1	0	0	5	1	

Please fill out for operator/non-motorist and all occupants involved

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

Crash Diagram: ie: → [1] → [2] → ♀

no diagram provided

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

WRECKERS: Buckler's for both MV's

GIST: This accident occurred on Main St., Hyannis at the intersection of Camp St. It is a four way intersection with undivided two way traffic and a four way traffic light system. Both MV's were traveling in opposing directions. It appears that MV #1 (Van) was in the middle of the intersection waiting to turn left onto Camp St., when the traffic light for her cycled to red. She attempted to start her turn but cut into the path of MV #2 (Ford Escort) and got crashed into, front end to front end. It is unclear whether MV #2 had a green light or not, though there is an arrow turn for the van from Main onto Camp and if the arrow turns red then the Main Street traffic would likely have the green light. There were no witnesses. There were no injuries.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. KEVIN J DONOVAN		165	Barnstable Police Department		01/06/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Ref: 12-8-AC

Entered: 01/05/2012 @ 1203 Entry ID: 165
Modified: 05/29/2012 @ 0946 Modified ID: 767
Approved: 01/05/2012 @ 1443 Approval ID: 185

BPD Form 06-24
MOTOR VEHICLE CRASH STATEMENT FORM

STATEMENTS

OPERATOR #1: "Thorne" MA 43275 Ford Econo Van - Stated that she entered the intersection preparing to take a left turn and while she was in the intersection the traffic light changed to red. Ms. Thorne stated that the other operator traveling in the opposite direction, went straight through the intersection and hit her as she was turning. Ms. Thorne stated that the other operator had a red light.

OPERATOR #2: "Maiolino" MA Reg 7SJ780 Ford Escort - Stated that she had a green light and continued on through the intersection, when the other vehicle cut into her path and crashed into her MV.

WITNESS: None

PHOTOS: None

WRECKERS: Buckler's for both MV's

INJURIES: None

GIST: This accident occurred on Main St., Hyannis at the intersection of Camp St. It is a four way intersection with undivided two way traffic and a four way traffic light system. Both MV's were traveling in opposing directions. It appears that MV #1 (Van) was in the middle of the intersection waiting to turn left onto Camp St., when the traffic light for her cycled to red. She attempted to start her turn but cut into the path of MV #2 (Ford Escort) and got crashed into, front end to front end. It is unclear whether MV #2 had a green light or not, though there is an arrow turn for the van from Main onto Camp and if the arrow turns red then the Main Street traffic would likely have the green light. There were no witnesses. There were no injuries.

CITATION: None

770

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Police Use Only

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
02/06/2012	1537 24HR	HYANNIS	3	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# / Direction: CAMP ST — Name of Roadway/Street
At
Route# / Direction: MAIN ST — Name of Intersecting Roadway/Street
Also at Intersection with
2 1 — Route# / Direction / Name of Intersecting Roadway/Street

Route# / Direction / Address # / Name of Roadway/Street
Feet [N S E W] of — — — • — or Mile Marker / Exit Number
Feet [N S E W] of Route# / Intersecting Roadway/Street
Feet [N S E W] of Landmark

2 9 — 2 10 — 2 11

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **12-118-AC**

License # S14115764 St MA DOB/Age [redacted] — Reg # 66GN78 Reg Type PC Reg State MA
Sex F Lic. Class D 18 18 Lic. Restrictions 19 CDL Endorsement — Veh Year 2005 Veh Make HYUNDAI Veh Config. 7 20

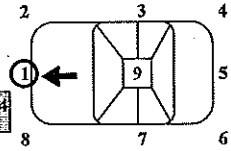
4 3 — Operator HOLLAND, JOANNE (Last First Middle)
Address 280 ARROWHEAD DR
City HYANNIS State MA Zip 02601
Insurance Company PLYMOUTH ROCK

Owner HOLLAND, JOANNE (Last First Middle) — 1 12
Address 280 ARROWHEAD DR
City HYANNIS State MA Zip 02601

5 1 — Vehicle Travel Direction: [N S E W] Responding to Emergency? 99
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
6 1 — Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Vehicle Action Prior to Crash 2 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 19 24 24
Underride/Override 1 25 Towed 99

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved — 1 13

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator / See Above	---------	---	---	1	4	99	0	0	5	1	

7 1 — Please Select One of the Following: ☒ Vehicle 2 — 2 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

License # S9671297 St MA DOB/Age [redacted] — Reg # 39HS24 Reg Type PC Reg State MA
Sex F Lic. Class 99 18 18 Lic. Restrictions 19 CDL Endorsement — Veh Year 2001 Veh Make BUICKS Veh Config. 1 20

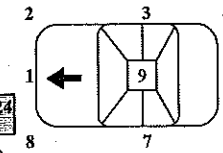
8 2 — Operator PERLEY, MICHELLE (Last First Middle)
Address 10 WIDGEON WAY
City WEST BARNSTABLE State MA Zip 02668
Insurance Company COMMERCE INS.

Owner ZOTO, GEORGE (Last First Middle)
Address 10 WIDGEON WAY
City WEST BARNSTABLE State MA Zip 02668

Vehicle Travel Direction: [N S E W] Responding to Emergency? 99
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Vehicle Action Prior to Crash 2 21
Event Sequence 1 22 7 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 1 24 24
Underride/Override 1 25 Towed 99

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
(99) Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist / See Above	---------	---	---	0	4	99	0	0	4	97	Cape Cod Hospital
[redacted]			4	1	4	99	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

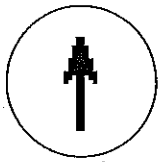
Crash Diagram:

ie: → [1] → [2] → ♀

NO DIAGRAM AVAILABLE

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

OP #1: stated she was stopped on Main St. headed west directly behind MV #2. She stated she thought she had her foot on the brake but must have let go. She stated she collided with MV #2 which was then pushed into MV #3. OP #2: stated she was stopped on Main St. near the intersection with Camp St. facing west when she was hit from behind by MV #1. She stated she was then pushed into MV #3. OP #3: stated he was stopped on Main St. near the intersection with Camp St. facing west when he was hit from behind by MV #2.

INJURIES: OP #2

GIST: MV's #1, 2, and 3 were stopped at the red light at the intersection of Main and Camp St. All were facing west directly behind on another. OP #1 depressed the brake and collided into MV #2. MV #2 then was pushed into MV #3.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. CATARINA M PARACHE		268	Barnstable Police Department		02/13/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Crash Confirmed Fatality

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
06/23/2012	0006 24HR	OSTERVILLE	1	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

14 Route# | Direction | Name of Roadway/Street
At
Route# | Direction | Name of Intersecting Roadway/Street
Also at Intersection with
23 Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | 129 Address # | MAIN ST Name of Roadway/Street
Feet N S E W of Mile Marker • or Exit Number
Feet N S E W of Route# MAIN ST Intersecting Roadway/Street
Feet N S E W of Landmark

29 2 | 10 2 | 11 1

399 Please Select One of the Following: ☒ Vehicle 1 2 #Occupants ☐ Hit/Run ☐ Moped

12-513-AC

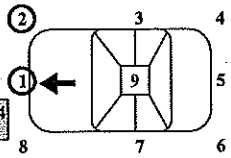
License # S75040295 St MA DOB/Age [redacted] Reg # BB2850 Reg Type PC Reg State MA
Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement X Veh Year 2000 Veh Make Veh Config. 1 20

41 Operator MORRISON, WILLIAM (Last First Middle)
Address 113 POND ST
City OSTERVILLE State MA Zip 02655
Insurance Company USAA

Owner MORRISON, WILLIAM (Last First Middle) 7 12
Address 113 POND ST
City OSTERVILLE State MA Zip 02655
Vehicle Action Prior to Crash 1 21

51 Vehicle Travel Direction: N S E W Responding to Emergency? 2
Citation # (If Issued)
Event Sequence 22 22 22 22 22 22
Most Harmful Event 22 23
Driver Contributing Code 21 24 24
62 Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /
Underride/Override 99 25 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	99	99	0	0	5	1	
WILLIAM MORRISON	113 POND ST OSTERVILLE, MA 02655	[redacted]	M	97	1	99	99	0	0	5	1	

22 13

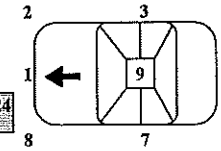
71 Please Select One of the Following: ☐ Vehicle 2 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

License # St DOB/Age Reg # Reg Type Reg State
Sex Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement Veh Year Veh Make Veh Config. 20

81 Operator (Last First Middle) Owner (Last First Middle)
Address Address
City State Zip City State Zip
Insurance Company Vehicle Action Prior to Crash 21

Vehicle Travel Direction: N S E W Responding to Emergency?
Citation # (If Issued)
Event Sequence 22 22 22 22 22 22
Most Harmful Event 23
Driver Contributing Code 24 24
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /
Underride/Override 25 Towed

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram: ie: → [1] → [2] →

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

MV #1 Operator stated he fell asleep on his way home from Phinneys Ln in Centerville.

Gist: Operator Morrison fell asleep struck an already damaged telephone pole Verizon pole 215s by 129 Main St., Osterville.

Buckler Towing

No Injuries

771

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property
VERIZON	50 OCEAN ST HYANNIS MA 02601			TELEPHONE POLE 215S

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. STEPHEN O ESTEY		175	Barnstable Police Department		06/27/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
08/24/2012	1742 24HR	HYANNIS	2	0	Lat. Lon.	State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **LOCATION** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction: — Name of Roadway/Street: MAIN ST
At
Route# — Direction: — Name of Intersecting Roadway/Street: LEWIS BAY RD
Also at Intersection with
2 1 — Route# — Direction: — Name of Intersecting Roadway/Street:

Route# — Direction — Address # — Name of Roadway/Street
Feet N S E W of — Mile Marker — or — Exit Number
Feet N S E W of — Route# — Intersecting Roadway/Street
Feet N S E W of — Landmark

2 9 — 2 10 — 2 11

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped — **12-783-AC**

Vehicle 1

License # S10689128 St MA DOB/Age [redacted] — Reg # MP282A — Reg Type LF — Reg State MA
Sex M — Lic. Class D 18 18 — Lic. Restrictions 19 — CDL Endorsement — Veh Year 2008 — Veh Make DODGE — Veh Config. 1 20

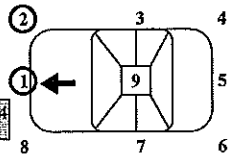
4 3 — Operator ROSS, CHRISTOPHER R (Last First Middle)
Address 1200 PHINNEY'S LN
City HYANNIS State MA Zip 02601
Insurance Company REDLAND

Owner TOWN OF, BARNSTABLE (Last First Middle) — 1 12
Address 1200 PHINNEY'S LN
City HYANNIS State MA Zip 02601

5 1 — Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub
6 1 — Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub

Vehicle Action Prior to Crash 2 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 25 24 24
Underride/Override 1 25 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	1	0	0	5	1	

1 13

7 2 — Please Select One of the Following: ☒ Vehicle 2 — 2 #Occupants — ☐ Non-Motorist A — Type 14 — Action 15 — Location 16 — Condition 17 — ☐ Hit/Run — ☐ Moped

Vehicle 2

License # S57859450 St MA DOB/Age [redacted] — Reg # 88ZC99 — Reg Type PC — Reg State MA
Sex F — Lic. Class D 18 18 — Lic. Restrictions 99 19 — CDL Endorsement — Veh Year 2008 — Veh Make LEXUS — Veh Config. 1 20

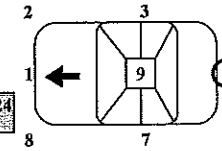
8 1 — Operator LEGRAW, JOAN (Last First Middle)
Address 110 ALLYN LN
City BARNSTABLE State MA Zip 02630
Insurance Company COMMERCE INSURANCE

Owner LEGRAW, JOAN (Last First Middle)
Address 110 ALLYN LN
City BARNSTABLE State MA Zip 02630

Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub
Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub

Vehicle Action Prior to Crash 2 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 1 24 24
Underride/Override 1 25 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

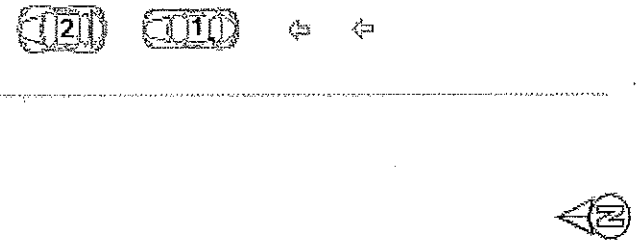
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	99	0	0	5	1	
GEORGE LEGRAW	579 BUCK ISLAND RD YARM, MA 02673	[redacted]	M	3	1	4	99	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ⚲ = Pedestrian

Crash Diagram: ie: → [1] → [2] → ⚲

LEWIS BAY RD



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

08/24/12 at about 1755 I was dispatched to Lewis Bay Rd. So. of Main St. regarding a cruiser accident involving Ptl.Ross (E-409). No PI reported. Upon arrival I observed (M/V 1. E-409) and M/V 2. facing north on Lewis Bay Rd. M/V 1. hand minor damage to the push-bar and right turn signal was pushed out. M/V # 2. appeared to have no damage to the rear bumper.Photographs by CIO Katie Keen. Upon exiting my cruiser I asked Officer Ross, Operator #2. and her Passenger if anyone was injured all parties stated that they where not injured.

Operator # 1. Traffic was moving slowly and suddenly stopped in front of me, and I struck the rear of the vehicle in front of me. I estimate my speed to have been less than 5 mph. Operator # 2. I was stopped in traffic, then I felt a big jolt.Then I realized the officer hit my car. 770

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
KEEN KATIE	BCSO BARNSTABLE MA 02630		

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

SGT. BENJAMIN D BAXTER		161	Barnstable Police Department	08/24/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
09/28/2012	1900 (24HR)	HYANNIS	2	2		Local Police ☒

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

14 Route# / Direction / Name of Roadway/Street
At
Route# / Direction / Name of Intersecting Roadway/Street
Also at Intersection with
23 Route# / Direction / Name of Intersecting Roadway/Street

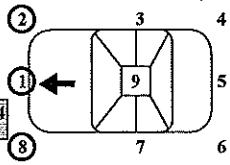
29 Route# 3 Direction Address # CAMP ST Name of Roadway/Street
210 ____ Feet [N S E W] of ___ ___ ___ • ___ Mile Marker or ____ Exit Number
____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street
____ Feet [N S E W] of
611 Landmark

32 Please Select One of the Following: ☒ Vehicle 1 1 #Occupants ☐ Hit/Run ☐ Moped — **12-927-AC**

Vehicle 1

License # S68798802 St MA DOB/Age [redacted]
Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement
43 Operator WILKINSON, JEFFREY D (Last First Middle)
Address 881 SHOOTFLYING HILL RD
City CENTERVILLE State MA Zip 02632
Insurance Company ALLSTATE
51 Vehicle Travel Direction: [N S E W] Responding to Emergency? 2
Citation # (If Issued) R2508246
62 Viol. 1: Ch/Sec/Sub 720CMR/906 Viol. 2: Ch/Sec/Sub / Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # 424TS8 Reg Type PC Reg State MA
Veh Year 1997 Veh Make TOYOTA Veh Config. 1 20
Owner WILKINSON, JEFFREY D (Last First Middle)
Address 881 SHOOTFLYING HILL RD
City CENTERVILLE State MA Zip 02632
Vehicle Action Prior to Crash 4 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 19 24 24
Underride/Override 1 25 Towed 1
Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	99	0	0	4	2	Cape Cod Hospital

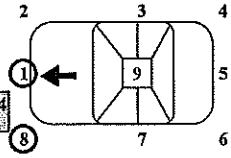
113

72 Please Select One of the Following: ☒ Vehicle 2 3 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

Vehicle 2

License # S16104817 St MA DOB/Age [redacted]
Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement
81 Operator HOLT, STEVEN M (Last First Middle)
Address 39 COUNTY RD
City MASHPEE State MA Zip 02649
Insurance Company LIBERTY MUTUAL
Vehicle Travel Direction: [N S E W] Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub / Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # AMB926 Reg Type AM Reg State MA
Veh Year 2010 Veh Make FORD Veh Config. 2 20
Owner CAPE COD AMBULANCE (Last First Middle)
Address 57 MID TECH DR
City WEST YARMOUTH State MA Zip 02673
Vehicle Action Prior to Crash 1 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 1 24 24
Underride/Override 1 25 Towed 1
Damaged Area Code: (Circle Up to Three)



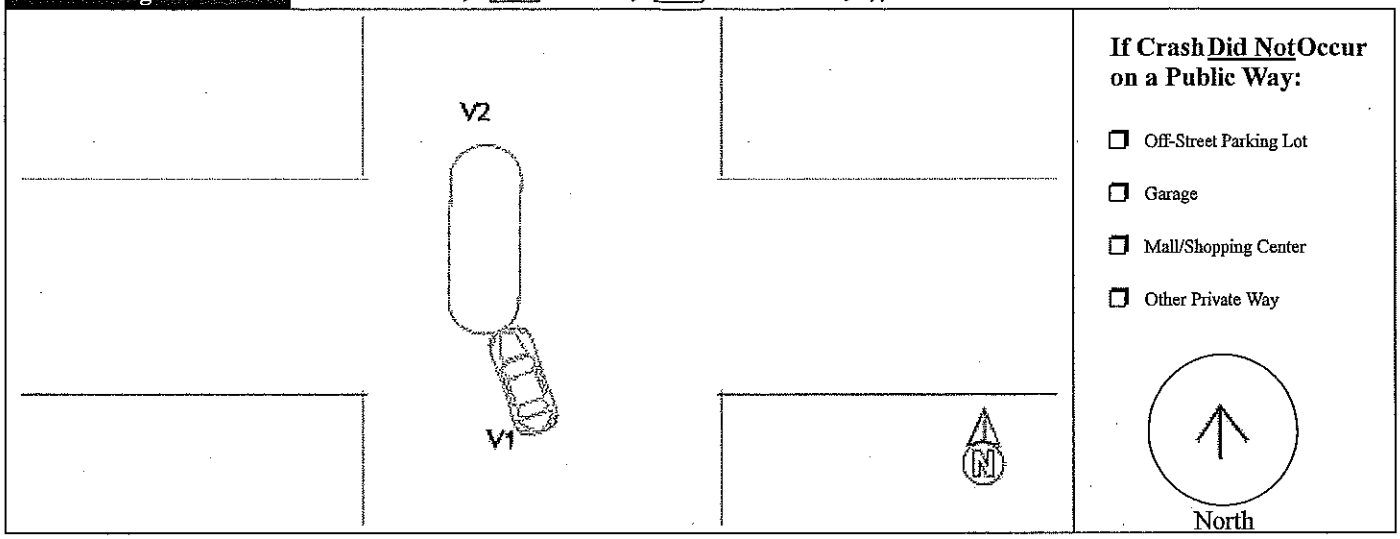
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	99	0	0	5	1	
TUCKER LAFFEY	16 ELLIOTT WAY HARWICH, MA 02645	[redacted]		11	0	4	99	0	0	5	1	
HEATHER FLETCHER	40 KATHY ANN LN FALMOUTH, MA 02540	[redacted]		11	0	4	99	0	0	4	2	Cape Cod Hospital

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

V1 operated by Jeffrey Wilkinson was travelling Northbound on Lewis Bay Road. V2 operated by Steven Holt was travelling Southbound on Camp St. V2 had a green light to continue through the intersection at Main and Lewis Bay, and V1 was in the left turn lane of Lewis Bay Road. V1 did not have a green arrow to turn left, and proceeded through the intersection, striking the front of V2. BCI Deputy Arthurs responded for photos, Wilkinson was issued MA Citation R2508246 in hand as a written warning for 720 CMR 9.06, failure to use care turning. Both vehicles were towed from the scene, and the patient in the rear of V2 was transported to CCH by HYFD.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. CHRISTOPHER R ROSS		271	Barnstable Police Department		09/28/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
05/03/2013	0534 (24HR)	COTUIT	2	1	25	Lat. / Lon.

State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# / Direction / Name of Roadway/Street: _____ At _____ Route# / Direction / Name of Intersecting Roadway/Street: _____

2 1 — Also at Intersection with: Route# / Direction / Name of Intersecting Roadway/Street: _____

2 9 — Route# / Direction: 131 / Address #: MAIN ST / Name of Roadway/Street

2 10 — _____ Feet [N S E W] of Mile Marker — — — • — or Exit Number: _____

3 11 — _____ Feet [N S E W] of Route# / Intersecting Roadway/Street: _____ Feet [N S E W] of Landmark: _____

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **13-346-AC**

License # S85606874 St MA DOB/Age [redacted] Reg # 72LT86 Reg Type PC Reg State MA

Sex F Lic. Class D (18 18) Lic. Restrictions 1 (19) CDL Endorsement _____ Veh Year 2001 Veh Make TOYOTA Veh Config. 1 (20)

4 1 — Operator PHACHANSIRI, CHRISTA (Last First Middle) — Owner SINDALAR, KHAMPHET (Last First Middle) — 7 12

Address 80 SETTLERS RD — Address 80 SETTLERS RD

City PLYMOUTH State MA Zip 02360 — City PLYMOUTH State MA Zip 02362

Insurance Company SAFETY INSURANCE — Vehicle Action Prior to Crash 1 (21)

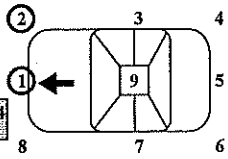
5 — Vehicle Travel Direction: [N X E W] — Responding to Emergency? 2 — Event Sequence 40 (22) 20 (22) 2 (22) (22)

Citation # (If Issued) _____ — Most Harmful Event 2 (23)

Viol. 1: Ch/Sec/Sub ___/___ Viol. 2: Ch/Sec/Sub ___/___ — Driver Contributing Code 14 (24) 21 (24)

6 1 — Viol. 3: Ch/Sec/Sub ___/___ Viol. 4: Ch/Sec/Sub ___/___ — Underride/Override 99 (25) Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

20 13

Please fill out for operator and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	0	1	4	0	0	4	2	Cape Cod Hospital

7 1 — Please Select One of the Following: ☒ Vehicle 2 — 0 #Occupants ☐ Non-Motorist A Type (14) Action (15) Location (16) Condition (17) ☐ Hit/Run ☐ Moped

License # _____ St ____ DOB/Age _____ — Reg # 378TNT Reg Type PC Reg State CO

Sex ____ Lic. Class (18 18) Lic. Restrictions (19) CDL Endorsement _____ — Veh Year 2005 Veh Make FORD Veh Config. 2 (20)

8 1 — Operator Driverless M.V. (Last First Middle) — Owner WERBICK, APRIL (Last First Middle)

Address _____ — Address 131 MAIN ST

City _____ State ____ Zip _____ — City COTUIT State MA Zip 02635

Insurance Company FARMERS INSURANCE — Vehicle Action Prior to Crash 11 (21)

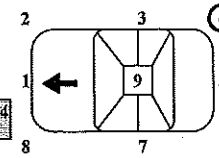
Vehicle Travel Direction: [N S E W] — Responding to Emergency? 2 — Event Sequence (22) (22) (22) (22)

Citation # (If Issued) _____ — Most Harmful Event 1 (23)

Viol. 1: Ch/Sec/Sub ___/___ Viol. 2: Ch/Sec/Sub ___/___ — Driver Contributing Code (24) (24)

Viol. 3: Ch/Sec/Sub ___/___ Viol. 4: Ch/Sec/Sub ___/___ — Underride/Override (25) Towed ____

Damaged Area Code: (Circle Up to Three)



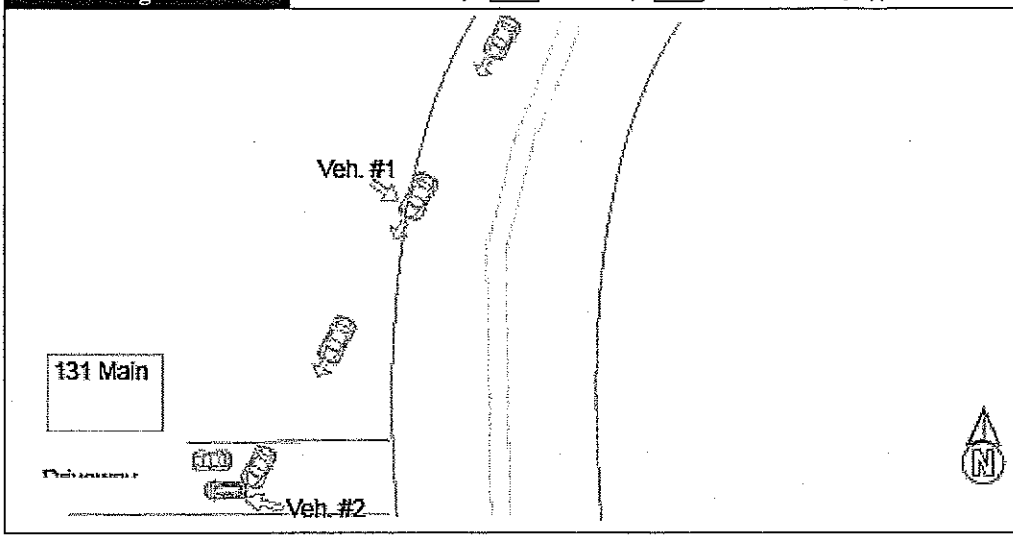
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

Crash Diagram:

ie: → [1] → [2] →♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Vehicle #1 was traveling south on Main St. in Cotuit. Vehicle #1 came to a slight curve in the road in front of 131 Main St. Operator of Vehicle #1 did not negotiate the turn and ran straight into the granite curbing on the side of the road. Vehicle #1 jumped the curb and drove across the front yard of 131 Main St. Vehicle #1 then slammed into a white Ford Expedition bearing Colorado Reg. 378TNT that was parked in the driveway and Vehicle #1 then came to rest in the driveway.

CONTACT BPD RECORDS DIVISION FOR ADDITIONAL NARRATIVE INFO

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. THOMAS J HARMON		238	Barnstable Police Department		05/15/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Ref: 13-346-AC

Entered: 05/16/2013 @ 0817 Entry ID: 238
Modified: 05/16/2013 @ 0830 Modified ID: 238
Approved: 05/17/2013 @ 0240 Approval ID: 242

BPD Form 06-24
MOTOR VEHICLE CRASH STATEMENT FORM

STATEMENTS

OPERATOR #1: "I was on the way to my boyfriend's house so that he could take me to the hospital because I hurt my ankle and it is hard to walk on. I really don't know what happened. One minute I was driving along and the next thing I know I smashed into the car. I really don't know what happened."

WITNESS: No witness statements were taken.

PHOTOS: Photos were taken at the scene by CIO Bill Jacques.

WRECKERS: Capeway Towing removed the vehicle bearing MA Reg. 72LT86 from the scene.

INJURIES: Operator of Vehicle #1, Id'd as Christa Phachansiri, was transported to CCH by Cotuit Rescue with apparent minor injuries.

GIST: Vehicle #1 was traveling south on Main St., Cotuit. Vehicle #1 approached the curve in the road in front of 131 Main St. Vehicle #1 failed to negotiate the turn and ran off the right side of the road. Vehicle #1 then jumped the granite curb and drove across the lawn at 131 Main St. Vehicle #1 then struck a car parked in the driveway at 131 Main St. and came to rest.

Based on the lack of skid marks in the road at the scene of the accident, and the time of day of the accident, it is this officer's opinion that the driver of the vehicle, Id'd as Christa Phachansiri, fell asleep at the wheel while driving which led to the accident.

CITATION: No citations were issued.

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
05/29/2013	0927 24HR	HYANNIS	2	0		Local Police ☒

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

Route# ____ Direction ____ Name of Roadway/Street ____
At
Route# ____ Direction ____ Name of Intersecting Roadway/Street
Also at Intersection with
Route# ____ Direction ____ Name of Intersecting Roadway/Street

Route# ____ Direction 94 Address # MAIN ST Name of Roadway/Street
____ Feet [N S E W] of ___ ___ ___ • ___ Mile Marker or ____ Exit Number
____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street
____ Feet [N S E W] of ____ Landmark

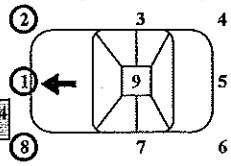
Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

13-421-AC

License # S19180551 St MA DOB/Age [redacted]
Sex F Lic. Class D Lic. Restrictions 1 CDL Endorsement
Operator NEWMAN, REBECCA M (Last First Middle)
Address 44 MORELAND AVE
City LEXINGTON State MA Zip 02421-6038
Insurance Company COMMERCE INSUR
Vehicle Travel Direction: [N S E X] Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____
Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Reg # BR18HE Reg Type PC Reg State MA
Veh Year 2003 Veh Make TOYOTA Veh Config. 1
Owner NEWMAN, REBECCA M (Last First Middle)
Address 44 MORELAND AVE
City LEXINGTON State MA Zip 02421-6038
Vehicle Action Prior to Crash 1
Event Sequence 1 ____ ____ ____ ____
Most Harmful Event 1
Driver Contributing Code 19 ____
Underride/Override 1 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

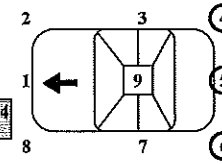
Please fill out for operator and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	4	0	0	5	1	

Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist A — Type ____ Action ____ Location ____ Condition ____ — ☐ Hit/Run — ☐ Moped

License # 06PSR39131 St NH DOB/Age [redacted]
Sex M Lic. Class D Lic. Restrictions 1 CDL Endorsement
Operator PERKINS, RICHARD (Last First Middle)
Address 20 CEDRIC RD
City PITTSBURG State NH Zip 03592
Insurance Company LITTLEFIELD INSURANCE
Vehicle Travel Direction: [N S E X] Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____
Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Reg # SOS-407 Reg Type PC Reg State MA
Veh Year 2013 Veh Make SUBARU Veh Config. 1
Owner PERKINS, RICHARD (Last First Middle)
Address 20 CEDRIC RD
City PITTSBURG State NH Zip 03592
Vehicle Action Prior to Crash 2
Event Sequence 1 ____ ____ ____ ____
Most Harmful Event 1
Driver Contributing Code 1 ____
Underride/Override 1 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	99	4	4	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ☺ = Pedestrian

Crash Diagram:

ie: → [1] → [2] → ☺

MAIN STREET



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Statements: OPER1 stated that she was lost and looked down at her GPS,when she looked up she didn't have time to stop and rear ended MV2. Oper2 stated that he was stopped in traffic letting a car out of a parking lot when he was rear ended by MV1.

MV2 heading west on Main St was stopped in traffic. MV1 also heading West rear-ended MV2. MV2 damaged rear-end was able to drive away. MV1 damaged front end was towed by Capeway Towing. No injuries.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. JOSEPH G GREEN		280	Barnstable Police Department		05/30/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
07/07/2013	0748 24HR	HYANNIS	2	0		Local Police ☒

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — PARK ST — Name of Roadway/Street
At
Route# — Direction — MAIN ST — Name of Intersecting Roadway/Street
Also at Intersection with
2 1 — Route# — Direction — CAMP ST — Name of Intersecting Roadway/Street

Route# — Direction — Address # — Name of Roadway/Street
____ Feet [N S E W] of ____ Mile Marker or ____ Exit Number
____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street
____ Feet [N S E W] of ____ Landmark

2 9 — 2 10 — 3 11

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped — **13-592-AC**

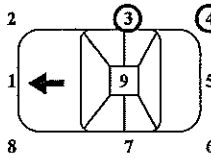
License # S34069970 St MA DOB/Age [redacted] — Reg # 684MY3 Reg Type PC Reg State MA
Sex F Lic. Class D Lic. Restrictions 2 CDL Endorsement — Veh Year 2012 Veh Make NISSAN Veh Config. 2

4 3 — Operator PESA, HEATHER ANN (Last First Middle)
Address 810 MAIN ST
City WAREHAM State MA Zip 02571
Insurance Company GOVERNMENTAL EMPLOYEE INS

Owner PESA, HEATHER ANN (Last First Middle) — 1 12
Address 810 MAIN ST
City WAREHAM State MA Zip 02571

5 2 — Vehicle Travel Direction: [N X E W] — Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____
6 1 — Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Vehicle Action Prior to Crash 1 — Event Sequence 1 22 22 22 22 — Most Harmful Event 1 23 — Driver Contributing Code 1 24 24 — Underride/Override 99 25 — Towed 2

Damaged Area Code: (Circle Up to Three)


0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

1 13

7 2 — Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist A — Type 14 — Action 15 — Location 16 — Condition 17 — ☐ Hit/Run — ☐ Moped

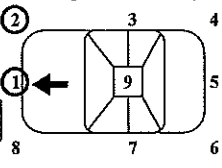
License # S80240456 St MA DOB/Age [redacted] — Reg # G32975 Reg Type CO Reg State MA
Sex M Lic. Class D Lic. Restrictions 2 CDL Endorsement — Veh Year 2002 Veh Make TOYOTA Veh Config. 2

8 2 — Operator BOISVERT, LEE (Last First Middle)
Address 15 CRANWOOD RD
City HARWICH State MA Zip 02645
Insurance Company COMMERCE INS CO.

Owner RIVERVIEW BAIT & TACKLE INC (Last First Middle)
Address 1273 ROUTE 28
City SOUTH YARMOUTH State MA Zip 02664

Vehicle Travel Direction: [N S X W] — Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____
Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Vehicle Action Prior to Crash 1 — Event Sequence 1 22 22 22 22 — Most Harmful Event 1 23 — Driver Contributing Code 1 24 24 — Underride/Override 99 25 — Towed 2

Damaged Area Code: (Circle Up to Three)


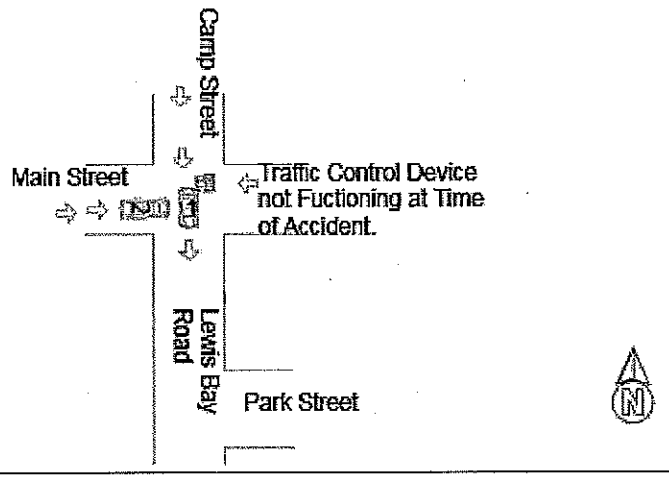
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	4	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

Crash Diagram: ie: → [1] → [2] → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

On Sunday 07/07/2013 at 0748hrs, While assigned to a Sector 1 Hyannis Patrol, I responded to a MVA at the intersection of Main Street and Camp Street. Upon my arrival both M/V's were in the parking lot of #27 Lewis Bay Road with the operators standing outside of their M/V. Both operators stated that they were not injured. MV#1 and MV#2 collided in traffic due to a Traffic light that was not working properly and had been reported approx a week prior to this accident. This is a very busy intersection with Cape Cod Hospital - I was surprised that there were not more accidents during this time of more than a week that the traffic signal was not operational.There were no reported injuries, no photos, both MV's were driven from the scene. No citations were issued. For further information please contact the Barnstable Police Dept 508-775-5466. 770

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. BRIAN D MORRISON		205	Barnstable Police Department		07/10/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

SUPPLEMENTAL NARRATIVE FOR PTL. BRIAN D MORRISON

Ref: 13-592-AC

Entered: 07/12/2013 @ 1009 Entry ID: 205
Modified: 11/27/2017 @ 0936 Modified ID: 851
Approved: 07/19/2013 @ 1516 Approval ID: 186

Op#1: Ms. Heather Pesa statement- she was coming from Camp Street towards the hospital where she works upon approaching the intersection of Main Street she realized that the traffic light was not properly working. She then looked both ways, didn't see traffic coming in either direction, she proceeded through the intersection, that is when MV#2 came through the intersection at the same time and struck her MV.
Op#2: Mr. Lee Boisvert stated - I was driving on Main St. towards Yarmouth when upon approaching the intersection of Camp St, when I noticed the traffic signal not working properly. I looked both ways to make sure no traffic was coming and started through the intersection. At that moment the other car came through at the same time and though I tried to avoid her I caught the back end of her car. I am glad that nobody was hurt.

Officer's NOTE: M/V#1 and M/V#2 collied with each other in traffic due to a non-working traffic light that was not properly working and had been reported as such approximately a week prior to this accident. The particular intersection is very busy seeing how Cape Cod Hospital which has hundreds of employees, visitors, and emergency vehicles going to and from through this intersection. I am very surprised that there were not more accidents during this time of more than a week that the traffic signal was not operational. There were no reported injuries, no photos, both M/V's were driven from the scene and no citations were issued.

770

Traffic Enforcement

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

DSA Preliminary Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
08/03/2013	1514 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

LOCATION

AT INTERSECTION:

1 1 — Route# — Direction — Name of Roadway/Street: MAIN ST
At
Route# — Direction — Name of Intersecting Roadway/Street: CAMP ST
Also at Intersection with
2 2 — Route# — Direction — Name of Intersecting Roadway/Street:

NOT AT INTERSECTION:

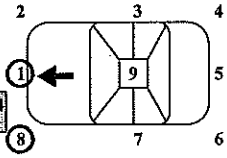
2 9 — Route# — Direction — Address # — Name of Roadway/Street
2 10 — ____ Feet [N S E W] of Mile Marker ____ or Exit Number ____
____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street ____
2 11 — ____ Feet [N S E W] of Landmark ____

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **13-704-AC**

Vehicle 1

License # 307119091 St NY DOB/Age [redacted]
Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement
4 3 — Operator BITTNER, KARL R (Last First Middle)
Address 95 ICE POND RD
City BREWSTER State NY Zip 10509
Insurance Company GEICO INDEMNITY COMPANY
5 1 — Vehicle Travel Direction: [N S X W] Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____
6 1 — Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Reg # ENB4746 Reg Type PC Reg State NY
Veh Year 2008 Veh Make SUBARU Veh Config. 1 20
1 12 — Owner BITTNER, BRYAN A (Last First Middle)
Address 95 ICE POND RD
City BREWSTER State NY Zip 10509
Vehicle Action Prior to Crash 1 21
Damaged Area Code: (Circle Up to Three)
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 99 24 24
Underride/Override 1 25 Towed 2



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

1 13 — Please fill out for operator and all occupants involved

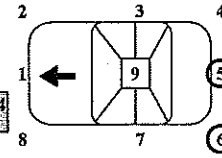
Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

7 2 — Please Select One of the Following: ☒ Vehicle 2 — 2 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

Vehicle 2

License # S53625226 St MA DOB/Age [redacted]
Sex F Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement
8 1 — Operator CLARK, CAROLYN P (Last First Middle)
Address 152 JEFFREY LN
City W SPRINGFIELD State MA Zip 01089-4482
Insurance Company SAFETY INSURANCE
Vehicle Travel Direction: [N S X W] Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____
Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Reg # RW48YX Reg Type PC Reg State MA
Veh Year 2006 Veh Make HONDA Veh Config. 2 20
Owner CLARK, CAROLYN P (Last First Middle)
Address 152 JEFFREY LN
City W SPRINGFIELD State MA Zip 01089-4482
Vehicle Action Prior to Crash 2 21
Damaged Area Code: (Circle Up to Three)
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 1 24 24
Underride/Override 1 25 Towed 2



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

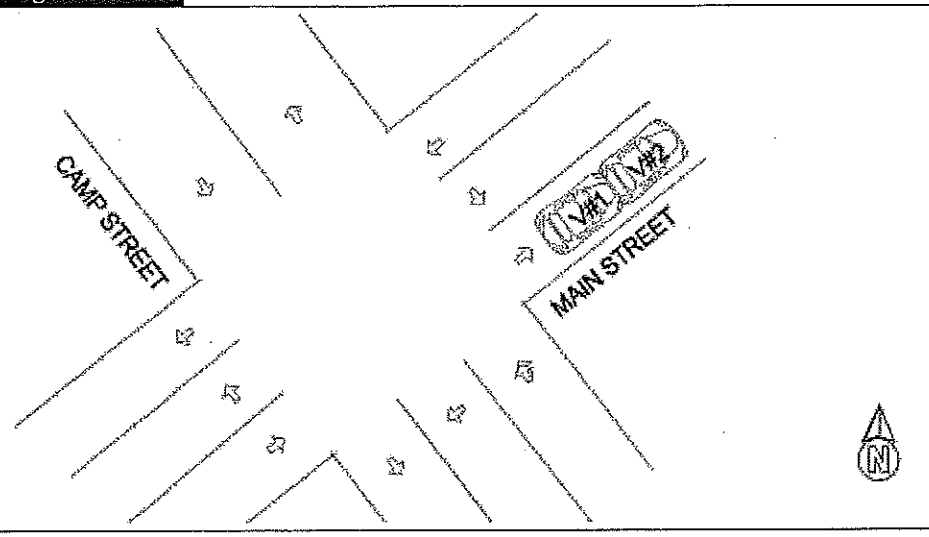
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	4	0	0	5	1	
KATHLEEN SCHIAVINA	152 JEFFERY LN WEST SPRINGFIELD, MA 01089	[redacted]	F	3	1	4	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Dispatched to intersection of Main St. @ Camp St. for minor traffic accident. Upon arrival, verified no injuries resulted. V#1 had minor driver side front end damage consisting of denting and scratching to front bumper area. V#2 had moderate damage to driver side rear bumper consisting of denting to bumper. OP#1 stated he was traveling behind V#2 when it stopped suddenly for cyclists entering roadway. OP#1 indicated he was unable to stop and collided with rear end of V#2. OP#2 stated she was traveling slowly when she stopped for cyclists entering the roadway. OP#2 stated V#1 collided her from the rear after she stopped.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

SGT. JASON E STURGIS		236	Barnstable Police Department		08/03/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
12/15/2013	0153 (24HR)	HYANNIS	1	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

14 Route# | Direction | Name of Roadway/Street
At
Route# | Direction | Name of Intersecting Roadway/Street
Also at Intersection with
24 Route# | Direction | Name of Intersecting Roadway/Street

29 Route# | Direction | 96 Address # | MAIN ST Name of Roadway/Street
___ Feet [N S E W] of Mile Marker or Exit Number
___ Feet [N S E W] of Route# | Intersecting Roadway/Street
___ Feet [N S E W] of Landmark
210 211

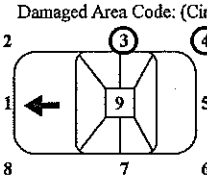
3 **Please Select One of the Following:** ☒ Vehicle 1 | #Occupants 1 | ☐ Hit/Run | ☐ Moped

13-1146-AC

License # S17862350 St MA DOB/Age [redacted]
Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement
41 Operator REYES, JOSE (Last First Middle)
Address 148 W YARMOUTH RD
City W YARMOUTH State MA Zip 02673-0000
Insurance Company ARBELLA INSURANCE
5 Vehicle Travel Direction: N S E W Responding to Emergency? 2
Citation # (If Issued) [redacted]
Viol. 1: Ch/Sec/Sub [redacted] Viol. 2: Ch/Sec/Sub ___/___
63 Viol. 3: Ch/Sec/Sub ___/___ Viol. 4: Ch/Sec/Sub ___/___

Reg # 825WN7 Reg Type PC Reg State MA
Veh Year 2007 Veh Make ___ Veh Config. 1 20
Owner REYES, JOSE (Last First Middle) 412
Address 148 W YARMOUTH RD
City W YARMOUTH State MA Zip 02673-0000
Vehicle Action Prior to Crash 1 21
Event Sequence 22 22 22 22 22 22
Most Harmful Event 22 23
Driver Contributing Code 19 24 24
Underride/Override 1 25 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

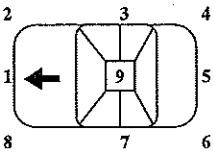
22 13

7 1 **Please Select One of the Following:** ☐ Vehicle 2 | #Occupants | ☐ Non-Motorist A | Type 14 | Action 15 | Location 16 | Condition 17 | ☐ Hit/Run | ☐ Moped

License # ___ St ___ DOB/Age ___
Sex ___ Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement
81 Operator ___ (Last First Middle)
Address ___
City ___ State ___ Zip ___
Insurance Company ___
Vehicle Travel Direction: N S E W Responding to Emergency? ___
Citation # (If Issued) ___
Viol. 1: Ch/Sec/Sub ___/___ Viol. 2: Ch/Sec/Sub ___/___
Viol. 3: Ch/Sec/Sub ___/___ Viol. 4: Ch/Sec/Sub ___/___

Reg # ___ Reg Type ___ Reg State ___
Veh Year ___ Veh Make ___ Veh Config. 20
Owner ___ (Last First Middle)
Address ___
City ___ State ___ Zip ___
Vehicle Action Prior to Crash 21
Event Sequence 22 22 22 22
Most Harmful Event 23
Driver Contributing Code 24 24
Underride/Override 25 Towed ___

Damaged Area Code: (Circle Up to Three)



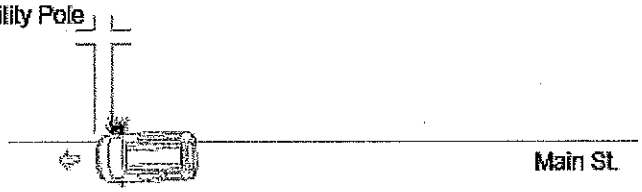
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram: ie: → [1] → [2] →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Vehicle 1 was traveling Westbound on Main St. approaching the interesection of Lewis Bay and Main St. Operator of Vehicle 1 drove off the roadway striking a utility pole. Vehicle 1 sustained significant damage to the passenger side of the vehicle. Vehicle 1 left the scene of the accident and continued driving. No damage to utility pole. 778

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. SPENCER L JACKSON		279	Barnstable Police Department		12/15/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
01/25/2014	2023 (24HR)	COTUIT	1	0	Speed Limit 30	State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

16 Route# | Direction | Name of Roadway/Street
At
Route# | Direction | Name of Intersecting Roadway/Street
Also at Intersection with
24 Route# | Direction | Name of Intersecting Roadway/Street

29 Route# 115 | Direction | Address # | MAIN ST Name of Roadway/Street
Feet [N S E W] of — — — • — Mile Marker or Exit Number
210 Feet [N S E W] of Route# | Intersecting Roadway/Street
111 Feet [N S E W] of Landmark

399 Please Select One of the Following: ☒ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped | **14-86-AC**

License # S16549914 St MA DOB/Age [redacted]
Reg # 718RR4 Reg Type PC Reg State MA
Sex M Lic. Class D 18 18 Lic. Restrictions 99 19 CDL Endorsement P
Veh Year 2000 Veh Make TOYOTA Veh Config. 1 20

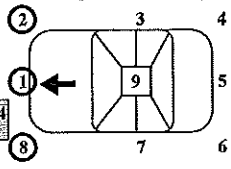
41 Operator GOMES, JAMES M (Last First Middle)
Address 101 TROUT BROOK RD
City COTUIT State MA Zip 02635
Insurance Company GOVT EMPLOYEE INS.

Owner GOMES, JAMES M (Last First Middle) 712
Address 101 TROUT BROOK RD
City COTUIT State MA Zip 02635

5 Vehicle Travel Direction: N S [X] W Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
63 Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Vehicle Action Prior to Crash 1 21
Event Sequence 21 22 22 22 22
Most Harmful Event 21 23
Driver Contributing Code 7 24 24
Underride/Override 1 25 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	99	4	0	0	5	1	

213

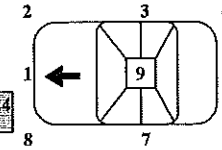
71 Please Select One of the Following: ☐ Vehicle 2 | #Occupants | ☐ Non-Motorist A | Type 14 | Action 15 | Location 16 | Condition 17 | ☐ Hit/Run | ☐ Moped

License # St DOB/Age
Reg # Reg Type Reg State
Sex Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement
Veh Year Veh Make Veh Config. 20

81 Operator (Last First Middle)
Address
City State Zip
Insurance Company
Vehicle Travel Direction: N S E W Responding to Emergency?
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Owner (Last First Middle)
Address
City State Zip
Vehicle Action Prior to Crash 21
Event Sequence 22 22 22 22
Most Harmful Event 23
Driver Contributing Code 24 24
Underride/Override 25 Towed

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

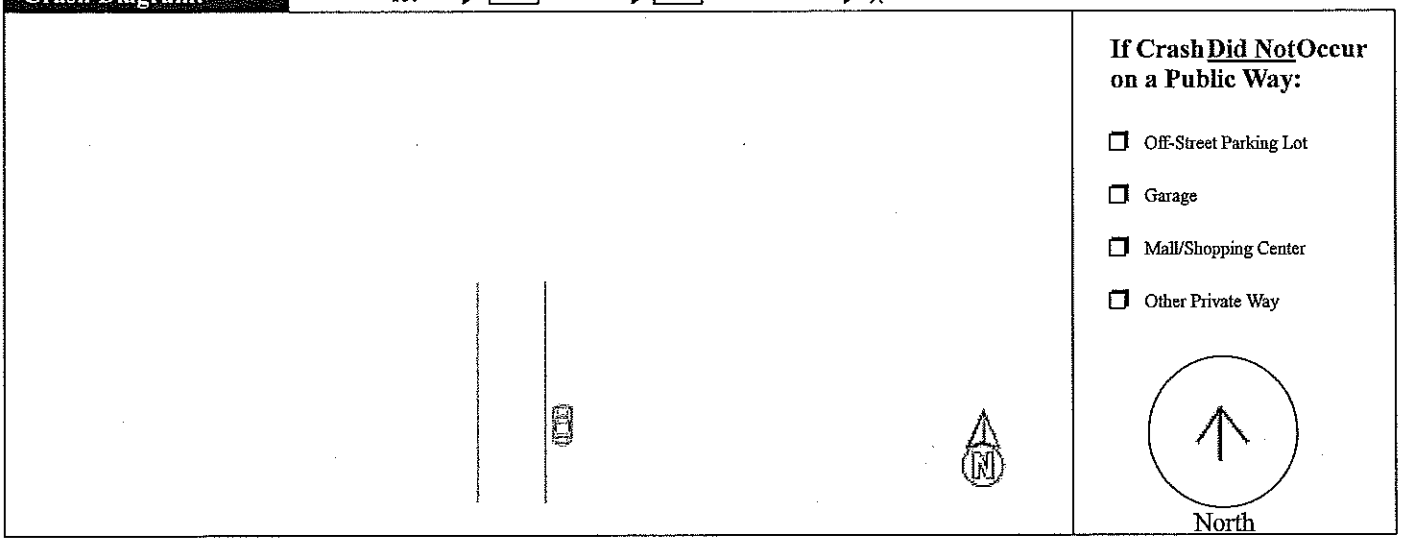
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

Crash Diagram:

ie: → [1] → [2] → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Veh.#1 was traveling east on Main St., (Cotuit), when the OP (James Gomes) lost control of the vehicle along the ice & snow covered roadway, sliding off the road before striking a tree in front of 115 Main St. No injuries, vehicle was towed from the scene by capeway towing.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. DENNIS P FRANKIO		180	Barnstable Police Department		02/10/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Report Number / Date

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
02/07/2014	2118 (24HR)	HYANNIS	2	3		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

14 Route# | Direction | MAIN ST — Name of Roadway/Street
At
Route# | Direction | CAMP ST — Name of Intersecting Roadway/Street
Also at Intersection with
21 Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address # | Name of Roadway/Street
Feet [N S E W] of — — — • — — Mile Marker or Exit Number
Feet [N S E W] of Route# | Intersecting Roadway/Street
Feet [N S E W] of Landmark

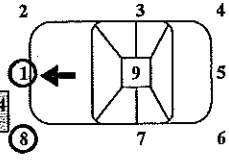
29 | 210 | 211

3 **Please Select One of the Following:** ☒ Vehicle 1 — 3 #Occupants ☐ Hit/Run ☐ Moped — **14-133-AC**

Vehicle 1

License # 021621046 St MA DOB/Age [redacted] Sex M Lic. Class D 18 D 18 Lic. Restrictions 1 19 CDL Endorsement
Operator COSTA, FERNANDO (Last First Middle)
Address 40 RTE 28
City HARWICH State MA Zip 02645
Insurance Company ARBELLA
Vehicle Travel Direction: [N S E X] Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # 825RR4 Reg Type PC Reg State MA
Veh Year 1999 Veh Make DODGE Veh Config. 2 20
Owner COSTA, FERNANDO (Last First Middle)
Address 40 RTE 28
City HARWICH State MA Zip 02645
Vehicle Action Prior to Crash 1 21
Damaged Area Code: (Circle Up to Three)
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 1 24 24
Underride/Override 1 25 Towed 1



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	1	1	0	0	5	1	
TINA COSTA	73 LOWER COUNTY RD Dennisport, MA 02639	[redacted]		3	0	2	1	0	0	4	2	Cape Cod Hospital
NICHOLAS ESTRELLA	72 HARVARD ST HYANNIS, MA 02601	[redacted]	M	6	0	5	3	0	0	4	2	Cape Cod Hospital

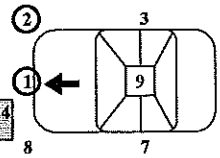
1 13

7 2 **Please Select One of the Following:** ☒ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

Vehicle 2

License # S83829245 St MA DOB/Age [redacted] Sex F Lic. Class D 18 D 18 Lic. Restrictions 1 19 CDL Endorsement
Operator CURLEY, JOANN (Last First Middle)
Address 19 FOREST GATE
City YARMOUTHPORT State MA Zip 02675
Insurance Company COMMERCE
Vehicle Travel Direction: [N S X W] Responding to Emergency? 1
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # 5118 Reg Type PC Reg State MA
Veh Year 2004 Veh Make CHRYSLER Veh Config. 1 20
Owner CURLEY, JOANN (Last First Middle)
Address 19 FOREST GATE
City YARMOUTHPORT State MA Zip 02675
Vehicle Action Prior to Crash 4 21
Damaged Area Code: (Circle Up to Three)
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 4 24 24
Underride/Override 1 25 Towed 1

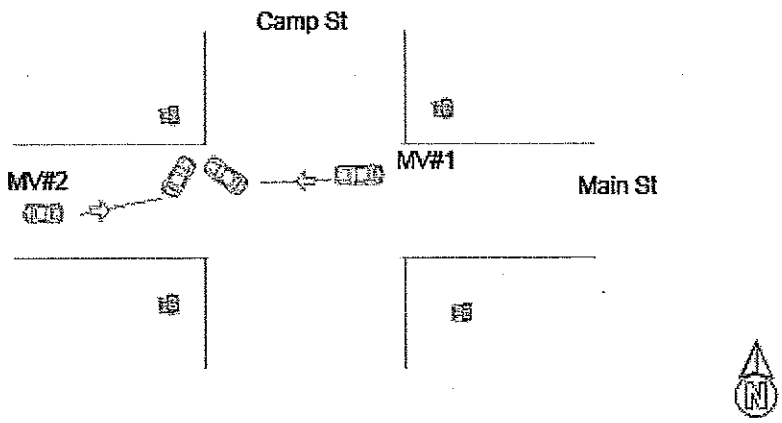


0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	1	1	0	0	4	2	Cape Cod Hospital

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian

Crash Diagram: ie: → 1 → 2 → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Dispatched to MVA on Main and Camp. MV#1 had damage to his front driver side, MV#2 had damage to its front passenger side. Statements- operator MV#1 Costa- I was going straight through the green light and the other car (MV#2) turned left, right in front of me, she drove right into me. Operator MV#1 Curley- I had a green light and was turning left, I didn't even see the other car coming , I'm sorry. Gist- MV#1 was traveling straight throught the intersection (green light) and was hit by MV#2, which was making a left turn at the intersection. Both vehicles removed by capeway, no citations, photos by Barnstable CIO Wallace. Both passengers in vehicle #1 transported to CCH with minor injuries, neither wearing seatbelts. 795

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. JOHN L CAMPBELL		189	Barnstable Police Department		02/07/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Page 1 of 2

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Crash Report Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
02/24/2014	1440 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# / Direction / Name of Roadway/Street: ____ At ____ Route# / Direction / Name of Intersecting Roadway/Street

2 1 — Also at Intersection with: Route# / Direction / Name of Intersecting Roadway/Street

2 9 — Route# / Direction / Address # 94 / Name of Roadway/Street: MAIN ST

2 10 — ____ Feet [N S E W] of Mile Marker ____ or Exit Number ____

____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street ____

3 11 — ____ Feet [N S E W] of Landmark ____

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped

14-180-AC

License # S40412377 St MA DOB/Age [redacted] Reg # 898RS4 Reg Type PC Reg State MA

Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement ____ Veh Year 1997 Veh Make FORD Veh Config. 1 20

4 1 — Operator HENDERSON, JERRY DEAN (Last First Middle)

Address 106 LOWER COUNTY RD

City DENNISPORT State MA Zip 02639-1905

Insurance Company PILGRIM INSURANCE

5 2 — Vehicle Travel Direction: [X] S E W Responding to Emergency? 2

Citation # (If Issued) ____

6 1 — Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____

Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

1 12 — Owner HENDERSON, JERRY DEAN (Last First Middle)

Address 106 LOWER COUNTY RD

City DENNISPORT State MA Zip 02639-1905

Vehicle Action Prior to Crash 10 21

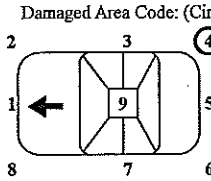
Event Sequence 1 22 22 22 22

Most Harmful Event 1 23

Driver Contributing Code 18 24 24

Underride/Override 1 25 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

1 13 — Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	99	0	0	5	1	

7 1 — Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

License # S44027347 St MA DOB/Age [redacted] Reg # 725NX4 Reg Type PC Reg State MA

Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement ____ Veh Year 1998 Veh Make LINCOLN Veh Config. 1 20

8 1 — Operator MARTINO, RICHARD MIKE (Last First Middle)

Address 23 CENTERBOARD LN

City S YARMOUTH State MA Zip 02664-1003

Insurance Company NORFOLK DEDHAM INS

Vehicle Travel Direction: [N S E X] Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____

Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Owner MARTINO, RICHARD MIKE (Last First Middle)

Address 23 CENTERBOARD LN

City S YARMOUTH State MA Zip 02664-1003

Vehicle Action Prior to Crash 1 21

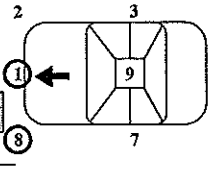
Event Sequence 1 22 22 22 22

Most Harmful Event 1 23

Driver Contributing Code 1 24 24

Underride/Override 1 25 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

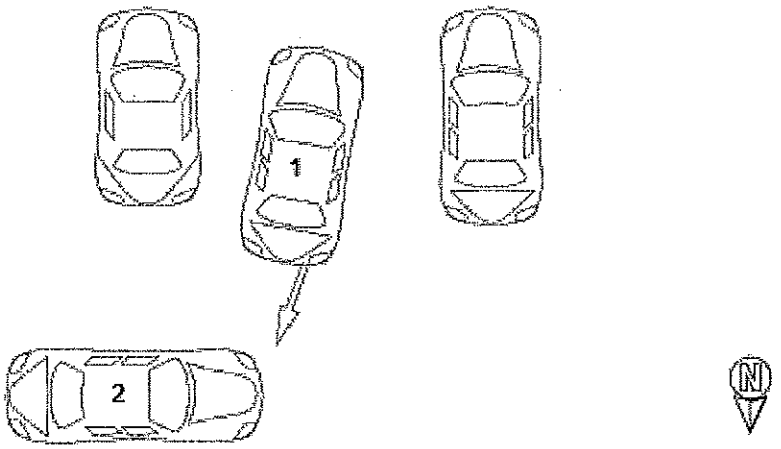
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	99	4	99	0	0	5	1	

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian

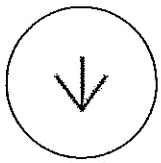
Crash Diagram:

ie: → 1 → 2 → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

Op of V1 stated he was backing out of his parking space when he collided with V2. Op of V1 stated he did not see V2 behind him.

Op of V2 stated he was pulling into the parking lot when he saw V1 backing up and could not move his vehicle in time to avoid a collision.

Gist- Op of V1 could not see V2 as he was backing up. V2 was not visible to him at the time. Minor damage to both vehicles.

No photographs taken, no injuries, no citations issued, and no vehicles towed.

770

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. COREY B FREDERICKSON		283	Barnstable Police Department		02/27/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
03/14/2014	1723 (24HR)	HYANNIS	2	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **LOCATION** | **NOT AT INTERSECTION:**

Route# / Direction / Name of Roadway/Street: 125 / / MAIN ST

At

Route# / Direction / Name of Intersecting Roadway/Street:

Also at Intersection with

Route# / Direction / Name of Intersecting Roadway/Street:

Feet N S E W of — — — • — or Mile Marker / Exit Number

Feet N S E W of Route# / Intersecting Roadway/Street

Feet N S E W of Landmark

Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

14-234-AC

Vehicle 1

License # S76574770 St MA DOB/Age [redacted]

Sex M Lic. Class D Lic. Restrictions 1 CDL Endorsement

Operator DEROSIER, NICHOLAS ROBERT (Last / First / Middle)

Address 57 CAMP ST

City WEST YARMOUTH State MA Zip 02673

Insurance Company LIBERTY MUTUAL INS.

Vehicle Travel Direction: N S E ☒ Responding to Emergency? 2

Citation # (If Issued)

Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /

Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # 663NA8 Reg Type PC Reg State MA

Veh Year 2000 Veh Make TOYOTA Veh Config. 1

Owner DEROSIER, NICHOLAS ROBERT (Last / First / Middle)

Address 57 CAMP ST

City WEST YARMOUTH State MA Zip 02673

Vehicle Action Prior to Crash 1

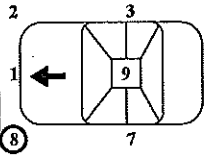
Event Sequence 1 / / / /

Most Harmful Event 1

Driver Contributing Code 13 / 24

Underride/Override 1 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist A — Type — Action — Location — Condition — ☐ Hit/Run — ☐ Moped

Vehicle 2

License # 307119091 St NY DOB/Age [redacted]

Sex M Lic. Class 99 Lic. Restrictions 1 CDL Endorsement

Operator BITTNER, KARL R (Last / First / Middle)

Address 95 ICE POND RD

City BREWSTER State NY Zip 10509

Insurance Company GEICO INS

Vehicle Travel Direction: N S E ☒ Responding to Emergency? 2

Citation # (If Issued)

Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /

Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # ENB4746 Reg Type PC Reg State NY

Veh Year 2008 Veh Make SUBARU Veh Config. 1

Owner BITTNER, KARL R (Last / First / Middle)

Address 95 ICE POND RD

City BREWSTER State NY Zip 10509

Vehicle Action Prior to Crash 1

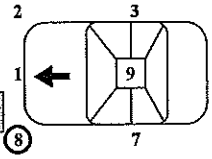
Event Sequence 1 / / / /

Most Harmful Event 1

Driver Contributing Code 1 / 24

Underride/Override 1 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

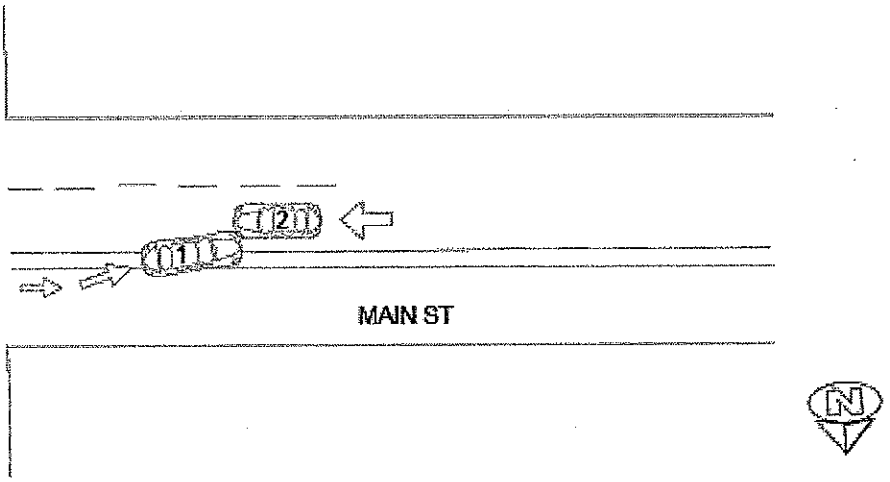
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	4	0	0	4	2	Cape Cod Hospital

→ = Direction [1] = Vehicle 1 [2] = Pedestrian

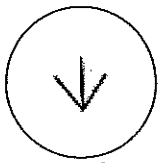
Crash Diagram:

ie: → [1] → [2] → 🚶



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

On Friday 3-14-14 at approx. 1540hrs I was dispatched to a motor vehicle accident. Vehicle #1 was traveling westbound on Main St. Vehicle #2 was traveling eastbound on Main St. As Vehicle #1 approached Vehicle#2 the operator#1 was blinded by "solar glare". Unaware he steered into oncoming traffic and struck his front driverside with the front driverside of vehicle#2 Operator#1 stated, " I was unable to see and I veered into his lane." Operator#2 stated, " I was just driving and he drove right into me." Operator#2 was transported to CCH by HYFD for minor injuries.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. TRAVIS M BROWN		289	Barnstable Police Department	03/14/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
03/29/2014	1939 24HR	HYANNIS	1	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

14 Route# | Direction | Name of Roadway/Street
At
Route# | Direction | Name of Intersecting Roadway/Street
Also at Intersection with
23 Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | 110 Address # | MAIN ST Name of Roadway/Street (9)
_____ Feet [N S E W] of — — — • — or _____ Exit Number (10)
Mile Marker
_____ Feet [N S E W] of Route# _____ Intersecting Roadway/Street
_____ Feet [N S E W] of _____ Landmark (11)

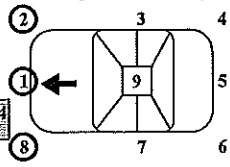
3 **Please Select One of the Following:** ☒ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

14-277-AC

License # S58420557 St MA DOB/Age [redacted]
Sex M Lic. Class D (18) (18) Lic. Restrictions 1 (19) CDL Endorsement
43 Operator WOOD, JUSTIN BENJAMIN (Last, First, Middle)
Address 87 TROTTING PARK RD
City TEATICKET State MA Zip 02536
Insurance Company ARBELLA INSURANCE
51 Vehicle Travel Direction: [N S X W] Responding to Emergency? 2
Citation # (If Issued) _____
62 Viol. 1: Ch/Sec/Sub _____ Viol. 2: Ch/Sec/Sub _____
Viol. 3: Ch/Sec/Sub _____ Viol. 4: Ch/Sec/Sub _____

Reg # 595XD4 Reg Type PC Reg State MA
Veh Year 2013 Veh Make TOYOTA Veh Config. 1 (20)
Owner WOOD, JUSTIN BENJAMIN (Last, First, Middle) (12)
Address 87 TROTTING PARK RD
City TEATICKET State MA Zip 02536
Vehicle Action Prior to Crash 2 (21)
Event Sequence 20 (22) 35 (22) — (22) — (22)
Most Harmful Event 20 (23)
Driver Contributing Code 16 (24) 17 (24)
Underride/Override 1 (25) Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved (13)

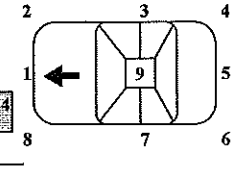
Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---	---	---	0	4	99	0	0	4	2	Cape Cod Hospital
MICHAEL SHEA	1815 FALMOUTH RD RTE 28 CENTERVILLE, MA 02632	[redacted]	M	3	99	4	99	0	0	5	1	

72 **Please Select One of the Following:** ☐ Vehicle 2 | #Occupants | ☐ Non-Motorist A | Type (14) | Action (15) | Location (16) | Condition (17) | ☐ Hit/Run | ☐ Moped

License # _____ St _____ DOB/Age _____
Sex _____ Lic. Class (18) (18) Lic. Restrictions (19) CDL Endorsement
81 Operator _____ (Last, First, Middle)
Address _____
City _____ State _____ Zip _____
Insurance Company _____
Vehicle Travel Direction: [N S E W] Responding to Emergency? _____
Citation # (If Issued) _____
Viol. 1: Ch/Sec/Sub _____ Viol. 2: Ch/Sec/Sub _____
Viol. 3: Ch/Sec/Sub _____ Viol. 4: Ch/Sec/Sub _____

Reg # _____ Reg Type _____ Reg State _____
Veh Year _____ Veh Make _____ Veh Config. (20)
Owner _____ (Last, First, Middle)
Address _____
City _____ State _____ Zip _____
Vehicle Action Prior to Crash (21)
Event Sequence (22) (22) (22) (22)
Most Harmful Event (23)
Driver Contributing Code (24) (24)
Underride/Override (25) Towed _____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

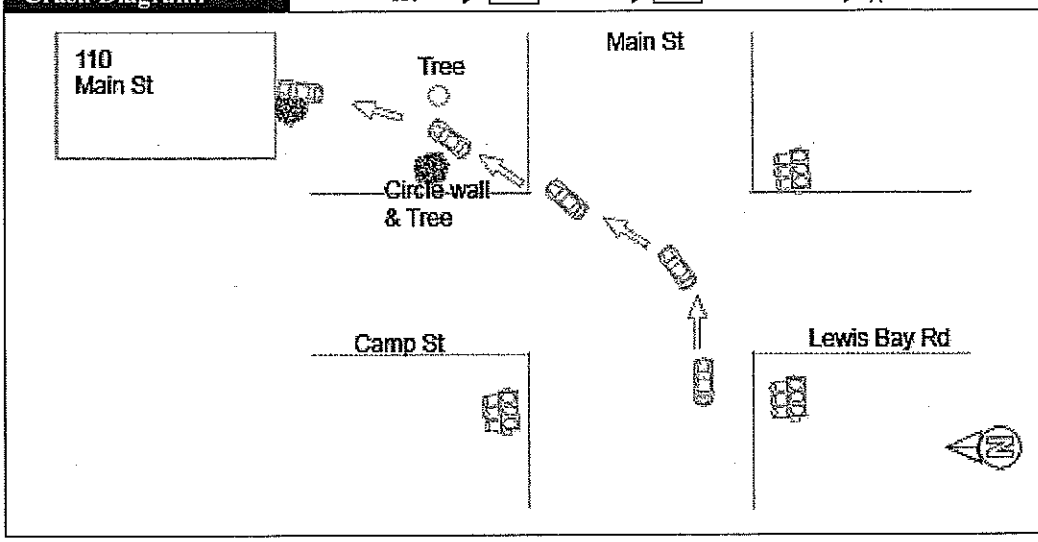
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

ie: → [1] → [2] →

Crash Diagram:



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

Crash Narrative:

Justin Wood - "I don't remember anything. The last thing I remember was picking my friend Mike up at Sears and we were going to get something to eat". Michael Shea - "He picked me up and he was acting weird. There was something wrong with Justin. [redacted] That is when he went off the road and hit the house". GIST - Justin Wood has some type of medical issue [redacted] and causED him to lose control of the vehicle. The vehicle went across the road, up over a curb and traveled approximately 50 feet before crashing into the building. [redacted] Photos - BCI Officer Wallace - Towing Company - Buckler's Towing

795

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property
PARK SQUARE PROFESSIONAL BLDG LLC	110 MAIN ST HYANNIS MA 02601		97	OFFICE BUILDING

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. DENNIS M STAMPFL		269	Barnstable Police Department		03/29/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Department

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Report Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
07/07/2014	1303 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# CAMP ST — Direction — Name of Roadway/Street
At
Route# MAIN ST — Direction — Name of Intersecting Roadway/Street
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address # — Name of Roadway/Street
Feet N S E W of — Mile Marker — or — Exit Number
Feet N S E W of — Route# — Intersecting Roadway/Street
Feet N S E W of — Landmark

2 9 — 2 10 — 4 11

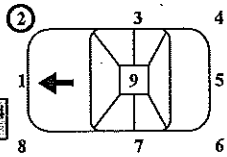
3 2 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped — **14-604-AC**

4 3 — 1 12

License # 019583315 St MA DOB/Age [redacted]
Sex M Lic. Class 99 Lic. Restrictions — CDL Endorsement
Operator MONTEIRO, MICHAEL J (Last First Middle)
Address 24 CAMP ST
City HYANNIS State MA Zip 02601
Insurance Company safety
Vehicle Travel Direction: N S X W — Responding to Emergency? 2
Citation # (If Issued) [redacted]
Viol. 1: Ch/Sec/Sub [redacted] — Viol. 2: Ch/Sec/Sub [redacted]
Viol. 3: Ch/Sec/Sub / — Viol. 4: Ch/Sec/Sub /

Reg # RS90FP — Reg Type PC — Reg State MA
Veh Year 2009 — Veh Make DODGE — Veh Config. 1
Owner MONTEIRO, KAREN T (Last First Middle)
Address 26 CAMP ST
City HYANNIS State MA Zip 02601-0000
Vehicle Action Prior to Crash 7
Event Sequence 1: 22 22 22 22
Most Harmful Event 1
Driver Contributing Code 9 24 24
Underride/Override 1 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

5 1 — 6 1

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	99	0	0	5	1	

1 13

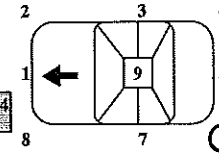
7 1 — Please Select One of the Following: ☒ Vehicle 2 — 3 #Occupants — ☐ Non-Motorist A — Type 14 — Action 15 — Location 16 — Condition 17 — ☐ Hit/Run — ☐ Moped

8 1

License # S70449195 St MA DOB/Age [redacted]
Sex M Lic. Class D Lic. Restrictions 1 CDL Endorsement
Operator CZARNECKI, JOHN S (Last First Middle)
Address 26 FRANCIS AVE
City LUNENBURG State MA Zip 01462-2024
Insurance Company commerce
Vehicle Travel Direction: N S X W — Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / — Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / — Viol. 4: Ch/Sec/Sub /

Reg # VB2844 — Reg Type PC — Reg State MA
Veh Year 2014 — Veh Make HONDA — Veh Config. 1
Owner CZARNECKI, JOHN S (Last First Middle)
Address 26 FRANCIS AVE
City LUNENBURG State MA Zip 01462-2024
Vehicle Action Prior to Crash 2
Event Sequence 1: 22 22 22 22
Most Harmful Event 1
Driver Contributing Code 1 24 24
Underride/Override 1 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

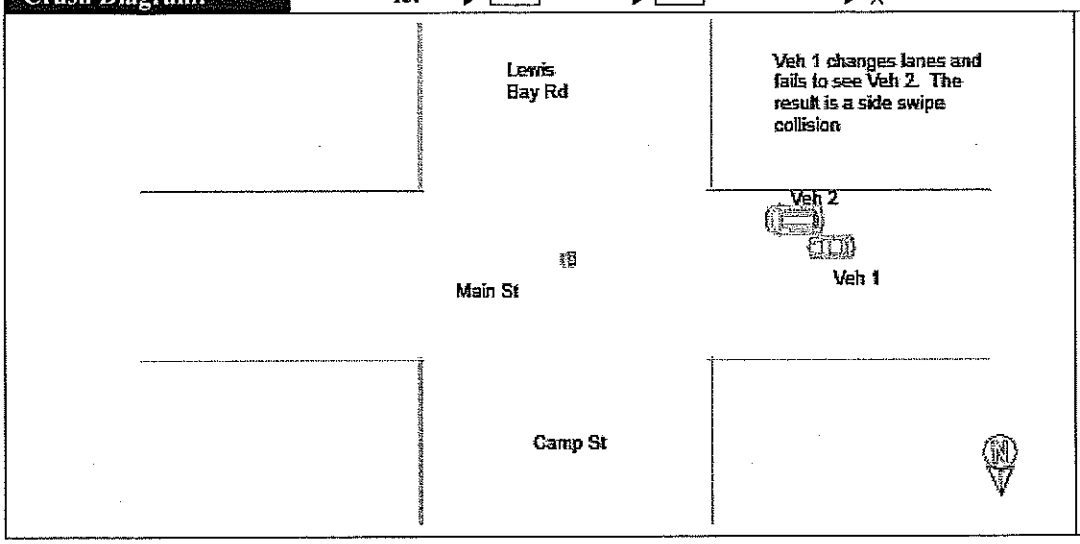
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	99	0	0	5	1	
CECILE CZARNECKI	26 FRANCIS AVE LUNENBURG, MA 01462	[redacted]	F	3	1	4	99	0	0	5	1	
JAMES CZARNECKI	117 DOLPHIN LN HYANNIS, MA 02601	[redacted]		6	1	4	99	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Vehicle 2 was slowing in traffic heading eastbound on Main St. Vehicle 1 attempted to change lanes from the left hand lane while also traveling eastbound. Vehicle 1 side swiped vehicle 2 as a result.

There was minor damage to both vehicles, no injuries reported at this time.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

SGT. ROBERT E BITINAS		266	Barnstable Police Department		07/07/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash: 08/26/2014 | Time of Crash: 1718 (24HR) | City/Town: HYANNIS | Number Vehicles: 1 | Number Injured: 1 | Speed Limit: | Lat.: | Lon.: | State Police ☐ Local Police ☒ MBTA Police ☐ Other:

LOCATION

AT INTERSECTION:

Route# | Direction | Name of Roadway/Street

At

Route# | Direction | Name of Intersecting Roadway/Street

Also at Intersection with

Route# | Direction | Name of Intersecting Roadway/Street

NOT AT INTERSECTION:

Route# | Direction | 135 Address # | MAIN ST Name of Roadway/Street

Feet [N S E W] of — — — • — Mile Marker or Exit Number

Feet [N S E W] of Route# | Intersecting Roadway/Street

Feet [N S E W] of Landmark

Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped

14-809-AC

Vehicle 1

License # S64517930 St MA DOB/Age [redacted] Sex M Lic. Class D Lic. Restrictions CDL Endorsement

Operator MOORHEAD, HENRY RUSSELL (Last First Middle)

Address ONE COMMON ST

City DEDHAM State MA Zip 02026-4120

Insurance Company safety insurance

Vehicle Travel Direction: ☒ S E W Responding to Emergency? 2

Citation # (If Issued)

Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /

Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # 37TW69 Reg Type PC Reg State MA

Veh Year 2002 Veh Make ACURA Veh Config. 1

Owner MOORHEAD, STEPHEN G (Last First Middle)

Address 1 COMMON ST

City DEDHAM State MA Zip 02026-4120

Vehicle Action Prior to Crash 6

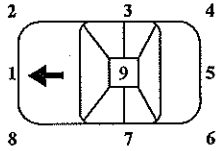
Event Sequence 4 | | | |

Most Harmful Event 4

Driver Contributing Code 1 | |

Underride/Override 1 Towed 2

Damaged Area Code: (Circle Up to Three)



(0) None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

Please Select One of the Following: ☐ Vehicle 2 — #Occupants ☒ Non-Motorist A Type 2 Action 2 Location 9 Condition 1 ☐ Hit/Run ☐ Moped

Non-Motorist A

License # unknown St DOB/Age [redacted] Sex M Lic. Class Lic. Restrictions CDL Endorsement

Operator MAGNETT, DARIEN ANTHONY (Last First Middle)

Address 800 BEARSE'S WAY APT 6SB

City HYANNIS State MA Zip 02601

Insurance Company

Vehicle Travel Direction: N S E ☒ Responding to Emergency? 2

Citation # (If Issued)

Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /

Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # Reg Type Reg State

Veh Year Veh Make Veh Config. 20

Owner (Last First Middle)

Address

City State Zip

Vehicle Action Prior to Crash 1

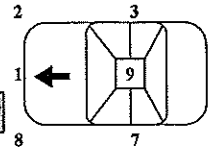
Event Sequence 1 | | | |

Most Harmful Event 1

Driver Contributing Code 8 | 97

Underride/Override 1 Towed 2

Damaged Area Code: (Circle Up to Three)

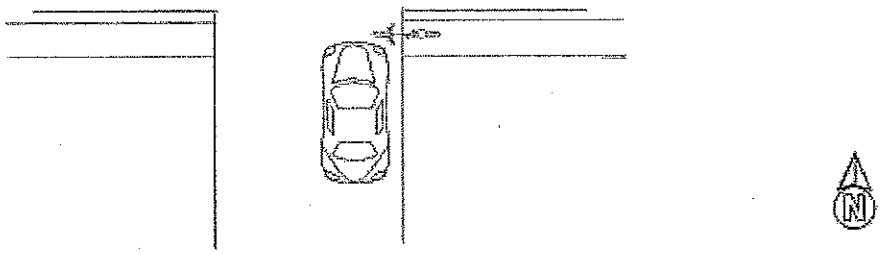


0 None
10 Undercarriage
11 Totaled
(97) Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---						4	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram: ie: → [1] → [2] →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

HENRY MOORHEAD: I was pulling out of driveway and looking left to enter traffic. The bicycle came from my right and slammed into my car. He began yelling at me then threatened me along with another man so I drove to a safer place.

DARIEN MAGNETT: I was riding on the sidewalk and this kid pulls out and hits me, I tell him I want his insurance and he refuses. So I get up in his face and he speeds off.

DARIEN should not have been riding on the sidewalk going against the flow of traffic and HENRY should have check right before proceeding into traffic. Henry tries to pull into traffic, while watching the traffic to his left Darien attempts to go around him and is struck while riding around the front of Henry. Darien complains about a sore side but refuses rescues request to take him to Cape Cod Hospital.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. PETER S MYRBECK		249	Barnstable Police Department		09/01/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
08/29/2014	2241 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < **LOCATION** > **NOT AT INTERSECTION:**

14 Route# — Direction — MAIN ST — Name of Roadway/Street
At
— — LEWIS BAY RD — Name of Intersecting Roadway/Street
Also at Intersection with
21 Route# — Direction — Name of Intersecting Roadway/Street

29 Route# — Direction — Address # — Name of Roadway/Street
210 ____ Feet N S E W of — — — • — or Exit Number (Mile Marker)
____ Feet N S E W of Route# — Intersecting Roadway/Street
411 ____ Feet N S E W of Landmark

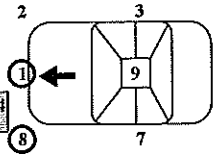
3 Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

14-825-AC

License # 4440389557 St NY DOB/Age [redacted]
Sex F Lic. Class 18 D 18 Lic. Restrictions 19 1 CDL Endorsement
42 Operator NEWHARD, CAROLYNN R (Last First Middle)
Address 71 ANDREWS RD
City LAGRANGEVILLE State NY Zip 12540
Insurance Company AMERICAN STATES INS CO
51 Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____
61 Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Reg # DCC8154 Reg Type PC Reg State NY
Veh Year 2007 Veh Make CHRYSLER Veh Config. 1 20
Owner NEWHARD, ELLEN W (Last First Middle) 112
Address 71 ANDREWS RD
City LAGRANGEVILLE State NY Zip 12540
Vehicle Action Prior to Crash 1 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 1 24 24
Underride/Override 1 25 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	99	0	0	5	1	

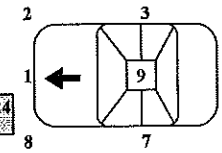
1 13

72 Please Select One of the Following: ☐ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist A — Type 14 — Action 15 — Location 16 — Condition 17 — ☒ Hit/Run — ☐ Moped

License # ____ St ____ DOB/Age ____
Sex ____ Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement
81 Operator unknown (Last First Middle)
Address ____
City ____ State ____ Zip ____
Insurance Company ____
Vehicle Travel Direction: N S E W — Responding to Emergency? ____
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____
Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Reg # ____ Reg Type ____ Reg State ____
Veh Year ____ Veh Make ____ Veh Config. 20
Owner ____ (Last First Middle)
Address ____
City ____ State ____ Zip ____
Vehicle Action Prior to Crash 21
Event Sequence 22 22 22 22
Most Harmful Event 23
Driver Contributing Code 24 24
Underride/Override 25 Towed ____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

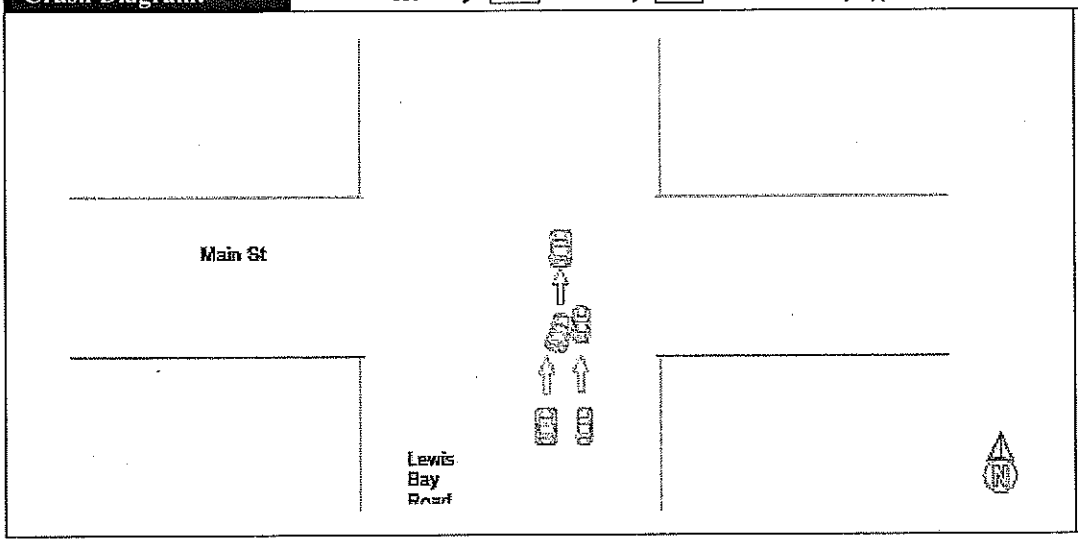
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Carolynn Newhard - "I was at the stop light going straight. When the light turned green the white Jeep Wrangler turned - merged into my car. We pulled over, he got out and started yelling at me and then got back into the Jeep and took off."

Gist - MV # 2 (Jeep Wrangler) turned into MV # 1 crashing into the front left quarter panel. The crash caused moderate damage to the front left quarter panel. After MV # 2 crashed into MV # 1, the mv took off in northerly direction onto Camp Street.

No injuries at the time of the report.

No duty tow or photos.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. DENNIS M STAMPFL | 269 | Barnstable Police Department | 09/01/2014

Police Officer Name (Please Print) | Signature | ID/Badge # | Department | Precinct/Barracks | Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Police Report # | Crash Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
12/09/2014	1201 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# | Direction | Name of Roadway/Street: MAIN ST
At
Route# | Direction | Name of Intersecting Roadway/Street: LEWIS BAY RD
Also at Intersection with
2 3 — Route# | Direction | Name of Intersecting Roadway/Street:

Route# | Direction | Address # | Name of Roadway/Street
Feet [N S E W] of — — — • — (Mile Marker) or (Exit Number)
Feet [N S E W] of Route# | Intersecting Roadway/Street
Feet [N S E W] of Landmark

2 9 | 2 10 | 2 11

3 7 **Please Select One of the Following:** ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

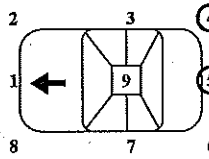
14-1166-AC

License # S94261368 St MA DOB/Age [redacted] — Reg # 141MZ8 — Reg Type PC — Reg State MA
Sex F — Lic. Class D (18–18) — Lic. Restrictions 1 (19) — CDL Endorsement — Veh Year 2004 — Veh Make VOLVO — Veh Config. 1 (20)

4 1 — Operator (Last First Middle) SVIRYDZIUK, SVIATLANA
Address 47 ST. JOHN ST
City HYANNIS — State MA — Zip 02601
Insurance Company ARBELLA
5 1 — Vehicle Travel Direction: N S E ☒ — Responding to Emergency? 2
Citation # (If Issued) NONE
6 2 — Viol. 1: Ch/Sec/Sub ___/___ — Viol. 2: Ch/Sec/Sub ___/___ — Viol. 3: Ch/Sec/Sub ___/___ — Viol. 4: Ch/Sec/Sub ___/___

Owner (Last First Middle) SVIRYDZIUK, SVIATLANA — 1 12
Address 47 ST. JOHN ST
City HYANNIS — State MA — Zip 02601
Vehicle Action Prior to Crash 2 (21)
Event Sequence 1 (22) — — —
Most Harmful Event 1 (23)
Driver Contributing Code 1 (24) —
Underride/Override 1 (25) — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	99	99	0	0	5	1	

1 13

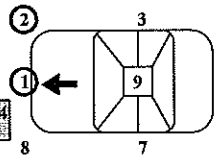
7 2 **Please Select One of the Following:** ☒ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist A — Type 14 — Action 15 — Location 16 — Condition 17 — ☐ Hit/Run — ☐ Moped

License # S88096896 St MA DOB/Age [redacted] — Reg # 450LOB — Reg Type PC — Reg State MA
Sex F — Lic. Class D (18–18) — Lic. Restrictions 2 (19) — CDL Endorsement — Veh Year 2000 — Veh Make TOYOTA — Veh Config. 1 (20)

8 1 — Operator (Last First Middle) SAMPSON, KATHLEEN E
Address 90 FOREST HILOS DR
City DENNIS — State MA — Zip 02641
Insurance Company SAFETY
Vehicle Travel Direction: N S E ☒ — Responding to Emergency? 2
Citation # (If Issued) NONE
Viol. 1: Ch/Sec/Sub ___/___ — Viol. 2: Ch/Sec/Sub ___/___ — Viol. 3: Ch/Sec/Sub ___/___ — Viol. 4: Ch/Sec/Sub ___/___

Owner (Last First Middle) SAMPSON, KATHLEEN E
Address 90 FOREST HILOS DR
City DENNIS — State MA — Zip 02641
Vehicle Action Prior to Crash 1 (21)
Event Sequence 1 (22) — — —
Most Harmful Event 1 (23)
Driver Contributing Code 19 (24) —
Underride/Override 1 (25) — Towed 1

Damaged Area Code: (Circle Up to Three)



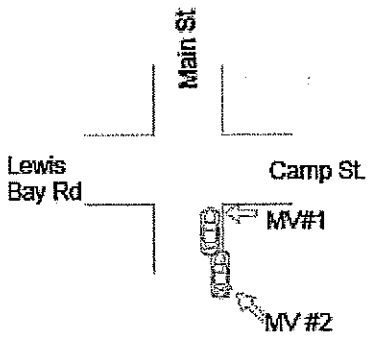
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	99	99	99	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram: ie: → [1] → [2] →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

This was a minor rear end collision. MV#1, (Svirydziuk), Volvo, was stopped at a traffic light at Main Street and Lewis Bay and Camp Street. MV#2, (Sampson), Toyota, came from behind and struck the rear of MV#1.

Operator Sampson stated that she had a hard time seeing in the bad weather.

There was extreme weather, with rain and wind at the time of the accident.

MV#2 was towed from scene.

795

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. KEVIN J DONOVAN		165	Barnstable Police Department		12/14/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
01/25/2015	1959 (24HR)	HYANNIS	2	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **LOCATION** | **NOT AT INTERSECTION:**

14 Route# | Direction: | CAMP ST — Name of Roadway/Street
At
Route# | Direction: | MAIN ST — Name of Intersecting Roadway/Street
Also at Intersection with
21 Route# | Direction: | Name of Intersecting Roadway/Street

Route# | Direction | Address # | Name of Roadway/Street
Feet [N S E W] of — Mile Marker — or Exit Number
Feet [N S E W] of Route# Intersecting Roadway/Street
Feet [N S E W] of Landmark

29 2 | 30 2 | 31 3

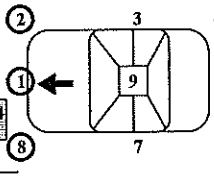
3 **Please Select One of the Following:** ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **15-75-AC**

License # 047900350 St CT DOB/Age [redacted] Reg # 514VAY Reg Type PC Reg State CT
Sex M Lic. Class D (18 18) Lic. Restrictions 1 (19) CDL Endorsement Veh Year 1990 Veh Make ACURA Veh Config. 1 (20)

43 Operator FINLEY, RYAN (Last First Middle) — Owner FINLEY, RYAN (Last First Middle) — 1 12
Address 191 BUCKINGHAM — Address 191 BUCKINGHAM
City OAKVILLE State CT Zip 06779 — City OAKVILLE State CT Zip 06779
Insurance Company usaa — Vehicle Action Prior to Crash 4 (21)

51 Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2 — Event Sequence 1 (22) (22) (22) (22)
Citation # (If Issued) — Most Harmful Event 1 (23)
Viol. 1: Ch/Sec/Sub / — Viol. 2: Ch/Sec/Sub / — Driver Contributing Code 4 (24) (24)
61 Viol. 3: Ch/Sec/Sub / — Viol. 4: Ch/Sec/Sub / — Underride/Override 1 (25) Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved — Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator / See Above	---------	---	---	99	4	99	0	0	5	1	

1 13

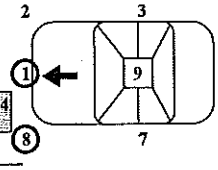
72 **Please Select One of the Following:** ☒ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type (14) Action (15) Location (16) Condition (17) ☐ Hit/Run ☐ Moped

License # S23822795 St MA DOB/Age [redacted] Reg # 13EN80 Reg Type PC Reg State MA
Sex M Lic. Class D (18 18) Lic. Restrictions 1 (19) CDL Endorsement Veh Year 1996 Veh Make LINCOLN Veh Config. 1 (20)

81 Operator MYERS, STEVEN B (Last First Middle) — Owner MYERS, STEVEN B (Last First Middle)
Address 11 CAMP ST APT APT3 — Address 11 CAMP ST APT APT3
City HYANNIS State MA Zip 02601 — City HYANNIS State MA Zip 02601
Insurance Company gov't employee — Vehicle Action Prior to Crash 1 (21)

Vehicle Travel Direction: N S E ☒ — Responding to Emergency? 2 — Event Sequence 1 (22) (22) (22) (22)
Citation # (If Issued) — Most Harmful Event 1 (23)
Viol. 1: Ch/Sec/Sub / — Viol. 2: Ch/Sec/Sub / — Driver Contributing Code 1 (24) (24)
Viol. 3: Ch/Sec/Sub / — Viol. 4: Ch/Sec/Sub / — Underride/Override 1 (25) Towed 1

Damaged Area Code: (Circle Up to Three)

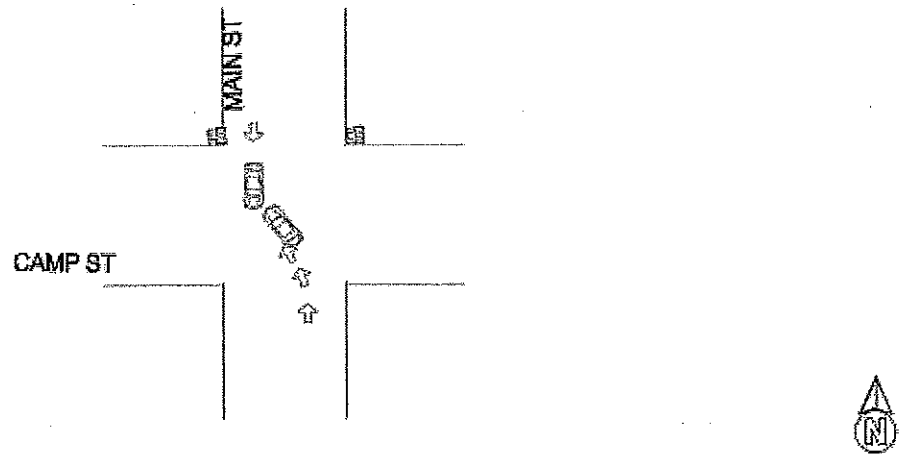


0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved — Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist / See Above	---------	---	---	99	4	99	0	0	4	2	Cape Cod Hospital

= Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram: ie: → [1] → [2] →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

MV#1 taking left onto Camp Street, struck MV#2 traveling straight ahead. Op#1 stated he was unfamiliar with the area and was concentrating on the light when he struck Op#2. Op#2 stated he was traveling straight ahead, had the green light when he was struck. Rotary Towing took both MV. HYFD transported Op#2 for evaluation.

795

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. BRENDAN M BURCHELL		256	Barnstable Police Department		01/25/2015
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
03/12/2015	1947 24HR	OSTERVILLE	2	0	35	State Police ☐ Local Police ☒ MBTA Police ☐ Other:

Lat. ____ Lon. ____

AT INTERSECTION: | **LOCATION** | **NOT AT INTERSECTION:**

LOCATION

Route# ____ Direction ____ Name of Roadway/Street: ____

At

Route# ____ Direction ____ Name of Intersecting Roadway/Street: ____

Also at Intersection with

Route# ____ Direction ____ Name of Intersecting Roadway/Street: ____

Route# ____ Direction 120 Address # MAIN ST Name of Roadway/Street

____ Feet [N S E W] of ____ Mile Marker or ____ Exit Number

____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street

____ Feet [N S E W] of ____ Landmark

Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped

15-250-AC

License # S47778836 St MA DOB/Age [redacted] Reg # 6684TB Reg Type PC Reg State MA

Sex M Lic. Class D Lic. Restrictions 99 CDL Endorsement P Veh Year 2004 Veh Make TOYOTA Veh Config. 2

Operator DELONG, SAMUEL T (Last First Middle)

Address 219 JAMES OTIS RD

City CENTERVILLE State MA Zip 02632

Insurance Company AMICA MUTUAL INS

Vehicle Travel Direction: [X] S E W Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____

Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Owner DELONG, SAMUEL T (Last First Middle)

Address 219 JAMES OTIS RD

City CENTERVILLE State MA Zip 02632

Vehicle Action Prior to Crash 4

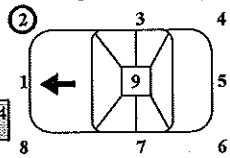
Event Sequence 1 22 22 22 22

Most Harmful Event 1

Driver Contributing Code 4 24

Underride/Override 1 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	99	4	0	0	5	1	

Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type ____ Action ____ Location ____ Condition ____ ☐ Hit/Run ☐ Moped

License # S23715544 St MA DOB/Age [redacted] Reg # 435TG6 Reg Type PC Reg State MA

Sex M Lic. Class D Lic. Restrictions 99 CDL Endorsement P Veh Year 2013 Veh Make CHEVROLET Veh Config. 2

Operator GARDINER, CHRISTIAN (Last First Middle)

Address 485 POPONESSETT RD

City COTUIT State MA Zip 02635

Insurance Company METROPOLITAN

Vehicle Travel Direction: N S E [X] Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____

Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Owner GARDINER, ELIZABETH (Last First Middle)

Address 485 POPONESSETT RD

City COTUIT State MA Zip 02635

Vehicle Action Prior to Crash 1

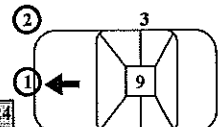
Event Sequence 1 22 22 22 22

Most Harmful Event 1

Driver Contributing Code 1 24

Underride/Override 1 Towed 1

Damaged Area Code: (Circle Up to Three)



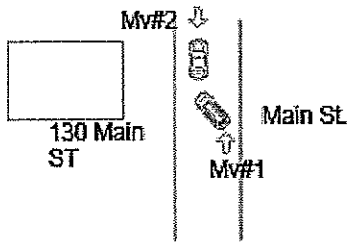
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	99	1	4	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram:

ie: → [1] → [2] →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Veh.#1 traveling east on Main St., Osterville, was attempting to make a left turn into (130 Main St.)in doing so, turned directly in front of Veh.#2. Veh.#2 was traveling west on Main St. No injuries.

770

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. DENNIS P FRANKIO		180	Barnstable Police Department		03/14/2015
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Town of Barnstable
Police Department

Paul B. MacDonald, Chief of Police
Sean E. Balcom, Deputy Chief of Police
Matthew K. Sonnabend, Deputy Chief of Police

P.O. Box B
Hyannis, MA 02601

Main Number: 508-775-0387
Main Fax: 508-790-4167
Administration: 508-775-0920
Admin. Fax: 508-790-6317
www.barnstablepolice.com

Attached is your accident/incident report from the Barnstable Police Department.

The Massachusetts Public Records Law (M.G.L. Chapter 66 & Chapter 4, Section 7(26)) provides that every person has a right to access public information.

Portions of this report have been redacted due to exemptions within the Public Records Law. The portion (s) that have been redacted in the following report are exempt and fall under Exemption A which applies to records that are:

"Specifically or by necessary implication exempted from disclosure by statute"

If you have any questions on Public Records Law and its exemptions please refer to the following website. http://www.sec.state.ma.us

Town of Barnstable
Police Department

Paul B. MacDonald, Chief of Police
Sean E. Balcom, Deputy Chief of Police
Matthew K. Sonnabend, Deputy Chief of Police

P.O. Box B
Hyannis, MA 02601

Main Number: 508-775-0387
Main Fax: 508-790-4167
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Portions of this report have been redacted due to exemptions within the Public Records Law. The portion (s) that have been redacted in the following report are exempt and fall under Exemption C which applies to records that are:

"personnel and medical files or information; also any other materials or data relating to a specifically named individual, the disclosure of which may constitute an unwarranted invasion of personal privacy"

If you have any questions on Public Records Law and its exemptions please refer to the following website. http://www.sec.state.ma.us

Town of Barnstable
Police Department

Paul B. MacDonald, Chief of Police
Sean E. Balcom, Deputy Chief of Police
Matthew K. Sonnabend, Deputy Chief of Police

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Portions of this report have been redacted due to exemptions within the Public Records Law. The portion (s) that have been redacted in the following report are exempt and fall under Exemption F which applies to records that are:

"investigatory materials necessarily compiled out of the public view by law enforcement or other investigatory officials the disclosure of which materials would probably so prejudice the possibility of effective law enforcement that such disclosure would not be in the public interest"

If you have any questions on Public Records Law and its exemptions please refer to the following website. http://www.sec.state.ma.us

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Latitude / Longitude	
09/27/2016	0723 24HR	HYANNIS	2	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 Route# | Direction | Name of Roadway/Street

At

Route# | Direction | Name of Intersecting Roadway/Street

Also at Intersection with

2 3 Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | 100 Address # | MAIN ST Name of Roadway/Street

2 10 ____ Feet [N S E W] of — — — • — Mile Marker or ____ Exit Number

____ Feet [N S E W] of ____ Route# ____ Intersecting Roadway/Street

6 11 ____ Feet [N S E W] of ____ Landmark

3 Please Select One of the Following: ☒ Vehicle 1 1 #Occupants | ☐ Hit/Run | ☐ Moped | Crash Report ID# 16-910-AC

License # S52913006 St MA DOB/Age [redacted] | Reg # 8296HO Reg Type PC Reg State MA

Sex F Lic. Class D 19 19 Lic. Restrictions 20 CDL Endorsement | Veh Year 2010 Veh Make TOYOTA Veh Config. 1 21

4 3 Operator PHELAN, LAURIE A (Last First Middle) | Owner PHELAN, LAURIE A (Last First Middle) 1 12

Address 89 CROSSWIND FARM RO | Address 89 CROSSWIND FARM RO

City N CHATHAM State MA Zip 02650-0000 | City N CHATHAM State MA Zip 02650-0000

Insurance Company COMMERCE INSURANCE

5 1 Vehicle Travel Direction: N X E W Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____

6 2 Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Vehicle Action Prior to Crash 1 22

Event Sequence 1 23 23 23 23

Most Harmful Event 1 24

Driver Contributing Code 1 25 25

Driver Distracted by 0 26

Damaged Area Code: 1 27 B 27 27

Test Status: 28

Type of Test: 29

BAC Test Result: 30

Susp. Alcohol: 31 Susp. Drug: 32

Towed from scene? 1 33

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	See Above	X	X	1	1	4	0	0	4	2	Cape Cod Hospital

1 13

7 2 Please Select One of the Following: ☒ Vehicle 2 1 #Occupants | ☐ Non-Motorist A Type 15 Action 16 Location 17 Condition 18 | ☐ Hit/Run | ☐ Moped

License # S64332800 St MA DOB/Age [redacted] | Reg # 5WL791 Reg Type PC Reg State MA

Sex F Lic. Class D 19 19 Lic. Restrictions 20 CDL Endorsement | Veh Year 2012 Veh Make AUDI Veh Config. 1 21

8 1 Operator ROSE, MARGARET R (Last First Middle) | Owner BRYDEN AND SULLIVAN INSURANC (Last First Middle) 99 14

Address 51 CHERRY ST | Address BX 1497

City HYANNIS State MA Zip 02601-2811 | City S DENNIS State MA Zip 02660-1602

Insurance Company NGM INSURANCE COMP

9 2 Vehicle Travel Direction: X S E W Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____

Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Vehicle Action Prior to Crash 1 22

Event Sequence 1 23 23 23 23

Most Harmful Event 1 24

Driver Contributing Code 6 25 25

Driver Distracted by 0 26

Damaged Area Code: 1 27 2 27 27

Test Status: 28

Type of Test: 29

BAC Test Result: 30

Susp. Alcohol: 31 Susp. Drug: 32

Towed from scene? 2 33

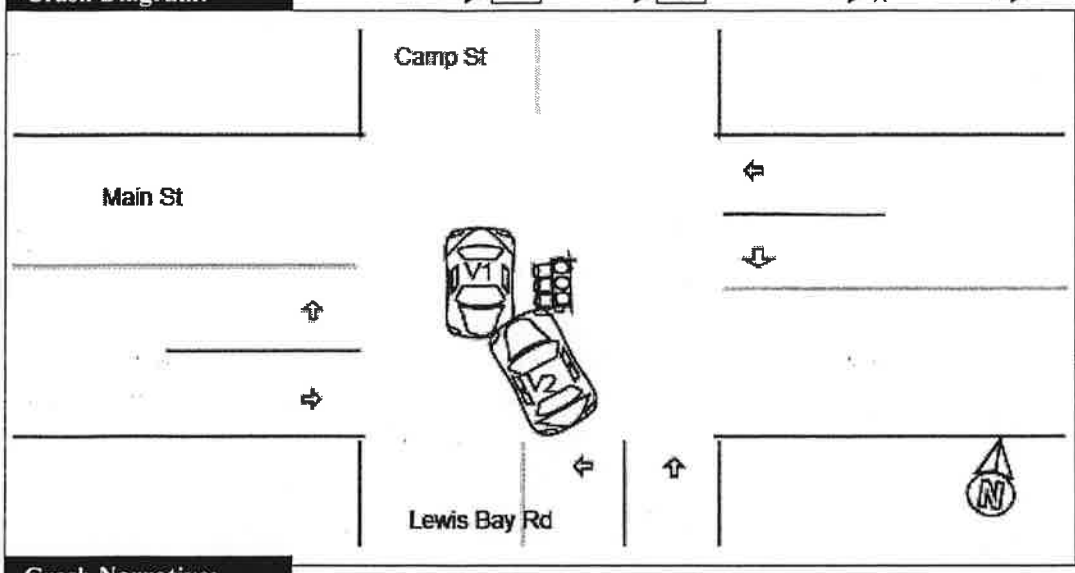
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	X	X	1	1	4	0	0	5	1	

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian | = Bicycle

ie: → 1 → 2 → ♀ →

Crash Diagram:



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

Indicate North by Arrow

Crash Narrative:

MA 8296HO(V1) operated by Laurie PHELAN(OP1) traveling south across intersection from Camp St. on to Lewis Bay Rd. states she had the green light. MA 5WL791 operated by Margaret ROSE (OP2) turning left onto Main St. from Lewis Bay Rd. states she had green light, but "maybe not the green arrow." V1 and V2 collided head on in the intersection. OP2 turning left on to Main St. attempted to turn without first yielding to traffic. Struck V1 head on.

OP1 transported to CCH by HFD and V1 towed by Rotary Towing. V2 driven from scene by OP2 with front end damage. OP2 reported no injuries at this time.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use 42

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ MC/MX/ICC #: _____

Interstate 43 Cargo Body Type Code 44 GVWR/GCWR 45

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 46

Hazmat Information:

Placard 47 Material 1 digit # 48 Material Name _____ Material 4 digit # _____ Release code 49

PTL. KEVIN M SHAW		294	Barnstable Police Department		09/27/2016
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
02/12/2016	2135 24HR	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

14 Route# | Direction | Name of Roadway/Street
At
Route# | Direction | Name of Intersecting Roadway/Street
Also at Intersection with
21 Route# | Direction | Name of Intersecting Roadway/Street

29 Route# | Direction | 100 Address # | MAIN ST Name of Roadway/Street
210 _____ Feet N S E W of — — — • — or _____ (Mile Marker / Exit Number)
_____ Feet N S E W of Route# _____ Intersecting Roadway/Street
211 _____ Feet N S E W of _____ Landmark

3 Please Select One of the Following: ☒ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

16-117-AC

Vehicle 1

License # S80508182 St MA DOB/Age [redacted]
Sex M Lic. Class D (18) (18) Lic. Restrictions 1 (19) CDL Endorsement
Reg # 919ZM7 Reg Type PC Reg State MA
Veh Year 2012 Veh Make BMW Veh Config. 1 (20)

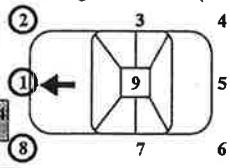
43 Operator GONCALVES, VALNEI (Last / First / Middle)
Address 2 GREG AVE
City NANTUCKET State MA Zip 02554
Insurance Company PROGRESSIVE

Owner DEFARIAS, FLAVIO LEITE (Last / First / Middle)
112 Address 142 MAPLE ST APT 2
City MARLBOROUGH State MA Zip 01752-3234

51 Vehicle Travel Direction: N S E ☒ Responding to Emergency? 1
Citation # (If Issued) [redacted]
Viol. 1: Ch/Sec/Sub [redacted] Viol. 2: Ch/Sec/Sub [redacted]
61 Viol. 3: Ch/Sec/Sub [redacted] Viol. 4: Ch/Sec/Sub [redacted]

Vehicle Action Prior to Crash 1 (21)
Event Sequence 1 (22) (22) (22) (22)
Most Harmful Event 1 (23)
Driver Contributing Code 10 (24) (24)
Underride/Override 1 (25) Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator / See Above	---------	---	---	99	3	4	99	0	5	1	

113

72 Please Select One of the Following: ☒ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist A | Type (14) Action (15) Location (16) Condition (1) | ☐ Hit/Run | ☐ Moped

Vehicle 2

License # S78068385 St MA DOB/Age [redacted]
Sex M Lic. Class D (18) (18) Lic. Restrictions 1 (19) CDL Endorsement
Reg # CI59MY Reg Type PC Reg State MA
Veh Year 2015 Veh Make GMC Veh Config. 1 (20)

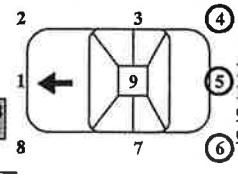
81 Operator PINA, BARRY A (Last / First / Middle)
Address 45 EBENEZER RD
City OSTERVILLE State MA Zip 02655-1212
Insurance Company SAFETY

Owner PINA, BARRY A (Last / First / Middle)
Address 45 EBENEZER RD
City OSTERVILLE State MA Zip 02655-1212

Vehicle Travel Direction: N S E ☒ Responding to Emergency? 2
Citation # (If Issued) _____
Viol. 1: Ch/Sec/Sub ____/____ Viol. 2: Ch/Sec/Sub ____/____
Viol. 3: Ch/Sec/Sub ____/____ Viol. 4: Ch/Sec/Sub ____/____

Vehicle Action Prior to Crash 2 (21)
Event Sequence 1 (22) (22) (22) (22)
Most Harmful Event 1 (23)
Driver Contributing Code 1 (24) (24)
Underride/Override 1 (25) Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

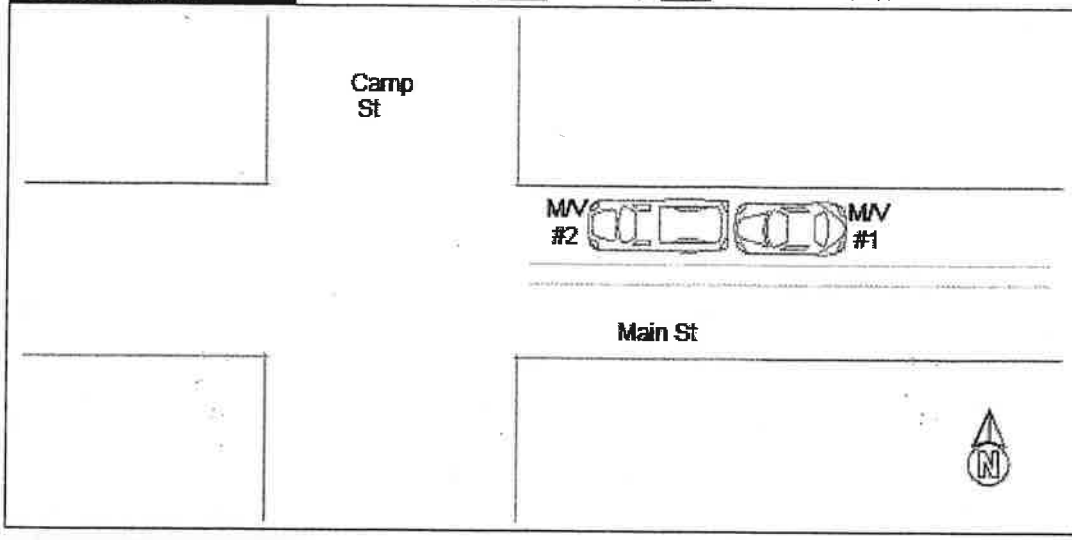
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist / See Above	---------	---	---	1	4	4	0	0	5	1	

Crash Diagram:

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

ie: → [1] → [2] → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

M/V #1 and M/V #2 were travelling west on Main St just east of Camp St. M/V #2 came to a stop at the red light. M/V #1 rear-ended M/V #2. Operator of M/V #1 left the scene of accident and v[redacted] after being tracked by K9 and identified by operator of M/V #2. No injuries reported on scene. HYFD resonded to assist. CIO Skinner of BCSD arrived to photograph scene. Davis Towing towed M/V #1 from scene. [redacted] 796

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. THOMAS EDWARDS		277	Barnstable Police Department		02/13/2016
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Lat.	Lon.	
06/13/2012	1506 24HR	HYANNIS	1	1	35			State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < **LOCATION** > **NOT AT INTERSECTION:**

1 1 — Route# — Direction — MAIN ST — Name of Roadway/Street

At

— Route# — Direction — OCEAN ST — Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street

2 9 — Route# — Direction — Address # — Name of Roadway/Street

2 10 — ____ Feet [N S E W] of — — — • — or — Mile Marker — Exit Number

____ Feet [N S E W] of — Route# — Intersecting Roadway/Street

1 11 — ____ Feet [N S E W] of — Landmark

3 99 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped — **12-467-AC**

Vehicle 1

License # S95260920 St MA DOB/Age [redacted]

Sex M Lic. Class D 18 18 Lic. Restrictions 19 CDL ____ Endorsement

4 3 — Operator WALLACE, STEPHEN EARL (Last First Middle)

Address 390 MAPLE ST

City WEST BARNSTABLE State MA Zip 02668

Insurance Company ARBELLA

5 1 — Vehicle Travel Direction: [N X E W] Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____

6 1 — Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Reg # J91677 Reg Type PC Reg State MA

Veh Year 2011 Veh Make FORD Veh Config. 2 20

1 12 — Owner WALLACE, STEPHEN EARL (Last First Middle)

Address 390 MAPLE ST

City WEST BARNSTABLE State MA Zip 02668

Vehicle Action Prior to Crash 4 21

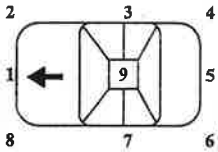
Event Sequence 3 22 22 22 22

Most Harmful Event 3 23

Driver Contributing Code 1 24 24

Underride/Override 1 25 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
(99) Unknown

3 13 — Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	99	0	0	5	1	

7 2 — Please Select One of the Following: ☐ Vehicle 2 — ____ #Occupants — ☒ Non-Motorist A — Type 1 14 — Action 2 15 — Location 1 16 — Condition 1 17 — ☐ Hit/Run — ☐ Moped

Non-Motorist A

License # ____ St ____ DOB/Age [redacted]

Sex M Lic. Class 18 18 Lic. Restrictions 19 CDL ____ Endorsement

8 4 — Operator CAPPUCCIO, CARMEN (Last First Middle)

Address 120 YARMOUTH RD

City HYANNIS State MA Zip 02601

Insurance Company ____

Vehicle Travel Direction: [N S E W] Responding to Emergency? ____

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____

Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____

Reg # ____ Reg Type ____ Reg State ____

Veh Year ____ Veh Make ____ Veh Config. 20

Owner ____ (Last First Middle)

Address ____

City ____ State ____ Zip ____

Vehicle Action Prior to Crash 21

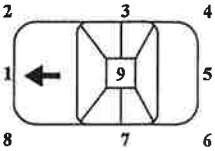
Event Sequence 22 22 22 22

Most Harmful Event 23

Driver Contributing Code 24 24

Underride/Override 25 Towed ____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

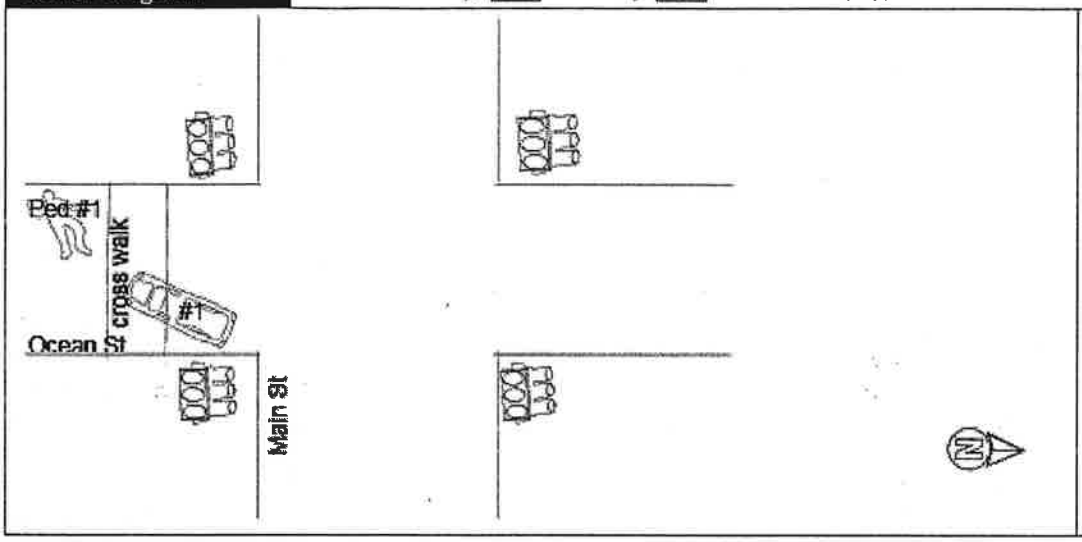
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---						4	2	Cape Cod Hospital

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian

ie: → 1 → 2 →♀

Crash Diagram:



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

On above date and time I responded to the aforementioned intersection for a pedestrian accident. I had conversation with OP #1, who stated he had stopped on Main St. received the green arrow to make a left turn onto Ocean St. As he did he observed Ped #1 run into the intersection crossing Ocean St. OP 1 stopped and Ped 1 ran into vehicle. Ped 1 was transported to CCH by Hyannis FD. He complained of [redacted] Ped 1 stated he was crossing crosswalk when V1 came around corner and stuck him, sending him six feet backwards and landing on street. I observed no visible injuries to Ped 1 of any kind. Note. I observed the traffic signal for several cycles. It was functioning properly. The crosswalk signal is red (do not walk) while Main St. arrow is green. 744

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. MARK S MCWILLIAMS		233	Barnstable Police Department		06/15/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
08/22/2012	1710 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < **LOCATION** > **NOT AT INTERSECTION:**

1 1 — Route# BARNSTABLE RD — Direction — Name of Roadway/Street

At

Route# MAIN ST — Direction — Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street

2 9 — Route# — Direction — Address # — Name of Roadway/Street

2 10 — ____ Feet [N S E W] of — — — • — or ____ (Mile Marker / Exit Number)

____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street

4 11 — ____ Feet [N S E W] of ____ Landmark

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **12-776-AC**

License # S71078288 St MA DOB/Age [redacted]

Sex M Lic. Class D (18 18) Lic. Restrictions 1 (19) CDL Endorsement T

4 3 — Operator (Last, First, Middle) BARBOZA, JOSEPH E

Address 5 WEST ST

City WAREHAM State MA Zip 00000

Insurance Company UNITED FINANCIAL

5 1 — Vehicle Travel Direction: [N S E W] Responding to Emergency? 2

Citation # (If Issued) R2563090

6 1 — Viol. 1: Ch/Sec/Sub 720CMR9 / Viol. 2: Ch/Sec/Sub / Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # M57544 Reg Type CO Reg State MA

Veh Year 2007 Veh Make MITSUBISHI Veh Config. 6 (20)

Owner (Last, First, Middle) LUNEDEI, DANIEL

Address 3466 US RTE 3

City THORNTON State NH Zip

Vehicle Action Prior to Crash 3 (21)

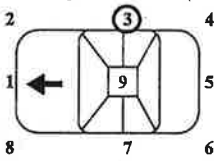
Event Sequence 1 (22) 22 22 22

Most Harmful Event 1 (23)

Driver Contributing Code 6 (24) 24

Underride/Override 1 (25) Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

1 12

1 13

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---	---	---	99	4	99	0	0	5	1	

7 2 — Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type (14) Action (15) Location (16) Condition (17) ☐ Hit/Run ☐ Moped

License # S95819855 St MA DOB/Age [redacted]

Sex F Lic. Class D (18 18) Lic. Restrictions 1 (19) CDL Endorsement

8 1 — Operator (Last, First, Middle) RAMOS, OLYMPIA

Address 72 HILLSIDE DR

City CENTERVILLE State MA Zip 02632

Insurance Company ENCOMPASS

Vehicle Travel Direction: [N S E W] Responding to Emergency? 2

Citation # (If Issued)

Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub / Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # 7566FR Reg Type PC Reg State MA

Veh Year 2002 Veh Make CHRYSLER Veh Config. 1 (20)

Owner (Last, First, Middle) SEIDEL, ELIAS

Address 975 PITCHER'S WAY

City HYANNIS State MA Zip 02601

Vehicle Action Prior to Crash 3 (21)

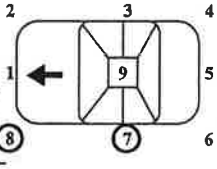
Event Sequence 1 (22) 22 22 22

Most Harmful Event 1 (23)

Driver Contributing Code 1 (24) 24

Underride/Override 1 (25) Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

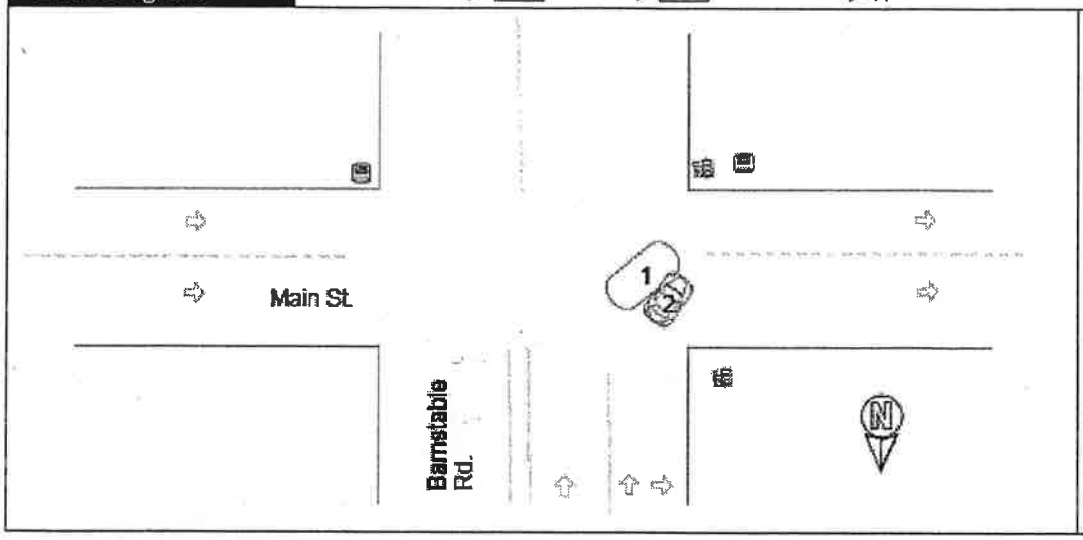
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---	---	---	99	4	99	0	0	5	1	

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Both Veh.'s 1 and 2 were travelling south On Barnstable Rd. in Hyannis in the right turn lane of Barnstable Rd. approaching Main St. Both operators were preparing to take a right turn on to Main St. Right lane traffic had backed up at the green light on Barnstable Rd. due to pedestrians crossing at a cross walk on Main St. Oper. #1 became impatient and changed lanes into the left lane for traffic travelling straight through on to Ocean St. and cut off numerous cars and changed back into the right lane and attempted to take a right turn on to Main St. illegally from the center lane colliding with the left front of Veh. #2. Oper. #1 was cited for the improper right turn and failing to obey traffic markings. Capeway Towing was dispatched to the scene for the removal of Veh. #2.

779

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
GAGLIO HOPE	234 RTE 6A SANDWICH MA	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

DET. THOMAS LEDUC		163	Barnstable Police Department		08/22/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
11/29/2013	1107 24HR	HYANNIS	3	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# / Direction / Name of Roadway/Street

At

Route# / Direction / Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# / Direction / Name of Intersecting Roadway/Street

2 9 — Route# 319 / Direction / Address # MAIN ST / Name of Roadway/Street

2 10 — _____ Feet [N S E W] of — — — • — or _____ (Mile Marker / Exit Number)

_____ Feet [N S E W] of Route# _____ Intersecting Roadway/Street

2 11 — _____ Feet [N S E W] of CAPE COD TIMES OFFICE (Landmark)

3 — Please Select One of the Following: ☒ Vehicle 3 1 #Occupants ☐ Hit/Run ☐ Moped — **13-1093-AC**

4 1 — License # S35708117 St MA DOB/Age [redacted] Sex M Lic. Class B 18 18 Lic. Restrictions 1 19 CDL Endorsement

Operator BROWN, RONALD E (Last / First / Middle)

Address 40 ANGELL RD

City HYANNIS State MA Zip 02601

Insurance Company COMMERCE INSURANCE

5 2 — Vehicle Travel Direction: [N S E ☒] Responding to Emergency? 2

Citation # (If Issued) _____

6 1 — Viol. 1: Ch/Sec/Sub _____ / Viol. 2: Ch/Sec/Sub _____ / Viol. 3: Ch/Sec/Sub _____ / Viol. 4: Ch/Sec/Sub _____ /

Reg # 578ZE8 Reg Type PC Reg State MA

Veh Year 2003 Veh Make FORD Veh Config. 1 20

1 12 — Owner BROWN, RONALD E (Last / First / Middle)

Address 40 ANGELL RD

City HYANNIS State MA Zip 02601

Vehicle Action Prior to Crash 11 21

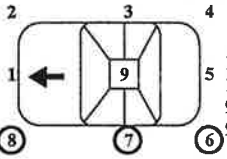
Event Sequence 1 22 22 22 22

Most Harmful Event 1 23

Driver Contributing Code 1 24 24

Underride/Override 1 25 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

1 13 — Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	99	99	0	0	5	1	

7 1 — Please Select One of the Following: ☐ Vehicle 4 _____ #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

8 4 — License # _____ St _____ DOB/Age _____ Sex _____ Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement

Operator _____ (Last / First / Middle)

Address _____

City _____ State _____ Zip _____

Insurance Company _____

Vehicle Travel Direction: [N S E W] Responding to Emergency? _____

Citation # (If Issued) _____

Viol. 1: Ch/Sec/Sub _____ / Viol. 2: Ch/Sec/Sub _____ / Viol. 3: Ch/Sec/Sub _____ / Viol. 4: Ch/Sec/Sub _____ /

Reg # _____ Reg Type _____ Reg State _____

Veh Year _____ Veh Make _____ Veh Config. 20

Owner _____ (Last / First / Middle)

Address _____

City _____ State _____ Zip _____

Vehicle Action Prior to Crash 21

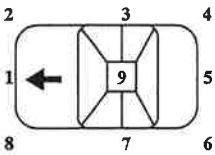
Event Sequence 22 22 22 22

Most Harmful Event 23

Driver Contributing Code 24 24

Underride/Override 25 Towed _____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
11/29/2013	1107 (24HR)	HYANNIS	3	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — Name of Roadway/Street — At — Route# — Direction — Name of Intersecting Roadway/Street

2 1 — Also at Intersection with — Route# — Direction — Name of Intersecting Roadway/Street

2 9 — Route# — Direction — 319 — Address # — MAIN ST — Name of Roadway/Street

2 10 — ____ Feet [N S E W] of — Mile Marker — or — Exit Number

____ Feet [N S E W] of — Route# — Intersecting Roadway/Street

2 11 — ____ Feet [N S E W] of — CAPE COD TIMES OFFICE — Landmark

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped — **13-1093-AC**

License # S12137990 St MA DOB/Age [redacted] — Reg # 71AN75 Reg Type PC Reg State MA

Sex M Lic. Class D Lic. Restrictions 1 CDL Endorsement — Veh Year 1992 Veh Make TOYOTA Veh Config. 1

4 1 — Operator PAULSON, WILLIAM E (Last First Middle)

Address 290 WEST MAIN ST APT 115

City HYANNIS State MA Zip 02601

Insurance Company NGM INSURANCE

5 2 — Vehicle Travel Direction: N S E X — Responding to Emergency? 2

Citation # (If Issued) R4212721

Viol. 1: Ch/Sec/Sub 720 /9.06 — Viol. 2: Ch/Sec/Sub ____ /____

6 1 — Viol. 3: Ch/Sec/Sub ____ /____ — Viol. 4: Ch/Sec/Sub ____ /____

Owner PAULSON, WILLIAM E (Last First Middle) — 1 12

Address 290 WEST MAIN ST APT 115

City HYANNIS State MA Zip 02601

Vehicle Action Prior to Crash 1 — Damaged Area Code: (Circle Up to Three)

Event Sequence 1 [redacted] 2 [redacted]

Most Harmful Event 1

Driver Contributing Code 5 [redacted]

Underride/Override 1 — Towed 1

0 None; 10 Undercarriage; 11 Totaled; 97 Other; 99 Unknown

1 13 — Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	99	0	0	4	2	Cape Cod Hospital

7 1 — Please Select One of the Following: ☒ Vehicle 2 — 4 #Occupants — ☐ Non-Motorist A — Type 14 — Action 15 — Location 16 — Condition 17 — ☐ Hit/Run — ☐ Moped

License # S20295284 St MA DOB/Age [redacted] — Reg # 73CZ25 Reg Type PC Reg State MA

Sex M Lic. Class D Lic. Restrictions 1 CDL Endorsement — Veh Year 2013 Veh Make TOYOTA Veh Config. 1

8 4 — Operator FALLON, CHRISTOPHER J (Last First Middle)

Address 136 GOVERNORS AVE

City MEDFORD State MA Zip 02155-3009

Insurance Company COMMERCE INSURANCE

Vehicle Travel Direction: N S E X — Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ /____ — Viol. 2: Ch/Sec/Sub ____ /____

Viol. 3: Ch/Sec/Sub ____ /____ — Viol. 4: Ch/Sec/Sub ____ /____

Owner FALLON, JESSICA A (Last First Middle)

Address 136 GOVERNORS AVE

City MEDFORD State MA Zip 02155

Vehicle Action Prior to Crash 2 — Damaged Area Code: (Circle Up to Three)

Event Sequence 1 [redacted]

Most Harmful Event 1

Driver Contributing Code 1 [redacted]

Underride/Override 1 — Towed 2

0 None; 10 Undercarriage; 11 Totaled; 97 Other; 99 Unknown

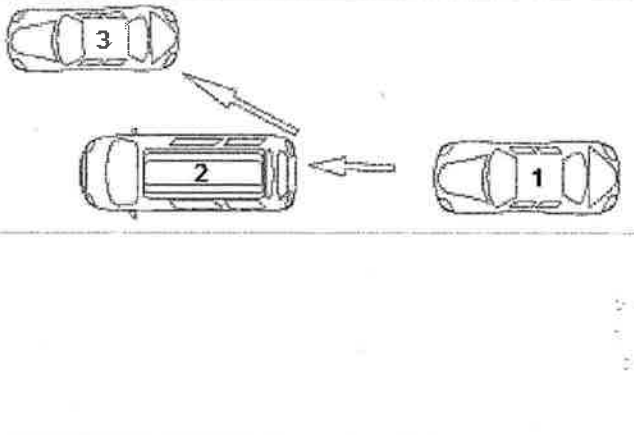
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	99	4	99	0	0	5	1	
JESSICA FALLON	136 GOVERNORS AVE MEDFORD, MA 02155	[redacted]		3	99	4	99	0	0	5	1	
[redacted]			F	6	99	4	99	0	0	5	1	
[redacted]			F	4	99	4	99	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ☺ = Pedestrian

Crash Diagram:

ie: → [1] → [2] → ☺



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Op of V1 stated he did not know what happened.

Op of V2 stated he was stopped in traffic for a red light when V1 hit him from behind. He then saw V1 attempt to pull off the road and strike V3 which was parked.

Op of V3 was parked in a spot when V1 attempted to pull off the road and struck the side of his car.

Gist- Op of V1 was following too closely to V2 and could not stop in time to avoid the collision. Op of V1 then did not use caution while pulling off the road and struck the parked V3.

Op of V1 taken to CCH for evaluation.

Citation #R4212721 issued to PAULSON for Following too closely.

V1 towed and taken to Rotary Towing. 778

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. COREY B FREDERICKSON		283	Barnstable Police Department		11/29/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
05/18/2014	1336 (24HR)	HYANNIS	3	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

LOCATION

AT INTERSECTION:

1 1 — Route# — Direction — Name of Roadway/Street: MAIN ST
At
Route# — Direction — Name of Intersecting Roadway/Street: OCEAN ST
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street:

NOT AT INTERSECTION:

2 9 — Route# — Direction — Address # — Name of Roadway/Street:
2 10 — ____ Feet [N S E W] of — — — • — or Exit Number
____ Feet [N S E W] of Route# — Intersecting Roadway/Street:
4 11 — ____ Feet [N S E W] of Landmark:

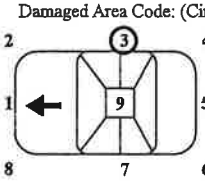
3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **14-413-AC**

License # ____ St ____ DOB/Age ____ Reg # 5527EY Reg Type PC Reg State MA
Sex ____ Lic. Class ____ Lic. Restrictions ____ CDL Endorsement ____ Veh Year 2013 Veh Make FORD Veh Config. 2 (20)

4 3 — Operator: Driverless M.V. (Last / First / Middle) — Owner: MCNEIL, JACQULYN (Last / First / Middle) — 3 12
Address ____ — Address 13 FAIRMONT ST
City ____ State ____ Zip ____ — City WINCHESTER State MA Zip 01890
Insurance Company PREMEIR — Vehicle Action Prior to Crash 11 (21)

5 1 — Vehicle Travel Direction: [N S E W] — Responding to Emergency? 2 — Event Sequence 97 (22) ____ ____ ____
Citation # (If Issued) NONE — Most Harmful Event 97 (23)
Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____ — Driver Contributing Code 1 (24) ____
6 1 — Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____ — Underride/Override 1 (25) Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	5	99	3	0	5	1	
JUDY BOWEN	27 HUNTER CIR WEST YARMOUTH, MA 02673	000	F	3	99	5	99	3	0	5	1	

2 13

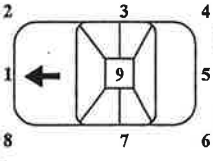
7 3 — Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type (14) Action (15) Location (16) Condition (17) ☐ Hit/Run ☐ Moped

License # S76880433 St MA DOB/Age [redacted] — Reg # 888GW6 Reg Type PC Reg State MA
Sex M Lic. Class D (18) Lic. Restrictions 1 (19) CDL Endorsement ____ — Veh Year 2011 Veh Make CHEVROLET Veh Config. 2 (20)

8 2 — Operator: OSTROM, JOSHUA EDWARD (Last / First / Middle) — Owner: THEOHARIDIS, PETER M (Last / First / Middle)
Address 36 SUN HILL RD — Address 93 BLUE WATER DR
City WEST BARNSTABLE State MA Zip 02668 — City CENTERVILLE State MA Zip 02632
Insurance Company FARM FAMILY MUTUAL — Vehicle Action Prior to Crash 2 (21)

Vehicle Travel Direction: [N S E X] — Responding to Emergency? 2 — Event Sequence 2 (22) ____ ____ ____
Citation # (If Issued) NONE — Most Harmful Event 2 (23)
Viol. 1: Ch/Sec/Sub ____ Viol. 2: Ch/Sec/Sub ____ — Driver Contributing Code 9 (24) ____
Viol. 3: Ch/Sec/Sub ____ Viol. 4: Ch/Sec/Sub ____ — Underride/Override 1 (25) Towed 2

Damaged Area Code: (Circle Up to Three)



(0) None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	99	4	99	0	0	5	1	

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
05/18/2014	1336 (24HR)	HYANNIS	3	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — MAIN ST — Name of Roadway/Street
At
Route# — Direction — OCEAN ST — Name of Intersecting Roadway/Street
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address # — Name of Roadway/Street
Feet N S E W of — Mile Marker — or — Exit Number
Feet N S E W of — Route# — Intersecting Roadway/Street
Feet N S E W of — Landmark

2 9 — 2 10 — 4 11

3 — Please Select One of the Following: ☒ Vehicle 3 — 0 #Occupants — ☐ Hit/Run — ☐ Moped — **14-413-AC**

License # — St — DOB/Age — Sex — Lic. Class [18][18] — Lic. Restrictions [19] — CDL Endorsement

4 3 — Operator: Driverless M.V. (Last First Middle)

Address — City — State — Zip — Insurance Company: FARM FAMILY MUTUAL

5 1 — Vehicle Travel Direction: N S E ☒ — Responding to Emergency? 2

Citation # (If Issued): NONE

6 1 — Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub — Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub

Reg # A20487 — Reg Type TL — Reg State MA

Veh Year 1999 — Veh Make OTHER — Veh Config. [97][20]

3 12 — Owner: THEOHARIDIS, PETER M (Last First Middle)

Address: 93 BLUE WATER DR

City: CENTERVILLE — State: MA — Zip: 02632

Vehicle Action Prior to Crash [1][21]

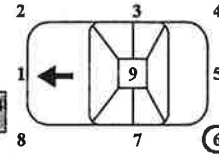
Event Sequence [2][22][22][22][22]

Most Harmful Event [2][23]

Driver Contributing Code [9][24][24]

Underride/Override [1][25] — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

2 13 — Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	5	99	3	0	5	1	

7 3 — Please Select One of the Following: ☐ Vehicle 4 — #Occupants — ☐ Non-Motorist A — Type [14] — Action [15] — Location [16] — Condition [17] — ☐ Hit/Run — ☐ Moped

License # — St — DOB/Age — Sex — Lic. Class [18][18] — Lic. Restrictions [19] — CDL Endorsement

8 2 — Operator (Last First Middle)

Address — City — State — Zip — Insurance Company — Vehicle Travel Direction: N S E W — Responding to Emergency? — Citation # (If Issued)

Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub — Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub

Reg # — Reg Type — Reg State

Veh Year — Veh Make — Veh Config. [20]

Owner (Last First Middle)

Address — City — State — Zip

Vehicle Action Prior to Crash [21]

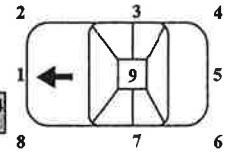
Event Sequence [22][22][22][22]

Most Harmful Event [23]

Driver Contributing Code [24][24]

Underride/Override [25] — Towed

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

Crash Diagram:

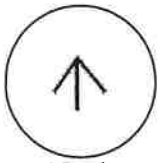
ie: → [1] → [2] → ♀

Diagram not available / mv #2 was moved from location.

N

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

The above accident occurred on main Street beside 331 Main St. MV #1 Ford MA 5527EY was parked on Main St., 2 spaces east of the intersecton of Ocean St and Main St. MV #2 Chevrolet PU TK MA 888GW6 was stopped at the intersection of Main Street and Ocean St. towing a boat trailer MA A20487. The rear of the trailer extended back beyond the rear of MV #1. MV #1 passenger had her front door open. When the light changed MV #2 began to move and the rear of his trailer caught the open door of MV #1 causing damage to the door. MV #1 turned left at the intersection and pulled into the parking lot along Ocean St. With the width of the trailer it was not possible for MV #2 to proceed without hitting MV #1, which is what happened. Even though unintentional, MV #2 did strike a parked MV, which caused damage. MV #1 was legally parked in a marked parking spot.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
ILIEV ZLATKO	47 CHILTON LN BREWSTER MA 02631	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. KEVIN J DONOVAN		165	Barnstable Police Department		05/18/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
07/12/2014	1248 (24HR)	HYANNIS	1	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — Name of Roadway/Street: MAIN ST
At
Route# — Direction — Name of Intersecting Roadway/Street: BARNSTABLE RD
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street:

9 2 — Route# — Direction — Address # — Name of Roadway/Street:
10 2 — ____ Feet [N S E W] of — — — • — or Mile Marker — Exit Number:
____ Feet [N S E W] of Route# — Intersecting Roadway/Street:
11 3 — ____ Feet [N S E W] of Landmark:

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **14-634-AC**

License # S60642372 St MA DOB/Age [redacted]
Sex M Lic. Class D (18) (18) Lic. Restrictions 2 (19) CDL Endorsement
Operator LINCOLN, ZACHARY W (Last First Middle)
Address 382 STONE ST
City WALPOLE State MA Zip 02081-0000
Insurance Company SAFETY INS
4 3 — Vehicle Travel Direction: [N X E W] Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
6 1 — Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # 27XL23 Reg Type PC Reg State MA
Veh Year 2004 Veh Make VOLKSWAGEN Veh Config. 1 (20)
Owner LINCOLN, BRETT W (Last First Middle)
Address 382 STONE ST
City WALPOLE State MA Zip 02081-3341
Vehicle Action Prior to Crash (21): 10
Event Sequence (22): 20 28 — Most Harmful Event (23): 28
Driver Contributing Code (24): 19 — Underride/Override (25): 1 — Towed 2
Damaged Area Code: (Circle Up to Three)
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown
7 12

Please fill out for operator and all occupants involved — 20 13

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

7 2 — Please Select One of the Following: ☐ Vehicle 2 ____ #Occupants ☐ Non-Motorist A Type (14) Action (15) Location (16) Condition (17) ☐ Hit/Run ☐ Moped

License # ____ St ____ DOB/Age ____
Sex ____ Lic. Class (18) (18) Lic. Restrictions (19) CDL Endorsement
Operator ____ (Last First Middle)
Address ____
City ____ State ____ Zip ____
Insurance Company ____
8 4 — Vehicle Travel Direction: [N S E W] Responding to Emergency? ____
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # ____ Reg Type ____ Reg State ____
Veh Year ____ Veh Make ____ Veh Config. (20)
Owner ____ (Last First Middle)
Address ____
City ____ State ____ Zip ____
Vehicle Action Prior to Crash (21)
Event Sequence (22) — Most Harmful Event (23)
Driver Contributing Code (24) — Underride/Override (25) — Towed ____
Damaged Area Code: (Circle Up to Three)
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

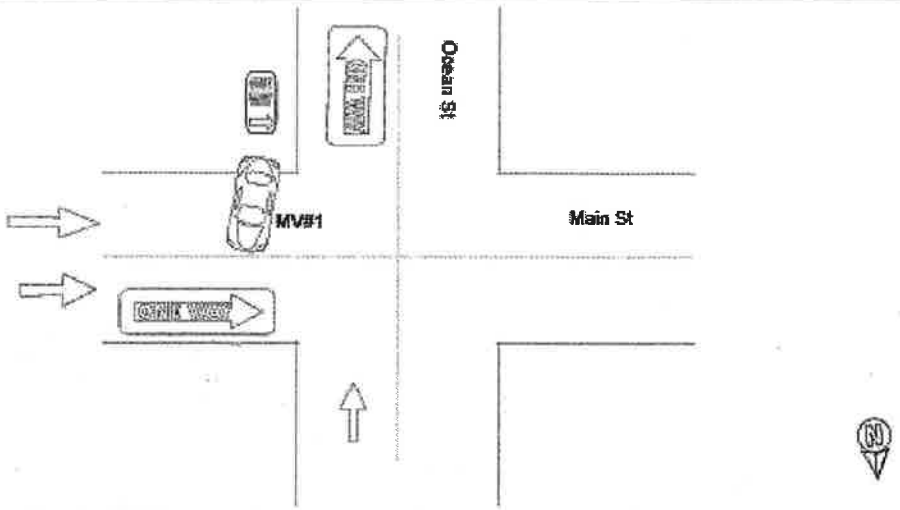
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

Crash Diagram:

ie: → [1] → [2] → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

MV#1 was on Ocean St. attempting to take an illegal left hand turn onto Main St. MV#1 made the left hand turn, then realized he turned onto a one way street. While OP#1 was turning around, he backed into a street sign on the corner of the intersection. The sign was torn from its post

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property
TOWN OF BARNSTABLE	SOUTH ST HYANNIS MA 02601		3	DO NOT ENTER SIGN, ONE WAY SIGN

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. DENNIS M STAMPFL		269	Barnstable Police Department		07/13/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
08/19/2014	1817 (24HR)	HYANNIS	1	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# / Direction / Name of Roadway/Street: ____ / ____ / ____
At
Route# / Direction / Name of Intersecting Roadway/Street: ____ / ____ / ____
Also at Intersection with
2 1 — Route# / Direction / Name of Intersecting Roadway/Street: ____ / ____ / ____

2 9 — Route# / Direction / Address # / Name of Roadway/Street: ____ / ____ / 1 / BARNSTABLE RD
2 10 — ____ Feet [N S E W] of — — — • — or ____ (Mile Marker / Exit Number)
____ Feet [N S E W] of ____ / ____ (Route# / Intersecting Roadway/Street)
5 11 — ____ Feet [N S E W] of ____ (Landmark)

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **14-779-AC**

Vehicle 1

License # 208359921 St CT DOB/Age [redacted] Reg # 979ZWY Reg Type PC Reg State CT
Sex F Lic. Class D (18) (18) Lic. Restrictions (19) CDL Endorsement Veh Year 2011 Veh Make HONDA Veh Config. 2 (20)

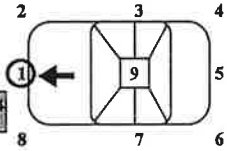
4 3 — Operator YOMAZZO, MELISSA (Last / First / Middle)
Address 15 OLD ORCHARD RD
City EASTON State CT Zip 06612
Insurance Company GEICO INSURANCE

Owner YOMAZZO, MARK C (Last / First / Middle) — 1 12
Address 15 OLD ORCHARD RD
City EASTON State CT Zip 06612

5 1 — Vehicle Travel Direction: N X E W Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____
6 1 — Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Vehicle Action Prior to Crash (21): 1
Event Sequence (22): 4 | Most Harmful Event (23): 4 | Driver Contributing Code (24): 1 | Underride/Override (25): 1 | Towed: 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	99	0	0	5	1	

4 13

7 2 — Please Select One of the Following: ☐ Vehicle 2 ____ #Occupants ☒ Non-Motorist A — Type (14) 2 — Action (15) 2 — Location (16) 4 — Condition (17) ____ ☐ Hit/Run ☐ Moped

Non-Motorist A

License # S89152402 St MA DOB/Age [redacted] Reg # ____ Reg Type ____ Reg State ____
Sex M Lic. Class D (18) (18) Lic. Restrictions (19) CDL Endorsement Veh Year ____ Veh Make ____ Veh Config. (20)

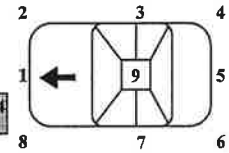
8 4 — Operator GEDUTIS, MATTHEW (Last / First / Middle)
Address 300 BUCK ISLAND DR APT 1H
City YARMOUTH State MA Zip 02673
Insurance Company ____

Owner ____ (Last / First / Middle)
Address ____
City ____ State ____ Zip ____

Vehicle Travel Direction: N S X W Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____
Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Vehicle Action Prior to Crash (21): ____
Event Sequence (22): ____ | Most Harmful Event (23): ____ | Driver Contributing Code (24): ____ | Underride/Override (25): ____ | Towed: ____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

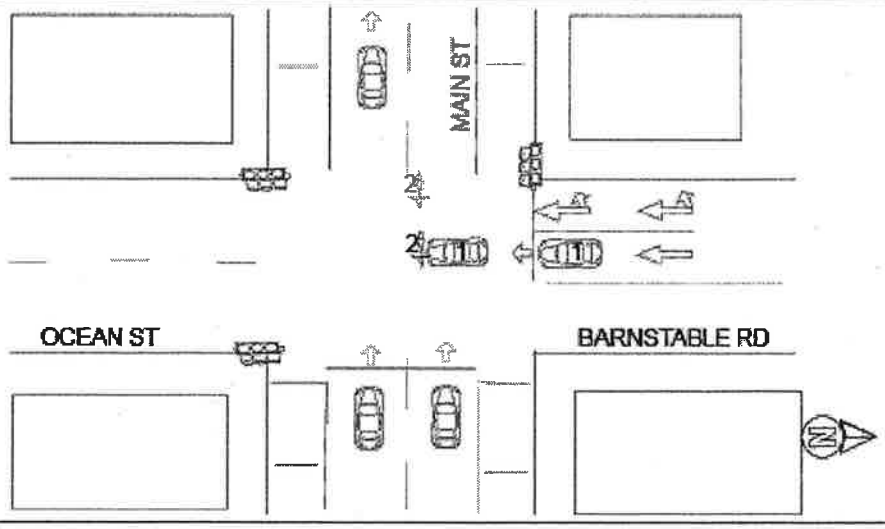
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---						5	1	

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian

Crash Diagram:

ie: → 1 → 2 → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP1 stated that she was traveling South on Barnstable Rd., through the green traffic light, at Barnstable Rd. and Main St. She stated that a bicyclist was traveling East on Main St. against the flow of traffic and did not stop at the intersection. She stated that the bike cut in front of her and she could not stop in time and crashed into the bicyclist. OP2 stated that he was riding his bike Eastbound on Main St. and did not stop at the intersection of Main St. and Barnstable Rd. He rode through the intersection where OP1 had a green light and ran into the front of her vehicle.

Witness stated bicyclist was riding East on Main St. and did not stop at intersection and rode into V1 as she was driving through intersection with green light.

OP2 checked by rescue and refused transport to CCH.

795

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
CONLON PAULA	UNKNOWN UNKNOWN MA	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. CHRISTOPHER A BOTSFORD		275	Barnstable Police Department		08/19/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
02/16/2015	2001 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

14 — Route# / Direction / Name of Roadway/Street

At

Route# / Direction / Name of Intersecting Roadway/Street

Also at Intersection with

24 — Route# / Direction / Name of Intersecting Roadway/Street

9 — Route# 319 / Direction / Address # / Name of Roadway/Street: MAIN ST

10 — ____ Feet [N S E W] of ____ Mile Marker • ____ or ____ Exit Number

11 — ____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street

____ Feet [N S E W] of Landmark

3 — Please Select One of the Following: ☒ Vehicle 1 — 0 #Occupants ☐ Hit/Run ☐ Moped

15-144-AC

License # ____ St ____ DOB/Age ____ Sex ____ Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement ____

41 — Operator: Driverless M.V. (Last / First / Middle)

Address ____

City ____ State ____ Zip ____

Insurance Company: COMMERCE INSURANCE

5 — Vehicle Travel Direction: [N S ☒ W] Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ / Viol. 2: Ch/Sec/Sub ____ /

63 — Viol. 3: Ch/Sec/Sub ____ / Viol. 4: Ch/Sec/Sub ____ /

Reg # 342ZF8 Reg Type PC Reg State MA

Veh Year 2002 Veh Make AMERICAN MOTORS Veh Config. 1 (20)

12 — Owner: SANTOS, TARSIS O (Last / First / Middle)

Address: 69 RENOIR DR

City: OSTERVILLE State: MA Zip: 02655-1253

Vehicle Action Prior to Crash 21

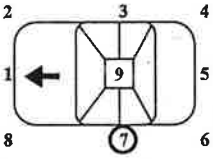
Event Sequence 22 22 22 22

Most Harmful Event 23

Driver Contributing Code 24 24

Underride/Override 25 Towed ____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

13 — Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---								

7 — Please Select One of the Following: ☐ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☒ Hit/Run ☐ Moped

License # ____ St ____ DOB/Age ____ Sex ____ Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement ____

84 — Operator: unknown (Last / First / Middle)

Address ____

City ____ State ____ Zip ____

Insurance Company ____

Vehicle Travel Direction: [N S E W] Responding to Emergency? ____

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ / Viol. 2: Ch/Sec/Sub ____ /

Viol. 3: Ch/Sec/Sub ____ / Viol. 4: Ch/Sec/Sub ____ /

Reg # ____ Reg Type ____ Reg State ____

Veh Year ____ Veh Make ____ Veh Config. 20

Owner ____ (Last / First / Middle)

Address ____

City ____ State ____ Zip ____

Vehicle Action Prior to Crash 21

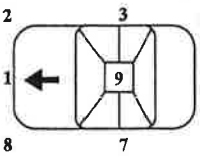
Event Sequence 22 22 22 22

Most Harmful Event 23

Driver Contributing Code 24 24

Underride/Override 25 Towed ____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

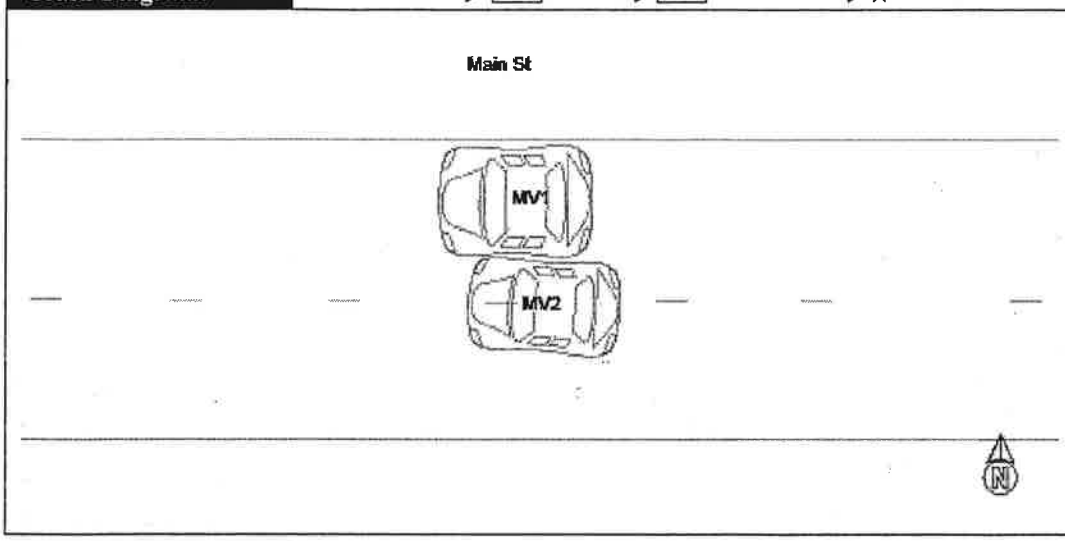
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

Crash Diagram:

ie: → [1] → [2] → ♀♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

on 02/16/15, I was assisting two motorists with a minor accident at the intersection of Main Street and Barnstable Road. I noticed MV1, parked nearby on the shoulder, had a smashed driver's window and minor damage from a passing vehicle. I met the owner of the vehicle who said he was parked in the space for 20 minutes and had not idea his vehicle was damaged. Minor damage to the driver's side. No vehicle description for MV2.

795

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. JOSEPH G GREEN		280	Barnstable Police Department		02/17/2015
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
10/20/2015	1400 (24HR)	HYANNIS	2	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — Name of Roadway/Street

At

Route# — Direction — Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street

2 9 — Route# 319 — Direction — Address # — MAIN ST — Name of Roadway/Street

2 10 — ____ Feet [N S E W] of — — — • — or ____ (Mile Marker / Exit Number)

____ Feet [N S E W] of — Route# — Intersecting Roadway/Street

4 11 — 20 Feet [N S E W] of CAPE COD TIMES (Landmark)

3 — Please Select One of the Following: ☒ Vehicle 1 — 2 #Occupants — ☐ Hit/Run — ☐ Moped — **15-1022-AC**

License # STAVRKM438CW St WA DOB/Age [redacted] — Reg # EH5818 — Reg Type PC — Reg State DC

Sex M — Lic. Class D 18 18 — Lic. Restrictions 1 19 — CDL Endorsement — Veh Year 2013 — Veh Make TOYOTA — Veh Config. 1 20

4 3 — Operator (Last First Middle) STAVRUM, KEITH M

Address 25814 SANDRIDGE RD APT 11

City NAHCOTTA State WA Zip 98637

Insurance Company PHOENIX INSURANCE COMPANY

5 1 — Vehicle Travel Direction: [N S E ☒] — Responding to Emergency? 2

Citation # (If Issued) R3259059

Viol. 1: Ch/Sec/Sub 89 /4A — Viol. 2: Ch/Sec/Sub ____/____

6 1 — Viol. 3: Ch/Sec/Sub ____/____ — Viol. 4: Ch/Sec/Sub ____/____

Owner COHEN, JOSHUA H

Address 1933 47TH ST NW

City WASHINGTON State DC Zip 20007

Vehicle Action Prior to Crash 5 21

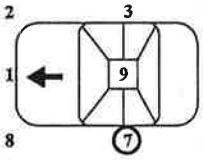
Event Sequence 1 22 22 22 22

Most Harmful Event 1 23

Driver Contributing Code 97 24 24

Underride/Override 1 25 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

1 12 — 1 13

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	4	1	
FELICE COHEN	1933 47TH ST NW WASHINGTON, DC 20007	[redacted]	F	3	1	4	4	0	0	5	1	

7 2 — Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist A — Type 14 — Action 15 — Location 16 — Condition 17 — ☐ Hit/Run — ☐ Moped

License # S68579194 St MA DOB/Age [redacted] — Reg # 57NZ30 — Reg Type PC — Reg State MA

Sex F — Lic. Class D 18 18 — Lic. Restrictions 1 19 — CDL Endorsement — Veh Year 2012 — Veh Make CHEVROLET — Veh Config. 1 20

8 4 — Operator (Last First Middle) REID, GERDA B

Address 1124 OSTERVILLE W BARNSTABLE RD

City MARSTONS MILLS State MA Zip 02648-0000

Insurance Company NGM INSURANCE COMP

Vehicle Travel Direction: [N S E ☒] — Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____/____ — Viol. 2: Ch/Sec/Sub ____/____

Viol. 3: Ch/Sec/Sub ____/____ — Viol. 4: Ch/Sec/Sub ____/____

Owner REID, GERDA B

Address 1124 OSTERVILLE W BARNSTABLE RD

City MARSTONS MILLS State MA Zip 02648-0000

Vehicle Action Prior to Crash 1 21

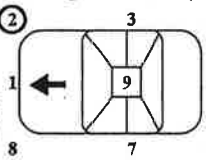
Event Sequence 1 22 22 22 22

Most Harmful Event 1 23

Driver Contributing Code 1 24 24

Underride/Override 1 25 — Towed 2

Damaged Area Code: (Circle Up to Three)



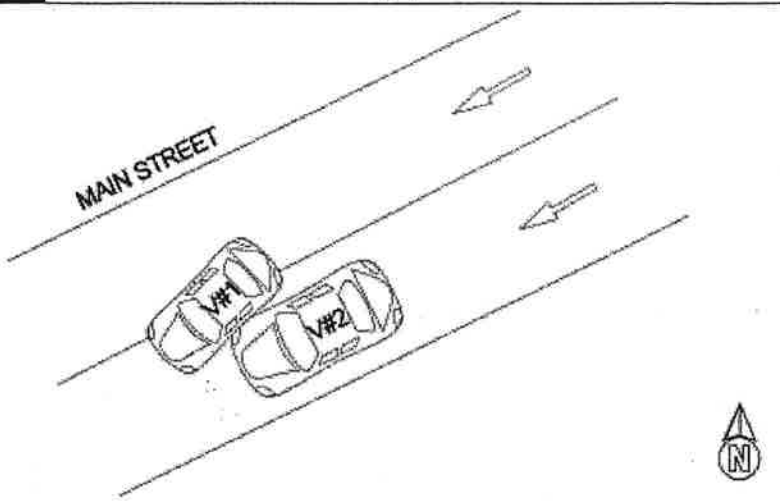
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	4	0	0	5	1	

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian

Crash Diagram: ie: → 1 → 2 →♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Dispatched to traffic crash w/minor injury, on one-way segment of Main Street in vicinity of 300 block. OP#1 evaluated for [redacted]y HFD/declined transport to hospital. V#1 had heavy damage primarily affecting driver side door area. V#2 had moderate to heavy damage effecting passenger side front quarter/bumper. OP#1 stated he was traveling West on Main Street, in the right lane with the intent to turn left on Ocean Street. OP#1 stated that upon beginning merge into left lane, he collided with the passenger side of V#2. OP#2 stated she was traveling West on Main Street, in the left lane, when V#1 traveling in the right lane beside her, suddenly changed lanes and collided with her passenger side. OP#1 cited for improper/unsafe lane change.

795

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

SGT. JASON E STURGIS		236	Barnstable Police Department		10/20/2015
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Docket/Incident Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
02/14/2016	0637 24HR	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — MAIN ST — Name of Roadway/Street
At
— Route# — Direction — BARNSTABLE RD — Name of Intersecting Roadway/Street
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address # — Name of Roadway/Street (9)
— Feet [N S E W] of — Mile Marker — or — Exit Number (10)
— Feet [N S E W] of — Route# — Intersecting Roadway/Street
— Feet [N S E W] of — Landmark (11)

3 Please Select One of the Following: ☒ Vehicle 1 — 3 #Occupants ☐ Hit/Run ☐ Moped — **16-122-AC**

License # 779853325 St NY DOB/Age [redacted]
Sex F Lic. Class D (18) (18) Lic. Restrictions 1 (19) CDL Endorsement
Reg # GVT9610 Reg Type PC Reg State NY
Veh Year 2011 Veh Make KIA Veh Config. 1 (20)

4 3 Operator CARTER, MERCEDES L (Last First Middle)
Address 1215 BLUESPRUCE CIR
City GENEVA State NY Zip 14456
Insurance Company STATE FARM MUT AUTO CO

Owner CARTER, MERCEDES L (Last First Middle) — 1 (12)
Address 1215 BLUESPRUCE CIR
City GENEVA State NY Zip 14456

5 2 Vehicle Travel Direction: N ☒ E W — Responding to Emergency? 2
Citation # (If Issued) —
Viol. 1: Ch/Sec/Sub — / — Viol. 2: Ch/Sec/Sub — /
6 1 Viol. 3: Ch/Sec/Sub — / — Viol. 4: Ch/Sec/Sub — /

Vehicle Action Prior to Crash 1 (21)
Event Sequence 1 (22) (22) (22) (22)
Most Harmful Event 1 (23)
Driver Contributing Code 19 (24) 4 (24)
Underride/Override 99 (25) Towed 1

Damaged Area Code: (Circle Up to Three)
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---	---	---	1	4	99	0	0	5	1	
THONY MATTISON	98 HIGH SCHOOL RD HYANNIS, MA 02601	[redacted]	M	99	1	4	99	0	0	5	1	
LATONYA BRANDON	714 W ONODYA ST SYRACUSE, NY 13204	[redacted]	F	99	1	4	99	0	0	5	1	

1 (13)

7 2 Please Select One of the Following: ☒ Vehicle 2 — 4 #Occupants ☐ Non-Motorist A Type (14) Action (15) Location (16) Condition (17) ☐ Hit/Run ☐ Moped

License # S58915006 St MA DOB/Age [redacted]
Sex M Lic. Class D (18) (18) Lic. Restrictions 1 (19) CDL Endorsement
Reg # 3KY637 Reg Type PC Reg State MA
Veh Year 2016 Veh Make HYUNDAI Veh Config. 1 (20)

8 1 Operator WELCH, MICHAEL J (Last First Middle)
Address 3 WARD FARM CIR
City FRAMINGHAM State MA Zip 01701-4378
Insurance Company commerce ins

Owner WELCH, KAROLYN K (Last First Middle)
Address 3 WARD FARM CIR
City FRAMINGHAM State MA Zip 01701-4378

Vehicle Travel Direction: N S E ☒ — Responding to Emergency? 2
Citation # (If Issued) —
Viol. 1: Ch/Sec/Sub — / — Viol. 2: Ch/Sec/Sub — /
Viol. 3: Ch/Sec/Sub — / — Viol. 4: Ch/Sec/Sub — /

Vehicle Action Prior to Crash 1 (21)
Event Sequence 1 (22) (22) (22) (22)
Most Harmful Event 1 (23)
Driver Contributing Code 1 (24) 1 (24)
Underride/Override 99 (25) Towed 1

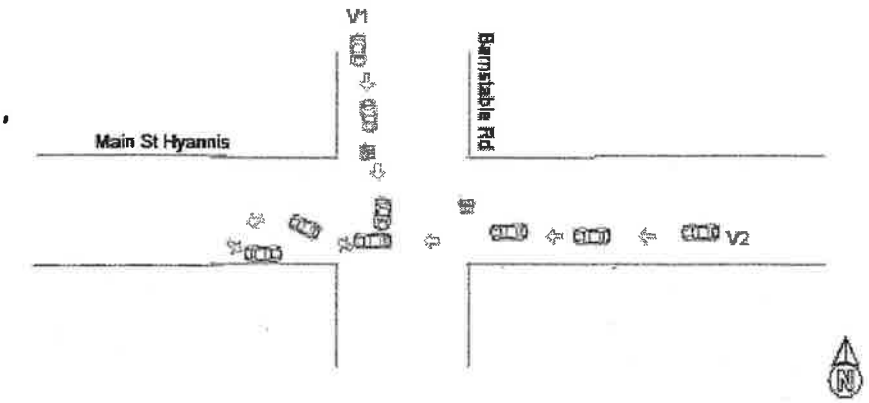
Damaged Area Code: (Circle Up to Three)
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---	---	---	1	4	99	0	0	5	1	
KAROLYN WELCH	3 WARD FARM CIR FRAMINGHAM, MA 01701	[redacted]	F	99	1	4	99	0	0	5	1	
[redacted]			F	99	1	4	99	0	0	5	1	
[redacted]			F	99	1	4	99	0	0	5	1	

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

V2 was traveling west on Main St, Hynnis. V2 states he had a green light as he approached Main St and Barnstable Rd intersection. As V2 traveled through intersection, V2 was hit by V1. Operator of V2 states after accident, he observed the traffic lights were no longer working. V1 states she was traveling south on Barnstable Rd. As she approached the intersection of Main St and Barnstable Rd, she observed no red light and entered the interection, crashing into V2. No injuries, both vehicles towed from scene. NOTE: At time of accident, a power failure occured in the area causing wide spread outages. Davis Towing removed both vehicles.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. KEVIN C FULLAM		278	Barnstable Police Department		02/16/2016
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
08/02/2016	2146 (24HR)	HYANNIS	1	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

LOCATION

AT INTERSECTION:

Route# | Direction | Name of Roadway/Street: MAIN ST

At

Route# | Direction | Name of Intersecting Roadway/Street: OCEAN ST

Also at Intersection with

Route# | Direction | Name of Intersecting Roadway/Street:

NOT AT INTERSECTION:

Route# | Direction | Address # | Name of Roadway/Street

Feet [N S E W] of — — — • — or Mile Marker | Exit Number

Feet [N S E W] of Route# | Intersecting Roadway/Street

Feet [N S E W] of Landmark

Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped

16-690-AC

Vehicle 1

License # 885ZZ5705 St IA DOB/Age [redacted]

Sex M Lic. Class 99 Lic. Restrictions CDL Endorsement

Operator KENNEDY, JAMES ROBERT (Last First Middle)

Address 131 PHEASANT AVE

City STORM LAKE State IA Zip 50588

Insurance Company AMICA INS

Vehicle Travel Direction: N X E W Responding to Emergency? 2

Citation # (If Issued)

Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /

Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # EBC031 Reg Type PC Reg State IA

Veh Year 2013 Veh Make FORD Veh Config. 1

Owner KENNEDY, JAMES ROBERT (Last First Middle)

Address 131 PHEASANT AVE

City STORM LAKE State IA Zip 50588

Vehicle Action Prior to Crash 1

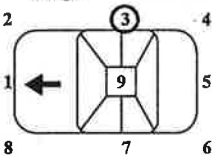
Event Sequence 3 | | | |

Most Harmful Event 3

Driver Contributing Code 1 | |

Underride/Override 1 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---	---	---	1	4	99	0	0	5	1	

Please Select One of the Following: ☐ Vehicle 2 — #Occupants ☒ Non-Motorist A Type 1 Action 2 Location 1 Condition 1 ☐ Hit/Run ☐ Moped

Non-Motorist A

License # S19452626 St MA DOB/Age [redacted]

Sex F Lic. Class Lic. Restrictions CDL Endorsement

Operator POND, PATTIANN M (Last First Middle)

Address 83 SCHOOL ST APT B

City HYANNIS State MA Zip 02601

Insurance Company

Vehicle Travel Direction: N S X W Responding to Emergency?

Citation # (If Issued)

Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /

Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # Reg Type Reg State

Veh Year Veh Make Veh Config.

Owner (Last First Middle)

Address

City State Zip

Vehicle Action Prior to Crash

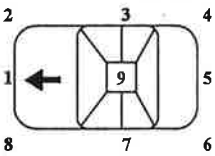
Event Sequence | | | |

Most Harmful Event

Driver Contributing Code | |

Underride/Override Towed

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

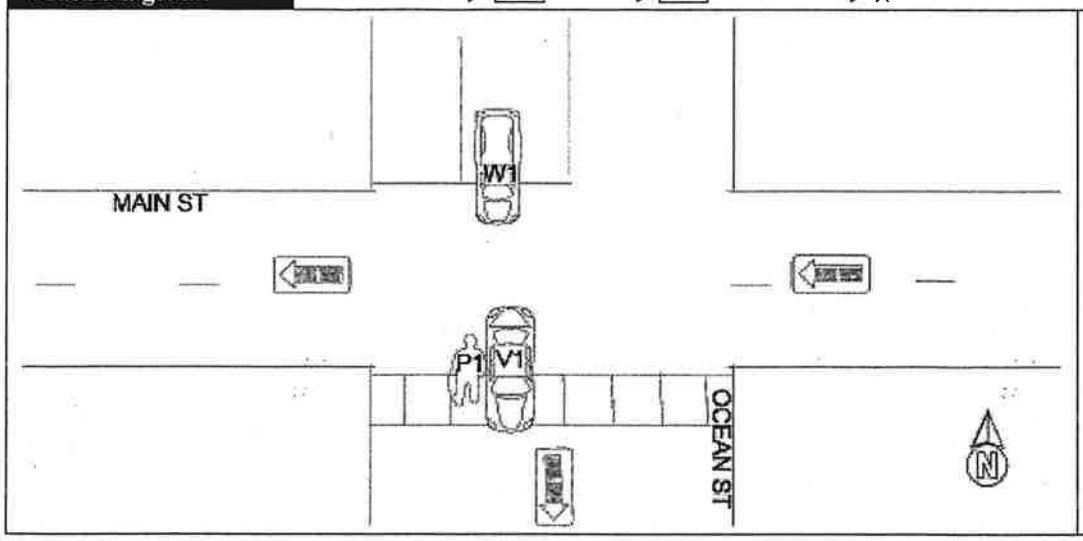
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---	---	---						5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP1 STATED (SUMMATION) THAT HE WAS TRAVELING SOUTH ON OCEAN ST. HE STATED THAT HIS TRAFFIC LIGHT WAS GREEN AND THAT A PEDESTRIAN WALKED OUT INTO THE ROADWAY AND WALKED INTO THE SIDE OF HIS VEHICLE.

PEDESTRIAN STATED (SUMMATION) THAT SHE WAS WALKING IN THE CROSSWALK AND WAS STRUCK BY V1. GIST: THE PEDESTRIAN DID NOT USE THE CROSSWALK SIGNAL AT THE INTERSECTION OF MAIN ST. AND OCEAN ST. AND WALKED OUT INTO TRAFFIC WHICH HAD A GREEN LIGHT.

W1 STATED (SUMMATION) THAT HE WAS BEHIND V1 AND THEY HAD A GREEN TRAFFIC LIGHT GOING THROUGH THE INTERSECTION AND PEDESTRIAN WAS NOT PAYING ATTENTION AND WALKED INTO THE SIDE OF V1.

ALL PARTIES REFUSED ANY MEDICAL ATTENTION AT THE ACCIDENT SCENE. 779

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
CAREY DENNIS	10 KAYCEES WAY WEST YARMOUTH MA 02673	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. CHRISTOPHER A BOTSFORD		275	Barnstable Police Department		08/03/2016
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
09/07/2016	0020 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

LOCATION

AT INTERSECTION:

14 Route# | Direction | Name of Roadway/Street: MAIN ST

At

Route# | Direction | Name of Intersecting Roadway/Street: OCEAN ST

Also at Intersection with

22 Route# | Direction | Name of Intersecting Roadway/Street

NOT AT INTERSECTION:

29 Route# | Direction | Address # | Name of Roadway/Street

210 ____ Feet [N S E W] of ____ Mile Marker or ____ Exit Number

____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street

311 ____ Feet [N S E W] of ____ Landmark

3 Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped

16-830-AC

Vehicle 1

License # S78023437 St MA DOB/Age [redacted]

Reg # 2SMN20 Reg Type PC Reg State MA

Sex F Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement

Veh Year 2008 Veh Make HONDA Veh Config. 1 20

43 Operator ODDEN, JUDITH MCCURTAI (Last First Middle)

Owner ODDEN, THOMAS D (Last First Middle) 112

Address 104 ANSEL HOWLAND RD

Address 104 ANSEL HOWLAND RD

City CENTERVILLE State MA Zip 02632-2193

City CENTERVILLE State MA Zip 02632-2193

Insurance Company ____

Vehicle Action Prior to Crash 4 21

Damaged Area Code: (Circle Up to Three)

51 Vehicle Travel Direction: N X E W Responding to Emergency? 2

Event Sequence 1 22 22 22 22

Citation # (If Issued) ____

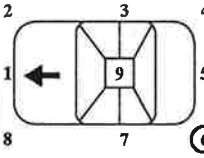
Most Harmful Event 1 23

Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____

Driver Contributing Code 6 24 24

62 Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Underride/Override 1 25 Towed 2



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

113

7 2 Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

Vehicle 2

License # S61243820 St MA DOB/Age [redacted]

Reg # 1XN138 Reg Type PC Reg State MA

Sex M Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement

Veh Year 2007 Veh Make CHEVROLET Veh Config. 2 20

84 Operator MALASPINO, WILLIAM F (Last First Middle)

Owner MALASPINO, WILLIAM F (Last First Middle)

Address 15 OAK HILL LN

Address 15 OAK HILL LN

City S YARMOUTH State MA Zip 02664-0000

City S YARMOUTH State MA Zip 02664-0000

Insurance Company ____

Vehicle Action Prior to Crash 1 21

Damaged Area Code: (Circle Up to Three)

Vehicle Travel Direction: N S X W Responding to Emergency? ____

Event Sequence 1 22 22 22 22

Citation # (If Issued) ____

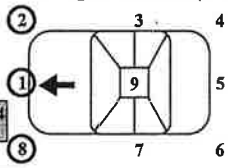
Most Harmful Event 1 23

Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____

Driver Contributing Code 1 24 24

Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Underride/Override 1 25 Towed 2



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

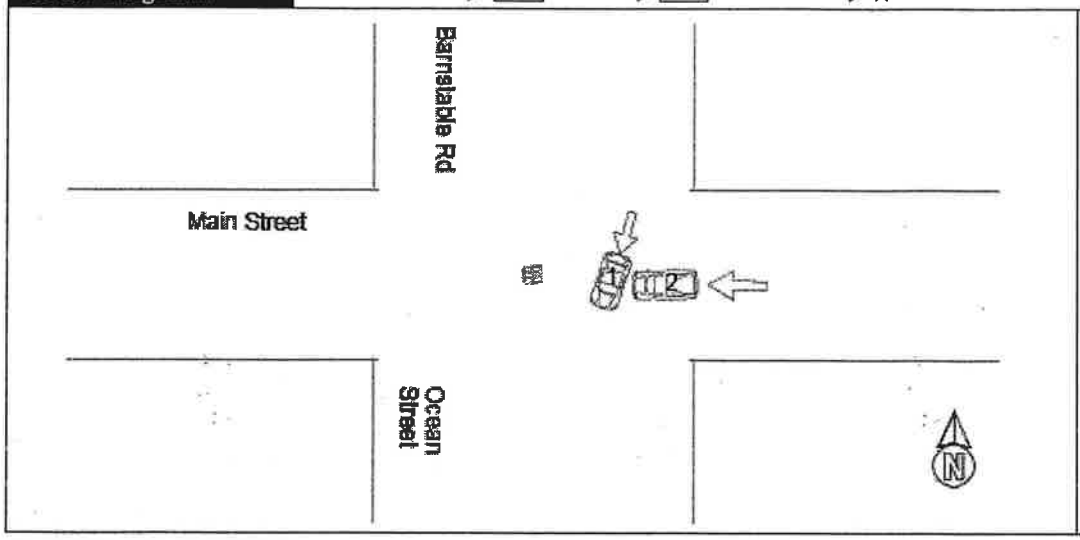
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	4	0	0	5	2	Cape Cod Hospital

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian

Crash Diagram:

ie: → 1 → 2 →♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

On 09/07/2016 I responded to a two vehicle MVA at the intersection of Main and Ocean Street. When I arrived on scene I spoke with both operators and confirmed that they had no injuries. I then spoke with the operator of vehicle 1 who stated that she was traveling west on Main Street while looking for her purse and was struck by vehicle 2 while attempting to make a left turn onto Ocean Street. Next I spoke with the operator of vehicle 2 who stated that he was traveling west on Main Street in the left lane while vehicle 1 was traveling west in the right lane. When vehicle 1 reached the intersection with Ocean Street it took a left turn right in front of his truck and they collided. The operator of vehicle 2 was eventually taken the Cape Cod Hospital [redacted] unrelated to the accident.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. BRIAN P JENKINS		291	Barnstable Police Department		09/07/2016
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
06/18/2012	1645 24HR	HYANNIS	2	0		Local Police ☒

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — OLD COLONY RD — Name of Roadway/Street

At

— Route# — Direction — MAIN ST — Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street

2 9 — Route# — Direction — Address # — Name of Roadway/Street

2 10 — ____ Feet N S E W of — Mile Marker • — or — Exit Number

____ Feet N S E W of — Route# — Intersecting Roadway/Street

4 11 — ____ Feet N S E W of — Landmark

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

12-491-AC

Vehicle 1

License # 010387397 St MA DOB/Age [redacted] — Reg # 868XOF — Reg Type PC — Reg State MA

Sex M — Lic. Class 99 (18) (18) — Lic. Restrictions (19) — CDL Endorsement — Veh Year 2004 — Veh Make FORD — Veh Config. 99 (20)

4 1 — Operator O'DAY, DANIEL E (Last First Middle) — Owner O'DAY, DANIEL E (Last First Middle) — 1 12

Address 114 SCUDDER RD — Address 114 SCUDDER RD

City OSTERVILLE State MA Zip 02655 — City OSTERVILLE State MA Zip 02655

Insurance Company LIBERTY MUTUAL — Vehicle Action Prior to Crash 4 (21)

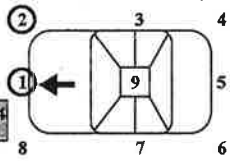
5 2 — Vehicle Travel Direction: N S ☒ W — Responding to Emergency? 99 — Event Sequence 1 (22) 1 (22) 1 (22) 1 (22)

Citation # (If Issued) ____ — Most Harmful Event 1 (23)

Viol. 1: Ch/Sec/Sub ____ / ____ — Viol. 2: Ch/Sec/Sub ____ / ____ — Driver Contributing Code 19 (24) 19 (24)

6 1 — Viol. 3: Ch/Sec/Sub ____ / ____ — Viol. 4: Ch/Sec/Sub ____ / ____ — Underride/Override 99 (25) — Towed 99

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	99	0	0	5	1	

1 13

7 3 — Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist A — Type (14) — Action (15) — Location (16) — Condition (17) — ☐ Hit/Run — ☐ Moped

Vehicle 2

License # S00412103 St MA DOB/Age [redacted] — Reg # 2MMC80 — Reg Type PC — Reg State MA

Sex F — Lic. Class 99 (18) (18) — Lic. Restrictions (19) — CDL Endorsement — Veh Year 1999 — Veh Make OLDSMOBILE — Veh Config. 99 (20)

8 4 — Operator GENTRY, MARGARET M (Last First Middle) — Owner GENTRY, BRIAN (Last First Middle)

Address 100 CURLEW WAY — Address PO BOX 581

City COTUIT State MA Zip 02635 — City GREEN HARBOR State MA Zip 02041

Insurance Company NORFLK DEDHAM MUTUAL — Vehicle Action Prior to Crash 1 (21)

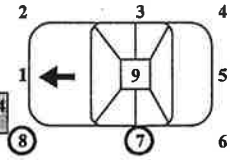
Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 99 — Event Sequence 1 (22) 1 (22) 1 (22) 1 (22)

Citation # (If Issued) ____ — Most Harmful Event 1 (23)

Viol. 1: Ch/Sec/Sub ____ / ____ — Viol. 2: Ch/Sec/Sub ____ / ____ — Driver Contributing Code 1 (24) 1 (24)

Viol. 3: Ch/Sec/Sub ____ / ____ — Viol. 4: Ch/Sec/Sub ____ / ____ — Underride/Override 99 (25) — Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

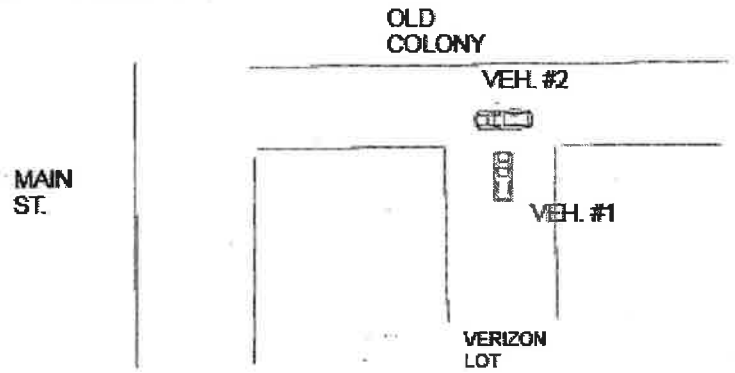
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	99	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram:

ie: → [1] → [2] →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OPERATOR #1 CAUSED THE ACCIDENT BY INATTENTION. ODAY STATED: I WAS PULLING OUT OF VERIZON PARKING LOT ONTO OLD COLONY BY MAIN ST. AND JUST DIDNT SEE HER AND STRUCK DRIVERS SIDE OF VEHICLE WHEN I PULLED OUT.

779

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. MATTHEW R BULMAN		276	Barnstable Police Department		06/18/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
09/19/2012	1822 (24HR)	HYANNIS	1	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

Route# 2 1 | Direction | MAIN ST — Name of Roadway/Street

At

Route# | Direction | OLD COLONY RD — Name of Intersecting Roadway/Street

Also at Intersection with

Route# 2 1 | Direction | Name of Intersecting Roadway/Street

Not at Intersection: Route# | Direction | Address # | Name of Roadway/Street (2 9)

Feet [N S E W] of Mile Marker — or — Exit Number (2 10)

Feet [N S E W] of Route# Intersecting Roadway/Street

Feet [N S E W] of Landmark (6 11)

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **12-889-AC**

License # S51001960 St MA DOB/Age [redacted] — Reg # 7406VW — Reg Type PC — Reg State MA

Sex F — Lic. Class D (18 18) — Lic. Restrictions (19) — CDL Endorsement — Veh Year 2004 — Veh Make CHRYSLER — Veh Config. (1 20)

4 1 — Operator WALKER-WARREN, MERCIA (Last First Middle) — Owner WALKER-WARREN, MERCIA (1 12)

Address 43R THIRTEENTH ST — Address 43R THIRTEENTH ST

City ONSET — State MA — Zip 02558 — City ONSET — State MA — Zip 02558

Insurance Company PREMIER — Vehicle Action Prior to Crash (1 21)

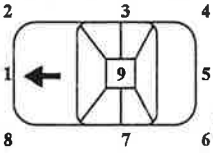
5 2 — Vehicle Travel Direction: [N S E X] — Responding to Emergency? 2 — Event Sequence (4 22 22 22 22)

Citation # (If Issued) — Most Harmful Event (4 23)

Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub — Driver Contributing Code (1 24 24)

6 1 — Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub — Underride/Override (1 25) — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
(99) Unknown

Please fill out for operator and all occupants involved (4 13)

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	2	4	99	0	0	5	1	

7 3 — Please Select One of the Following: ☐ Vehicle 2 — #Occupants ☒ Non-Motorist A — Type (2 14) — Action (2 15) — Location (4 16) — Condition (6 17) — ☐ Hit/Run ☐ Moped

License # — St — DOB/Age [redacted] — Reg # — Reg Type — Reg State

Sex M — Lic. Class (18 18) — Lic. Restrictions (19) — CDL Endorsement — Veh Year — Veh Make — Veh Config. (20)

8 1 — Operator BOLES, JAMES MICHAEL (Last First Middle) — Owner (Last First Middle)

Address 66 PLEASANT ST — Address

City HYANNIS — State MA — Zip 02601 — City — State — Zip

Insurance Company — Vehicle Action Prior to Crash (21)

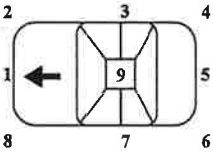
Vehicle Travel Direction: [N S E W] — Responding to Emergency? — Event Sequence (22 22 22 22)

Citation # (If Issued) — Most Harmful Event (23)

Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub — Driver Contributing Code (24 24)

Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub — Underride/Override (25) — Towed

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

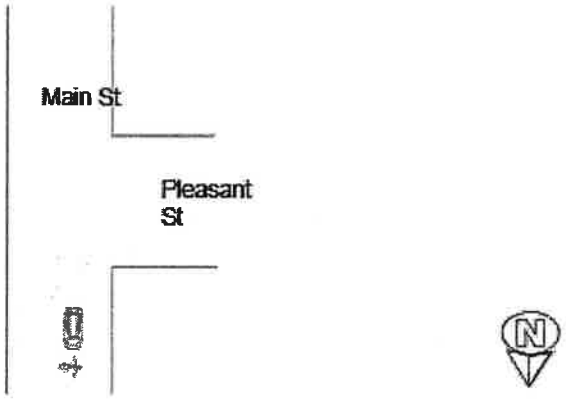
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---						3	2	Cape Cod Hospital

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Ms. Walker-Warren traveling on Main St towards Center St when James Boles highly intoxicated not utilizing cross walk drives his bike in front of Ms. Walker-Warrens motor vehicle. Refused rescue then asked if he didn't go to CCH he was going to be PC'd Officer advised yes then Boles laughed and stated his arm hurt and that he wanted to go to CCH. Boles responsible for accident. Boles also had grocery bag full of alcohol as he was riding.

770

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. PATRICK FALLON		203	Barnstable Police Department		09/24/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
02/14/2012	1727 (24HR)	HYANNIS	1	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < LOCATION > NOT AT INTERSECTION:

1 1 — Route# — Direction — MAIN ST — Name of Roadway/Street

At

Route# — Direction — CENTER ST — Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street

2 9 — Route# — Direction — Address # — Name of Roadway/Street

2 10 — ____ Feet [N S E W] of — — — • — or Exit Number

____ Feet [N S E W] of Route# — Intersecting Roadway/Street

1 11 — ____ Feet [N S E W] of — Landmark

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **12-142-AC**

4 1 — License # S39687321 St MA DOB/Age [redacted] Sex M Lic. Class 99 18 Lic. Restrictions 19 CDL Endorsement

Operator MALO, JAMIE L (Last First Middle)

Address 37 HALL ST APT B

City DENNISPORT State MA Zip 02639

Insurance Company COMMERCE

5 1 — Vehicle Travel Direction: [N X E W] Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____

6 1 — Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Reg # 31KM05 Reg Type PC Reg State MA

Veh Year 1999 Veh Make TOYOTA Veh Config. 1 (20)

1 12 — Owner MALO, JAMIE L (Last First Middle)

Address 37 HALL ST APT B

City DENNISPORT State MA Zip 02639

Vehicle Action Prior to Crash 1 (21)

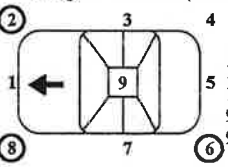
Event Sequence 3 22 22 22 22

Most Harmful Event 35 (23)

Driver Contributing Code 4 24 24

Underride/Override 1 (25) Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

3 13 — Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	99	99	0	0	5	1	

7 — Please Select One of the Following: ☐ Vehicle 2 — ____ #Occupants ☐ Non-Motorist A Type (14) Action (15) Location (16) Condition (17) ☐ Hit/Run ☐ Moped

8 1 — License # ____ St ____ DOB/Age ____ Sex ____ Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement

Operator ____ (Last First Middle)

Address ____

City ____ State ____ Zip ____

Insurance Company ____

Vehicle Travel Direction: [N S E W] Responding to Emergency? ____

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____

Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Reg # ____ Reg Type ____ Reg State ____

Veh Year ____ Veh Make ____ Veh Config. 20

Owner ____ (Last First Middle)

Address ____

City ____ State ____ Zip ____

Vehicle Action Prior to Crash 21

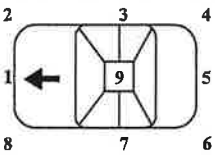
Event Sequence 22 22 22 22

Most Harmful Event 23

Driver Contributing Code 24 24

Underride/Override 25 Towed ____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

= Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram:

ie: → [1] → [2] →

NO DIAGRAM

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

OPERATOR #1: Jamie Malo states traveling on Main St. turned onto Center St. when a pedestrian ran in front of his motor vehicle causing him to turn abruptly to avoid hitting pedestrian. MV went up on the island and launching flower box into roadway.

PHOTOS: CIO Dinnen

WRECKERS: DAVIS

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. PATRICK FALLON		203	Barnstable Police Department		02/21/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

NARRATIVE FOR PTL. PATRICK FALLON

Ref: 12-142-AC

Entered: 02/19/2012 @ 1927 Entry ID: 203
Modified: 06/04/2012 @ 1145 Modified ID: 744
Approved: 02/20/2012 @ 0020 Approval ID: 197

BPD Form 06-24

MOTOR VEHICLE CRASH STATEMENT FORM

STATEMENTS

OPERATOR #1: Jamie Malo states traveling on Main St. turned onto Center St. when a pedestrian ran in front of his motor vehicle causing him to turn abruptly to avoid hitting pedestrian. MV went up on the island and launching flower box into roadway.

PHOTOS: CIO Dinnen

WRECKERS: DAVIS

INJURIES: N/A

CITATION: N/A

771

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
08/16/2012	1556 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — Name of Roadway/Street: MAIN ST
At
Route# — Direction — Name of Intersecting Roadway/Street: CENTER ST
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street:

Route# — Direction — Address # — Name of Roadway/Street
_____ Feet [N S E W] of — — — • — or Mile Marker — Exit Number
_____ Feet [N S E W] of Route# — Intersecting Roadway/Street
_____ Feet [N S E W] of Landmark

2 9 — 2 10 — 4 11

3 — Please Select One of the Following: ☒ Vehicle 2 — 5 #Occupants ☐ Hit/Run ☐ Moped — **12-756-AC**

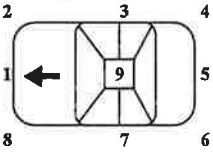
License # S15557084 St MA DOB/Age [redacted] — Reg # 89AK51 — Reg Type PC — Reg State MA
Sex M — Lic. Class [18][18] — Lic. Restrictions [19] — CDL Endorsement — Veh Year — Veh Make TOYOTA — Veh Config. [20]

4 3 — Operator MATTISON, LAWRENCE C (Last First Middle)
Address 28 LEENO TER
City FLORENCE State MA Zip 01062-1005
Insurance Company

Owner MATTISON, LAWRENCE C (Last First Middle) — 1 12
Address 28 LEENO TER
City FLORENCE State MA Zip 01062-1005

5 1 — Vehicle Travel Direction: [N S E W] — Responding to Emergency? —
Citation # (If Issued) —
Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub —
6 1 — Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub —

Vehicle Action Prior to Crash [21]
Event Sequence [22][22][22][22]
Most Harmful Event [23]
Driver Contributing Code [24][24]
Underride/Override [25] Towed —

Damaged Area Code: (Circle Up to Three)


0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

1 13

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---								
[redacted]	[redacted]	[redacted]	F	5	99	4	4	0	0	5	1	

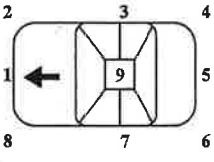
7 2 — Please Select One of the Following: ☐ Vehicle 4 — #Occupants ☐ Non-Motorist A — Type [14] Action [15] Location [16] Condition [17] ☐ Hit/Run ☐ Moped

License # — St — DOB/Age — Reg # — Reg Type — Reg State —
Sex — Lic. Class [18][18] — Lic. Restrictions [19] — CDL Endorsement — Veh Year — Veh Make — Veh Config. [20]

8 1 — Operator (Last First Middle) — Owner (Last First Middle)
Address — Address
City — State — Zip — City — State — Zip
Insurance Company

Vehicle Action Prior to Crash [21]
Event Sequence [22][22][22][22]
Most Harmful Event [23]
Driver Contributing Code [24][24]
Underride/Override [25] Towed —

Vehicle Travel Direction: [N S E W] — Responding to Emergency? —
Citation # (If Issued) —
Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub —
Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub —

Damaged Area Code: (Circle Up to Three)


0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
08/16/2012	1556 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

LOCATION

AT INTERSECTION:

1 1 — Route# — Direction — MAIN ST — Name of Roadway/Street
At
— Route# — Direction — CENTER ST — Name of Intersecting Roadway/Street
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street

NOT AT INTERSECTION:

Route# — Direction — Address # — Name of Roadway/Street
— Feet [N S E W] of — Mile Marker — or — Exit Number
— Feet [N S E W] of — Route# — Intersecting Roadway/Street
— Feet [N S E W] of — Landmark

2 9 — 2 10 — 4 11

3 — Please Select One of the Following: ☒ Vehicle 1 1 #Occupants ☐ Hit/Run ☐ Moped — **12-756-AC**

Vehicle 1

License # S80698210 St MA DOB/Age [redacted] — Reg # 792NN2 Reg Type PC Reg State MA
Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement — Veh Year 1987 Veh Make FORD Veh Config. 2 20

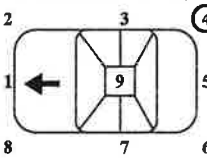
4 3 — Operator BOYCE, DANIEL L (Last First Middle)
Address 1 BETH LN
City HYANNIS State MA Zip 02601-2225
Insurance Company Commerce Insurance

Owner LEWIS, TERRY A (Last First Middle) — 1 12
Address 40 NATHAN RD
City CENTERVILLE State MA Zip 02632-2564

5 1 — Vehicle Travel Direction: [N S E ☒] Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
6 1 — Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Vehicle Action Prior to Crash 5 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 19 24 24
Underride/Override 1 25 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved — 1 13

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	5	3	0	0	5	1	

7 2 — Please Select One of the Following: ☒ Vehicle 2 5 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

Vehicle 2

License # S15557084 St MA DOB/Age [redacted] — Reg # 89AK51 Reg Type PC Reg State MA
Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement — Veh Year 2007 Veh Make TOYOTA Veh Config. 2 20

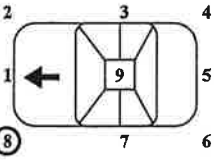
8 1 — Operator MATTISON, LAWRENCE C (Last First Middle)
Address 28 LEENO TER
City FLORENCE State MA Zip 01062-1005
Insurance Company Commerce Insurance

Owner MATTISON, LAWRENCE C (Last First Middle)
Address 28 LEENO TER
City FLORENCE State MA Zip 01062-1005

Vehicle Travel Direction: [N S E ☒] Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Vehicle Action Prior to Crash 1 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 1 24 24
Underride/Override 1 25 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

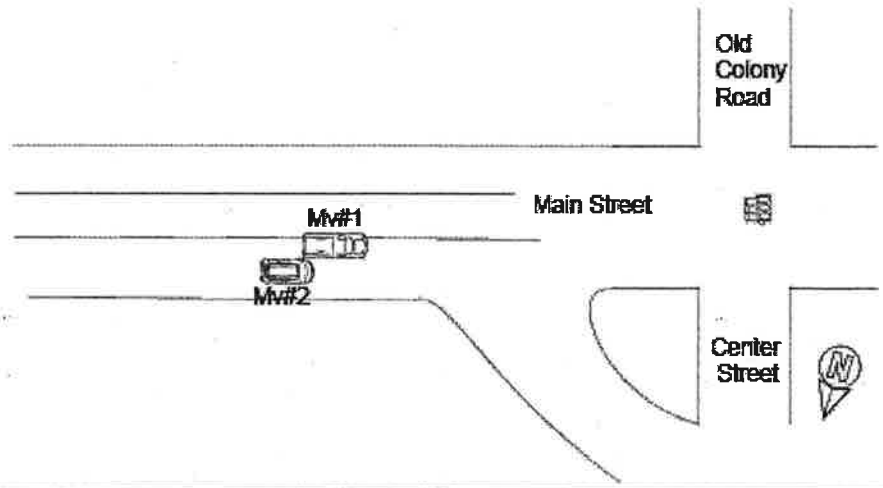
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	99	4	99	0	0	5	1	
PAULA MATTISON	28 LEENO TERACE FLORENCE, MA 01062	[redacted]	F	3	99	4	99	0	0	5	1	
MICHELLE MATTISON	28 LEENO TERACE FLORENCE, MA 01062	[redacted]	F	6	99	4	99	0	0	5	1	
[redacted]		[redacted]	F	4	99	4	99	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Motor vehicle #1 and motor vehicle #2 were both traveling in a westerly direction on Main Street approaching the intersection of Main Street and Center Street when the accident occurred. Motor vehicle #2 was traveling in the right lane getting ready to take the turn lane onto Center Street when motor vehicle two changed lanes from the center travel lane to the right turn lane. Motor vehicle #2 struck the front right fender and front bumper of motor vehicle #2. Motor vehicle #1 sustained minor damage to the right side of the bed and rear bumper and Motor vehicle #2 sustained damage to the left front fender and front bumper. Both motor vehicles were driven away from the accident scene by their operators.

779

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. SCOTT F LEGER		228	Barnstable Police Department		08/16/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
09/05/2012	2016 24HR	HYANNIS	1	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < LOCATION > NOT AT INTERSECTION:

AT INTERSECTION:

Route# ____ Direction ____ Name of Roadway/Street: ____
At
Route# ____ Direction ____ Name of Intersecting Roadway/Street: ____
Also at Intersection with
Route# ____ Direction ____ Name of Intersecting Roadway/Street: ____

NOT AT INTERSECTION:

Route# ____ Direction ____ Address # 278 Name of Roadway/Street: MAIN ST
____ Feet [N S E W] of ____ Mile Marker • ____ or Exit Number: ____
____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street: ____
____ Feet [N S E W] of Landmark: ____

Please Select One of the Following: ☒ Vehicle 1 — 2 #Occupants ☐ Hit/Run ☐ Moped

12-829-AC

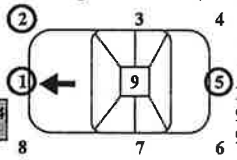
Vehicle 1

License # unknown St ____ DOB/Age [redacted] Sex M Lic. Class D Lic. Restrictions 1 CDL Endorsement ____

Operator LINDSAY, MELVIN J (Last First Middle)
Address 26 MOSS HILL RD
City CARMEL State NY Zip 10512
Insurance Company CENTRAL MUTUAL INS CO
Vehicle Travel Direction: ☒ S E W Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____
Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Reg # BDX5571 Reg Type PC Reg State NY
Veh Year 2009 Veh Make SUBARU Veh Config. 1
Owner LINDSAY, MELVIN J (Last First Middle)
Address 26 MOSS HILL RD
City CARMEL State NY Zip 10512
Vehicle Action Prior to Crash 1
Event Sequence 35 35
Most Harmful Event 35
Driver Contributing Code 17
Underride/Override 1 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---	---	---	1	1	1	0	0	3	2	Cape Cod Hospital
ROBERT EMMONS	40093 LITTLE FALL CREEK RD FALL CREEK, OR 97438	[redacted]	M	3	1	1	1	0	0	5	1	

Please Select One of the Following: ☐ Vehicle 2 ____ #Occupants ☐ Non-Motorist A Type ____ Action ____ Location ____ Condition ____ ☐ Hit/Run ☐ Moped

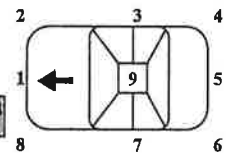
Vehicle 2

License # ____ St ____ DOB/Age ____ Sex ____ Lic. Class ____ Lic. Restrictions ____ CDL Endorsement ____

Operator ____ (Last First Middle)
Address ____
City ____ State ____ Zip ____
Insurance Company ____
Vehicle Travel Direction: [N S E W] Responding to Emergency? ____
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____
Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____

Reg # ____ Reg Type ____ Reg State ____
Veh Year ____ Veh Make ____ Veh Config. ____
Owner ____ (Last First Middle)
Address ____
City ____ State ____ Zip ____
Vehicle Action Prior to Crash ____
Event Sequence ____
Most Harmful Event ____
Driver Contributing Code ____
Underride/Override ____ Towed ____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

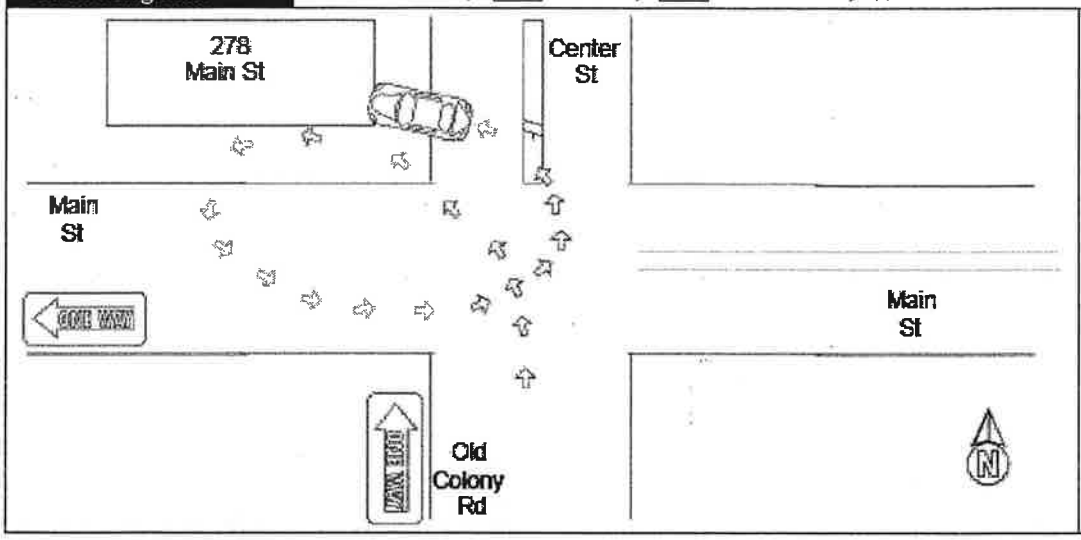
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

Crash Diagram:

ie: → [1] → [2] → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

M/V #1 was stopped at the red light on Old Colony Rd. M/V #1 began to accelerated through the intersection and onto the sidewalk on Main St. M/V #1 struck the front of 278 Main St and circled onto Main St in the opposite direction. M/V #1 continued turning left striking a street sign at Center St/Main St before striking the side of 278 Main St. Operator was transported to CCH via HFD, passenger refused rescue. M/V #1 was towed from the scene by Rotary. BCI Dinnan photographed the scene. Passenger stated operator had a [redacted] just prior to the accident due to [redacted] odd behavior and statements made by the operator. Operator was admitted into ER #6 and was [redacted] upon my arrival at CCH.

770

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
HAYWARD BERT	5171 PERRY RD MT AIRY MD 21771	[redacted]	
HUGHES JAMES	75 DIVISION ST DENNISPORT MA 02639	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property
BAYBRIDGE	278 MAIN ST HYANNIS MA 02601	[redacted]	97	BRICK WALL/WINDOWS
TOWN OF BARNSTABLE	CENTER ST HYANNIS MA 02601		3	SIGN (CENTER/MAIN)

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. THOMAS EDWARDS		277	Barnstable Police Department		09/05/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
10/22/2012	1415 24HR	HYANNIS	1	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

LOCATION

AT INTERSECTION:

1 1 — Route# — Direction — MAIN ST — Name of Roadway/Street
At
Route# — Direction — CENTER ST — Name of Intersecting Roadway/Street
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street

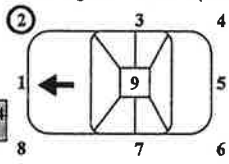
NOT AT INTERSECTION:

2 9 — Route# — Direction — Address # — Name of Roadway/Street
2 10 — ____ Feet [N S E W] of — — — • — — Mile Marker — or — Exit Number
____ Feet [N S E W] of — Route# — Intersecting Roadway/Street
____ Feet [N S E W] of — Landmark
99 11

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **12-999-AC**

License # S17540916 St MA DOB/Age [redacted] Reg # 251BA6 Reg Type PC Reg State MA
Sex F Lic. Class D 18 18 Lic. Restrictions 19 CDL Endorsement Veh Year 2010 Veh Make TOYOTA Veh Config. 1 20

4 3 — Operator BRYDGES, BONNIE (Last First Middle) — Owner BRYDGES, BONNIE (Last First Middle) — 1 12
Address 19 CROWELL RD — Address 19 CROWELL RD
City HARWICH State MA Zip 02645 — City HARWICH State MA Zip 02645
Insurance Company PLYMOUTH ROCK — Vehicle Action Prior to Crash 1 21 — Damaged Area Code: (Circle Up to Three)
5 1 — Vehicle Travel Direction: [N X E W] — Responding to Emergency? 2 — Event Sequence 4 22 22 22 22
Citation # (If Issued) ____ — Most Harmful Event 4 23
Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____ — Driver Contributing Code 1 24 24
6 1 — Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____ — Underride/Override 1 25 — Towed 99



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

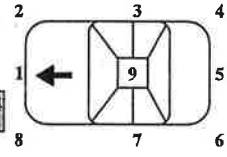
Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

4 13

7 2 — Please Select One of the Following: ☐ Vehicle 3 — ____ #Occupants ☒ Non-Motorist A — Type 2 14 — Action 2 15 — Location 4 16 — Condition 99 17 — ☐ Hit/Run ☐ Moped

License # unknown St ____ DOB/Age [redacted] Reg # ____ Reg Type ____ Reg State ____
Sex M Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement Veh Year ____ Veh Make ____ Veh Config. 20

8 2 — Operator STOVES, ADRIAN M (Last First Middle) — Owner ____ (Last First Middle)
Address 78 PLEASANT ST — Address ____
City HYANNIS State MA Zip 02601 — City ____ State ____ Zip ____
Insurance Company ____ — Vehicle Action Prior to Crash 21 — Damaged Area Code: (Circle Up to Three)
Vehicle Travel Direction: [N S E W] — Responding to Emergency? 2 — Event Sequence 22 22 22 22
Citation # (If Issued) ____ — Most Harmful Event 23
Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____ — Driver Contributing Code 24 24
Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____ — Underride/Override 25 — Towed ____



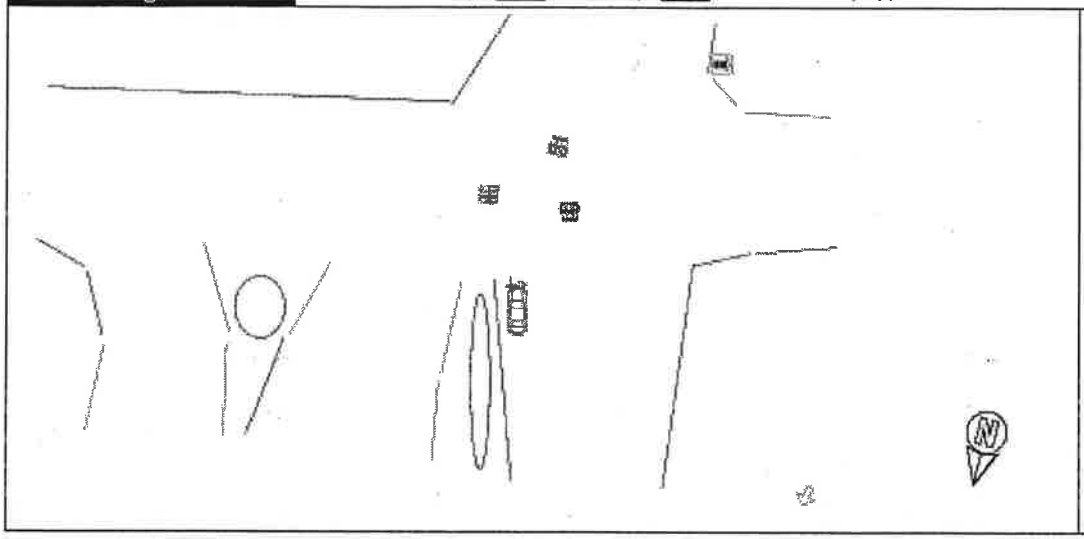
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---						2	2	Cape Cod Hospital

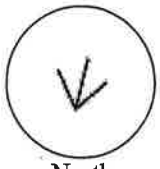
→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ☺ = Pedestrian

Crash Diagram: ie: → [1] → [2] → ☺



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



Crash Narrative:

I was dispatched to Main St., Hyannis regarding a MV vs bicycle. Upon my arrival both the MV & bicycle were at final rest. Bicycle OP was ID as Adrian Stoves. He was pinned in his bicycle, complaining of [redacted] I asked him if he could stay in this position until rescue arrived. He said he was OK to stay. Rescue transported him to CCH.

Statement OP 1 (summation): I stopped for the red light at Main & Center Sts. The light turned green and I started to move. All of a sudden the bike came from my right & hit the front of my car. I stopped immediatly and called for help.

Statement Ned Vago (summation): I was standing on the corner. I saw the light turn green. The lady just started to move and the man on the bike rode right in front of her. She was barely moving. I think the guy on the bike is at fault. See supplemental narrative. 778

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. SEAN ROYCROFT | 179 | Barnstable Police Department | 11/01/2012

Police Officer Name (Please Print) | Signature | ID/Badge # | Department | Precinct/Barracks | Date

NARRATIVE FOR PTL. SEAN ROYCROFT

Ref: 12-999-AC

Entered: 11/08/2012 @ 0736 Entry ID: 179
Modified: 11/08/2012 @ 0933 Modified ID: 778
Approved: 11/13/2012 @ 0955 Approval ID: 186

Gist: MV #1 stopped for the red light at Main and Center St. The light turned green and OP #1 started to move. The Cyclist rode into the path of the MV #1 heading against one way traffic causing the accident. It is this Officer's opinion that Mr. Stoves is at fault regarding this crash.

Minor damage to the car and bicycle. Bicycle was secured by a friend of the owner.

778

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
11/20/2012	1541 24HR	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 Route# | Direction | Name of Roadway/Street
At
Route# | Direction | Name of Intersecting Roadway/Street
Also at Intersection with
2 1 Route# | Direction | Name of Intersecting Roadway/Street

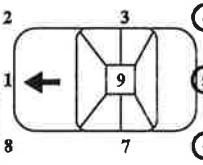
2 9 Route# | Direction | 62 Address # | CENTER ST Name of Roadway/Street
2 10 _____ Feet [N S E W] of — — — • — Mile Marker or _____ Exit Number
_____ Feet [N S E W] of Route# _____ Intersecting Roadway/Street
2 11 _____ Feet [N S E W] of _____ Landmark

3 Please Select One of the Following: ☒ Vehicle 1 1 #Occupants ☐ Hit/Run ☐ Moped — **12-1076-AC**

License # S63673785 St MA DOB/Age [redacted]
Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement
4 1 Operator ROSEN, JONATHAN E (Last First Middle)
Address 175 SCUDDER AVE
City HYANNISPORT State MA Zip 02647-0000
Insurance Company COMMERCE INSURANCE
5 1 Vehicle Travel Direction: [N S X W] Responding to Emergency? 2
Citation # (If Issued) R2508056
6 1 Viol. 1: Ch/Sec/Sub 90 /9 Viol. 2: Ch/Sec/Sub _____ / Viol. 3: Ch/Sec/Sub _____ / Viol. 4: Ch/Sec/Sub _____ /

Reg # JER2 Reg Type PC Reg State MA
Veh Year 2012 Veh Make HONDA Veh Config. 1 20
Owner ROSEN, JONATHAN E (Last First Middle) — 1 12
Address 175 SCUDDER AVE
City HYANNISPORT State MA Zip 02647-0000
Vehicle Action Prior to Crash 2 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 1 24 24
Underride/Override 1 25 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

1 13

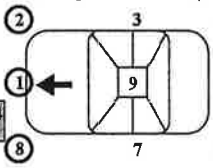
Please fill out for operator and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---	---	---	1	4	4	0	0	5	1	

7 1 Please Select One of the Following: ☒ Vehicle 2 2 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

License # S76757862 St MA DOB/Age [redacted]
Sex F Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement
8 2 Operator MACDONALD, CAITLYN LEAH (Last First Middle)
Address 35 CLIFFORD ST
City S YARMOUTH State MA Zip 02664-4301
Insurance Company PLYMOUTH ROCK ASSU
Vehicle Travel Direction: [N S X W] Responding to Emergency? 2
Citation # (If Issued) _____
Viol. 1: Ch/Sec/Sub _____ / Viol. 2: Ch/Sec/Sub _____ / Viol. 3: Ch/Sec/Sub _____ / Viol. 4: Ch/Sec/Sub _____ /

Reg # 358LZ3 Reg Type PC Reg State MA
Veh Year 1998 Veh Make ACURA Veh Config. 1 20
Owner MACDONALD, CAITLYN LEAH (Last First Middle)
Address 35 CLIFFORD ST
City S YARMOUTH State MA Zip 02664-4301
Vehicle Action Prior to Crash 1 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 19 24 24
Underride/Override 1 25 Towed 1

Damaged Area Code: (Circle Up to Three)



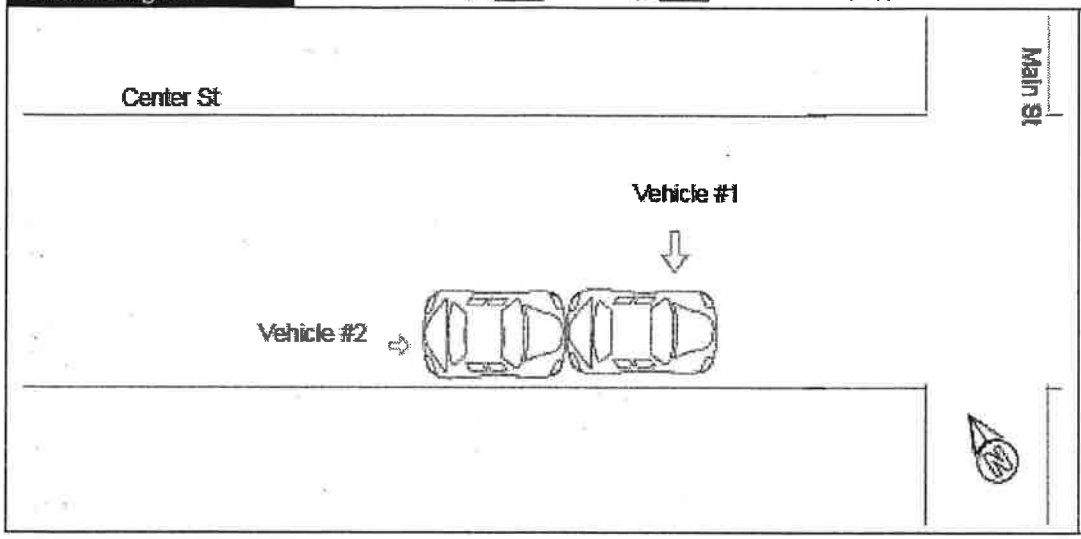
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved — Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---	---	---	1	4	4	0	0	5	1	
JORDAN MITCHELL	58 WIANNO RD YARMOUTHPORT, MA 02675	[redacted]	F	3	1	4	4	0	0	5	1	

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian

Crash Diagram:

ie: → 1 → 2 → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP#1: I was traveling East on Center St towards the intersection of Main StI was slowing as I approached the light at Main St when I struck from behind.

OP#2: I was traveling East on Center St towards the intersection of Main St. The vehicle in front of me slammed on its brakes and I rear ended him.

Vehicle#2 Passenger: The vehicle in front of us slammed on its brakes and we rear ended it.

Witness #1: I saw Vehicle #2 Rear end Vehicle #1.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
REED DANIEL PATRICK	379 SEA ST Apt. #7 HYANNIS MA 02601	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. JOSHUA J MALONEY		272	Barnstable Police Department		11/21/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
04/04/2013	1807 24HR	HYANNIS	1	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < **LOCATION** > **NOT AT INTERSECTION:**

1 1 — Route# — Direction — MAIN ST — Name of Roadway/Street

At

Route# — Direction — OLD COLONY RD — Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address # — Name of Roadway/Street

2 9

2 10

___ Feet [N] [S] [E] [W] of — Mile Marker — or — Exit Number

___ Feet [N] [S] [E] [W] of — Route# — Intersecting Roadway/Street

___ Feet [N] [S] [E] [W] of — Landmark

1 11

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 — #Occupants ☐ Hit/Run ☐ Moped — **13-279-AC**

License # S82231676 St MA DOB/Age [redacted] Reg # 7273TZ Reg Type PC Reg State MA

Sex F Lic. Class D 18 M 18 Lic. Restrictions 1 19 CDL Endorsement Veh Year 2011 Veh Make HYUNDAI Veh Config. 1 20

4 3 — Operator CIAVARRA, VALERIE JEAN (Last / First / Middle)

Address 1006 MAIN ST

City OSTERVILLE State MA Zip 02655

Insurance Company COMMERCE INSURANCE

Owner CIAVARRA, VALERIE JEAN (Last / First / Middle)

Address 1006 MAIN ST

City OSTERVILLE State MA Zip 02655

1 12

5 1 — Vehicle Travel Direction: ☒S ☐E ☐W — Responding to Emergency? 2

Citation # (If Issued) ___

Viol. 1: Ch/Sec/Sub ___ / ___ Viol. 2: Ch/Sec/Sub ___ / ___

6 1 — Viol. 3: Ch/Sec/Sub ___ / ___ Viol. 4: Ch/Sec/Sub ___ / ___

Vehicle Action Prior to Crash 4 21

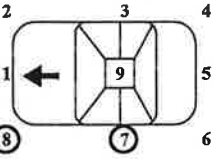
Event Sequence 28 22 — 22 — 22 — 22

Most Harmful Event 28 23

Driver Contributing Code 13 24 — 24

Underride/Override 1 25 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

23 13

7 2 — Please Select One of the Following: ☐ Vehicle 2 ___ #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

License # ___ St ___ DOB/Age ___ Reg # ___ Reg Type ___ Reg State ___

Sex ___ Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement Veh Year ___ Veh Make ___ Veh Config. 20

8 4 — Operator ___ (Last / First / Middle)

Address ___

City ___ State ___ Zip ___

Insurance Company ___

Owner ___ (Last / First / Middle)

Address ___

City ___ State ___ Zip ___

Vehicle Action Prior to Crash 21

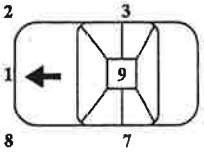
Event Sequence 22 — 22 — 22 — 22

Most Harmful Event 23

Driver Contributing Code 24 — 24

Underride/Override 25 Towed ___

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Vehicle Travel Direction: ☐N ☐S ☐E ☐W — Responding to Emergency? ___

Citation # (If Issued) ___

Viol. 1: Ch/Sec/Sub ___ / ___ Viol. 2: Ch/Sec/Sub ___ / ___

Viol. 3: Ch/Sec/Sub ___ / ___ Viol. 4: Ch/Sec/Sub ___ / ___

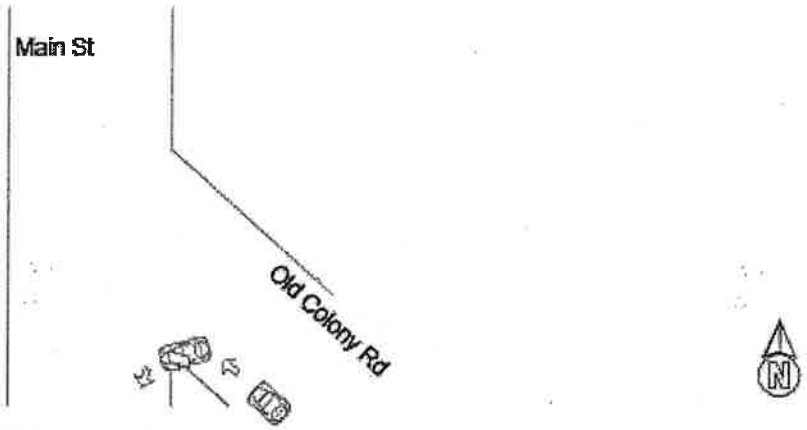
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP #1 stated that she made a left turn from Old Colony Rd. onto Main St. and hit the sign. OP #1 stated that the sun was in her eyes when she turned.

MV #1 struck a one-way street sign on the corner of Old Colony Rd. and Main St. MV #1 damaged on left front and left side. Street sign was bent over almost touching the ground.

MV #1 fender pushed into tire, not driveable. OP #1 made own arrangement for tow.

No injuries.

778

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property
TOWN OF BARNSTABLE DPW	FALMOUTH RD RTE 28 HYANNIS MA 0260		3	ONE WAY STREET SIGN

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. MATTHEW J LOUNSBURY		218	Barnstable Police Department		04/04/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
05/17/2013	1811 24HR	HYANNIS	3	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < **LOCATION** > **NOT AT INTERSECTION:**

1 1 — Route# / Direction / Name of Roadway/Street: At / Route# / Direction / Name of Intersecting Roadway/Street

Also at Intersection with: 2 1 — Route# / Direction / Name of Intersecting Roadway/Street

2 9 — Route# / Direction / 580 Address # / OLD COLONY RD Name of Roadway/Street

2 10 — ____ Feet [N S E W] of Mile Marker — — — • — or Exit Number

____ Feet [N S E W] of Route# / MAIN ST Intersecting Roadway/Street

2 11 — ____ Feet [N S E W] of Landmark

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **13-391-AC**

Vehicle 1

License # S97886320 St MA DOB/Age [redacted] — Reg # P82413 Reg Type CO Reg State MA

Sex M Lic. Class D 18 18 Lic. Restrictions 1 19 CDL ____ Endorsement — Veh Year 2012 Veh Make FORD Veh Config. 2 20

4 3 — Operator NORTON, AARON B (Last First Middle) — Owner NORTON, AARON B (Last First Middle) — 1 12

Address 43 BOULEVARDE — Address 43 BOULEVARDE

City NANTUCKET State MA Zip 02554-2828 — City NANTUCKET State MA Zip 02554-2828

Insurance Company usaa casualty insurance — Vehicle Action Prior to Crash 1 21

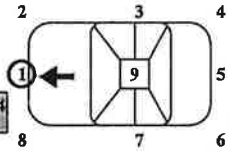
5 1 — Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2 — Event Sequence 1 22 22 22 22

Citation # (If Issued) ____ — Most Harmful Event 1 23

Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____ — Driver Contributing Code 19 24 24

6 1 — Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____ — Underride/Override 1 25 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	4	0	0	5	1	

1 13

7 2 — Please Select One of the Following: ☒ Vehicle 2 — 2 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

Vehicle 2

License # S47762078 St MA DOB/Age [redacted] — Reg # CI883B Reg Type PC Reg State MA

Sex F Lic. Class D 18 18 Lic. Restrictions 1 19 CDL ____ Endorsement — Veh Year 2012 Veh Make LEXUS Veh Config. 1 20

8 4 — Operator DONOHUE, RUBY PIERCE (Last First Middle) — Owner DONOHUE, RUBY PIERCE (Last First Middle)

Address 27 CEDAR ST — Address 27 CEDAR ST

City CAMBRIDGE State MA Zip 02140-1803 — City CAMBRIDGE State MA Zip 02140-1803

Insurance Company liberty mutual insurance — Vehicle Action Prior to Crash 2 21

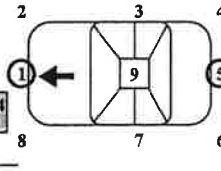
Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2 — Event Sequence 1 22 22 22 22

Citation # (If Issued) ____ — Most Harmful Event 1 23

Viol. 1: Ch/Sec/Sub ____ / ____ Viol. 2: Ch/Sec/Sub ____ / ____ — Driver Contributing Code 1 24 24

Viol. 3: Ch/Sec/Sub ____ / ____ Viol. 4: Ch/Sec/Sub ____ / ____ — Underride/Override 1 25 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	99	4	4	0	0	5	1	
JAMES DONOHUE	236 WALDEN ST CAMBRIDGE, MA 02140	[redacted]	M	3	99	4	4	0	0	5	1	

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
05/17/2013	1811 24HR	HYANNIS	3	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < LOCATION > NOT AT INTERSECTION:

AT INTERSECTION:

1 1 — Route# — Direction — Name of Roadway/Street

At

Route# — Direction — Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street

NOT AT INTERSECTION:

2 9 — Route# — Direction — 580 — Address # — OLD COLONY RD — Name of Roadway/Street

2 10 — ____ Feet [N S E W] of — — — • — Mile Marker — or — Exit Number

____ Feet [N S E W] of — Route# — MAIN ST — Intersecting Roadway/Street

2 11 — ____ Feet [N S E W] of — Landmark

3 — Please Select One of the Following: ☒ Vehicle 3 1 #Occupants ☐ Hit/Run ☐ Moped — **13-391-AC**

License # S62378073 St MA DOB/Age [redacted] Reg # RW35TJ Reg Type PC Reg State MA

Sex F Lic. Class D 18 18 Lic. Restrictions 1 19 CDL ____ Endorsement Veh Year 2003 Veh Make ACURA Veh Config. 1 20

4 3 — Operator ODONNELL, TANIS (Last First Middle) — Owner ODONNELL, TANIS (Last First Middle) — 1 12

Address 586 W YARMOUTH RD — Address 586 W YARMOUTH RD

City W YARMOUTH State MA Zip 02673-1456 — City W YARMOUTH State MA Zip 02673-1456

Insurance Company commerce insurance — Vehicle Action Prior to Crash 2 21

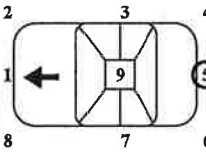
5 1 — Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2 — Event Sequence 1 22 22 22 22

Citation # (If Issued) ____ — Most Harmful Event 1 23

Viol. 1: Ch/Sec/Sub ____/____ Viol. 2: Ch/Sec/Sub ____/____ — Driver Contributing Code 1 24 24

6 1 — Viol. 3: Ch/Sec/Sub ____/____ Viol. 4: Ch/Sec/Sub ____/____ — Underride/Override 1 25 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

1 13

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	4	0	0	5	1	

7 2 — Please Select One of the Following: ☐ Vehicle 4 ____ #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

License # ____ St ____ DOB/Age ____ Reg # ____ Reg Type ____ Reg State ____

Sex ____ Lic. Class 18 18 Lic. Restrictions 19 CDL ____ Endorsement Veh Year ____ Veh Make ____ Veh Config. 20

8 4 — Operator ____ (Last First Middle) — Owner ____ (Last First Middle)

Address ____ — Address ____

City ____ State ____ Zip ____ — City ____ State ____ Zip ____

Insurance Company ____ — Vehicle Action Prior to Crash 21

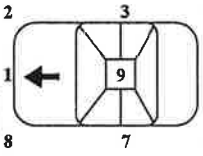
Vehicle Travel Direction: [N S E W] — Responding to Emergency? ____ — Event Sequence 22 22 22 22

Citation # (If Issued) ____ — Most Harmful Event 23

Viol. 1: Ch/Sec/Sub ____/____ Viol. 2: Ch/Sec/Sub ____/____ — Driver Contributing Code 24 24

Viol. 3: Ch/Sec/Sub ____/____ Viol. 4: Ch/Sec/Sub ____/____ — Underride/Override 25 — Towed ____

Damaged Area Code: (Circle Up to Three)



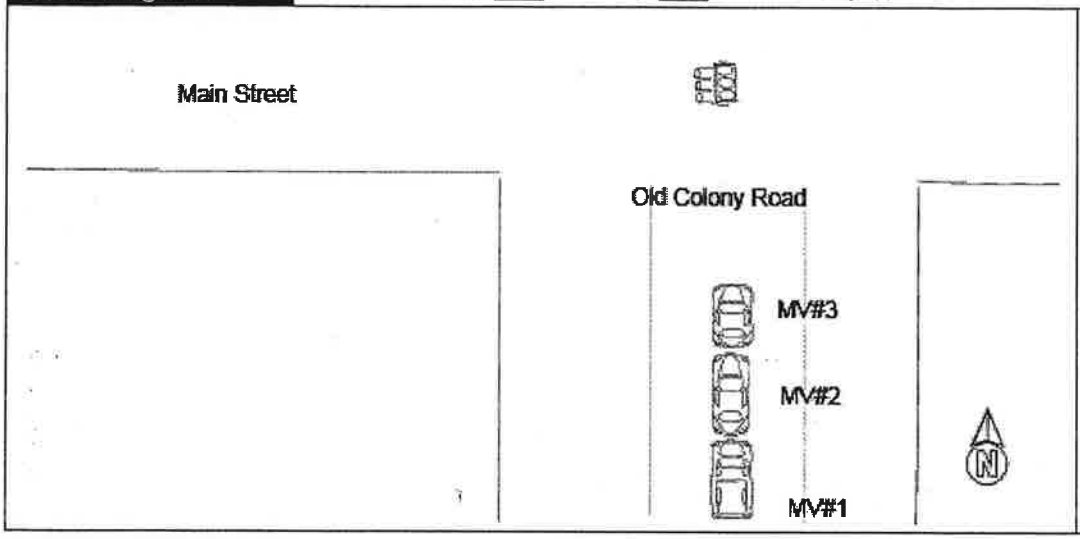
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram: ie: → [1] → [2] →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

MV#1, MV#2 and MV#3 were all stopped for traffic in the middle travel lane on Old Colony Road at the intersection of Old Colony Road and Main Street in Hyannis waiting for the traffic light to change when the accident occurred. MV#3 stated that the traffic on both sides of him began to move and he just started to pull forward, however, the center travel lane was still stopped. MV#3 struck the rear bumper of MV#2 pushing MV#2 forward causing MV#2 to strike the rear bumper of MV#3. MV#1 sustained minor damage to the front bumper, MV#2 sustained heavy damage to the rear bumper and trunk area and minor damage to the front bumper and MV#3 sustained minor damage to the rear bumper. All three motor vehicles were driven away from the accident scene by their operators.

778

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information: Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. SCOTT F LEGER		228	Barnstable Police Department		05/17/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only | RMV Document Number

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
07/08/2013	2352 24HR	HYANNIS	1	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

14 Route# MAIN ST Direction Name of Roadway/Street
At
Route# OLD COLONY RD Direction Name of Intersecting Roadway/Street
Also at Intersection with
21 Route# Direction Name of Intersecting Roadway/Street

Route# Direction Address # Name of Roadway/Street
_____ Feet N S E W of — — — • — or _____ (Mile Marker / Exit Number)
_____ Feet N S E W of Route# Intersecting Roadway/Street
_____ Feet N S E W of Landmark

2 9 | 2 10 | 1 11

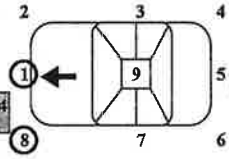
3 Please Select One of the Following: ☒ Vehicle 1 1 #Occupants ☐ Hit/Run ☐ Moped — **13-600-AC**

License # S28532051 St MA DOB/Age [redacted] Reg # 9VR390 Reg Type PC Reg State MA
Sex M Lic. Class D 18 18 Lic. Restrictions 19 CDL Endorsement Veh Year 2006 Veh Make DODGE Veh Config. 1 20

4 3 Operator NEARHOS, GREGORY J (Last First Middle) — Owner NEARHOS, GREGORY J (Last First Middle) — 7 12
Address PO BOX 1133 — Address PO BOX 1133
City SANDWICH State MA Zip 02563-2517 — City SANDWICH State MA Zip 02563-2517
Insurance Company COMMERCE INCURANCE — Vehicle Action Prior to Crash 4 21

5 1 Vehicle Travel Direction: N S X W — Responding to Emergency? 2 — Event Sequence 21 22 35 22 20 22 43 22
Citation # (If Issued) [redacted] — Most Harmful Event 43 23
Viol. 1: Ch/Sec/Sub [redacted] — Viol. 2: Ch/Sec/Sub [redacted] — Driver Contributing Code 10 24 14 24
6 1 Viol. 3: Ch/Sec/Sub [redacted] — Viol. 4: Ch/Sec/Sub ____/____ — Underride/Override 1 25 — Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	99	0	2	4	2	Cape Cod Hospital

23 13

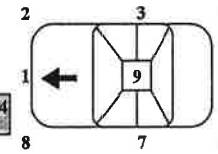
7 2 Please Select One of the Following: ☐ Vehicle 2 ____ #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

License # ____ St ____ DOB/Age ____ — Reg # ____ Reg Type ____ Reg State ____
Sex ____ Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement — Veh Year ____ Veh Make ____ Veh Config. 20

8 4 Operator ____ (Last First Middle) — Owner ____ (Last First Middle)
Address ____ — Address ____
City ____ State ____ Zip ____ — City ____ State ____ Zip ____
Insurance Company ____ — Vehicle Action Prior to Crash 21

Vehicle Travel Direction: N S E W — Responding to Emergency? ____ — Event Sequence 22 22 22 22
Citation # (If Issued) ____ — Most Harmful Event 23
Viol. 1: Ch/Sec/Sub ____/____ — Viol. 2: Ch/Sec/Sub ____/____ — Driver Contributing Code 24 24
Viol. 3: Ch/Sec/Sub ____/____ — Viol. 4: Ch/Sec/Sub ____/____ — Underride/Override 25 — Towed ____

Damaged Area Code: (Circle Up to Three)



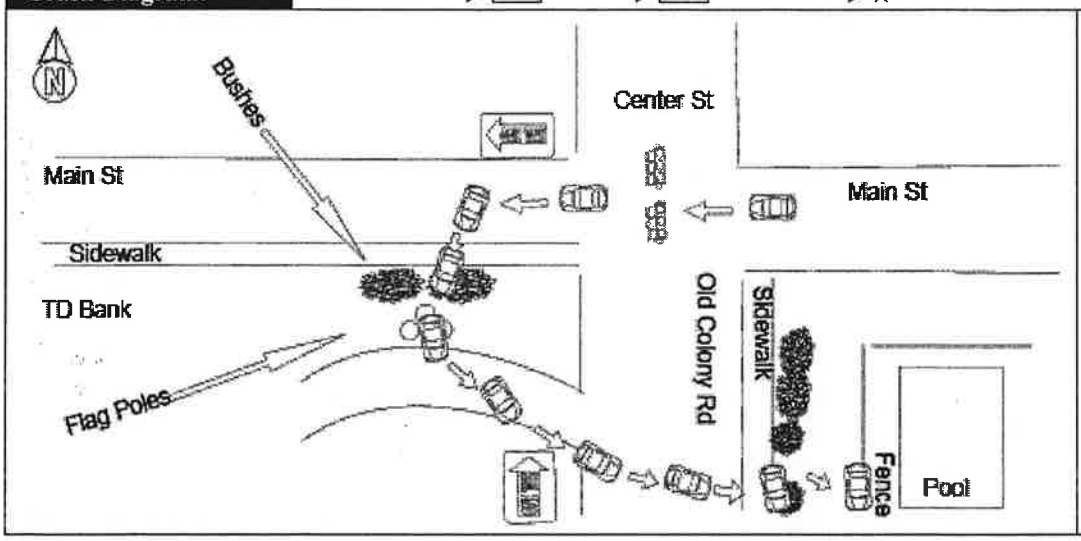
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

ie: → 1 → 2 → OK OK

Crash Diagram:



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Gist:Operator was traveling in westerly direction on Main St. in Hyannis. OP went through the intersection Main St. and Old Colony Rd. OP took a left over the sidewalk and continued traveling into bushes. OP then started going up a small hill striking a flag pole. OP was unable to knock over the flag pole, backed up and got momentum striking the flag pole again causing it to fall over. OP then proceeded to drive over the flag pole, striking two more flag poles. The flag poles were knocked over and operator continued over the flag poles and down a small hill. OP then jumped the curve and continued straight across Old Colony Rd. OP then hit the curb on the opposite side of Old Colony Rd. causing the MV to overturn. The MV while overturning destroyed bushes and finally came to rest on a fence near the pool at the Heritage House Hotel. [redacted]

[redacted] 778

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property
TD BANK	307 MAIN ST HYANNIS MA 02601	[redacted]		BUSHES, LANDSCAPING, FLAG POLES
HERITAGE HOUSE HOTEL	295 MAIN ST HYANNIS MA 02601	[redacted]		FENCE, BUSHES

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. DENNIS M STAMPFL		269	Barnstable Police Department	07/10/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only | RMV Document Number

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat / Lon	
08/14/2013	1455 24HR	HYANNIS	1	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 Route# 1 | Direction | MAIN ST — Name of Roadway/Street

At

Route# | Direction | OLD COLONY RD — Name of Intersecting Roadway/Street

Also at Intersection with

2 Route# 1 | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address # | Name of Roadway/Street

Feet N S E W of — — — • — Mile Marker or Exit Number

Feet N S E W of Route# Intersecting Roadway/Street

Feet N S E W of Landmark

3 Please Select One of the Following: ☒ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

13-756-AC

License # 199805 St NY DOB/Age [redacted]

Sex M Lic. Class D Lic. Restrictions 1 CDL Endorsement

4 Operator SHOUT, JOHN (Last First Middle)

Address 319 OCEAN ST

City HYANNIS State MA Zip 02601

Insurance Company AMICA

5 Vehicle Travel Direction: N S ☒W Responding to Emergency? 2

Citation # (If Issued) NONE

6 Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /

Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # BZW4001 Reg Type PC Reg State NY

Veh Year 1998 Veh Make SATURN Veh Config. 1

7 Owner SHOUT, JOHN (Last First Middle)

Address 319 OCEAN ST

City HYANNIS State MA Zip 02601

Vehicle Action Prior to Crash 7

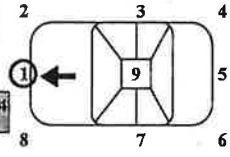
Event Sequence 41 | | | |

Most Harmful Event 51

Driver Contributing Code 16 | |

Underride/Override 1 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	99	0	0	4	2	Cape Cod Hospital

7 3 Please Select One of the Following: ☐ Vehicle 2 | #Occupants | ☐ Non-Motorist A | Type | Action | Location | Condition | ☐ Hit/Run | ☐ Moped

License # St DOB/Age

Sex Lic. Class Lic. Restrictions CDL Endorsement

8 4 Operator (Last First Middle)

Address

City State Zip

Insurance Company

Vehicle Travel Direction: N S E W Responding to Emergency?

Citation # (If Issued)

Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /

Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # Reg Type Reg State

Veh Year Veh Make Veh Config.

Owner (Last First Middle)

Address

City State Zip

Vehicle Action Prior to Crash

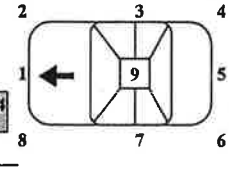
Event Sequence | | | |

Most Harmful Event

Driver Contributing Code | |

Underride/Override Towed

Damaged Area Code: (Circle Up to Three)



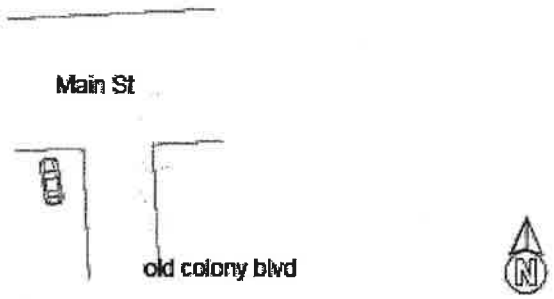
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | ♀ = Pedestrian

Crash Diagram: ie: → 1 → 2 → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

This was a one car accident. Mv #1 was North on Old Colony Blvd toward Main St. The operator appears to have lost consciousness prior to the accident. He said he was on Old Colony Blvd. and went off the road due to loss of breaks. The vehicle went off the road before reaching Main St. and landed on the lawn of the TD Bank grass property. There was no immediate evidence of break fluid at the scene. Operator appeared to be very much out of it when I spoke with him. He appeared to have had some kind of medical event. He complained of a [redacted] so Rescue was dispatched. Mr. Shout was transported to Cape Cod Hospital for medical evaluation. There was no property damage.

778

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. KEVIN J DONOVAN		165	Barnstable Police Department		08/15/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
12/04/2013	1258 24HR	HYANNIS	2	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — Name of Roadway/Street: MAIN ST
At
Route# — Direction — Name of Intersecting Roadway/Street: CENTER ST
Also at Intersection with
2 1 — Route# — Direction — Name of Intersecting Roadway/Street: OLD COLONY RD

Route# — Direction — Address # — Name of Roadway/Street
Feet N S E W of — Mile Marker — or — Exit Number
Feet N S E W of — Route# — Intersecting Roadway/Street
Feet N S E W of — Landmark

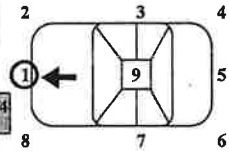
2 9 — 2 10 — 2 11

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped — **13-1105-AC**

License # S86521696 St MA DOB/Age [redacted] — Reg # 219CE4 — Reg Type PC — Reg State MA
Sex M — Lic. Class D — 18 18 — Lic. Restrictions 99 19 — CDL Endorsement — Veh Year 2012 — Veh Make FORD — Veh Config. 2 20
4 3 — Operator JUSSILA, LORNE B (Last First Middle)
Address 84 BOG LN
City HARWICH — State MA — Zip 02645
Insurance Company COMMERCE INSURANCE
5 1 — Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub
6 1 — Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub

Owner JUSSILA, LORNE B (Last First Middle) — 1 12
Address PO BOX 131
City WEST HARWICH — State MA — Zip 02671
Vehicle Action Prior to Crash 2 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 19 24 24
Underride/Override 1 25 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	99	0	0	5	1	

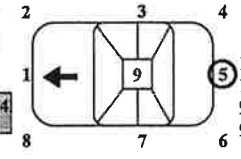
1 13

7 2 — Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist A — Type 14 — Action 15 — Location 16 — Condition 17 — ☐ Hit/Run — ☐ Moped

License # S86683856 St MA DOB/Age [redacted] — Reg # 613AC6 — Reg Type PC — Reg State MA
Sex F — Lic. Class D — 18 18 — Lic. Restrictions 99 19 — CDL Endorsement — Veh Year 1998 — Veh Make TOYOTA — Veh Config. 1 20
8 1 — Operator PETERS, AMY B (Last First Middle)
Address 30 WAMPANOAG DR
City MASHPEE — State MA — Zip 02649
Insurance Company SAFETY INSURANCE
Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub — Viol. 2: Ch/Sec/Sub
Viol. 3: Ch/Sec/Sub — Viol. 4: Ch/Sec/Sub

Owner PETERS, CHARLES AUGUSTUS (Last First Middle)
Address 37 GOOSEBERRY LN
City MARSTONS MILLS — State MA — Zip 02648
Vehicle Action Prior to Crash 2 21
Event Sequence 1 22 22 22 22
Most Harmful Event 1 23
Driver Contributing Code 1 24 24
Underride/Override 1 25 — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

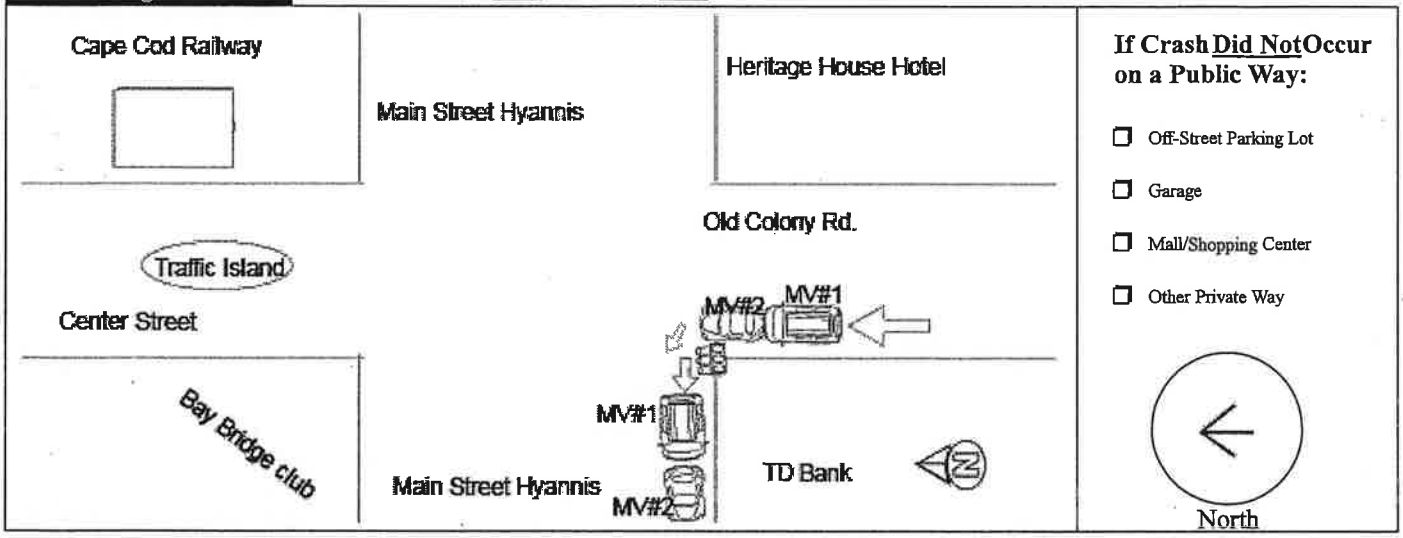
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	1	4	99	0	0	3	2	Cape Cod Hospital

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ☺ = Pedestrian

Crash Diagram:

ie: → [1] → [2] → ☺



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

Crash Narrative:

Oper#1 (Jussila) traveling north on Old Colony Rd. Hyannis was coming to stop for the red traffic light and vehicle traffic in front of him at the intersection. Oper#1 (Jussila) states he had stopped behind Oper#2 (Peters, who according to (Jussila) began to move forward. Oper#1 (Jussila) states he must have turned his head to the left and wasn't aware that MV#2 (Peters) was still stopped in front of him when he applied the accelerator of his vehicle and collided into the rear of MV#2. Oper#2 (Peters) states she was stopped for the red traffic light at the intersection of Old Colony Rd. & Main St. in the left lane of travel waiting for the light to turn before turning left onto Main St. While stopped, Oper#2 (Peters) states MV#1 collided into the rear of her vehicle. Injuries: Oper#2 (Peters) transported by HYFD to CCH for [redacted]. Damage:MV#1 minor front bumper damage. MV#2 minor rear bumper & rear trunk damage.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. MARK A DELANEY		122	Barnstable Police Department		12/04/2013
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
05/20/2014	1646 24HR	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# | Direction | Name of Roadway/Street: —
At
Route# | Direction | Name of Intersecting Roadway/Street: —
2 1 — Also at Intersection with
Route# | Direction | Name of Intersecting Roadway/Street: —

2 9 — Route#: — | Direction: — | Address #: 112 | Name of Roadway/Street: CENTER ST
2 10 — ____ Feet [N S E W] of — — — • — or Mile Marker / Exit Number: —
____ Feet [N S E W] of Route#: — Intersecting Roadway/Street: —
4 11 — ____ Feet [N S E W] of Landmark: —

3 — Please Select One of the Following: ☒ Vehicle 1 | #Occupants: 1 | ☐ Hit/Run | ☐ Moped | **14-418-AC**

License # S64155565 St MA DOB/Age [redacted] | Reg # 839ZE8 Reg Type PC Reg State MA
Sex F Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement ____ | Veh Year 1999 Veh Make CHEVROLET Veh Config. 1 20
4 1 — Operator FORTIER, ALTHEA R (Last First Middle) | Owner FORTIER, TINA (Last First Middle) — 1 12
Address 24 JEANNES PATH | Address 24 JEANNES PATH
City YARMOUTHPORT State MA Zip 02675 | City YARMOUTHPORT State MA Zip 02675
Insurance Company COMMERCE | Vehicle Action Prior to Crash 1 21
5 1 — Vehicle Travel Direction: N X E W | Responding to Emergency? 2 | Event Sequence 1 22 22 22 22 | Damaged Area Code: (Circle Up to Three)
Citation # (If Issued) ____ | Most Harmful Event 1 23
Viol. 1: Ch/Sec/Sub ____ / ____ | Viol. 2: Ch/Sec/Sub ____ / ____ | Driver Contributing Code 1 24 24
6 1 — Viol. 3: Ch/Sec/Sub ____ / ____ | Viol. 4: Ch/Sec/Sub ____ / ____ | Underride/Override 1 25 | Towed 2

0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

1 13 —

Please fill out for operator and all occupants involved: Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---	---	---	99	4	4	0	0	5	1	

7 1 — Please Select One of the Following: ☒ Vehicle 2 | #Occupants: 1 | ☐ Non-Motorist A | Type 14 | Action 15 | Location 16 | Condition 17 | ☐ Hit/Run | ☐ Moped

License # S72628038 St MA DOB/Age [redacted] | Reg # 948RS4 Reg Type PC Reg State MA
Sex F Lic. Class D 18 18 Lic. Restrictions 1 19 CDL Endorsement ____ | Veh Year 2000 Veh Make HONDA Veh Config. 1 20
8 3 — Operator WHITTEMORE, HEATHER M (Last First Middle) | Owner WHITTEMORE, HEATHER M (Last First Middle)
Address 32 GENERAL PATTON DR | Address 32 GENERAL PATTON DR
City HYANNIS State MA Zip 02601-2624 | City HYANNIS State MA Zip 02601-2624
Insurance Company GOVT EMPLOYEE INSURANCE | Vehicle Action Prior to Crash 1 21
Vehicle Travel Direction: N X E W | Responding to Emergency? 2 | Event Sequence 1 22 22 22 22 | Damaged Area Code: (Circle Up to Three)
Citation # (If Issued) ____ | Most Harmful Event 1 23
Viol. 1: Ch/Sec/Sub ____ / ____ | Viol. 2: Ch/Sec/Sub ____ / ____ | Driver Contributing Code 1 24 24
Viol. 3: Ch/Sec/Sub ____ / ____ | Viol. 4: Ch/Sec/Sub ____ / ____ | Underride/Override 1 25 | Towed 2

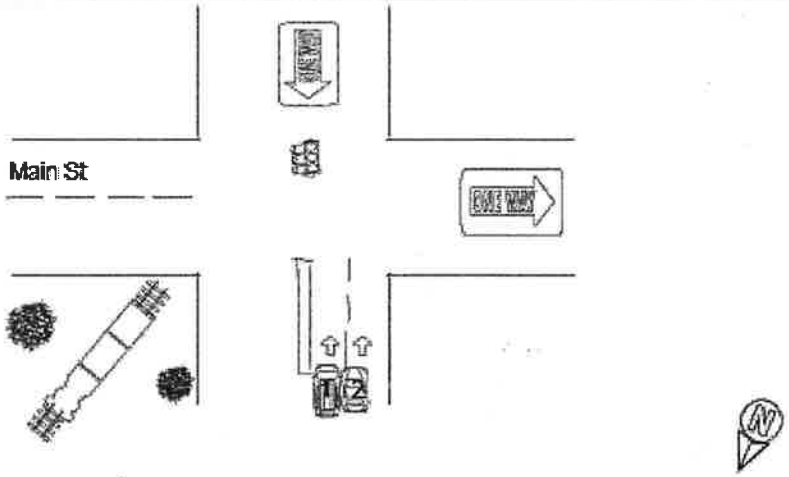
0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved: Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---	---	---	99	4	4	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram:

ie: → [1] → [2] →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Minor accident, both operators reported to the lobby of police station to report Veh#1 reported that she was driving, was about to turn left when the VEH#2 came up along her right hand side in the right only turn lane and attempted to make the same left turn causing a slight crash.

VEH#2 reported that she was going to pass her on the right side when VEH#1 sped up, causing her to crash into VEH1 vehicle.

VEH#1 stated, " She was messing around and tried to pass me."

VEH#2 stated, "I was going to pass her and she sped up."

I observed slight markings on VEH#1 and VEH#2 declined to bring Vehicle so I was unable to observe the damage to VEH#2.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. TRAVIS M BROWN		289	Barnstable Police Department		05/21/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
06/20/2014	1238 24HR	HYANNIS	2	0		Local Police ☒

LOCATION

AT INTERSECTION:

Route# ___ Direction ___ Name of Roadway/Street: MAIN ST
At
Route# ___ Direction ___ Name of Intersecting Roadway/Street: OLD COLONY RD
Also at Intersection with
Route# ___ Direction ___ Name of Intersecting Roadway/Street: CENTER ST

NOT AT INTERSECTION:

Route# ___ Direction ___ Address # ___ Name of Roadway/Street
___ Feet [N S E W] of ___ Mile Marker or ___ Exit Number
___ Feet [N S E W] of ___ Route# ___ Intersecting Roadway/Street
___ Feet [N S E W] of ___ Landmark

Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped

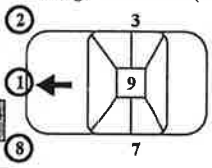
14-535-AC

Vehicle 1

License # S14113896 St MA DOB/Age [redacted]
Sex F Lic. Class D Lic. Restrictions 2 CDL Endorsement
Operator KANE, KATHERINE C (Last First Middle)
Address 500 OLD COLONY RD APT 105
City HYANNIS State MA Zip 02601
Insurance Company LM GENERAL
Vehicle Travel Direction: N S X W Responding to Emergency? 2
Citation # (If Issued) ___
Viol. 1: Ch/Sec/Sub ___ Viol. 2: Ch/Sec/Sub ___
Viol. 3: Ch/Sec/Sub ___ Viol. 4: Ch/Sec/Sub ___

Reg # 826EM7 Reg Type PC Reg State MA
Veh Year 2002 Veh Make AMERICAN MOTORS Veh Config. 2
Owner KANE, KATHERINE C (Last First Middle)
Address 500 OLD COLONY RD APT 105
City HYANNIS State MA Zip 02601
Vehicle Action Prior to Crash 1
Event Sequence 1 22 22 22 22
Most Harmful Event 1
Driver Contributing Code 5 24 24
Underride/Override 99 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator / See Above	---------	---	---	1	4	4	0	0	5	1	

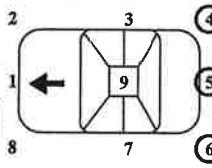
Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants ☐ Non-Motorist A Type Action Location Condition ☐ Hit/Run ☐ Moped

Vehicle 2

License # unknown St ___ DOB/Age [redacted]
Sex M Lic. Class 99 Lic. Restrictions 1 CDL Endorsement
Operator GIANLUCA, SALARIS (Last First Middle)
Address 81B LEWIS RD
City WEST YARMOUTH State MA Zip 02673
Insurance Company USAA
Vehicle Travel Direction: N S X W Responding to Emergency? 2
Citation # (If Issued) [redacted]
Viol. 1: Ch/Sec/Sub [redacted] Viol. 2: Ch/Sec/Sub ___
Viol. 3: Ch/Sec/Sub ___ Viol. 4: Ch/Sec/Sub ___

Reg # 707MVB Reg Type PC Reg State FL
Veh Year 1987 Veh Make MERCEDES-BENZ Veh Config. 1
Owner MALUCCIO, MARK N (Last First Middle)
Address 2501 HARN BLV APT J1
City CLEARWATER State FL Zip 33764
Vehicle Action Prior to Crash 2
Event Sequence 1 22 22 22 22
Most Harmful Event 1
Driver Contributing Code 1 24 24
Underride/Override 99 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

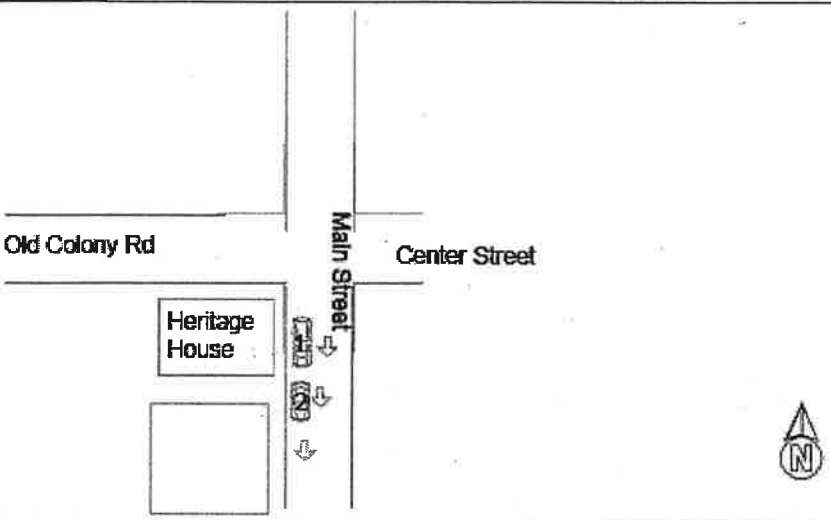
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist / See Above	---------	---	---	1	4	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP#1: Ms. Katherine Kane stated- I had just turned the corner from Old Colony Road onto Main Street heading East, when all of a sudden the traffic in front of me stopped. I attempted to stop as well but did not and I struck the car in front of me.

OP#2: Mr. Salaris Gianluca stated- I had just turned onto Main Street from Old Colony Road, when the car and traffic in front of me stopped. I applied my brake and stopped. Unfortunately the car behind me did not stop and struck my rear bumper. There were no reported injuries, [redacted]

M/V#2 was towed by Bucklers towing.

795

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34 Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. BRIAN D MORRISON		205	Barnstable Police Department		06/25/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Police Use Only | RMV Document Number

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police Agency
09/23/2014	0817 24HR	HYANNIS	1	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# / Direction / Name of Roadway/Street: At / Route# / Direction / Name of Intersecting Roadway/Street

Also at Intersection with: 2 1 — Route# / Direction / Name of Intersecting Roadway/Street

Route# / Direction / Address # 200 / Name of Roadway/Street: MAIN ST

_____ Feet [N S E W] of — — — • — or Exit Number (Mile Marker)

_____ Feet [N S E W] of Route# / Intersecting Roadway/Street: CENTER ST

_____ Feet [N S E W] of Landmark

2 9 | 2 10 | 99 11

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants | ☐ Hit/Run | ☐ Moped

14-916-AC

Vehicle 1

License # S24078152 St MA DOB/Age [redacted]

Sex M Lic. Class D 18 18 Lic. Restrictions 99 19 CDL Endorsement

Operator WINTHROP, DONALD A (Last / First / Middle)

Address 11 ANTONELLI CIR

City DENNIS State MA Zip 02638

Insurance Company Plymouth Rock

Vehicle Travel Direction: [N S E ☒] Responding to Emergency? 2

Citation # (If Issued) _____

Viol. 1: Ch/Sec/Sub ___/___ Viol. 2: Ch/Sec/Sub ___/___

Viol. 3: Ch/Sec/Sub ___/___ Viol. 4: Ch/Sec/Sub ___/___

Reg # RW10GF Reg Type PC Reg State MA

Veh Year 2006 Veh Make FORD Veh Config. 1 20

Owner WINTHROP, DONALD A (Last / First / Middle)

Address 11 ANTONELLI CIR

City DENNIS State MA Zip 02638

Vehicle Action Prior to Crash 1 21

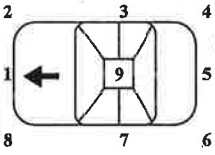
Event Sequence 3 22 22 22 22

Most Harmful Event 3 23

Driver Contributing Code 1 24 24

Underride/Override 99 25 Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

5 1 | 6 1 | 1 12

Please fill out for operator and all occupants involved

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator / See Above	---------	---	---	99	4	99	0	0	5	1	

1 13

7 3 — Please Select One of the Following: ☐ Vehicle 2 ____ #Occupants | ☒ Non-Motorist A | Type 2 14 | Action 2 15 | Location 1 16 | Condition 1 17 | ☐ Hit/Run | ☐ Moped

Vehicle 2

License # S34899525 St MA DOB/Age [redacted]

Sex F Lic. Class 18 18 Lic. Restrictions 19 CDL Endorsement

8 2 — Operator ELLIOT, MARY FRANCES (Last / First / Middle)

Address 44 MAPLE AVE

City HYANNIS State MA Zip 02601

Insurance Company _____

Vehicle Travel Direction: [N S E ☒] Responding to Emergency? 2

Citation # (If Issued) _____

Viol. 1: Ch/Sec/Sub ___/___ Viol. 2: Ch/Sec/Sub ___/___

Viol. 3: Ch/Sec/Sub ___/___ Viol. 4: Ch/Sec/Sub ___/___

Reg # _____ Reg Type _____ Reg State _____

Veh Year _____ Veh Make _____ Veh Config. 20

Owner _____ (Last / First / Middle)

Address _____

City _____ State _____ Zip _____

Vehicle Action Prior to Crash 97 21

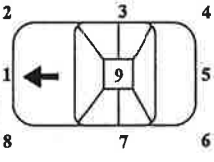
Event Sequence 1 22 22 22 22

Most Harmful Event 1 23

Driver Contributing Code 1 24 24

Underride/Override 99 25 Towed ____

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

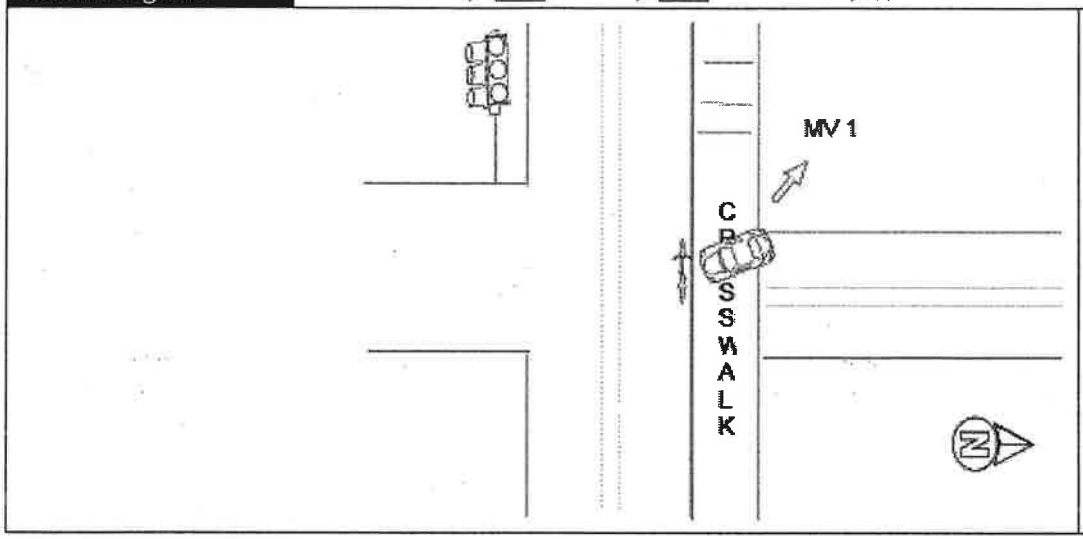
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist / See Above	---------	---	---						3	2	Cape Cod Hospital

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP MV 1 stated he was stopped for the red light at center st and Main St. OP stated the light turned green so he went forward and out of know where a Bike crossed the street adn he made contact with it.

OP bicycle stated she thought the light was still red and thought it was safe to cross.

GIST: OP MV 1 was following all traffic laws and the bicycle came out of main st to cross. There was no way OP MV 1 could have stopped to avoid the bicycle.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
LLOYD PATTI	1 BLUEBERRY PATH YARMOUTHPORT MA 02675	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code 35

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate 36

Cargo Body Type Code 37 Gross Vehicle Weight 38

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 39

Hazmat Information:

Placard 40 Material 1 digit # 41 Material Name _____ Material 4 digit # _____ Release code 42

PTL. NATHAN R ST. ONGE		284	Barnstable Police Department		09/23/2014
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

WITNESS STATEMENT

Ref: 14-916-AC

Entered: 09/23/2014 @ 1257 Entry ID: 284
Modified: 09/23/2014 @ 1302 Modified ID: 284

On September 23, 2014 I was on uniformed patrol in Hyannis in marked police cruiser 234. At approximately 0800 I was dispatched to Main and Center St for a reported car vs. bicycle MVA.

I took a statement from Patti Lloyd who witnessed the whole event.

LLOYD stated she was stopped at the light on Main St. LLOYD stated her light was red and she saw the center st light turn green. She observed WINTHROPS vehicle begin to turn when out of nowhere a bicycle crossed center st. LLOYD stated there was no way for WINTHROP to stop or avoid the bicycle.

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat / Lon	
06/16/2015	2114 24HR	HYANNIS	1	1		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: < **LOCATION** > **NOT AT INTERSECTION:**

15 Route# | Direction | Name of Roadway/Street | At | Route# | Direction | Name of Intersecting Roadway/Street | Also at Intersection with | Route# | Direction | Name of Intersecting Roadway/Street — 21

2 9 — Route# | Direction | 259 Address # | MAIN ST Name of Roadway/Street

2 10 — _____ Feet [N S E W] of — — — • — Mile Marker or _____ Exit Number

_____ Feet [N S E W] of Route# _____ Intersecting Roadway/Street

_____ Feet [N S E W] of _____ Landmark — 3 11

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **15-530-AC**

License # S96193501 St MA DOB/Age [redacted] — Reg # 534HX1 Reg Type PC Reg State MA

Sex M Lic. Class D 18 18 Lic. Restrictions 19 CDL ____ Endorsement — Veh Year 1999 Veh Make TOYOTA Veh Config. 1 20

4 3 — Operator MURTHA, PAUL W (Last First Middle) — Owner MURTHA, PAUL W (Last First Middle) — 1 12

Address 82 SCHOOL ST — Address 82 SCHOOL ST

City HYANNIS State MA Zip 02601-3118 — City HYANNIS State MA Zip 02601-3118

Insurance Company allstate insurance — Vehicle Action Prior to Crash 4 21

5 1 — Vehicle Travel Direction: N X E W — Responding to Emergency? 2 — Event Sequence 4 22 22 22 22 — Damaged Area Code: (Circle Up to Three)

Citation # (If Issued) ____ — Most Harmful Event 4 23

Viol. 1: Ch/Sec/Sub ____/____ Viol. 2: Ch/Sec/Sub ____/____ — Driver Contributing Code 1 24 24

6 1 — Viol. 3: Ch/Sec/Sub ____/____ Viol. 4: Ch/Sec/Sub ____/____ — Underride/Override 1 25 — Towed 2 (8)

0 None, 10 Undercarriage, 11 Totaled, 97 Other, 99 Unknown

Please fill out for operator and all occupants involved — 4 13

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	1	4	4	0	0	5	1	

7 2 — Please Select One of the Following: ☐ Vehicle 2 ____ #Occupants ☒ Non-Motorist A — Type 2 14 — Action 2 15 — Location 1 16 — Condition 17 — ☐ Hit/Run ☐ Moped

License # S49826645 St MA DOB/Age [redacted] — Reg # unknown Reg Type ____ Reg State MA

Sex M Lic. Class 18 18 Lic. Restrictions 19 CDL ____ Endorsement — Veh Year ____ Veh Make ____ Veh Config. 20

8 1 — Operator MOJICA, RICHARD NMI (Last First Middle) — Owner ____ (Last First Middle)

Address 77 WINTER ST — Address ____

City HYANNIS State MA Zip 02601 — City ____ State ____ Zip ____

Insurance Company ____ — Vehicle Action Prior to Crash 97 21

Vehicle Travel Direction: N X E W — Responding to Emergency? 2 — Event Sequence 1 22 22 22 22 — Damaged Area Code: (Circle Up to Three)

Citation # (If Issued) ____ — Most Harmful Event 1 23

Viol. 1: Ch/Sec/Sub ____/____ Viol. 2: Ch/Sec/Sub ____/____ — Driver Contributing Code 99 24 24

Viol. 3: Ch/Sec/Sub ____/____ Viol. 4: Ch/Sec/Sub ____/____ — Underride/Override 1 25 — Towed 2

0 None, 10 Undercarriage, 11 Totaled, 97 Other, 99 Unknown

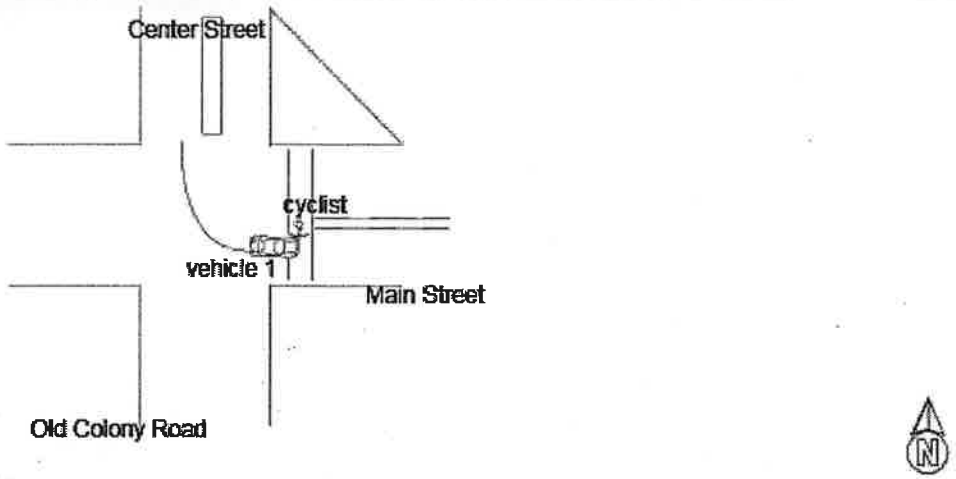
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---						4	2	Cape Cod Hospital

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ♀ = Pedestrian

Crash Diagram:

ie: → [1] → [2] → ♀



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Operator 1 was making a left turn with a green light and struck the cyclist. Operator 1 stated he never saw the "bike" until he (cyclist) hit the windshield.
Cyclist stated he was trying to beat the light/car across the street, he was using the crosswalk riding into the path of vehicle 1. (no reflectors/dressed in all dark colors).
Cyclist states he thought he could make it across in front of the car.
Witness 1: cyclist was half way across street in crosswalk and was struck by car
Witness 2: both the car and bike were coming from the same spot/direction then the bicycle rode in front of the car

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
DEGRACE CHRISTOPHER LEE	11 REYNOLDS ST NEW BEDFORD MA	[redacted]	
BRAUND ALICIA	8 SEABROOK RD Apt. #C HYANNIS MA 02601	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. PETER S MYRBECK		249	Barnstable Police Department		06/16/2015
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Police Use Only

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Latitude	Longitude	State Police	Local Police	MBTA Police	Other
10/25/2016	0752 24HR	HYANNIS	2	0				☐	☒	☐	

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — Name of Roadway/Street

At

Route# — Direction — Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — 307 Address # — MAIN ST Name of Roadway/Street (2 10)

_____ Feet [N S E W] of — — — • — Mile Marker or _____ Exit Number

_____ Feet [N S E W] of Route# _____ Intersecting Roadway/Street

_____ Feet [N S E W] of _____ Landmark (3 11)

3 — Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped — Crash Report ID# 16-992-AC

Vehicle 1

License # S60605784 St MA DOB/Age [redacted]

Sex M Lic. Class D (19 19) Lic. Restrictions 99 (20) CDL Endorsement

Operator ROBBINS, ALBERT F III (Last First Middle)

Address 55 COGSWELL RD

City W YARMOUTH State MA Zip 02673-0000

Insurance Company NEW HAMPSHIRE INS

5 — Vehicle Travel Direction: [N S E ☒] Responding to Emergency? 2

Citation # (If Issued) _____

Viol. 1: Ch/Sec/Sub _____ Viol. 2: Ch/Sec/Sub _____

6 1 — Viol. 3: Ch/Sec/Sub _____ Viol. 4: Ch/Sec/Sub _____

Reg # TA160D Reg Type PC Reg State MA

Veh Year 2005 Veh Make FORD Veh Config. 1 (21)

4 1 — Owner OTCL INC (Last First Middle) (1 12)

Address 63 CIT AVE

City HYANNIS State MA Zip 02601-1903

Vehicle Action Prior to Crash 1 (22)

Event Sequence 1 (23) 23 23 23

Most Harmful Event 1 (24)

Driver Contributing Code 99 (25) 25

Driver Distracted by 99 (26)

Damaged Area Code: 2 (27) 27 27

Test Status: (28)

Type of Test: (29)

BAC Test Result: (30)

Susp. Alcohol: (31) Susp. Drug: (32)

Towed from scene? 2 (33)

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	See Above	[redacted]	[redacted]	1	1	4	0	0	5	1	

1 13

7 1 — Please Select One of the Following: ☒ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist A — Type (15) Action (16) Location (17) Condition (18) — ☐ Hit/Run — ☐ Moped

Vehicle 2

License # S10175875 St MA DOB/Age [redacted]

Sex M Lic. Class D (19 19) Lic. Restrictions 99 (20) CDL Endorsement

Operator FURTADO, MATTHEW ALLEN (Last First Middle)

Address 71 WINSLOW GRAY RD

City W YARMOUTH State MA Zip 02673-3659

Insurance Company ALLSTATE INSURANCE

9 2 — Vehicle Travel Direction: [N S E ☒] Responding to Emergency? 2

Citation # (If Issued) _____

Viol. 1: Ch/Sec/Sub _____ Viol. 2: Ch/Sec/Sub _____

Viol. 3: Ch/Sec/Sub _____ Viol. 4: Ch/Sec/Sub _____

Reg # 2SMD20 Reg Type PC Reg State MA

Veh Year 2007 Veh Make FORD Veh Config. 1 (21)

8 4 — Owner FURTADO, MATTHEW ALLEN (Last First Middle)

Address 71 WINSLOW GRAY RD

City W YARMOUTH State MA Zip 02673-3659

Vehicle Action Prior to Crash 1 (22)

Event Sequence 1 (23) 23 23 23

Most Harmful Event 1 (24)

Driver Contributing Code 99 (25) 25

Driver Distracted by 99 (26)

Damaged Area Code: 8 (27) 27 27

Test Status: (28)

Type of Test: (29)

BAC Test Result: (30)

Susp. Alcohol: (31) Susp. Drug: (32)

Towed from scene? 2 (33)

1 14

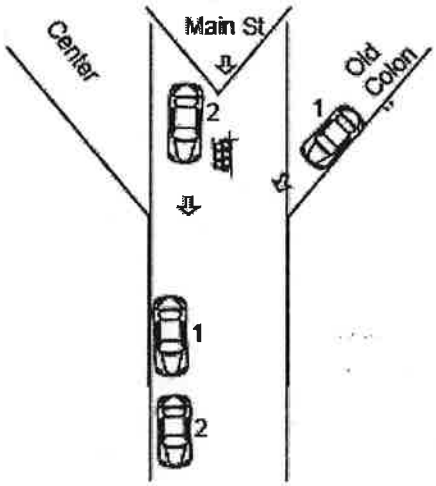
Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	[redacted]	[redacted]	1	1	4	0	0	5	1	

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

Indicate North by Arrow

Crash Narrative:

Operator 1 stated that he turned off of Old Colony onto Main St. Op-1 said that v-2 was traveling straight on Main St from the lights at Main and Center. Op-1 said that when v-2 came through the lights he started weaving in and out of his lane to pass vehicles. Op-1 said that v-2 struck his vehicle after he put his right blinker on and began changing lanes. Op-1 said that v-2 sped up and clipped him. Op 2 said that he came through the lights and v-2 tried to change lanes and turned into his rear drivers side panel while doing so. Op-1 said that he had a passanger in the car that could confirm his story. I attempted to call the witness but never got a return call back. I advised both operators that I would not be determining fault as I did not see the accident and both operators have different stories that I can not refute.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement
LEMEY BEN	UNKNOWN UNKNOWN MA 00000	[redacted]	

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use 42

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ MC/MX/ICC #: _____

Interstate 43 Cargo Body Type Code 44 GVWR/GCWR 45

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 46

Hazmat Information:

Placard 47 Material 1 digit # 48 Material Name _____ Material 4 digit # _____ Release code 49

PTL. CHRISTOPHER C KELSEY		212	Barnstable Police Department		10/28/2016
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Police Use Only

RMV Document Number

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Latitude / Longitude	
12/05/2016	1928 (24HR)	HYANNIS	1	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

14 Route# ___ Direction ___ Name of Roadway/Street: MAIN ST
At
Route# ___ Direction ___ Name of Intersecting Roadway/Street: CENTER ST
Also at Intersection with
22 Route# ___ Direction ___ Name of Intersecting Roadway/Street: ___

Route# ___ Direction ___ Address # ___ Name of Roadway/Street: ___ (12)
___ Feet [N S E W] of ___ Mile Marker ___ or ___ Exit Number (10)
___ Feet [N S E W] of Route# ___ Intersecting Roadway/Street ___
___ Feet [N S E W] of ___ Landmark (11)

33 Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — Crash Report ID# 16-1124-AC

Vehicle 1

License # S43608461 St MA DOB/Age [redacted] — Reg # 862KG9 Reg Type PC Reg State MA
Sex F Lic. Class D Lic. Restrictions ___ CDL ___ Endorsement — Veh Year 2009 Veh Make HYUNDAI Veh Config. 1
43 Operator MOORE, GERI A (Last / First / Middle) — Owner MOORE, GERI A (Last / First / Middle) (12)
Address 2321 RTE 149 — Address 2321 RTE 149
City WEST BARNSTABLE State MA Zip 02668 — City WEST BARNSTABLE State MA Zip 02668
Insurance Company ___ — Vehicle Action Prior to Crash 1
51 Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2 — Event Sequence 25 35 — Damaged Area Code: 2 8 — Test Status: 3
Citation # (If Issued) [redacted] — Most Harmful Event 25 — Type of Test: 2
62 Viol. 1: Ch/Sec/Sub [redacted] Viol. 2: Ch/Sec/Sub [redacted] — Driver Contributing Code 97 25 — BAC Test Result: 6
Viol. 3: Ch/Sec/Sub [redacted] Viol. 4: Ch/Sec/Sub ___ — Driver Distracted by 5 — Susp. Alcohol: 1 Susp. Drug: 2 — Towed from scene? 1

Please fill out for operator and all occupants involved (25) (13)

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	See Above	X	X	1	1	4	0	0	5	1	

72 Please Select One of the Following: ☐ Vehicle 2 ___ #Occupants ☐ Non-Motorist A Type 15 Action 16 Location 17 Condition 18 ☐ Hit/Run ☐ Moped

Vehicle 2

License # ___ St ___ DOB/Age ___ — Reg # ___ Reg Type ___ Reg State ___
Sex ___ Lic. Class ___ Lic. Restrictions ___ CDL ___ Endorsement — Veh Year ___ Veh Make ___ Veh Config. ___ (14)
84 Operator ___ (Last / First / Middle) — Owner ___ (Last / First / Middle)
Address ___ — Address ___
City ___ State ___ Zip ___ — City ___ State ___ Zip ___
Insurance Company ___ — Vehicle Action Prior to Crash ___
92 Vehicle Travel Direction: N S E W — Responding to Emergency? ___ — Event Sequence ___ — Damaged Area Code: ___
Citation # (If Issued) ___ — Most Harmful Event ___ — Test Status: ___ — Type of Test: ___ — BAC Test Result: ___
Viol. 1: Ch/Sec/Sub ___ Viol. 2: Ch/Sec/Sub ___ — Driver Contributing Code ___ — Susp. Alcohol: ___ Susp. Drug: ___
Viol. 3: Ch/Sec/Sub ___ Viol. 4: Ch/Sec/Sub ___ — Driver Distracted by ___ — Towed from scene? ___

Please fill out for operator/non-motorist and all occupants involved

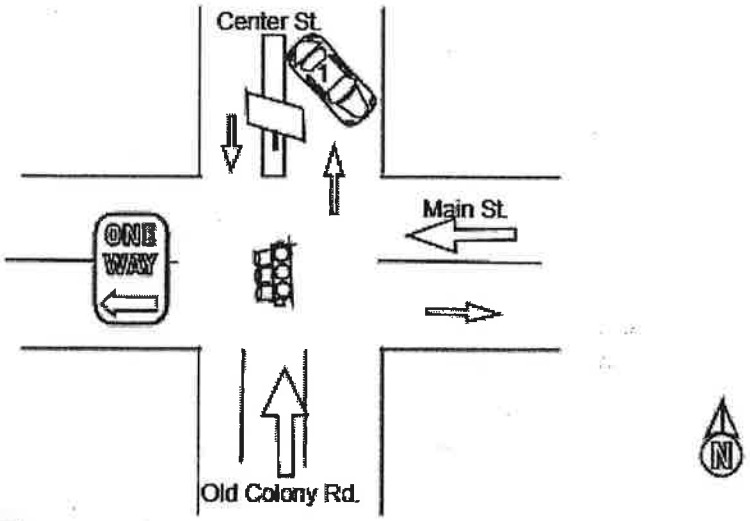
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	X	X	1							

Form No. 10364 CRA-65 1/13

→ = Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

Indicate North by Arrow

Crash Narrative:

Operator of motor vehicle 1 failed to judge the distance to the median. Operator of motor vehicle 1 crossed Main st and struck median on Center St., knocking down a speed limit sign and causing damage to driver side front and passenger side front of vehicle. [redacted] No injuries were reported on scene and vehicle was towed by Capeway Towing.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use 42

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ MC/MX/ICC #: _____

Interstate 43 Cargo Body Type Code 44 GVWR/GCWR 45

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length 46

Hazmat Information:

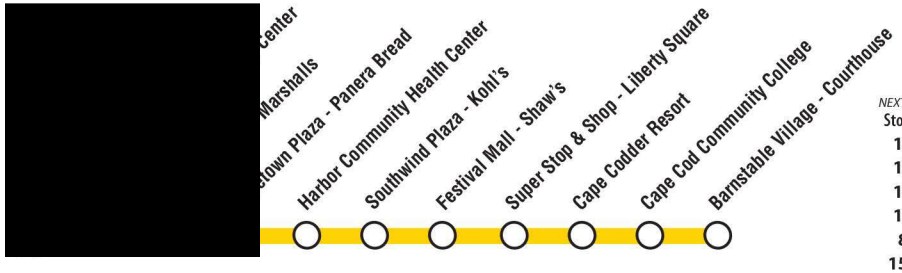
Placard 47 Material 1 digit # 48 Material Name _____ Material 4 digit # _____ Release code 49

PTL. JACOB M WHITE		305	Barnstable Police Department		12/05/2016
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Barnstable Villager

September 5, 2017 through January 26, 2018 **MONDAY THROUGH SATURDAY**



Barnstable Villager On Request:
To schedule a pick-up from one of the following On Request locations, please call Cape Cod RTA Customer Service at 800.352.7155.

- Steamship Authority
- YMCA
- BJ's Wholesale Club
- Wilkens Medical Center
- Barnstable Park and Ride
- Senior Center
- Barnstable Airport
- Barnstable Harbor
- Cape Organization for the Rights of the Disabled



LEGEND

*	No service at these times on Saturdays.
⌂	Bus Shelter
◎	Connections

- The Barnstable Villager connects with the Sealine, H2O, Sandwich Line and the Hyannis Loop at the Hyannis Transportation Center.
- The Barnstable Villager runs 6 days a week.

Barnstable Village to Hyannis

NEXTbus Stop #		AM				PM					
14	Barnstable Village - Courthouse ⌂	8:30*	9:30	10:30	11:30	**12:30**	**1:30**	**2:30**	**3:30**	**4:30**	**5:30**
13	Cape Cod Community College ⌂	8:38*	9:38	10:38	11:38	**12:38**	**1:38**	**2:38**	**3:38**	**4:38**	**5:38**
12	Cape Codder Resort ⌂	8:41*	9:41	10:41	11:41	**12:41**	**1:41**	**2:41**	**3:41**	**4:41**	**5:41**
10	Super Stop & Shop - Liberty Square	8:43*	9:43	10:43	11:43	**12:43**	**1:43**	**2:43**	**3:43**	**4:43**	**5:43**
8	Festival Mall - Shaw's	8:47*	9:47	10:47	11:47	**12:47**	**1:47**	**2:47**	**3:47**	**4:47**	**5:47**
156	Harbor Community Health Center	8:49*	9:49	10:49	11:49	**12:49**	**1:49**	**2:49**	**3:49**	**4:49**	**5:49**
7	Southwind Plaza - Kohl's	8:51*	9:51	10:51	11:51	**12:51**	**1:51**	**2:51**	**3:51**	**4:51**	**5:51**
5	Cape Cod Mall - Marshalls	8:56*	9:56	10:56	11:56	**12:56**	**1:56**	**2:56**	**3:56**	**4:56**	**5:56**
6	Capetown Plaza - Panera Bread	8:59*	9:59	10:59	11:59	**12:59**	**1:59**	**2:59**	**3:59**	**4:59**	**5:59**
4	Hyannis Youth & Community Center ⌂	9:08*	10:08	11:08	**12:08**	**1:08**	**2:08**	**3:08**	**4:08**	**5:08**	**6:08**
1	Hyannis Transportation Center	9:15*	10:15	11:15	**12:15**	**1:15**	**2:15**	**3:15**	**4:15**	**5:15**	**6:15**

Hyannis to Barnstable Village

NEXTbus Stop #		AM						PM					
1	Hyannis Transportation Center	7:30*	8:30*	8:30	9:30	10:30	11:30	**12:30**	**1:30**	**2:30**	**3:30**	**4:30**	**5:30**
4	Hyannis Youth & Community Center ⌂	7:37*	--	8:37	9:37	10:37	11:37	**12:37**	**1:37**	**2:37**	**3:37**	**4:37**	**5:37**
5	Cape Cod Mall - Marshalls	7:46*	--	8:46	9:46	10:46	11:46	**12:46**	**1:46**	**2:46**	**3:46**	**4:46**	**5:46**
6	Capetown Plaza - Panera Bread	7:48*	--	8:48	9:48	10:48	11:48	**12:48**	**1:48**	**2:48**	**3:48**	**4:48**	**5:48**
156	Harbor Community Health Center	7:50*	--	8:50	9:50	10:50	11:50	**12:50**	**1:50**	**2:50**	**3:50**	**4:50**	**5:50**
7	Southwind Plaza - Kohl's	7:52*	--	8:52	9:52	10:52	11:52	**12:52**	**1:52**	**2:52**	**3:52**	**4:52**	**5:52**
8	Festival Mall - Shaw's	7:57*	--	8:57	9:57	10:57	11:57	**12:57**	**1:57**	**2:57**	**3:57**	**4:57**	**5:57**
10	Super Stop & Shop - Liberty Square	8:01*	--	9:01	10:01	11:01	**12:01**	**1:01**	**2:01**	**3:01**	**4:01**	**5:01**	**6:01**
13	Cape Cod Community College ⌂	8:07*	8:45*	9:07	10:07	11:07	**12:07**	**1:07**	**2:07**	**3:07**	**4:07**	**5:07**	**REQ**
14	Barnstable Village - Courthouse ⌂	8:15*	--	9:15	10:15	11:15	**12:15**	**1:15**	**2:15**	**3:15**	**4:15**	**5:15**	**REQ**

The Bourne Run

September 5, 2017 through January 26, 2018 **MONDAY THROUGH FRIDAY**



- The Bourne Run is the regularly scheduled service from Wareham through Bourne into Mashpee.
- The Bourne Run operates 5 days a week.
- The Bourne Run connects with the Sealine at Mashpee Commons.
- The Bourne Run connects with GATRA and the OWL (Onset/Wareham Link) at Cranberry Plaza.

Bourne Run On Request:

To schedule a pick-up from one of the following On Request locations, please call Cape Cod RTA Customer Service at 800.352.7155.

- Roland Phinney Place
- Cape Cod Senior Residences



LEGEND

-- No service at this time.

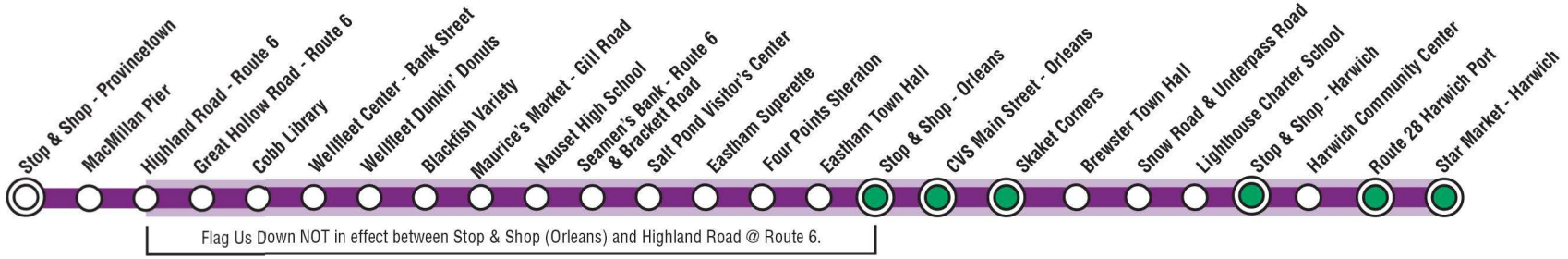
* No service at this time during school vacations.

◎ Connections

NEXTbus Stop #	Wareham to Mashpee	AM			PM				
150	Cranberry Plaza	--	8:00	9:30	11:00	12:30	2:00	3:30	4:50
142	Buzzards Bay Train Station / MMA		8:07	9:37	11:07	12:37	2:07	3:37	4:57
149	Bourne COA	--	8:09	9:39	11:09	12:39	2:09	3:39	4:59
147	Bourne Oaks	--	8:15	9:45	11:15	12:45	2:15	3:45	5:05
146	Continental	--	8:20	9:50	11:20	12:50	2:20	3:50	5:10
112	Cape Side Conv / Bourne P&R	6:40*	8:28	9:58	11:28	12:58	2:28	3:58	5:18
113	County Rd @ Beach St	6:45*	8:35	10:05	11:35	1:05	2:35	4:05	5:25
139	Harmony Hill	6:51*	8:41	10:11	11:41	1:11	2:41	4:11	5:31
116	Cataumet Motel	7:06*	8:56	10:26	11:56	1:26	2:56	4:26	5:46
117	Rt 151 & Rt 28A	7:09*	8:59	10:29	11:59	1:29	2:59	4:29	5:49
119	Sandwich Rd.	7:15*	9:05	10:35	12:05	1:35	3:05	4:35	5:55
120	Algonquin Ave.	7:18*	9:09	10:39	12:09	1:39	3:09	4:39	5:59
168	Mashpee Village	7:20*	9:11	10:41	12:11	1:41	3:11	4:41	6:01
22	Stop & Shop - Mashpee Commons	7:22*	9:15	10:45	12:15	1:45	3:15	4:45	6:05

NEXTbus Stop #	Mashpee to Wareham	AM			PM					
22	Stop & Shop - Mashpee Commons	8:00	9:30	11:00	12:30	2:00	3:30	4:20*	5:00	6:30
168	Mashpee Village	8:02	9:32	11:02	12:32	2:02	3:32	4:22*	5:02	6:32
120	Algonquin Ave.	8:04	9:34	11:04	12:34	2:04	3:34	4:24*	5:04	6:34
119	Sandwich Rd.	8:07	9:37	11:07	12:37	2:07	3:37	4:27*	5:07	6:37
117	Rt 151 & Rt 28A	8:13	9:43	11:13	12:43	2:13	3:43	4:33*	5:13	6:43
116	Cataumet Motel	8:16	9:46	11:16	12:46	2:16	3:46	4:36*	5:16	6:46
139	Harmony Hill	8:31	10:01	11:31	1:01	2:31	4:01	4:51*	5:31	7:01
113	County Rd @ Beach St	8:36	10:06	11:36	1:06	2:36	4:06	4:56*	5:36	7:06
112	Cape Side Conv / Bourne P&R	8:42	10:12	11:42	1:12	2:42	4:12	5:02*	5:42	7:12
146	Continental	8:47	10:17	11:47	1:17	2:47	4:17	--	5:47	7:17
147	Bourne Oaks	8:51	10:21	11:51	1:21	2:51	4:21	--	5:51	7:21
149	Bourne COA	8:56	10:26	11:56	1:26	2:56	4:26	--	5:56	7:26
142	Buzzards Bay Train Station / MMA	8:57	10:27	11:57	1:27	2:57	4:27		5:57	7:27
150	Cranberry Plaza	9:10	10:40	12:10	1:40	3:10	4:40	--	6:10	7:40

FLEX | September 5, 2017 through January 26, 2018 | MONDAY THROUGH SATURDAY



Harwich to Provincetown

NEXTbus Stop #		AM			PM			
45	**Star Market - Harwich**	5:00	7:30	9:30	11:30	**12:30**	**2:30**	**5:30**
46	Route 28 Harwich Port	5:02	7:33	9:33	11:33	**12:33**	**2:33**	**5:33**
56	Harwich Community Center	5:05	7:38	9:38	11:38	**12:38**	**2:38**	**5:38**
57	**Stop & Shop - Harwich**	5:15	7:50	9:50	11:50	**12:50**	**2:50**	**5:50**
58	Lighthouse Charter School	--	--	--	--	**--**	**2:55***	**--**
59	Snow Rd/Underpass Rd	--	7:58	9:58	11:58	**12:58**	**2:58**	**5:58**
60	**Brewster Town Hall**	5:27	8:02	10:02	**12:02**	**1:02**	**3:02**	**6:02**
53	Skaket Corners	--	8:13	10:13	**12:13**	**1:13**	**3:13**	**6:13**
51	Land Ho	5.35	8:17	10:17	**12:17**	**1:17**	**3:17**	**6:17**
55	**Stop & Shop - Orleans**	5:45	8:25	10:25	**12:25**	**1:25**	**3:25**	**6:25**
62	**Eastham Town Hall**	5:48	8:30	10:30	**12:30**	**1:30**	**3:30**	**6:30**
64	**Salt Pond Visitors Center**	5:55	8:40	10:40	**12:40**	**1:40**	**3:40**	**6:40**
65	**Four Points Sheraton**	5:59	8:44	10:44	**12:44**	**1:44**	**3:44**	**6:44**
143	Bracket Road @ Route 6	6:00	8:45	10:45	**12:45**	**1:45**	**3:45**	**6:45**
67	Nauset High School	--	REQ	REQ	**REQ**	**REQ**	**REQ**	**REQ**
162	Maurice's Market	6:03	8:48	10:48	**12:48**	**1:48**	**3:48**	**6:48**
77	Marconi Beach	6:06	8:51	10:51	**12:51**	**1:51**	**3:51**	**6:51**
68	**Blackfish Variety**	6:10	8:55	10:55	**12:55**	**1:55**	**3:55**	**6:55**
154	Wellfleet Dunkin' Donuts	--	8:58	10:58	**12:58**	**1:58**	**3:58**	**6:58**
70	Wellfleet Center	6:15	9:00	11:00	**1:00**	**2:00**	**4:00**	**7:00**
138	Cobb Library - Truro	--	9:11	11:11	**1:11**	**2:11**	**4:11**	**7:11**
72	Whitmanville Road @ Route 6	6:25	9:14	11:14	**1:14**	**2:14**	**4:14**	**7:14**
74	**Highland Road @ Route 6**	6:30	9:20	11:20	**1:20**	**2:20**	**4:20**	**7:20**
75	MacMillan Pier	6:40	9:35	11:35	**1:35**	**2:35**	**4:35**	**7:35**
76	**Stop & Shop - Provincetown**	6:45	9:45	11:45	**1:45**	**2:45**	**4:45**	**7:45**

Provincetown to Harwich

NEXTbus Stop #		AM		PM				
76	**Stop & Shop - Provincetown**	6:50	10:00	**12:00**	**2:00**	**3:00**	**6:00**	**8:00**
75	**MacMillan Pier**	6:55	10:05	**12:05**	**2:05**	**3:05**	**6:05**	**8:05**
74	**Highland Road @ Route 6**	7:05	10:18	**12:18**	**2:18**	**3:18**	**6:18**	**8:18**
73	Great Hollow Road @ Route 6	7:08	10:21	**12:21**	**2:21**	**3:21**	**6:21**	**8:21**
138	Cobb Library - Truro	--	10:27	**12:27**	**2:27**	**3:27**	**6:27**	**8:27**
70	Wellfleet Center	7:20	10:33	**12:33**	**2:33**	**3:33**	**6:33**	**8:33**
154	**Wellfleet Dunkin' Donuts**	7:25	10:40	**12:40**	**2:40**	**3:40**	**6:40**	**8:40**
68	Blackfish Variety	7:28	10:43	**12:43**	**2:43**	**3:43**	**6:43**	**8:43**
77	Marconi Beach	7:29	10:46	**12:46**	**2:46**	**3:46**	**6:46**	**8:46**
163	Gill Rd. (Wellfleet Cinema)	7:32	10:49	**12:49**	**2:49**	**3:49**	**6:49**	**8:49**
67	Nauset High School	REQ	REQ	**REQ**	**2:50***	**3:50***	**6:50***	**--**
66	**Seamans Bank @ Route 6**	7:35	10:51	**12:51**	**2:51**	**3:51**	**6:51**	**8:51**
64	**Salt Pond Visitors Center**	--	10:55	**12:55**	**2:55**	**3:55**	**6:55**	**8:55**
62	Eastham Superette	7:38	11:00	**1:00**	**3:00**	**4:00**	**7:00**	**9:00**
55	**Stop & Shop - Orleans**	7:45	11:10	**1:10**	**3:10**	**4:10**	**7:10**	**9:10**
52	CVS Main Street - Orleans	7:48	11:13	**1:13**	**3:13**	**4:13**	**7:13**	**--**
53	Skaket Corners	7:50	11:20	**1:20**	**3:20**	**4:20**	**7:20**	**--**
60	**Brewster Town Hall**	7:55	11:26	**1:26**	**3:26**	**4:26**	**7:26**	**--**
59	Snow Rd/Underpass Rd	--	11:30	**1:30**	**3:30**	**4:30**	**7:30**	**--**
58	Lighthouse Charter School	8:25*	--	**--**	**--**	**--**	**--**	**--**
57	**Stop & Shop - Harwich**	8:30	11:50	**1:50**	**3:50**	**4:50**	**7:50**	**--**
56	Harwich Community Center	8:35	11:55	**1:55**	**3:55**	**4:55**	**7:55**	**--**
46	Route 28 Harwich Port	8:40	**12:00**	**2:00**	**4:00**	**5:00**	**8:00**	**--**
45	**Star Market - Harwich**	8:50	**12:15**	**2:15**	**4:15**	**5:15**	**8:15**	**--**

H2O Hyannis to Orleans

September 5, 2017 through January 26, 2018 **MONDAY THROUGH SATURDAY**



- The H2O is the regularly scheduled service along Route 28 between Hyannis, Yarmouth, Dennis, Harwich, Chatham and Orleans.
- The H2O connects with the FLEX bus in Harwich Port, Harwich and Orleans.
- The H2O connects at the Hyannis Transportation Center with the Sandwich Line, Sealine, Barnstable Villager and the Hyannis Loop.
- The H2O runs 6 days a week

H2O On Request:
To schedule a pick-up from one of the following On Request locations, please call Cape Cod RTA Customer Service at 800.352.7155.

- Orleans District Court - Orleans
- Cape Cod Hospital

LEGEND

*	No service at these times on Saturdays.
- -	No service at this time.
⌂	Bus Shelter
◎	Connections
◉	FLEX Connection

NEXTbus Stop #	Hyannis to Orleans
1	Hyannis Transportation Center
32	Saint Francis/Saint John Paul
33	Sturgis Charter School - Main Street
35	Sturgis Charter School - West Main Street
37	Cape Cod Hospital
38	West Yarmouth - Higgins Crowell Road
40	Stop & Shop - South Yarmouth
41	Shaw's - South Yarmouth
153	S. Yarmouth Town Hall - Lawton Bus Shelter ⌂
42	South Yarmouth - Main Street
151	Dennis Elder Services
43	South Dennis - Patriot Square
151	Dennis Crossing ⌂
44	Dennis Port -Municipal Parking Lot A
◉ 45	Star Market - Harwich
◉ 46	Harwich Port - Route 28
47	South Chatham - Morton Road
48	Chatham - Anchorage/Crowell Road
49	Chatham - Veteran's Field Road
167	Broad Reach Healthcare
◉ 57	Stop & Shop - East Harwich
164	Cape Cod National Golf Club
50	South Orleans - Route 39
◉ 52	Orleans - Main Street CVS ⌂
◉ 53	Skaket Corners
54	Old Colony Village
◉ 55	Stop & Shop - Orleans ⌂

AM						PM							
6:30*	7:30*	8:30*	9:30	10:30	11:30	12:30	1:30	2:30	--	3:30	4:30	5:30	6:30
--	--	--	--	--	--	--	--	--	3:20*	--	--	--	--
--	--	--	--	--	--	--	--	--	3:25*	--	--	--	--
--	--	--	--	--	--	--	--	--	3:30*	--	--	--	--
6:36*	7:36*	8:36*	9:36	10:36	11:36	12:36	1:36	2:36	--	3:36	4:36	5:36	6:36
6:40*	7:40*	8:40*	9:40	10:40	11:40	12:40	1:40	2:40	3:40*	3:40	4:40	5:40	6:40
6:52*	7:52*	8:52*	9:52	10:52	11:52	12:52	1:52	2:52	3:45*	3:52	4:52	5:52	6:52
6:56*	7:56*	8:56*	9:56	10:56	11:56	12:56	1:56	2:56	3:48*	3:56	4:56	5:56	6:56
6:57*	7:57*	8:57*	9:57	10:57	11:57	12:57	1:57	2:57	3:50*	3:57	4:57	5:57	6:57
6:59*	7:59*	8:59*	9:59	10:59	11:59	12:59	1:59	2:59	3:52*	3:59	4:59	5:59	6:59
7:01*	8:01*	9:01*	10:01	11:01	12:01	1:01	2:01	3:01	3:54*	4:01	5:01	6:01	7:01
7:09*	8:09*	9:09*	10:09	11:09	12:09	1:09	2:09	3:09	4:00*	4:09	5:09	6:09	7:09
7:11*	8:11*	9:11*	10:11	11:11	12:11	1:11	2:11	3:11	--	4:11	5:11	6:11	7:11
7:13*	8:13*	9:13*	10:13	11:13	12:13	1:13	2:13	3:13	--	4:13	5:13	6:13	7:13
7:19*	8:19*	9:19*	10:19	11:19	12:19	1:19	2:19	3:19	--	4:19	5:19	6:19	7:19
7:21*	8:21*	9:21*	10:21	11:21	12:21	1:21	2:21	3:21	--	4:21	5:21	6:21	7:21
7:27*	8:27*	9:27*	10:27	11:27	12:27	1:27	2:27	3:27	--	4:27	5:27	6:27	7:27
7:37*	8:37*	9:37*	10:37	11:37	12:37	1:37	2:37	3:37	--	4:37	5:37	6:37	7:37
7:40*	8:40*	9:40*	10:40	11:40	12:40	1:40	2:40	3:40	--	4:40	5:40	6:40	7:40
7:42*	8;42*	9:42*	10:42	11:42	12:42	1:42	2:42	3:42	--	4:42	5:42	6:42	7:42
7:55*	8:55*	9:55*	10:55	11:55	12:55	1:55	2:55	3:55	--	4:55	5:55	6:55	7:55
7:58*	8:58*	9:58*	10:58	11:58	12:58	1:58	2:58	3:58	--	4:58	5:58	6:58	7:58
8:05*	9:05*	10:05*	11:05	12:05	1:05	2:05	3:05	4:05	--	5:05	6:05	7:05	8:05
8:10*	9:10*	10:10*	11:10	12:10	1:10	2:10	3:10	4:10	--	5:10	6:10	7:10	8:10
8:15*	9:15*	10:15	11:15	12:15	1:15	2:15	3:15	4:15	--	5:15	6:15	7:15	8:15
8:17*	9:17*	10:17*	11:17	12:17	1:17	2:17	3:17	4:17	--	5:17	6:17	7:17	8:17
8:20*	9:20*	10:20*	11:20	12:20	1:20	2:20	3:20	4:20	--	5:20	6:20	7:20	8:20

NEXTbus Stop #	Orleans to Hyannis	AM						PM						
◉ 55	Stop & Shop - Orleans ⌂	--	6:30*	7:30*	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	7:00
54	Old Colony Village	--	6:33*	7:33*	8:33	9:33	10:33	11:33	12:33	1:33	2:33	3:33	4:33	5:33	7:03
◉ 53	Skaket Corners	--	6:36*	7:36*	8:36	9:36	10:36	11:36	12:36	1:36	2:36	3:36	4:36	5:36	7:06
◉ 52	Orleans - Mobil Main Street	5:45*	6:38*	7:38*	8:38	9:38	10:38	11:38	12:38	1:38	2:38	3:38	4:38	5:38	7:08
50	South Orleans - Route 39	5:52*	6:45*	7:45*	8:45	9:45	10:45	11:45	12:45	1:45	2:45	3:45	4:45	5:45	7:15
164	Cape Cod National Golf Club	5:54*	6:47*	7:47*	8:47	9:47	10:47	11:47	12:47	1:47	2:47	3:47	4:47	5:47	7:17
◉ 57	Stop & Shop - East Harwich	6:00*	6:55*	7:55*	8:55	9:55	10:55	11:55	12:55	1:55	2:55	3:55	4:55	5:55	7:25
167	Broad Reach Healthcare	6:03*	6:58*	7:58*	8:58	9:58	10:58	11:58	12:58	1:58	2:58	3:58	4:58	5:58	7:28
49	Chatham - Veteran's Field Road	6:07*	7:04*	8:04*	9:04	10:04	11:04	12:04	1:04	2:04	3:04	4:04	5:04	6:04	7:34
48	Chatham - Anchorage/Crowell Road	6:12*	--	8:09*	9:09	10:09	11:09	12:09	1:09	2:09	3:09	4:09	5:09	6:09	7:38
47	South Chatham - Morton Road	6:21*	7:12*	8:16*	9:16	10:16	11:16	12:16	1:16	2:16	3:16	4:16	5:16	6:16	7:45
◉ 46	Harwich Port - Route 28	6:27*	7:16*	8:19*	9:19	10:19	11:19	12:19	1:19	2:19	3:19	4:19	5:19	6:19	7:49
◉ 45	Star Market - Harwich	--	--	8:22*	9:22	10:22	11:22	12:22	1:22	2:22	3:22	4:22	5:22	6:22	7:52
44	Dennisport - Municipal Parking Lot A	6:34*	7:23*	8:27*	9:27	10:27	11:27	12:27	1:27	2:27	3:27	4:27	5:27	6:27	7:57
151	Dennis Elder Services	--	7:26*	8:30*	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	6:30	8:00
43	South Dennis - Patriot Square	--	7:33*	8:37*	9:37	10:37	11:37	12:37	1:37	2:37	3:37	4:37	5:37	6:37	8:07
151	Dennis Crossing ⌂	--	7:35*	8:39*	9:39	10:39	11:39	12:39	1:39	2:39	3:39	4:39	5:39	6:39	8:09
42	South Yarmouth - Main Street	6:44*	7:39*	8:43*	9:43	10:43	11:43	12:43	1:43	2:43	3:43	4:43	5:43	6:43	8:13
153	S. Yarmouth Town Hall - Lawton Bus Shelter ⌂	6:47*	7:42*	8:46*	9:46	10:46	11:46	12:46	1:46	2:46	3:46	4:46	5:46	6:46	8:16
41	Shaw's - South Yarmouth	--	--	8:47*	9:47	10:47	11:47	12:47	1:47	2:47	3:47	4:47	5:47	6:47	8:17
40	Stop & Shop - South Yarmouth	--	--	8:50*	9:50	10:50	11:50	12:50	1:50	2:50	3:50	4:50	5:50	6:50	8:20
38	West Yarmouth - Higgins Crowell Road	6:50*	7:45*	8:57*	9:57	10:57	11:57	12:57	1:57	2:57	3:57	4:57	5:57	6:57	8:27
32	St. Francis /Saint John Paul	--	7:55*	--	--	--	--	--	--	--	--	--	--	--	--
33	Sturgis Charter School - Main Street	--	8:05*	--	--	--	--	--	--	--	--	--	--	--	--
35	Sturgis Charter School - West Main Street	--	8:10*	--	--	--	--	--	--	--	--	--	--	--	--
1	Hyannis Transportation Center	6:59*	8:15*	9:20*	10:20	11:20	12:20	1:20	2:20	3:20	4:20	5:20	6:20	7:20	8:50

Hyannis Loop

September 5, 2017 through January 26, 2018 **MONDAY THROUGH SATURDAY**



- The Hyannis Loop connects with the Sealine, H2O and the Sandwich Line at the Hyannis Transportation Center.
- Combine the Barnstable Villager with the Hyannis Loop for more frequent service to all Hyannis shopping centers.
- The Hyannis Loop runs 6 days a week.

[redacted]

Hyannis Loop On Request:

To schedule a pick-up from one of the following On Request locations, please call Cape Cod RTA Customer Service at 800.352.7155.

- Steamship Authority
- BJ's Wholesale Club
- Barnstable Airport
- Cape Organization for the Rights of the Disabled

LEGEND

*	No service at these times on Saturdays.
@	Street-side pickup
REQ	On Request
◎	Connections

Hyannis Loop West

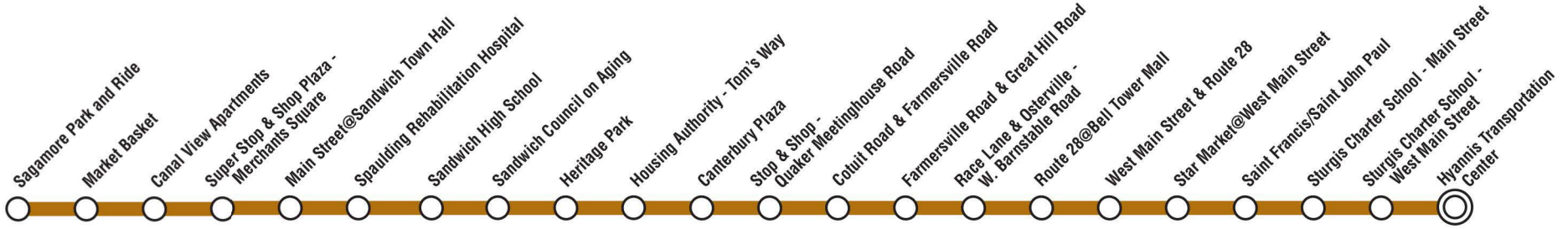
NEXTbus Stop #		AM					PM				
1	Hyannis Transportation Center	7:00*	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00
161	DTA @ North Street	7:05*	8:05	9:05	10:05	11:05	12:05	1:05	2:05	3:05	4:05
159	Career Opportunities @ North Street	7:07*	8:07	9:07	10:07	11:07	12:07	1:07	2:07	3:07	4:07
160	Barnstable Senior Center	REQ*	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ
10	Super Stop & Shop - Liberty Square	7:20*	8:20	9:20	10:20	11:20	12:20	1:20	2:20	3:20	4:20
8	Festival Mall - Shaw's	7:23*	8:23	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23
157	Trinity Christian Academy	7:30*	--	--	--	--	--	--	2:30*	3:30*	--
158	Village Green Apartments ⌂	7:33*	8:33	9:33	10:33	11:33	12:33	1:33	2:33	3:33	4:33
7	Southwind Plaza - Kohl's	7:36*	8:36	9:36	10:36	11:36	12:36	1:36	2:36	3:36	4:36
5	Cape Cod Mall - Marshalls	7:40*	8:40	9:40	10:40	11:40	12:40	1:40	2:40	3:40	4:40
1	Hyannis Transportation Center	7:50*	8:50	9:50	10:50	11:50	12:50	1:50	2:50	3:50	4:50

Hyannis Loop East

NEXTbus Stop #		AM				PM					
1	Hyannis Transportation Center	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00
5	Cape Cod Mall - Marshalls	8:07	9:07	10:07	11:07	12:07	1:07	2:07	3:07	4:07	5:07
7	Southwind Plaza - Kohl's	8:10	9:10	10:10	11:10	12:10	1:10	2:10	3:10	4:10	5:10
157	Trinity Christian Academy	8:19*	--	--	--	--	--	--	3:19*	--	--
158	Village Green Apartments ⌂	8:20	9:20	10:20	11:20	12:20	1:20	2:20	3:20	4:20	5:20
8	Festival Mall - Shaw's	8:25	9:25	10:25	11:25	12:25	1:25	2:25	3:25	4:25	5:25
10	Super Stop & Shop - Liberty Square	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30
160	Barnstable Senior Center	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ
159	Career Opportunities @ North Street	8:40	9:40	10:40	11:40	12:40	1:40	2:40	3:40	4:40	5:40
161	DTA @ North Street	8:41	9:41	10:41	11:41	12:41	1:41	2:41	3:41	4:41	5:41
1	Hyannis Transportation Center	8:50	9:50	10:50	11:50	12:50	1:50	2:50	3:50	4:50	5:50

The Sandwich Line

September 5, 2017 through January 26, 2018 **MONDAY THROUGH FRIDAY**



- The Sandwich Line is the regularly scheduled service from Sagamore to Hyannis through Sandwich.
- The Sandwich Line runs 5 days a week.
- The Sandwich Line connects with the Sealine, H2O, Barnstable Villager and the Hyannis Loop at the Hyannis Transportation Center.
- The Sandwich Line has transfer opportunities to Plymouth & Brockton and Peter Pan Bus Lines.

[redacted]

LEGEND

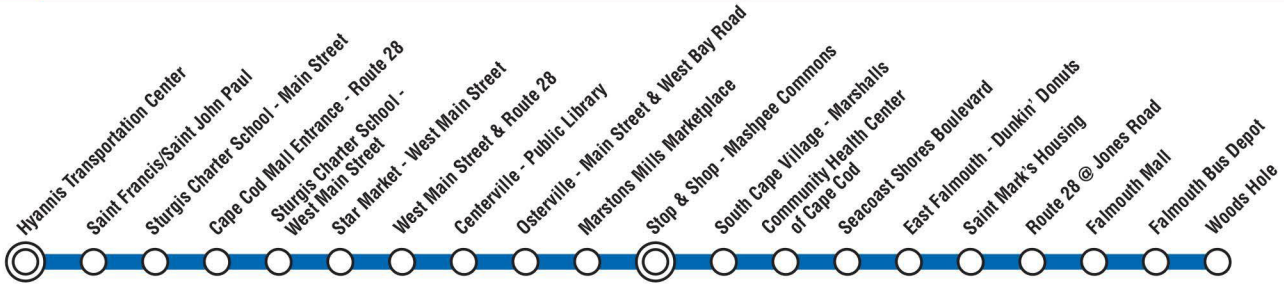
--	No service at this time.
*	No service at this time during school vacations.
@	Street-side pickup
⌂	Bus Shelter
◎	Connections

NEXTbus Stop #	Sandwich to Hyannis	AM			PM		
100	Sagamore Park and Ride	--	7:00	10:00	2:00	4:00	5:00
123	Market Basket	--	--	10:04	2:04	4:04	5:04
101	Canal View Apartments	--	7:07	10:07	2:07	4:07	5:07
103	Super Stop & Shop Plaza - Merchants Square	--	--	10:11	2:11	4:11	5:11
104	Main Street @ Sandwich Town Hall	--	7:14	10:16	2:16	4:16	5:16
105	Spaulding Rehabilitation Hospital	--	--	10:23	2:23	4:23	5:23
166	Sandwich High School	--	--	--	--	4:26	5:26
106	Sandwich Council on Aging	--	7:21	10:29	2:29	4:29	5:29
107	Heritage Park	--	--	10:37	2:37	4:37	5:37
108	Housing Authority - Tom's Way	--	--	10:39	2:39	4:39	5:39
109	Canterbury Plaza ⌂	--	--	10:41	2:41	4:41	5:41
110	Stop & Shop - Quaker Meetinghouse Road	7:20*	7:28	10:44	2:44	4:44	5:44
128	Cotuit Road & Farmersville Road	7:22*	7:30	10:46	2:46	4:46	5:46
131	Farmersville Road & Great Hill Road	7:26*	7:34	10:48	2:48	4:48	5:48
132	Race Lane & Osterville/W. Barnstable Road	7:34*	7:42	10:54	2:54	4:54	5:54
133	Route 28 @ Bell Tower Mall	7:40*	7:48	11:00	3:00	5:00	6:00
18	West Main Street & Route 28	7:42*	7:50	11:02	3:02	5:02	6:02
134	Star Market - West Main Street	7:44*	7:52	11:04	3:04	5:04	6:04
32	Saint Francis/Saint John Paul	7:47*	7:55*	--	--	--	--
33	Sturgis Charter School - Main Street	7:52*	8:00*	--	--	--	--
35	Sturgis Charter School - West Main Street	7:57*	8:05*	--	--	--	--
1	Hyannis Transportation Center	8:02*	8:10	11:15	3:15	5:15	6:15

NEXTbus Stop #	Hyannis to Sandwich	AM	PM					
1	Hyannis Transportation Center	8:30	12:30	2:30	3:30	--	--	6:30
32	Saint Francis/Saint John Paul	--	--	--	--	3:20*	--	--
33	Sturgis Charter School - Main Street	--	--	--	3:37*	--	--	--
35	Sturgis Charter School - West Main Street	--	--	--	--	3:25*	--	--
134	Star Market - West Main Street	8:43	12:43	2:43	3:43	3:28*	--	6:43
18	West Main Street & Route 28	8:45	12:45	2:45	3:45	3:30*	--	6:45
133	Route 28 @ Bell Tower Mall	8:47	12:47	2:47	3:47	3:32*	--	6:47
132	Race Lane & Osterville/W. Barnstable Road	8:49	12:49	2:49	3:49	3:34*	--	6:49
131	Farmersville Road & Great Hill Road	8:55	12:55	2:55	3:55	3:40*	--	6:55
128	Cotuit Road & Farmersville Road	8:59	12:59	2:59	3:59	3:44*	--	6:59
110	Stop & Shop - Quaker Meetinghouse Road	9:01	1:01	3:01	4:01	3:46*	--	7:01
107	Heritage Park	9:03	1:03	3:03	4:03	--	--	7:03
108	Housing Authority - Tom's Way	9:05	1:05	3:05	4:05	--	--	7:05
109	Canterbury Plaza ⌂	9:07	1:07	3:07	4:07	--	--	7:07
106	Sandwich Council on Aging	9:13	1:13	3:13	4:13	3:50*	--	7:13
166	Sandwich High School	--	--	3:16	--	--	5:00*	--
105	Spaulding Rehabilitation Hospital	9:19	1:19	3:19	4:19	3:56*	5:03*	7:19
104	Main Street @ Sandwich Town Hall	9:26	1:26	3:26	4:26	4:03*	5:10*	7:26
103	Super Stop & Shop Plaza - Merchants Square	9:32	1:32	3:32	4:32	4:09*	5:16*	7:32
123	Market Basket	9:40	1:40	3:40	4:40	4:17*	5:22*	7:40
101	Canal View Apartments	9:44	1:44	3:44	4:44	REQ	REQ	7:44
100	Sagamore Park and Ride	9:50	1:50	3:50	4:50	REQ	REQ	7:50

Sealine Hyannis to Falmouth/Woods Hole

September 5, 2017 through January 26, 2018



- The Sealine services Route 28 from the Hyannis Transportation Center to Woods Hole.
- The Sealine connects with the Bourne Run at Mashpee Commons. It also connects with the Barnstable Villager, H2O, Sandwich Line and the Hyannis Loop at the Hyannis Transportation Center.
- The Sealine runs 6 days a week.



LEGEND

* No service at these times on Saturdays or school vacations

-- No service at this time.

Bus Shelter

Connections

NEXTbus Stop #	Hyannis to Falmouth/Woods Hole	AM							PM								
33	Sturgis Charter School - Main Street	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5:20*	--
1	Hyannis Transportation Center	5:30*	6:30*	7:30	8:30	9:30	10:30	11:30	12:30	1:30	2:30	--	3:30	--	4:30	5:30	6:30
32	Saint Francis/Saint John Paul	--	--	--	--	--	--	--	--	--	--	3:20*	--	--	--	--	--
33	Sturgis Charter School - Main Street	--	--	--	--	--	--	--	--	--	--	3:30*	--	--	--	--	--
17	Cape Cod Mall Entrance - Route 28	5:35*	6:35*	7:35	8:35	9:35	10:35	11:35	12:35	1:35	2:35	--	3:35	--	4:35	5:35	6:35
35	Sturgis Charter School - West Main Street	--	--	--	--	--	--	--	--	--	--	--	--	3:33*	--	--	--
134	Star Market - West Main Street	--	--	--	--	--	--	--	--	--	--	--	--	3:37*	--	--	--
18	West Main Street & Route 28	5:39*	6:39*	7:39	8:39	9:39	10:39	11:39	12:39	1:39	2:39	3:41*	3:39	3:41*	4:39	5:39	6:39
19	Centerville - Public Library	--	--	7:44	8:44	9:44	10:44	11:44	12:44	1:44	2:44	3:46*	3:44	3:46*	4:44	5:44	6:44
20	Osterville - Main Street & West Bay Road	--	--	7:52	8:52	9:52	10:52	11:52	12:52	1:52	2:52	3:53*	3:52	3:53*	4:52	5:52	6:52
21	Marstons Mills Marketplace	5:45*	6:45*	8:03	9:03	10:03	11:03	12:03	1:03	2:03	3:03	4:03*	4:03	4:03*	5:03	6:03	7:03
22	Stop & Shop - Mashpee Commons	5:54*	6:54*	8:12	9:12	10:12	11:12	12:12	1:12	2:12	3:12	4:10*	4:12	4:10*	5:12	6:12	7:12
23	South Cape Village	--	--	8:19	9:19	10:19	11:19	12:19	1:19	2:19	3:19	--	4:19	--	5:19	6:19	7:19
24	Community Health Center of Cape Cod	--	--	8:23	9:23	10:23	11:23	12:23	1:23	2:23	3:23	--	4:23	--	5:23	6:23	--
140	Seacoast Shores Boulevard	6:00*	7:00*	8:29	9:29	10:29	11:29	12:29	1:29	2:29	3:29	--	4:29	--	5:29	6:29	7:29
25	East Falmouth - Dunkin' Donuts	6:02*	7:02*	8:31	9:31	10:31	11:31	12:31	1:31	2:31	3:31	--	4:31	--	5:31	6:31	7:31
155	Saint Mark's Housing	6:05*	7:05*	8:34	9:34	10:34	11:34	12:34	1:34	2:34	3:34	--	4:34	--	5:34	6:34	7:34
28	Route 28 @ Jones Road	6:10*	7:10*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29	Falmouth Mall	--	--	8:41	9:41	10:41	11:41	12:41	1:41	2:41	3:41	--	4:41	--	5:41	6:41	7:41
30	Falmouth Bus Depot	6:16*	7:16*	8:48	9:48	10:48	11:48	12:48	1:48	2:48	3:48	--	4:48	--	5:48	6:48	7:48
31	Woods Hole	6:26*	7:26*	8:59	9:59	10:59	11:59	12:59	1:59	2:59	3:59	--	4:59	--	5:59	6:59	7:59

NEXTbus Stop #	Woods Hole/Falmouth to Hyannis	AM								PM								
31	Woods Hole	--	--	--	--	6:45*	8:30*	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	6:30	7:30	8:10
30	Falmouth Bus Depot	--	--	--	--	6:56*	8:42*	9:42	10:42	11:42	12:42	1:42	2:42	3:42	4:42	5:42	6:42	7:42	8:22
29	Falmouth Mall	--	--	--	7:02*	7:02*	8:49*	9:49	10:49	11:49	12:49	1:49	2:49	3:49	4:49	5:49	6:49	7:49	--
155	Saint Mark's Housing	--	--	--	7:07*	7:07*	8:54*	9:54	10:54	11:54	12:54	1:54	2:54	3:54	4:54	5:54	6:54	7:54	8:30
25	East Falmouth - Dunkin' Donuts	--	--	--	7:11*	7:11*	8:59*	9:59	10:59	11:59	12:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:35
140	Seacoast Shores Boulevard	--	--	--	7:14*	7:14*	9:02*	10:02	11:02	12:02	1:02	2:02	3:02	4:02	5:02	6:02	7:02	8:02	8:38
24	Community Health Center of Cape Cod	--	--	--	--	--	9:07*	10:07	11:07	12:07	1:07	2:07	3:07	4:07	5:07	6:07	--	--	--
23	South Cape Village	--	--	--	--	7:20*	9:11*	10:11	11:11	12:11	1:11	2:11	3:11	4:11	5:11	6:11	7:11	8:11	--
22	Stop & Shop - Mashpee Commons	7:05*	7:15*	7:22*	7:24*	7:26*	9:18*	10:18	11:18	12:18	1:18	2:18	3:18	4:18	5:18	6:18	7:18	8:18	8:50
21	Marstons Mills Marketplace	--	--	--	7:33*	7:34*	9:27*	10:27	11:27	12:27	1:27	2:27	3:27	4:27	5:27	6:27	7:27	8:27	--
20	Osterville - Main Street & West Bay Road	--	--	--	--	--	9:37*	10:37	11:37	12:37	1:37	2:37	3:37	4:37	5:37	6:37	7:37	8:37	--
19	Centerville - Public Library	--	--	--	--	--	9:45*	10:45	11:45	12:45	1:45	2:45	3:45	4:45	5:45	6:45	7:45	8:45	--
18	West Main Street & Route 28	--	--	--	7:40*	7:41*	9:51*	10:51	11:51	12:51	1:51	2:51	3:51	4:51	5:51	6:51	7:51	8:51	9:00
134	Star Market - West Main Street	--	--	--	7:42*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
32	Saint Francis/Saint John Paul	7:35*	7:45*	7:52*	7:47*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	Cape Cod Mall Entrance - Route 28	--	--	--	--	7:44*	9:55*	10:55	11:55	12:55	1:55	2:55	3:55	4:55	5:55	6:55	7:55	8:55	--
34	Sturgis Charter School - Main Street	7:40*	7:50*	7:57*	7:52*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
35	Sturgis Charter School - West Main Street	7:47*	7:57*	8:04*	7:59*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1	Hyannis Transportation Center	--	--	--	--	7:47*	9:58*	10:58	11:58	12:58	1:58	2:58	3:58	4:58	5:58	6:58	7:58	8:58	9:10

ITE TRIP GENERATION WORKSHEET
(10th Edition, Updated 2017)

LANDUSE: Mid-Rise Residential
LANDUSE CODE: 221
SETTING/LOCATION: General Urban/Suburban
JOB NAME:
JOB NUMBER:

Independent Variable --- Number of Units

33 units

WEEKDAY

RATES:

	# Studies	R^2	Total Trip Ends Average	Total Trip Ends Low	Total Trip Ends High	Independent Variable Range Average	Independent Variable Range Low	Independent Variable Range High	Directional Distribution Enter	Directional Distribution Exit
DAILY	27	0.77	5.44	1.27	12.50	205	21	494	50%	50%
AM PEAK OF GENERATOR	48	0.69	0.32	0.06	0.77	225	21	1,168	27%	73%
PM PEAK OF GENERATOR	47	0.66	0.41	0.09	1.26	211	21	1,168	60%	40%
AM PEAK (ADJACENT ST)	53	0.67	0.36	0.06	1.61	207	26	703	26%	74%
PM PEAK (ADJACENT ST)	60	0.72	0.44	0.15	1.11	208	26	703	61%	39%

TRIPS:

	BY AVERAGE Total	BY AVERAGE Enter	BY AVERAGE Exit	BY REGRESSION Total	BY REGRESSION Enter	BY REGRESSION Exit
DAILY	180	90	90	178	89	89
AM PEAK OF GENERATOR	11	3	8	14	4	10
PM PEAK OF GENERATOR	14	8	5	17	10	7
AM PEAK (ADJACENT ST)	12	3	9	12	3	9
PM PEAK (ADJACENT ST)	15	9	6	15	9	6

SATURDAY

RATES:

	# Studies	R^2	Total Trip Ends Average	Total Trip Ends Low	Total Trip Ends High	Independent Variable Range Average	Independent Variable Range Low	Independent Variable Range High	Directional Distribution Enter	Directional Distribution Exit
DAILY	6	0.73	4.91	4.03	8.51	224	111	336	50%	50%
PEAK OF GENERATOR	8	0.89	0.44	0.34	0.73	264	111	462	49%	51%

TRIPS:

	BY AVERAGE Total	BY AVERAGE Enter	BY AVERAGE Exit	BY REGRESSION Total	BY REGRESSION Enter	BY REGRESSION Exit
DAILY	162	81	81	517	259	259
PEAK OF GENERATOR	15	7	7	21	10	11

SUNDAY

RATES:

	# Studies	R^2	Total Trip Ends Average	Total Trip Ends Low	Total Trip Ends High	Independent Variable Range Average	Independent Variable Range Low	Independent Variable Range High	Directional Distribution Enter	Directional Distribution Exit
DAILY	6	--	4.09	3.06	8.41	224	111	336	50%	50%
PEAK OF GENERATOR	6	--	0.39	0.26	1.07	224	111	336	62%	38%

TRIPS:

	BY AVERAGE Total	BY AVERAGE Enter	BY AVERAGE Exit	BY REGRESSION Total	BY REGRESSION Enter	BY REGRESSION Exit
DAILY	135	67	67	N/A	N/A	N/A
PEAK OF GENERATOR	13	8	5	NA	NA	NA

ITE TRIP GENERATION WORKSHEET
(10th Edition, Updated 2017)

LANDUSE: Mid-Rise Residential
LANDUSE CODE: 221
SETTING/LOCATION: General Urban/Suburban
JOB NAME:
JOB NUMBER:

Independent Variable --- Number of Units

60 units

WEEKDAY

RATES:

	# Studies	R^2	Total Trip Ends Average	Total Trip Ends Low	Total Trip Ends High	Independent Variable Range Average	Independent Variable Range Low	Independent Variable Range High	Directional Distribution Enter	Directional Distribution Exit
DAILY	27	0.77	5.44	1.27	12.50	205	21	494	50%	50%
AM PEAK OF GENERATOR	48	0.69	0.32	0.06	0.77	225	21	1,168	27%	73%
PM PEAK OF GENERATOR	47	0.66	0.41	0.09	1.26	211	21	1,168	60%	40%
AM PEAK (ADJACENT ST)	53	0.67	0.36	0.06	1.61	207	26	703	26%	74%
PM PEAK (ADJACENT ST)	60	0.72	0.44	0.15	1.11	208	26	703	61%	39%

TRIPS:

	BY AVERAGE Total	BY AVERAGE Enter	BY AVERAGE Exit	BY REGRESSION Total	BY REGRESSION Enter	BY REGRESSION Exit
DAILY	326	163	163	325	163	163
AM PEAK OF GENERATOR	19	5	14	23	6	17
PM PEAK OF GENERATOR	25	15	10	28	17	11
AM PEAK (ADJACENT ST)	22	6	16	21	5	15
PM PEAK (ADJACENT ST)	26	16	10	27	17	11

SATURDAY

RATES:

	# Studies	R^2	Total Trip Ends Average	Total Trip Ends Low	Total Trip Ends High	Independent Variable Range Average	Independent Variable Range Low	Independent Variable Range High	Directional Distribution Enter	Directional Distribution Exit
DAILY	6	0.73	4.91	4.03	8.51	224	111	336	50%	50%
PEAK OF GENERATOR	8	0.89	0.44	0.34	0.73	264	111	462	49%	51%

TRIPS:

	BY AVERAGE Total	BY AVERAGE Enter	BY AVERAGE Exit	BY REGRESSION Total	BY REGRESSION Enter	BY REGRESSION Exit
DAILY	295	147	147	600	300	300
PEAK OF GENERATOR	26	13	13	32	16	16

SUNDAY

RATES:

	# Studies	R^2	Total Trip Ends Average	Total Trip Ends Low	Total Trip Ends High	Independent Variable Range Average	Independent Variable Range Low	Independent Variable Range High	Directional Distribution Enter	Directional Distribution Exit
DAILY	6	--	4.09	3.06	8.41	224	111	336	50%	50%
PEAK OF GENERATOR	6	--	0.39	0.26	1.07	224	111	336	62%	38%

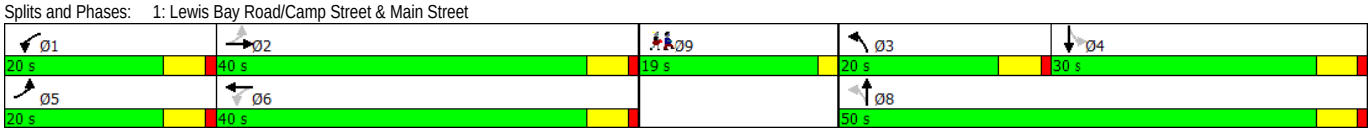
TRIPS:

	BY AVERAGE Total	BY AVERAGE Enter	BY AVERAGE Exit	BY REGRESSION Total	BY REGRESSION Enter	BY REGRESSION Exit
DAILY	245	123	123	N/A	N/A	N/A
PEAK OF GENERATOR	23	15	9	NA	NA	NA

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	35	200	40	15	350	20	90	190	125	35	145	30	
Future Volume (vph)	35	200	40	15	350	20	90	190	125	35	145	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	25			25			25			25			
Satd. Flow (prot)	1787	1824	0	1805	1882	0	1805	1773	0	0	1827	0	
Flt Permitted	0.290			0.549			0.414				0.882		
Satd. Flow (perm)	545	1824	0	1037	1882	0	787	1773	0	0	1624	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		8			2			28			6		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	1		7	7		1			1	1			
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.95	0.95	0.95	
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	38	258	0	16	389	0	106	371	0	0	222	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	27.2	25.2		25.3	22.4		27.9	27.9			17.4		
Actuated g/C Ratio	0.37	0.34		0.34	0.30		0.38	0.38			0.23		
v/c Ratio	0.11	0.41		0.04	0.68		0.25	0.54			0.58		
Control Delay	19.6	25.9		19.7	35.0		22.5	24.2			39.1		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	19.6	25.9		19.7	35.0		22.5	24.2			39.1		
LOS	B	C		B	C		C	C			D		
Approach Delay		25.1			34.4			23.8			39.1		
Approach LOS		C			C			C			D		
Queue Length 50th (ft)	8	62		3	142		27	103			81		
Queue Length 95th (ft)	41	236		22	382		92	290			241		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	558	1071		638	1095		600	1233			724		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.07	0.24		0.03	0.36		0.18	0.30			0.31		

Intersection Summary			
Area Type:	Other		
Cycle Length: 129			
Actuated Cycle Length: 74.1			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 29.6		Intersection LOS: C	
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	15	390	15	40	160
Future Volume (vph)	0	15	390	15	40	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1890	0	0	1862
Flt Permitted						0.990
Satd. Flow (perm)	1644	0	1890	0	0	1862
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Peak Hour Factor	0.70	0.70	0.84	0.84	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	0	482	0	0	215
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	390	15	40	160
Future Vol, veh/h	0	15	390	15	40	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	84	84	93	93
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	21	464	18	43	172

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	731	473	0	0	482	0
Stage 1	473	-	-	-	-	-
Stage 2	258	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	392	595	-	-	1086	-
Stage 1	631	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	375	595	-	-	1086	-
Mov Cap-2 Maneuver	375	-	-	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	595	1086	-
HCM Lane V/C Ratio	-	-	0.036	0.04	-
HCM Control Delay (s)	-	-	11.3	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	75	330	55	100	60
Future Volume (vph)	0	75	330	55	100	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1864	0	0	1825
Flt Permitted						0.970
Satd. Flow (perm)	1644	0	1864	0	0	1825
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.94	0.94	0.83	0.83	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	80	0	464	0	0	170
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	75	330	55	100	60
Future Vol, veh/h	0	75	330	55	100	60
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	83	83	94	94
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	80	398	66	106	64

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	709	432	0	0	465	0
Stage 1	432	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	404	628	-	-	1102	-
Stage 1	659	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	363	627	-	-	1102	-
Mov Cap-2 Maneuver	363	-	-	-	-	-
Stage 1	658	-	-	-	-	-
Stage 2	697	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	5.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	627	1102	-
HCM Lane V/C Ratio	-	-	0.127	0.097	-
HCM Control Delay (s)	-	-	11.6	8.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.3	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	260	80	0	125	60	0
Future Volume (vph)	260	80	0	125	60	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1787	1599	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1787	1599	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Peak Hour Factor	0.87	0.87	0.77	0.77	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	92	0	162	68	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	260	80	0	125	60	0
Future Vol, veh/h	260	80	0	125	60	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	77	77	88	88
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	299	92	0	162	68	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	230	68	-	0	-	0
Stage 1	68	-	-	-	-	-
Stage 2	162	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	-	-
Pot Cap-1 Maneuver	760	998	0	-	-	0
Stage 1	957	-	0	-	-	0
Stage 2	869	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	760	998	-	-	-	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	869	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	760	998	-
HCM Lane V/C Ratio	-	0.393	0.092	-
HCM Control Delay (s)	-	12.8	9	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	1.9	0.3	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	15	110	0	70	70
Future Volume (vph)	1	15	110	0	70	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1652	0	1881	0	0	1818
Flt Permitted	0.997					0.976
Satd. Flow (perm)	1652	0	1881	0	0	1818
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Peak Hour Factor	0.88	0.88	0.77	0.77	0.91	0.91
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	0	143	0	0	154
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	15	110	0	70	70
Future Vol, veh/h	1	15	110	0	70	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	77	77	91	91
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	1	17	143	0	77	77

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	374	143	0	0	143	0
Stage 1	143	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	631	910	-	-	1440	-
Stage 1	889	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	596	910	-	-	1440	-
Mov Cap-2 Maneuver	596	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	3.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	881	1440	-
HCM Lane V/C Ratio	-	-	0.021	0.053	-
HCM Control Delay (s)	-	-	9.2	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	0	0	0	0	1	0	35	0	0	35	30
Future Volume (vph)	25	0	0	0	0	1	0	35	0	0	35	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1845	0	0	1747	0
Flt Permitted		0.950										
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1845	0	0	1747	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.75	0.75	0.75	0.25	0.25	0.25	0.91	0.91	0.91	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	4	0	0	38	0	0	72	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	0	0	0	0	1	0	35	0	0	35	30
Future Vol, veh/h	25	0	0	0	0	1	0	35	0	0	35	30
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	25	25	25	91	91	91	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	33	0	0	0	0	4	0	38	0	0	39	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	97	95	57	94	111	38	73	0	0	38	0	0
Stage 1	57	57	-	38	38	-	-	-	-	-	-	-
Stage 2	40	38	-	56	73	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	890	799	1015	894	783	1040	1520	-	-	1572	-	-
Stage 1	960	851	-	982	867	-	-	-	-	-	-	-
Stage 2	980	867	-	961	838	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	886	798	1014	894	782	1040	1520	-	-	1572	-	-
Mov Cap-2 Maneuver	886	798	-	894	782	-	-	-	-	-	-	-
Stage 1	959	850	-	982	867	-	-	-	-	-	-	-
Stage 2	976	867	-	961	837	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	8.5	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1520	-	-	886	1040	1572	-	-
HCM Lane V/C Ratio	-	-	-	0.038	0.004	-	-	-
HCM Control Delay (s)	0	-	-	9.2	8.5	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	0	1	60	65	15
Future Volume (vph)	15	0	1	60	65	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	0	0	1861	1799	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1805	0	0	1861	1799	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			2			2
Peak Hour Factor	0.80	0.80	0.94	0.94	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	0	0	65	87	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 15.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	0	1	60	65	15
Future Vol, veh/h	15	0	1	60	65	15
Conflicting Peds, #/hr	0	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	94	94	92	92
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	19	0	1	64	71	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	147	81	89	0	-	0
Stage 1	81	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	850	985	1506	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	846	983	1506	-	-	-
Mov Cap-2 Maneuver	846	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	959	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1506	-	846	-	-
HCM Lane V/C Ratio	0.001	-	0.022	-	-
HCM Control Delay (s)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	70	5	20	80
Future Volume (vph)	0	0	70	5	20	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	0	1846	0	0	1862
Flt Permitted						0.990
Satd. Flow (perm)	1863	0	1846	0	0	1862
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9			1	1	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.94	0.94	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	79	0	0	111
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	70	5	20	80
Future Vol, veh/h	0	0	70	5	20	80
Conflicting Peds, #/hr	9	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	94	94	90	90
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	0	0	74	5	22	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	220	78	0	0	81	0
Stage 1	78	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	768	983	-	-	1523	-
Stage 1	945	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	749	982	-	-	1523	-
Mov Cap-2 Maneuver	749	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	864	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1523	-
HCM Lane V/C Ratio	-	-	-	0.015	-
HCM Control Delay (s)	-	-	0	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	40	15	55	60	50
Future Volume (vph)	70	40	15	55	60	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1732	0	0	1844	1784	0
Flt Permitted	0.969			0.990		
Satd. Flow (perm)	1732	0	0	1844	1784	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	110	1	1			1
Peak Hour Factor	0.94	0.94	0.91	0.91	0.79	0.79
Heavy Vehicles (%)	1%	1%	2%	2%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	117	0	0	76	139	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	40	15	55	60	50
Future Vol, veh/h	70	40	15	55	60	50
Conflicting Peds, #/hr	110	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	91	91	79	79
Heavy Vehicles, %	1	1	2	2	0	0
Mvmt Flow	74	43	16	60	76	63

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	312	110	140	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	683	946	1443	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	674	944	1442	-	-	-
Mov Cap-2 Maneuver	674	-	-	-	-	-
Stage 1	917	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1442	-	752	-	-
HCM Lane V/C Ratio	0.011	-	0.156	-	-
HCM Control Delay (s)	7.5	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	40	85	115	100
Future Volume (vph)	10	15	40	85	115	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1711	0	1708	0	0	1851
Flt Permitted	0.981					0.974
Satd. Flow (perm)	1711	0	1708	0	0	1851
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Peds. (#/hr)	1					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.75	0.75	0.71	0.71	0.75	0.75
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	176	0	0	286
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	15	40	85	115	100
Future Vol, veh/h	10	15	40	85	115	100
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	71	71	75	75
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	13	20	56	120	153	133

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	557	116	0	0	176	0
Stage 1	116	-	-	-	-	-
Stage 2	441	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	495	942	-	-	1412	-
Stage 1	914	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	437	942	-	-	1412	-
Mov Cap-2 Maneuver	437	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	576	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	4.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	644	1412	-
HCM Lane V/C Ratio	-	-	0.052	0.109	-
HCM Control Delay (s)	-	-	10.9	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.4	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	230	25	190	330	20	35
Future Volume (vph)	230	25	190	330	20	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1857	0	0	1866	1674	0
Flt Permitted				0.982	0.982	
Satd. Flow (perm)	1857	0	0	1866	1674	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.95	0.95	0.89	0.89	0.96	0.96
Heavy Vehicles (%)	1%	1%	0%	0%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	268	0	0	584	57	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	230	25	190	330	20	35
Future Vol, veh/h	230	25	190	330	20	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	89	89	96	96
Heavy Vehicles, %	1	1	0	0	2	2
Mvmt Flow	242	26	213	371	21	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	268	0	1053	255
Stage 1	-	-	-	-	255	-
Stage 2	-	-	-	-	798	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1307	-	251	784
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	443	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1307	-	200	784
Mov Cap-2 Maneuver	-	-	-	-	200	-
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	352	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	380	-	-	1307	-
HCM Lane V/C Ratio	0.151	-	-	0.163	-
HCM Control Delay (s)	16.1	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.6	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	95	60	10	20	55	15
Future Volume (vph)	95	60	10	20	55	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1799	0	0	1870	1775	0
Flt Permitted				0.984	0.962	
Satd. Flow (perm)	1799	0	0	1870	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)		3	3			5
Peak Hour Factor	0.93	0.93	0.70	0.70	0.78	0.78
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	167	0	0	43	90	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	95	60	10	20	55	15
Future Vol, veh/h	95	60	10	20	55	15
Conflicting Peds, #/hr	0	3	3	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	70	70	78	78
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	102	65	14	29	71	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	170	0	194	142
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	57	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1420	-	799	911
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	971	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1413	-	789	904
Mov Cap-2 Maneuver	-	-	-	-	789	-
Stage 1	-	-	-	-	892	-
Stage 2	-	-	-	-	961	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	10
HCM LOS			B

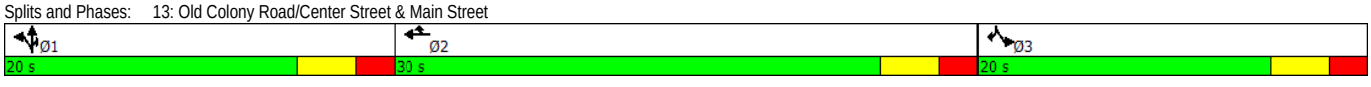
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	811	-	-	1413	-
HCM Lane V/C Ratio	0.111	-	-	0.01	-
HCM Control Delay (s)	10	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	510	245	55	105	170	255	0	65
Future Volume (vph)	0	0	0	0	510	245	55	105	170	255	0	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3406	1524	1687	1776	1509	1719	0	1538
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3406	1524	1666	1776	1509	1699	0	1538
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						285	109		187			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						18	9		6	6		9
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.91	0.91	0.91	0.87	0.87	0.87
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	7%	7%	7%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	593	285	60	115	187	293	0	75
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					17.5	17.5	9.6	9.6	9.6	13.6		13.6
Actuated g/C Ratio					0.31	0.31	0.17	0.17	0.17	0.24		0.24
v/c Ratio					0.56	0.43	0.16	0.38	0.45	0.71		0.17
Control Delay					18.8	4.6	2.5	26.3	8.3	33.3		3.5
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					18.8	4.6	2.5	26.3	8.3	33.3		3.5
LOS					B	A	A	C	A	C		A
Approach Delay					14.2			13.0			27.3	
Approach LOS					B			B			C	
Queue Length 50th (ft)					86	0	0	35	0	87		0
Queue Length 95th (ft)					138	39	9	85	47	#226		16
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1568	855	545	490	552	474		503
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.38	0.33	0.11	0.23	0.34	0.62		0.15

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 56.2
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 16.9 — Intersection LOS: B
Intersection Capacity Utilization 42.4% — ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	90	480	60	0	0	0	0	140	90	
Future Volume (vph)	0	0	0	90	480	60	0	0	0	0	140	90	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3217	0	0	0	0	0	3157	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3212	0	0	0	0	0	3157	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					43						118		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		15				7		2	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.92	0.92	0.92	0.76	0.76	0.76	
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	7%	7%	7%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	692	0	0	0	0	0	302	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					15.7						11.0		
Actuated g/C Ratio					0.40						0.28		
v/c Ratio					0.53						0.31		
Control Delay					10.6						10.1		
Queue Delay					0.0						0.0		
Total Delay					10.6						10.1		
LOS					B						B		
Approach Delay					10.6						10.1		
Approach LOS					B						B		
Queue Length 50th (ft)					41						12		
Queue Length 95th (ft)					139						48		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2855						2293		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.24						0.13		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 39.3			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 34.6%		ICU Level of Service A	
Analysis Period (min) 15			

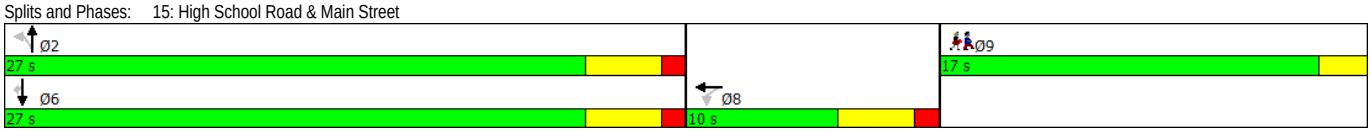
Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	65	390	90	65	115	0	0	115	60	
Future Volume (vph)	0	0	0	65	390	90	65	115	0	0	115	60	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	25			25			25			25			
Satd. Flow (prot)	0	0	0	0	3088	0	0	1852	0	0	1827	1553	
Flt Permitted					0.994			0.824					
Satd. Flow (perm)	0	0	0	0	3076	0	0	1554	0	0	1827	1533	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					34							72	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				7		13	1					1	
Confl. Bikes (#/hr)						2							
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.63	0.63	0.63	0.83	0.83	0.83	
Heavy Vehicles (%)	2%	2%	2%	3%	6%	9%	2%	0%	0%	0%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	634	0	0	286	0	0	139	72	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					9.8			11.5			11.0	11.0	
Actuated g/C Ratio					0.38			0.44			0.42	0.42	
v/c Ratio					0.53			0.41			0.18	0.10	
Control Delay					18.6			9.6			7.7	3.2	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					18.6			9.6			7.7	3.2	
LOS					B			A			A	A	
Approach Delay					18.6			9.6			6.2		
Approach LOS					B			A			A		
Queue Length 50th (ft)					30			20			8	0	
Queue Length 95th (ft)					#219			73			51	16	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					1190			1370			1611	1360	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.53			0.21			0.09	0.05	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 25.9			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 39.6%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	220	415	25	70	35	15	50	90	40	35	25	
Future Volume (vph)	220	415	25	70	35	15	50	90	40	35	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3331	0	1565	0	0	1571	1696	0	1762	0	
Flt Permitted		0.984					0.950					
Satd. Flow (perm)	0	3329	0	1531	0	0	1551	1696	0	1762	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Confl. Peds. (#/hr)	2				8	2	8					
Peak Hour Factor	0.88	0.88	0.88	0.84	0.84	0.84	0.84	0.84	0.84	0.88	0.88	
Heavy Vehicles (%)	7%	5%	14%	3%	9%	8%	17%	5%	11%	3%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	750	0	125	0	0	78	155	0	68	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		20.1		12.0			12.0	12.0		8.7		
Actuated g/C Ratio		0.40		0.24			0.24	0.24		0.17		
v/c Ratio		0.56		0.29			0.18	0.38		0.22		
Control Delay		16.4		12.7			7.7	24.6		27.8		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		16.4		12.7			7.7	24.6		27.8		
LOS		B		B			A	C		C		
Approach Delay		16.4						19.0		27.8		
Approach LOS		B						B		C		
Queue Length 50th (ft)		85		10			0	37		17		
Queue Length 95th (ft)		244		59			29	126		75		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		2332		891			903	948		471		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.32		0.14			0.09	0.16		0.14		

Intersection Summary

Area Type: Other
Cycle Length: 94
Actuated Cycle Length: 50.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 17.2 — Intersection LOS: B
Intersection Capacity Utilization 46.8% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

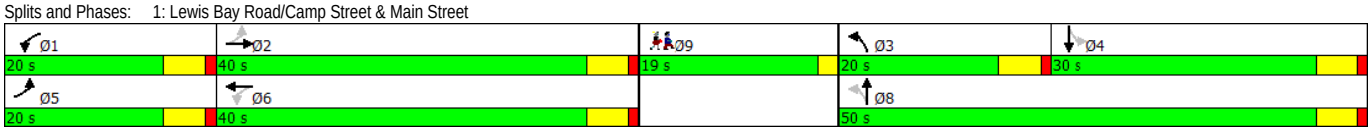


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	105	325	45	15	370	40	245	180	130	25	80	55	
Future Volume (vph)	105	325	45	15	370	40	245	180	130	25	80	55	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1805	1861	0	1805	1862	0	1805	1762	0	0	1769	0	
Flt Permitted	0.214			0.454			0.399				0.894		
Satd. Flow (perm)	403	1861	0	862	1862	0	758	1762	0	0	1593	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		5			4			31			18		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	16		1	1		16	1		3	3		1	
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.97	0.97	0.97	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	108	381	0	16	431	0	269	341	0	0	168	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	37.1	34.0		30.5	26.0		32.3	32.3			14.0		
Actuated g/C Ratio	0.43	0.39		0.35	0.30		0.37	0.37			0.16		
v/c Ratio	0.33	0.52		0.04	0.77		0.62	0.50			0.62		
Control Delay	20.5	27.0		19.3	41.9		32.6	26.5			46.8		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	20.5	27.0		19.3	41.9		32.6	26.5			46.8		
LOS	C	C		B	D		C	C			D		
Approach Delay		25.6			41.1			29.2			46.8		
Approach LOS		C			D			C			D		
Queue Length 50th (ft)	28	114		4	190		94	113			70		
Queue Length 95th (ft)	92	360		22	#486		248	299			187		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	457	931		558	878		494	1060			547		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.24	0.41		0.03	0.49		0.54	0.32			0.31		

Intersection Summary

Area Type: Other
Cycle Length: 129
Actuated Cycle Length: 86.5
Natural Cycle: 85
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 33.0 Intersection LOS: C
Intersection Capacity Utilization 71.1% ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	50	505	0	10	130
Future Volume (vph)	0	50	505	0	10	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1900	0	0	1874
Flt Permitted						0.996
Satd. Flow (perm)	1644	0	1900	0	0	1874
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Confl. Peds. (#/hr)				1	1	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	555	0	0	148
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	505	0	10	130
Future Vol, veh/h	0	50	505	0	10	130
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	91	91	95	95
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	56	555	0	11	137

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	714	556	0	0	556	0
Stage 1	556	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	401	534	-	-	1020	-
Stage 1	578	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	396	533	-	-	1020	-
Mov Cap-2 Maneuver	396	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	865	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	533	1020	-
HCM Lane V/C Ratio	-	-	0.104	0.01	-
HCM Control Delay (s)	-	-	12.5	8.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	175	330	35	80	50
Future Volume (vph)	0	175	330	35	80	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1857	0	0	1825
Flt Permitted						0.970
Satd. Flow (perm)	1644	0	1857	0	0	1825
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Peak Hour Factor	0.79	0.79	0.90	0.90	0.93	0.93
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	222	0	406	0	0	140
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	175	330	35	80	50
Future Vol, veh/h	0	175	330	35	80	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	90	90	93	93
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	0	222	367	39	86	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	612	386	0	0	406	0
Stage 1	386	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	460	666	-	-	1158	-
Stage 1	691	-	-	-	-	-
Stage 2	816	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	425	666	-	-	1158	-
Mov Cap-2 Maneuver	425	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	5.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	666	1158	-
HCM Lane V/C Ratio	-	-	0.333	0.074	-
HCM Control Delay (s)	-	-	13.1	8.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0.2	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	230	125	0	135	50	0
Future Volume (vph)	230	125	0	135	50	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	1615	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1805	1615	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.96	0.96	0.86	0.86	0.78	0.78
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	240	130	0	157	64	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	230	125	0	135	50	0
Future Vol, veh/h	230	125	0	135	50	0
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	86	86	78	78
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	240	130	0	157	64	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	221	67	-	0	-	0
Stage 1	64	-	-	-	-	-
Stage 2	157	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	772	1002	0	-	-	0
Stage 1	964	-	0	-	-	0
Stage 2	876	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	772	999	-	-	-	-
Mov Cap-2 Maneuver	772	-	-	-	-	-
Stage 1	964	-	-	-	-	-
Stage 2	876	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	772	999	-
HCM Lane V/C Ratio	-	0.31	0.13	-
HCM Control Delay (s)	-	11.7	9.1	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	1.3	0.4	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	65	70	1	75	100
Future Volume (vph)	0	65	70	1	75	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1859	0	0	1842
Flt Permitted						0.979
Satd. Flow (perm)	1644	0	1859	0	0	1842
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.88	0.88	0.86	0.86	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	0	82	0	0	191
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	65	70	1	75	100
Future Vol, veh/h	0	65	70	1	75	100
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	86	86	92	92
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	0	74	81	1	82	109

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	354	83	0	0	83	0
Stage 1	82	-	-	-	-	-
Stage 2	272	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	648	982	-	-	1520	-
Stage 1	946	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	611	981	-	-	1519	-
Mov Cap-2 Maneuver	611	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	734	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	981	1519	-
HCM Lane V/C Ratio	-	-	0.075	0.054	-
HCM Control Delay (s)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	0	1	0	0	1	5	60	0	1	30	10
Future Volume (vph)	45	0	1	0	0	1	5	60	0	1	30	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1807	0	0	1644	0	0	1892	0	0	1834	0
Flt Permitted		0.953						0.996			0.999	
Satd. Flow (perm)	0	1807	0	0	1644	0	0	1892	0	0	1834	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)	1					1	5		2	2		5
Peak Hour Factor	0.79	0.79	0.79	0.25	0.25	0.25	0.82	0.82	0.82	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	4	0	0	79	0	0	48	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	45	0	1	0	0	1	5	60	0	1	30	10
Future Vol, veh/h	45	0	1	0	0	1	5	60	0	1	30	10
Conflicting Peds, #/hr	1	0	0	0	0	1	5	0	2	2	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	25	25	25	82	82	82	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	57	0	1	0	0	4	6	73	0	1	35	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	136	135	46	131	141	76	52	0	0	75	0	0
Stage 1	48	48	-	87	87	-	-	-	-	-	-	-
Stage 2	88	87	-	44	54	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	840	760	1029	846	754	991	1567	-	-	1537	-	-
Stage 1	971	859	-	926	827	-	-	-	-	-	-	-
Stage 2	925	827	-	975	854	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	829	751	1024	840	745	988	1567	-	-	1536	-	-
Mov Cap-2 Maneuver	829	751	-	840	745	-	-	-	-	-	-	-
Stage 1	963	854	-	921	822	-	-	-	-	-	-	-
Stage 2	917	822	-	973	849	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	8.7	0.6	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1567	-	-	832	988	1536	-	-
HCM Lane V/C Ratio	0.004	-	-	0.07	0.004	0.001	-	-
HCM Control Delay (s)	7.3	0	-	9.7	8.7	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	2	0	105	40	10
Future Volume (vph)	15	2	0	105	40	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1793	0	0	1900	1849	0
Flt Permitted	0.957					
Satd. Flow (perm)	1793	0	0	1900	1849	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			10			10
Peak Hour Factor	0.88	0.88	0.81	0.81	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	0	0	130	56	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	2	0	105	40	10
Future Vol, veh/h	15	2	0	105	40	10
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	81	81	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	17	2	0	130	45	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	191	61	67	0	-	0
Stage 1	61	-	-	-	-	-
Stage 2	130	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	803	1010	1547	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	901	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	788	1000	1547	-	-	-
Mov Cap-2 Maneuver	788	-	-	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1547	-	808	-	-
HCM Lane V/C Ratio	-	-	0.024	-	-
HCM Control Delay (s)	0	-	9.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	5	120	0	5	50
Future Volume (vph)	1	5	120	0	5	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1678	0	1900	0	0	1892
Flt Permitted	0.990					0.996
Satd. Flow (perm)	1678	0	1900	0	0	1892
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.63	0.63	0.86	0.86	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	140	0	0	59
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	5	120	0	5	50
Future Vol, veh/h	1	5	120	0	5	50
Conflicting Peds, #/hr	9	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	86	86	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	8	140	0	5	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	214	140	0	0	140	0
Stage 1	140	-	-	-	-	-
Stage 2	74	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	779	913	-	-	1456	-
Stage 1	892	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	769	913	-	-	1456	-
Mov Cap-2 Maneuver	769	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	942	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	885	1456	-
HCM Lane V/C Ratio	-	-	0.011	0.004	-
HCM Control Delay (s)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	25	10	115	30	125
Future Volume (vph)	70	25	10	115	30	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1733	0	0	1855	1660	0
Flt Permitted	0.965			0.996		
Satd. Flow (perm)	1733	0	0	1855	1660	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	117	3	3			3
Peak Hour Factor	0.90	0.90	0.88	0.88	0.97	0.97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	142	160	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	25	10	115	30	125
Future Vol, veh/h	70	25	10	115	30	125
Conflicting Peds, #/hr	117	3	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	88	88	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	28	11	131	31	129

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	368	101	163	0	-	0
Stage 1	98	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	632	954	1416	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	949	1412	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1412	-	685	-	-
HCM Lane V/C Ratio	0.008	-	0.154	-	-
HCM Control Delay (s)	7.6	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	70	120	120	10	5	60
Future Volume (vph)	70	120	120	10	5	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1707	0	1879	0	0	1892
Flt Permitted	0.982					0.996
Satd. Flow (perm)	1707	0	1879	0	0	1892
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.96	0.96	0.93	0.93	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	198	0	140	0	0	77
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	70	120	120	10	5	60
Future Vol, veh/h	70	120	120	10	5	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	93	93	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	73	125	129	11	6	71

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	217	134	0	0	140	0
Stage 1	134	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	776	920	-	-	1456	-
Stage 1	897	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	773	920	-	-	1456	-
Mov Cap-2 Maneuver	773	-	-	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	941	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	860	1456	-
HCM Lane V/C Ratio	-	-	0.23	0.004	-
HCM Control Delay (s)	-	-	10.4	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	395	20	45	225	55	185
Future Volume (vph)	395	20	45	225	55	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1868	0	0	1885	1684	0
Flt Permitted				0.992	0.989	
Satd. Flow (perm)	1868	0	0	1885	1684	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.97	0.97	0.94	0.94	0.96	0.96
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	428	0	0	287	250	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	395	20	45	225	55	185
Future Vol, veh/h	395	20	45	225	55	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	94	94	96	96
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	407	21	48	239	57	193

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	428	0	753	418
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1142	-	380	639
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	729	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1142	-	362	639
Mov Cap-2 Maneuver	-	-	-	-	362	-
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	694	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	544	-	-	1142	-
HCM Lane V/C Ratio	0.46	-	-	0.042	-
HCM Control Delay (s)	17.1	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.4	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	50	65	35	85	90	35
Future Volume (vph)	50	65	35	85	90	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1756	0	0	1873	1764	0
Flt Permitted				0.986	0.965	
Satd. Flow (perm)	1756	0	0	1873	1764	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)						4
Peak Hour Factor	0.93	0.93	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	124	0	0	144	150	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	65	35	85	90	35
Future Vol, veh/h	50	65	35	85	90	35
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	54	70	42	102	108	42

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	124	0	276	93
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1475	-	718	970
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1469	-	696	966
Mov Cap-2 Maneuver	-	-	-	-	696	-
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	755	-	-	1469	-
HCM Lane V/C Ratio	0.199	-	-	0.029	-
HCM Control Delay (s)	11	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	610	510	90	160	235	420	0	70
Future Volume (vph)	0	0	0	0	610	510	90	160	235	420	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3505	1568	1770	1863	1583	1752	0	1568
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3505	1568	1767	1863	1583	1749	0	1568
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						548	109		242			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						21	1		1	1		1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.93	0.93	0.97	0.97	0.97	0.83	0.83	0.83
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	656	548	93	165	242	506	0	84
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					20.5	20.5	11.2	11.2	11.2	15.3		15.3
Actuated g/C Ratio					0.33	0.33	0.18	0.18	0.18	0.25		0.25
v/c Ratio					0.57	0.62	0.23	0.49	0.50	1.18		0.18
Control Delay					19.5	5.2	5.9	29.1	7.7	130.7		4.6
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					19.5	5.2	5.9	29.1	7.7	130.7		4.6
LOS					B	A	A	C	A	F		A
Approach Delay					13.0			14.4			112.7	
Approach LOS					B			B			F	
Queue Length 50th (ft)					105	0	0	59	0	~255		0
Queue Length 95th (ft)					163	60	27	115	53	#415		18
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1432	964	516	456	570	429		466
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.46	0.57	0.18	0.36	0.42	1.18		0.18

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 62.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.18
Intersection Signal Delay: 39.0 — Intersection LOS: D
Intersection Capacity Utilization 60.2% — ICU Level of Service B
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	105	605	60	0	0	0	0	95	110	
Future Volume (vph)	0	0	0	105	605	60	0	0	0	0	95	110	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3321	0	0	0	0	0	3157	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3316	0	0	0	0	0	3157	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					37						117		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		18				6		7	
Peak Hour Factor	0.92	0.92	0.92	0.98	0.98	0.98	0.92	0.92	0.92	0.94	0.94	0.94	
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	4%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	785	0	0	0	0	0	218	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					17.1						10.7		
Actuated g/C Ratio					0.42						0.26		
v/c Ratio					0.55						0.24		
Control Delay					10.3						9.2		
Queue Delay					0.0						0.0		
Total Delay					10.3						9.2		
LOS					B						A		
Approach Delay					10.3						9.2		
Approach LOS					B						A		
Queue Length 50th (ft)					49						7		
Queue Length 95th (ft)					151						44		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2927						2119		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.27						0.10		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 40.4			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 38.5%		ICU Level of Service A	
Analysis Period (min) 15			

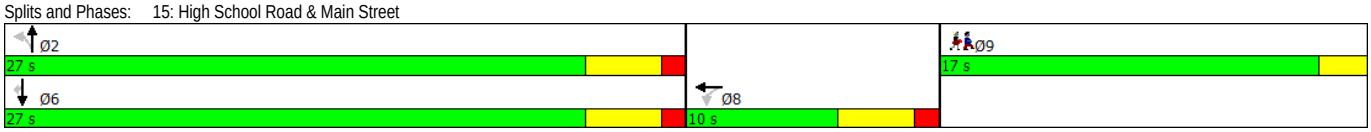
Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	35	600	85	40	60	0	0	75	30	
Future Volume (vph)	0	0	0	35	600	85	40	60	0	0	75	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	25			25			25			25			
Satd. Flow (prot)	0	0	0	0	3288	0	0	1818	0	0	1881	1615	
Flt Permitted					0.998								
Satd. Flow (perm)	0	0	0	0	3274	0	0	1851	0	0	1881	1586	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					22							61	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				20		16	9					9	
Confl. Bikes (#/hr)						1							
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.88	0.88	0.88	0.76	0.76	0.76	
Heavy Vehicles (%)	2%	2%	2%	3%	1%	1%	0%	4%	0%	0%	1%	0%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	800	0	0	113	0	0	99	39	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					12.7			8.9			8.8	8.8	
Actuated g/C Ratio					0.68			0.48			0.47	0.47	
v/c Ratio					0.36			0.13			0.11	0.05	
Control Delay					14.0			7.4			7.4	3.0	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					14.0			7.4			7.4	3.0	
LOS					B			A			A	A	
Approach Delay					14.0			7.4			6.2		
Approach LOS					B			A			A		
Queue Length 50th (ft)					0			0			0	0	
Queue Length 95th (ft)					#245			48			37	7	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					2250			1684			1712	1449	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.36			0.07			0.06	0.03	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 18.6			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 12.3		Intersection LOS: B	
Intersection Capacity Utilization 40.0%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	265	320	30	115	10	15	25	80	70	45	15	
Future Volume (vph)	265	320	30	115	10	15	25	80	70	45	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3426	0	1602	0	0	1761	1691	0	1708	0	
Flt Permitted		0.979					0.950					
Satd. Flow (perm)	0	3426	0	1602	0	0	1761	1691	0	1708	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Peak Hour Factor	0.91	0.91	0.91	0.78	0.78	0.89	0.89	0.89	0.89	0.76	0.76	
Heavy Vehicles (%)	2%	3%	0%	2%	9%	0%	4%	4%	5%	10%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	676	0	160	0	0	45	169	0	79	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		18.6		12.6			12.6	12.6		9.1		
Actuated g/C Ratio		0.38		0.25			0.25	0.25		0.18		
v/c Ratio		0.52		0.34			0.09	0.39		0.25		
Control Delay		16.5		14.3			2.5	23.7		27.7		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		16.5		14.3			2.5	23.7		27.7		
LOS		B		B			A	C		C		
Approach Delay		16.5						19.2		27.7		
Approach LOS		B						B		C		
Queue Length 50th (ft)		75		18			0	40		19		
Queue Length 95th (ft)		225		72			9	144		72		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		2441		954			1045	970		469		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.28		0.17			0.04	0.17		0.17		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 49.5			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 17.5		Intersection LOS: B	
Intersection Capacity Utilization 46.9%		ICU Level of Service A	
Analysis Period (min) 15			

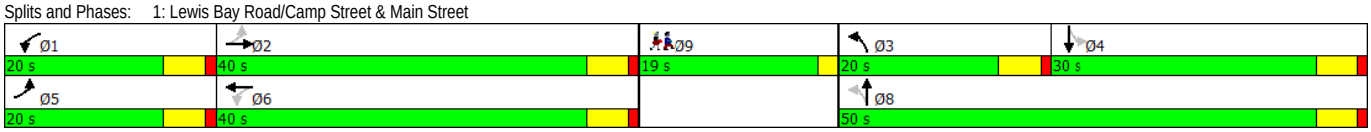
Splits and Phases: 16: Old Colony Road & Ocean Street & South Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	35	215	40	15	365	20	95	200	130	35	150	30	
Future Volume (vph)	35	215	40	15	365	20	95	200	130	35	150	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1787	1829	0	1805	1882	0	1805	1773	0	0	1827	0	
Flt Permitted	0.269			0.524			0.397				0.887		
Satd. Flow (perm)	506	1829	0	990	1882	0	754	1773	0	0	1633	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		7			2			28			6		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	1		7	7		1			1	1			
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	38	277	0	16	419	0	103	358	0	0	234	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	29.4	27.4		27.5	24.6		28.5	28.5			18.1		
Actuated g/C Ratio	0.38	0.36		0.36	0.32		0.37	0.37			0.24		
v/c Ratio	0.12	0.42		0.04	0.69		0.25	0.53			0.60		
Control Delay	19.6	26.1		19.7	35.3		23.2	24.5			40.5		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	19.6	26.1		19.7	35.3		23.2	24.5			40.5		
LOS	B	C		B	D		C	C			D		
Approach Delay		25.3			34.8			24.2			40.5		
Approach LOS		C			C			C			D		
Queue Length 50th (ft)	9	71		4	162		28	106			91		
Queue Length 95th (ft)	41	254		22	417		97	301			255		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	534	1039		617	1061		575	1192			692		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.07	0.27		0.03	0.39		0.18	0.30			0.34		

Intersection Summary			
Area Type:	Other		
Cycle Length: 129			
Actuated Cycle Length: 76.8			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 30.3		Intersection LOS: C	
Intersection Capacity Utilization 71.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	15	410	15	40	165
Future Volume (vph)	0	15	410	15	40	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1890	0	0	1862
Flt Permitted						0.990
Satd. Flow (perm)	1644	0	1890	0	0	1862
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	462	0	0	222
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	410	15	40	165
Future Vol, veh/h	0	15	410	15	40	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	16	446	16	43	179

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	720	454	0	0	462	0
Stage 1	454	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	398	610	-	-	1104	-
Stage 1	644	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	381	610	-	-	1104	-
Mov Cap-2 Maneuver	381	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	610	1104	-
HCM Lane V/C Ratio	-	-	0.027	0.039	-
HCM Control Delay (s)	-	-	11.1	8.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	80	345	55	105	60
Future Volume (vph)	0	80	345	55	105	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1864	0	0	1823
Flt Permitted						0.969
Satd. Flow (perm)	1644	0	1864	0	0	1823
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	435	0	0	179
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	80	345	55	105	60
Future Vol, veh/h	0	80	345	55	105	60
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	87	375	60	114	65

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	699	406	0	0	436	0
Stage 1	406	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	409	649	-	-	1129	-
Stage 1	677	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	366	648	-	-	1129	-
Mov Cap-2 Maneuver	366	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	682	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	5.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	648	1129	-
HCM Lane V/C Ratio	-	-	0.134	0.101	-
HCM Control Delay (s)	-	-	11.4	8.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.3	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	270	85	0	130	60	0
Future Volume (vph)	270	85	0	130	60	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1787	1599	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1787	1599	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	293	92	0	141	65	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	270	85	0	130	60	0
Future Vol, veh/h	270	85	0	130	60	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	293	92	0	141	65	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	206	65	-	0	-	0
Stage 1	65	-	-	-	-	-
Stage 2	141	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	-	-
Pot Cap-1 Maneuver	785	1002	0	-	-	0
Stage 1	960	-	0	-	-	0
Stage 2	888	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	785	1002	-	-	-	-
Mov Cap-2 Maneuver	785	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	888	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	785	1002	-
HCM Lane V/C Ratio	-	0.374	0.092	-
HCM Control Delay (s)	-	12.3	9	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	1.7	0.3	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	15	115	0	70	75
Future Volume (vph)	1	15	115	0	70	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1654	0	1881	0	0	1820
Flt Permitted	0.997					0.977
Satd. Flow (perm)	1654	0	1881	0	0	1820
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	0	125	0	0	158
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	24.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	15	115	0	70	75
Future Vol, veh/h	1	15	115	0	70	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	1	16	125	0	76	82

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	359	125	0	0	125	0
Stage 1	125	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	644	931	-	-	1462	-
Stage 1	906	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	609	931	-	-	1462	-
Mov Cap-2 Maneuver	609	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	766	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	901	1462	-
HCM Lane V/C Ratio	-	-	0.019	0.052	-
HCM Control Delay (s)	-	-	9.1	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	0	0	0	0	1	0	35	0	0	40	30
Future Volume (vph)	25	0	0	0	0	1	0	35	0	0	40	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1845	0	0	1753	0
Flt Permitted		0.950										
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1845	0	0	1753	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	1	0	0	38	0	0	76	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	25	0	0	0	0	1	0	35	0	0	40	30
Future Vol, veh/h	25	0	0	0	0	1	0	35	0	0	40	30
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	27	0	0	0	0	1	0	38	0	0	43	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	100	99	61	98	115	38	77	0	0	38	0	0
Stage 1	61	61	-	38	38	-	-	-	-	-	-	-
Stage 2	39	38	-	60	77	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	886	795	1010	889	779	1040	1515	-	-	1572	-	-
Stage 1	955	848	-	982	867	-	-	-	-	-	-	-
Stage 2	981	867	-	957	835	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	884	794	1009	889	778	1040	1515	-	-	1572	-	-
Mov Cap-2 Maneuver	884	794	-	889	778	-	-	-	-	-	-	-
Stage 1	954	847	-	982	867	-	-	-	-	-	-	-
Stage 2	980	867	-	957	834	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	8.5	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	884	1040	1572	-	-
HCM Lane V/C Ratio	-	-	-	0.031	0.001	-	-	-
HCM Control Delay (s)	0	-	-	9.2	8.5	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	0	1	60	70	15
Future Volume (vph)	15	0	1	60	70	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	0	0	1861	1802	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1805	0	0	1861	1802	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			2			2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	66	92	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 15.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	0	1	60	70	15
Future Vol, veh/h	15	0	1	60	70	15
Conflicting Peds, #/hr	0	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	16	0	1	65	76	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	153	86	94	0	-	0
Stage 1	86	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	843	978	1500	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	839	976	1500	-	-	-
Mov Cap-2 Maneuver	839	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	958	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1500	-	839	-	-
HCM Lane V/C Ratio	0.001	-	0.019	-	-
HCM Control Delay (s)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	70	5	20	85
Future Volume (vph)	0	0	70	5	20	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	0	1848	0	0	1862
Flt Permitted						0.990
Satd. Flow (perm)	1863	0	1848	0	0	1862
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9			1	1	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	81	0	0	114
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	70	5	20	85
Future Vol, veh/h	0	0	70	5	20	85
Conflicting Peds, #/hr	9	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	0	0	76	5	22	92

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	225	80	0	0	83	0
Stage 1	80	-	-	-	-	-
Stage 2	145	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	763	980	-	-	1520	-
Stage 1	943	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	744	979	-	-	1520	-
Mov Cap-2 Maneuver	744	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	861	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1520	-
HCM Lane V/C Ratio	-	-	-	0.014	-
HCM Control Delay (s)	-	-	0	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	40	15	55	65	50
Future Volume (vph)	70	40	15	55	65	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1734	0	0	1844	1790	0
Flt Permitted	0.969			0.990		
Satd. Flow (perm)	1734	0	0	1844	1790	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	110	1	1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	2%	2%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	119	0	0	76	125	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	40	15	55	65	50
Future Vol, veh/h	70	40	15	55	65	50
Conflicting Peds, #/hr	110	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	2	2	0	0
Mvmt Flow	76	43	16	60	71	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	301	100	126	0	-	0
Stage 1	99	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	693	958	1460	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	684	956	1459	-	-	-
Mov Cap-2 Maneuver	684	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1459	-	763	-	-
HCM Lane V/C Ratio	0.011	-	0.157	-	-
HCM Control Delay (s)	7.5	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	40	85	115	105
Future Volume (vph)	10	15	40	85	115	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1713	0	1708	0	0	1852
Flt Permitted	0.980					0.975
Satd. Flow (perm)	1713	0	1708	0	0	1852
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Peds. (#/hr)	1					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	135	0	0	239
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	15	40	85	115	105
Future Vol, veh/h	10	15	40	85	115	105
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	11	16	43	92	125	114

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	455	90	0	0	136	0
Stage 1	90	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	567	973	-	-	1461	-
Stage 1	939	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	515	973	-	-	1461	-
Mov Cap-2 Maneuver	515	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	642	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	718	1461	-
HCM Lane V/C Ratio	-	-	0.038	0.086	-
HCM Control Delay (s)	-	-	10.2	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	245	25	195	345	20	35
Future Volume (vph)	245	25	195	345	20	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1859	0	0	1866	1672	0
Flt Permitted				0.982	0.982	
Satd. Flow (perm)	1859	0	0	1866	1672	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	293	0	0	587	60	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.7%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	245	25	195	345	20	35
Future Vol, veh/h	245	25	195	345	20	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	2	2
Mvmt Flow	266	27	212	375	22	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	293	0	1079	280
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	799	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1280	-	242	759
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	443	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1280	-	191	759
Mov Cap-2 Maneuver	-	-	-	-	191	-
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	350	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	365	-	-	1280	-
HCM Lane V/C Ratio	0.164	-	-	0.166	-
HCM Control Delay (s)	16.8	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.6	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	100	60	10	25	55	15
Future Volume (vph)	100	60	10	25	55	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	0	0	1873	1777	0
Flt Permitted				0.986	0.962	
Satd. Flow (perm)	1805	0	0	1873	1777	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)		3	3			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	0	0	38	76	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	100	60	10	25	55	15
Future Vol, veh/h	100	60	10	25	55	15
Conflicting Peds, #/hr	0	3	3	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	109	65	11	27	60	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	177	0	193	149
Stage 1	-	-	-	-	144	-
Stage 2	-	-	-	-	49	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1411	-	800	903
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	979	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1404	-	791	896
Mov Cap-2 Maneuver	-	-	-	-	791	-
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	971	-

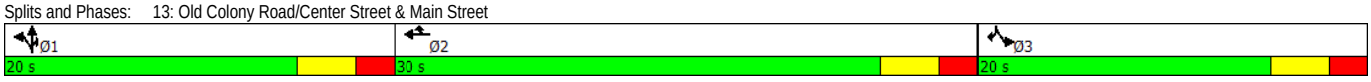
Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	811	-	-	1404	-
HCM Lane V/C Ratio	0.094	-	-	0.008	-
HCM Control Delay (s)	9.9	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	530	255	55	110	175	265	0	65
Future Volume (vph)	0	0	0	0	530	255	55	110	175	265	0	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3406	1524	1687	1776	1509	1719	0	1538
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3406	1524	1666	1776	1509	1699	0	1538
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						277	109		190			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						18	9		6	6		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	7%	7%	7%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	576	277	60	120	190	288	0	71
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					17.2	17.2	9.7	9.7	9.7	13.4		13.4
Actuated g/C Ratio					0.31	0.31	0.17	0.17	0.17	0.24		0.24
v/c Ratio					0.55	0.42	0.16	0.39	0.45	0.70		0.16
Control Delay					18.6	4.6	2.4	26.3	8.2	33.0		3.2
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					18.6	4.6	2.4	26.3	8.2	33.0		3.2
LOS					B	A	A	C	A	C		A
Approach Delay					14.1			13.2			27.1	
Approach LOS					B			B			C	
Queue Length 50th (ft)					83	0	0	37	0	84		0
Queue Length 95th (ft)					142	45	9	87	48	#234		15
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1578	855	547	493	556	477		506
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.37	0.32	0.11	0.24	0.34	0.60		0.14

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 55.9			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 16.8		Intersection LOS: B	
Intersection Capacity Utilization 43.5%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	95	495	60	0	0	0	0	145	95	
Future Volume (vph)	0	0	0	95	495	60	0	0	0	0	145	95	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3217	0	0	0	0	0	3157	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3213	0	0	0	0	0	3157	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					43						103		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		15				7		2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	7%	7%	7%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	706	0	0	0	0	0	261	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					15.8						10.9		
Actuated g/C Ratio					0.40						0.28		
v/c Ratio					0.54						0.28		
Control Delay					10.5						10.2		
Queue Delay					0.0						0.0		
Total Delay					10.5						10.2		
LOS					B						B		
Approach Delay					10.5						10.2		
Approach LOS					B						B		
Queue Length 50th (ft)					42						10		
Queue Length 95th (ft)					139						56		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2859						2182		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.25						0.12		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 39.3			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 35.2%		ICU Level of Service A	
Analysis Period (min) 15			

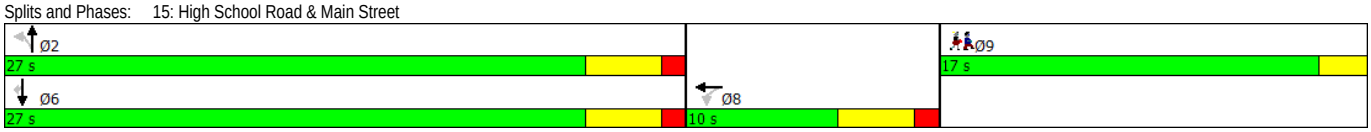
Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	65	405	95	65	120	0	0	120	60	
Future Volume (vph)	0	0	0	65	405	95	65	120	0	0	120	60	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3087	0	0	1855	0	0	1827	1553	
Flt Permitted					0.994			0.830					
Satd. Flow (perm)	0	0	0	0	3076	0	0	1566	0	0	1827	1533	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					35							65	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				7		13	1					1	
Confl. Bikes (#/hr)						2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	3%	6%	9%	2%	0%	0%	0%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	614	0	0	201	0	0	130	65	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					9.9			10.2			9.8	9.8	
Actuated g/C Ratio					0.45			0.46			0.45	0.45	
v/c Ratio					0.44			0.28			0.16	0.09	
Control Delay					15.9			8.5			7.8	3.7	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					15.9			8.5			7.8	3.7	
LOS					B			A			A	A	
Approach Delay					15.9			8.5			6.4		
Approach LOS					B			A			A		
Queue Length 50th (ft)					25			13			8	0	
Queue Length 95th (ft)					#202			83			54	19	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					1410			1411			1646	1388	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.44			0.14			0.08	0.05	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 22			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 40.4%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	230	430	25	70	35	15	50	95	40	35	25	
Future Volume (vph)	230	430	25	70	35	15	50	95	40	35	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3331	0	1565	0	0	1570	1701	0	1763	0	
Flt Permitted		0.983					0.950					
Satd. Flow (perm)	0	3329	0	1531	0	0	1551	1701	0	1763	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Confl. Peds. (#/hr)	2				8	2	8					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	7%	5%	14%	3%	9%	8%	17%	5%	11%	3%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	744	0	114	0	0	70	146	0	65	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		24.6		12.9			12.9	12.9		9.9		
Actuated g/C Ratio		0.52		0.27			0.27	0.27		0.21		
v/c Ratio		0.43		0.24			0.15	0.31		0.18		
Control Delay		14.6		11.5			6.7	23.7		26.9		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		14.6		11.5			6.7	23.7		26.9		
LOS		B		B			A	C		C		
Approach Delay		14.6						18.2		26.9		
Approach LOS		B						B		C		
Queue Length 50th (ft)		82		7			0	35		16		
Queue Length 95th (ft)		246		60			28	129		73		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		2359		918			929	982		597		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.32		0.12			0.08	0.15		0.11		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 47.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.43			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 47.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

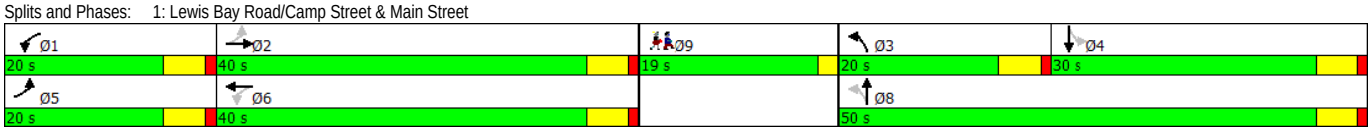


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	110	340	45	15	390	40	255	185	135	25	85	55	
Future Volume (vph)	110	340	45	15	390	40	255	185	135	25	85	55	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1805	1861	0	1805	1865	0	1805	1762	0	0	1775	0	
Flt Permitted	0.192			0.449			0.355				0.892		
Satd. Flow (perm)	362	1861	0	853	1865	0	674	1762	0	0	1593	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		5			4			31			17		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	16		1	1		16	1		3	3		1	
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	120	419	0	16	467	0	277	348	0	0	179	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	43.9	40.5		35.1	28.5		33.2	33.2			14.7		
Actuated g/C Ratio	0.47	0.43		0.37	0.30		0.35	0.35			0.16		
v/c Ratio	0.37	0.52		0.04	0.82		0.70	0.54			0.68		
Control Delay	21.3	27.3		19.7	46.1		37.3	28.2			51.1		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	21.3	27.3		19.7	46.1		37.3	28.2			51.1		
LOS	C	C		B	D		D	C			D		
Approach Delay		25.9			45.2			32.2			51.1		
Approach LOS		C			D			C			D		
Queue Length 50th (ft)	33	137		4	223		110	131			85		
Queue Length 95th (ft)	102	409		22	#570		#271	310			201		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	419	846		557	757		434	932			472		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.29	0.50		0.03	0.62		0.64	0.37			0.38		

Intersection Summary

Area Type: Other
Cycle Length: 129
Actuated Cycle Length: 93.7
Natural Cycle: 85
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 35.6 Intersection LOS: D
Intersection Capacity Utilization 73.2% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	50	525	0	10	135
Future Volume (vph)	0	50	525	0	10	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1900	0	0	1876
Flt Permitted						0.997
Satd. Flow (perm)	1644	0	1900	0	0	1876
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Confl. Peds. (#/hr)				1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	0	571	0	0	158
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	525	0	10	135
Future Vol, veh/h	0	50	525	0	10	135
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	54	571	0	11	147

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	740	572	0	0	572	0
Stage 1	572	-	-	-	-	-
Stage 2	168	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	387	523	-	-	1006	-
Stage 1	569	-	-	-	-	-
Stage 2	867	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	382	523	-	-	1006	-
Mov Cap-2 Maneuver	382	-	-	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	857	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	523	1006	-
HCM Lane V/C Ratio	-	-	0.104	0.011	-
HCM Control Delay (s)	-	-	12.7	8.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	180	345	35	85	50
Future Volume (vph)	0	180	345	35	85	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1859	0	0	1823
Flt Permitted						0.969
Satd. Flow (perm)	1644	0	1859	0	0	1823
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	196	0	413	0	0	146
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	180	345	35	85	50
Future Vol, veh/h	0	180	345	35	85	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	0	196	375	38	92	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	633	394	0	0	413	0
Stage 1	394	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	447	659	-	-	1151	-
Stage 1	686	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	410	659	-	-	1151	-
Mov Cap-2 Maneuver	410	-	-	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	5.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	659	1151	-
HCM Lane V/C Ratio	-	-	0.297	0.08	-
HCM Control Delay (s)	-	-	12.8	8.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.3	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	240	130	0	140	50	0
Future Volume (vph)	240	130	0	140	50	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	1615	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1805	1615	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	261	141	0	152	54	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	240	130	0	140	50	0
Future Vol, veh/h	240	130	0	140	50	0
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	261	141	0	152	54	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	206	57	-	0	-	0
Stage 1	54	-	-	-	-	-
Stage 2	152	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	787	1015	0	-	-	0
Stage 1	974	-	0	-	-	0
Stage 2	881	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	787	1012	-	-	-	-
Mov Cap-2 Maneuver	787	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	787	1012	-
HCM Lane V/C Ratio	-	0.331	0.14	-
HCM Control Delay (s)	-	11.8	9.1	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	1.5	0.5	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	65	75	1	75	105
Future Volume (vph)	0	65	75	1	75	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1859	0	0	1844
Flt Permitted						0.980
Satd. Flow (perm)	1644	0	1859	0	0	1844
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	0	83	0	0	196
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	65	75	1	75	105
Future Vol, veh/h	0	65	75	1	75	105
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	0	71	82	1	82	114

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	359	83	0	0	83	0
Stage 1	82	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	644	982	-	-	1520	-
Stage 1	946	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	607	981	-	-	1519	-
Mov Cap-2 Maneuver	607	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	729	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	981	1519	-
HCM Lane V/C Ratio	-	-	0.072	0.054	-
HCM Control Delay (s)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	0	1	0	0	1	5	65	0	1	30	10
Future Volume (vph)	45	0	1	0	0	1	5	65	0	1	30	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1894	0	0	1835	0
Flt Permitted		0.953						0.997			0.999	
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1894	0	0	1835	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)	1					1	5		2	2		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	1	0	0	76	0	0	45	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	45	0	1	0	0	1	5	65	0	1	30	10
Future Vol, veh/h	45	0	1	0	0	1	5	65	0	1	30	10
Conflicting Peds, #/hr	1	0	0	0	0	1	5	0	2	2	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	49	0	1	0	0	1	5	71	0	1	33	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	128	129	43	125	135	74	48	0	0	73	0	0
Stage 1	45	45	-	84	84	-	-	-	-	-	-	-
Stage 2	83	84	-	41	51	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	850	765	1033	854	760	993	1572	-	-	1540	-	-
Stage 1	974	861	-	929	829	-	-	-	-	-	-	-
Stage 2	930	829	-	979	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	842	757	1028	849	752	990	1572	-	-	1539	-	-
Mov Cap-2 Maneuver	842	757	-	849	752	-	-	-	-	-	-	-
Stage 1	966	856	-	924	825	-	-	-	-	-	-	-
Stage 2	925	825	-	977	851	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	8.6	0.5	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1572	-	-	845	990	1539	-	-
HCM Lane V/C Ratio	0.003	-	-	0.059	0.001	0.001	-	-
HCM Control Delay (s)	7.3	0	-	9.5	8.6	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	2	0	110	40	10
Future Volume (vph)	15	2	0	110	40	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1791	0	0	1900	1847	0
Flt Permitted	0.957					
Satd. Flow (perm)	1791	0	0	1900	1847	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			10			10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	0	0	120	54	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	2	0	110	40	10
Future Vol, veh/h	15	2	0	110	40	10
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	2	0	120	43	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	179	59	64	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	120	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	815	1012	1551	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	800	1002	1551	-	-	-
Mov Cap-2 Maneuver	800	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	901	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1551	-	819	-	-
HCM Lane V/C Ratio	-	-	0.023	-	-
HCM Control Delay (s)	0	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	5	125	0	5	50
Future Volume (vph)	1	5	125	0	5	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1672	0	1900	0	0	1892
Flt Permitted	0.992					0.996
Satd. Flow (perm)	1672	0	1900	0	0	1892
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	136	0	0	59
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	5	125	0	5	50
Future Vol, veh/h	1	5	125	0	5	50
Conflicting Peds, #/hr	9	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	5	136	0	5	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	210	136	0	0	136	0
Stage 1	136	-	-	-	-	-
Stage 2	74	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	783	918	-	-	1461	-
Stage 1	895	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	773	918	-	-	1461	-
Mov Cap-2 Maneuver	773	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	942	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	890	1461	-
HCM Lane V/C Ratio	-	-	0.007	0.004	-
HCM Control Delay (s)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	25	10	120	30	130
Future Volume (vph)	70	25	10	120	30	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1733	0	0	1855	1660	0
Flt Permitted	0.964			0.996		
Satd. Flow (perm)	1733	0	0	1855	1660	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	117	3	3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	0	141	174	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	25	10	120	30	130
Future Vol, veh/h	70	25	10	120	30	130
Conflicting Peds, #/hr	117	3	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	27	11	130	33	141

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	375	109	177	0	-	0
Stage 1	106	-	-	-	-	-
Stage 2	269	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	626	945	1399	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	776	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	617	940	1395	-	-	-
Mov Cap-2 Maneuver	617	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1395	-	678	-	-
HCM Lane V/C Ratio	0.008	-	0.152	-	-
HCM Control Delay (s)	7.6	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	70	120	125	10	5	60
Future Volume (vph)	70	120	125	10	5	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1707	0	1881	0	0	1892
Flt Permitted	0.982					0.996
Satd. Flow (perm)	1707	0	1881	0	0	1892
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	206	0	147	0	0	70
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	70	120	125	10	5	60
Future Vol, veh/h	70	120	125	10	5	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	76	130	136	11	5	65

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	217	141	0	0	147	0
Stage 1	141	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	776	912	-	-	1447	-
Stage 1	891	-	-	-	-	-
Stage 2	952	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	773	912	-	-	1447	-
Mov Cap-2 Maneuver	773	-	-	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	948	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	855	1447	-
HCM Lane V/C Ratio	-	-	0.242	0.004	-
HCM Control Delay (s)	-	-	10.5	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	410	20	45	240	55	190
Future Volume (vph)	410	20	45	240	55	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1870	0	0	1885	1682	0
Flt Permitted				0.992	0.989	
Satd. Flow (perm)	1870	0	0	1885	1682	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	468	0	0	310	267	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	410	20	45	240	55	190
Future Vol, veh/h	410	20	45	240	55	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	446	22	49	261	60	207

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	467	0	816	457
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	359	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1105	-	349	608
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	711	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1105	-	331	608
Mov Cap-2 Maneuver	-	-	-	-	331	-
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	674	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	19.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	512	-	-	1105	-
HCM Lane V/C Ratio	0.52	-	-	0.044	-
HCM Control Delay (s)	19.4	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	65	35	90	90	35
Future Volume (vph)	55	65	35	90	90	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1761	0	0	1873	1764	0
Flt Permitted				0.986	0.965	
Satd. Flow (perm)	1761	0	0	1873	1764	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)						4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	131	0	0	136	136	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	65	35	90	90	35
Future Vol, veh/h	55	65	35	90	90	35
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	60	71	38	98	98	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	130	0	269	99
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	174	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1468	-	725	962
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	861	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1462	-	705	958
Mov Cap-2 Maneuver	-	-	-	-	705	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	838	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	761	-	-	1462	-
HCM Lane V/C Ratio	0.179	-	-	0.026	-
HCM Control Delay (s)	10.8	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	630	530	95	165	245	435	0	70
Future Volume (vph)	0	0	0	0	630	530	95	165	245	435	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3505	1568	1770	1863	1583	1752	0	1568
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3505	1568	1767	1863	1583	1749	0	1568
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						576	109		266			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						21	1		1	1		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	685	576	103	179	266	473	0	76
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					21.3	21.3	11.6	11.6	11.6	15.2		15.2
Actuated g/C Ratio					0.34	0.34	0.18	0.18	0.18	0.24		0.24
v/c Ratio					0.58	0.63	0.25	0.53	0.53	1.12		0.17
Control Delay					19.7	5.3	6.8	30.1	7.7	110.8		3.5
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					19.7	5.3	6.8	30.1	7.7	110.8		3.5
LOS					B	A	A	C	A	F		A
Approach Delay					13.1			14.9			95.9	
Approach LOS					B			B			F	
Queue Length 50th (ft)					114	0	0	67	0	~243		0
Queue Length 95th (ft)					171	61	33	123	55	#431		18
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1405	974	508	448	582	421		460
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.49	0.59	0.20	0.40	0.46	1.12		0.17

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 63.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 32.8 — Intersection LOS: C
Intersection Capacity Utilization 61.9% — ICU Level of Service B
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	110	625	60	0	0	0	0	100	115	
Future Volume (vph)	0	0	0	110	625	60	0	0	0	0	100	115	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3324	0	0	0	0	0	3161	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3320	0	0	0	0	0	3161	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					38						125		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		18				6		7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	4%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	864	0	0	0	0	0	234	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					18.8						11.1		
Actuated g/C Ratio					0.42						0.25		
v/c Ratio					0.62						0.27		
Control Delay					12.6						11.0		
Queue Delay					0.0						0.0		
Total Delay					12.6						11.0		
LOS					B						B		
Approach Delay					12.6						11.0		
Approach LOS					B						B		
Queue Length 50th (ft)					56						8		
Queue Length 95th (ft)					171						49		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2726						1968		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.32						0.12		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 45.2			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 12.3		Intersection LOS: B	
Intersection Capacity Utilization 39.2%		ICU Level of Service A	
Analysis Period (min) 15			

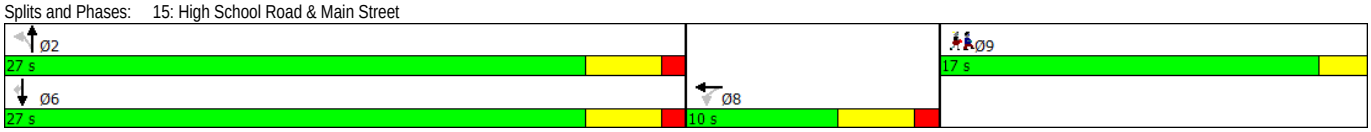
Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	35	620	90	40	60	0	0	80	30	
Future Volume (vph)	0	0	0	35	620	90	40	60	0	0	80	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3287	0	0	1818	0	0	1881	1615	
Flt Permitted					0.998								
Satd. Flow (perm)	0	0	0	0	3273	0	0	1851	0	0	1881	1586	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					22							61	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				20		16	9					9	
Confl. Bikes (#/hr)						1							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	3%	1%	1%	0%	4%	0%	0%	1%	0%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	810	0	0	108	0	0	87	33	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					12.7			8.8			8.6	8.6	
Actuated g/C Ratio					0.69			0.48			0.46	0.46	
v/c Ratio					0.36			0.12			0.10	0.04	
Control Delay					14.1			7.5			7.5	2.6	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					14.1			7.5			7.5	2.6	
LOS					B			A			A	A	
Approach Delay					14.1			7.5			6.1		
Approach LOS					B			A			A		
Queue Length 50th (ft)					0			0			0	0	
Queue Length 95th (ft)					#246			48			41	9	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					2251			1686			1713	1450	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.36			0.06			0.05	0.02	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 18.5			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 12.5		Intersection LOS: B	
Intersection Capacity Utilization 40.8%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	275	330	30	120	10	15	25	85	70	45	15	
Future Volume (vph)	275	330	30	120	10	15	25	85	70	45	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3426	0	1603	0	0	1761	1695	0	1709	0	
Flt Permitted		0.979					0.950					
Satd. Flow (perm)	0	3426	0	1603	0	0	1761	1695	0	1709	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	3%	0%	2%	9%	0%	4%	4%	5%	10%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	691	0	141	0	0	43	168	0	65	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		18.9		12.4			12.4	12.4		8.7		
Actuated g/C Ratio		0.38		0.25			0.25	0.25		0.18		
v/c Ratio		0.53		0.30			0.09	0.40		0.22		
Control Delay		16.2		13.3			2.2	23.9		27.7		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		16.2		13.3			2.2	23.9		27.7		
LOS		B		B			A	C		C		
Approach Delay		16.2						19.5		27.7		
Approach LOS		B						B		C		
Queue Length 50th (ft)		76		13			0	39		16		
Queue Length 95th (ft)		230		79			9	146		75		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		2449		956			1047	975		470		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.28		0.15			0.04	0.17		0.14		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 49.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 17.1		Intersection LOS: B	
Intersection Capacity Utilization 47.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

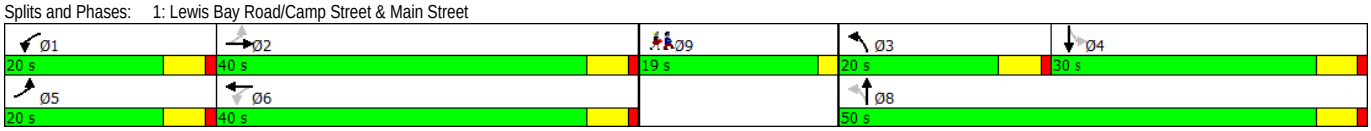


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	35	215	50	15	365	20	115	205	130	35	160	30	
Future Volume (vph)	35	215	50	15	365	20	115	205	130	35	160	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1787	1817	0	1805	1882	0	1805	1775	0	0	1829	0	
Flt Permitted	0.240			0.488			0.381				0.890		
Satd. Flow (perm)	451	1817	0	922	1882	0	724	1775	0	0	1641	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		9			2			27			5		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	1		7	7		1			1	1			
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	38	288	0	16	419	0	125	364	0	0	245	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	29.1	27.0		27.1	24.1		33.6	33.6			18.1		
Actuated g/C Ratio	0.36	0.33		0.34	0.30		0.42	0.42			0.22		
v/c Ratio	0.13	0.47		0.04	0.74		0.29	0.48			0.66		
Control Delay	20.6	27.6		20.5	38.7		23.3	23.5			43.3		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	20.6	27.6		20.5	38.7		23.3	23.5			43.3		
LOS	C	C		C	D		C	C			D		
Approach Delay		26.8			38.1			23.5			43.3		
Approach LOS		C			D			C			D		
Queue Length 50th (ft)	9	78		4	168		35	110			99		
Queue Length 95th (ft)	41	269		22	423		113	308			#277		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	472	956		552	980		542	1173			613		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.08	0.30		0.03	0.43		0.23	0.31			0.40		

Intersection Summary

Area Type: Other
Cycle Length: 129
Actuated Cycle Length: 80.7
Natural Cycle: 85
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 31.7 — Intersection LOS: C
Intersection Capacity Utilization 72.5% — ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	15	435	15	40	185
Future Volume (vph)	0	15	435	15	40	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1892	0	0	1864
Flt Permitted						0.991
Satd. Flow (perm)	1644	0	1892	0	0	1864
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	489	0	0	244
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	435	15	40	185
Future Vol, veh/h	0	15	435	15	40	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	16	473	16	43	201

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	769	481	0	0	489	0
Stage 1	481	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	372	589	-	-	1079	-
Stage 1	626	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	355	589	-	-	1079	-
Mov Cap-2 Maneuver	355	-	-	-	-	-
Stage 1	626	-	-	-	-	-
Stage 2	732	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	589	1079	-
HCM Lane V/C Ratio	-	-	0.028	0.04	-
HCM Control Delay (s)	-	-	11.3	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	100	350	55	125	60
Future Volume (vph)	0	100	350	55	125	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1866	0	0	1819
Flt Permitted						0.967
Satd. Flow (perm)	1644	0	1866	0	0	1819
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	109	0	440	0	0	201
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	100	350	55	125	60
Future Vol, veh/h	0	100	350	55	125	60
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	109	380	60	136	65

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	748	411	0	0	441	0
Stage 1	411	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	383	645	-	-	1124	-
Stage 1	674	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	334	644	-	-	1124	-
Mov Cap-2 Maneuver	334	-	-	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	636	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	5.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	644	1124	-
HCM Lane V/C Ratio	-	-	0.169	0.121	-
HCM Control Delay (s)	-	-	11.7	8.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.4	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	270	115	0	135	60	0
Future Volume (vph)	270	115	0	135	60	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1787	1599	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1787	1599	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	293	125	0	147	65	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	270	115	0	135	60	0
Future Vol, veh/h	270	115	0	135	60	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	293	125	0	147	65	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	212	65	-	0	-	0
Stage 1	65	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	-	-
Pot Cap-1 Maneuver	779	1002	0	-	-	0
Stage 1	960	-	0	-	-	0
Stage 2	883	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	779	1002	-	-	-	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	883	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	779	1002	-
HCM Lane V/C Ratio	-	0.377	0.125	-
HCM Control Delay (s)	-	12.4	9.1	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	1.8	0.4	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	20	115	5	100	75
Future Volume (vph)	5	20	115	5	100	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1676	0	1872	0	0	1811
Flt Permitted	0.991					0.972
Satd. Flow (perm)	1676	0	1872	0	0	1811
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	130	0	0	191
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	20	115	5	100	75
Future Vol, veh/h	5	20	115	5	100	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	5	22	125	5	109	82

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	427	128	0	0	130	0
Stage 1	128	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	588	927	-	-	1455	-
Stage 1	903	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	542	927	-	-	1455	-
Mov Cap-2 Maneuver	542	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	698	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	4.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	812	1455	-
HCM Lane V/C Ratio	-	-	0.033	0.075	-
HCM Control Delay (s)	-	-	9.6	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	0	0	0	0	1	0	35	0	0	40	30
Future Volume (vph)	25	0	0	0	0	1	0	35	0	0	40	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1845	0	0	1753	0
Flt Permitted		0.950										
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1845	0	0	1753	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	1	0	0	38	0	0	76	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	25	0	0	0	0	1	0	35	0	0	40	30
Future Vol, veh/h	25	0	0	0	0	1	0	35	0	0	40	30
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	27	0	0	0	0	1	0	38	0	0	43	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	100	99	61	98	115	38	77	0	0	38	0	0
Stage 1	61	61	-	38	38	-	-	-	-	-	-	-
Stage 2	39	38	-	60	77	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	886	795	1010	889	779	1040	1515	-	-	1572	-	-
Stage 1	955	848	-	982	867	-	-	-	-	-	-	-
Stage 2	981	867	-	957	835	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	884	794	1009	889	778	1040	1515	-	-	1572	-	-
Mov Cap-2 Maneuver	884	794	-	889	778	-	-	-	-	-	-	-
Stage 1	954	847	-	982	867	-	-	-	-	-	-	-
Stage 2	980	867	-	957	834	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	8.5	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	884	1040	1572	-	-
HCM Lane V/C Ratio	-	-	-	0.031	0.001	-	-	-
HCM Control Delay (s)	0	-	-	9.2	8.5	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	0	1	60	70	15
Future Volume (vph)	15	0	1	60	70	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	0	0	1861	1802	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1805	0	0	1861	1802	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			2			2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	66	92	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 15.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	0	1	60	70	15
Future Vol, veh/h	15	0	1	60	70	15
Conflicting Peds, #/hr	0	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	16	0	1	65	76	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	153	86	94	0	-	0
Stage 1	86	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	843	978	1500	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	839	976	1500	-	-	-
Mov Cap-2 Maneuver	839	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	958	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1500	-	839	-	-
HCM Lane V/C Ratio	0.001	-	0.019	-	-
HCM Control Delay (s)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	70	5	20	85
Future Volume (vph)	0	0	70	5	20	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	0	1848	0	0	1862
Flt Permitted						0.990
Satd. Flow (perm)	1863	0	1848	0	0	1862
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9			1	1	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	81	0	0	114
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	70	5	20	85
Future Vol, veh/h	0	0	70	5	20	85
Conflicting Peds, #/hr	9	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	0	0	76	5	22	92

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	225	80	0	0	83	0
Stage 1	80	-	-	-	-	-
Stage 2	145	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	763	980	-	-	1520	-
Stage 1	943	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	744	979	-	-	1520	-
Mov Cap-2 Maneuver	744	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	861	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1520	-
HCM Lane V/C Ratio	-	-	-	0.014	-
HCM Control Delay (s)	-	-	0	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	75	40	15	55	65	60
Future Volume (vph)	75	40	15	55	65	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1737	0	0	1844	1776	0
Flt Permitted	0.968			0.990		
Satd. Flow (perm)	1737	0	0	1844	1776	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	110	1	1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	2%	2%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	125	0	0	76	136	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	75	40	15	55	65	60
Future Vol, veh/h	75	40	15	55	65	60
Conflicting Peds, #/hr	110	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	2	2	0	0
Mvmt Flow	82	43	16	60	71	65

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	306	105	137	0	-	0
Stage 1	104	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	688	952	1447	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	679	950	1446	-	-	-
Mov Cap-2 Maneuver	679	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1446	-	754	-	-
HCM Lane V/C Ratio	0.011	-	0.166	-	-
HCM Control Delay (s)	7.5	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	45	85	115	115
Future Volume (vph)	10	15	45	85	115	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1713	0	1716	0	0	1854
Flt Permitted	0.980					0.976
Satd. Flow (perm)	1713	0	1716	0	0	1854
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Peds. (#/hr)	1					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	141	0	0	250
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	15	45	85	115	115
Future Vol, veh/h	10	15	45	85	115	115
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	11	16	49	92	125	125

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	471	95	0	0	141	0
Stage 1	95	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	555	967	-	-	1455	-
Stage 1	934	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	503	967	-	-	1455	-
Mov Cap-2 Maneuver	503	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	634	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	706	1455	-
HCM Lane V/C Ratio	-	-	0.038	0.086	-
HCM Control Delay (s)	-	-	10.3	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	245	25	205	345	20	40
Future Volume (vph)	245	25	205	345	20	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1859	0	0	1866	1668	0
Flt Permitted				0.982	0.983	
Satd. Flow (perm)	1859	0	0	1866	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	293	0	0	598	65	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	245	25	205	345	20	40
Future Vol, veh/h	245	25	205	345	20	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	2	2
Mvmt Flow	266	27	223	375	22	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	293	0	1101	280
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	821	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1280	-	235	759
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	432	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1280	-	183	759
Mov Cap-2 Maneuver	-	-	-	-	183	-
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	337	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	370	-	-	1280	-
HCM Lane V/C Ratio	0.176	-	-	0.174	-
HCM Control Delay (s)	16.8	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.6	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	100	80	20	25	75	20
Future Volume (vph)	100	80	20	25	75	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1786	0	0	1858	1775	0
Flt Permitted				0.978	0.962	
Satd. Flow (perm)	1786	0	0	1858	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)		3	3			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	196	0	0	49	104	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	100	80	20	25	75	20
Future Vol, veh/h	100	80	20	25	75	20
Conflicting Peds, #/hr	0	3	3	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	109	87	22	27	82	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	199	0	226	160
Stage 1	-	-	-	-	155	-
Stage 2	-	-	-	-	71	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1385	-	767	890
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1378	-	753	883
Mov Cap-2 Maneuver	-	-	-	-	753	-
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	942	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	10.3
HCM LOS			B

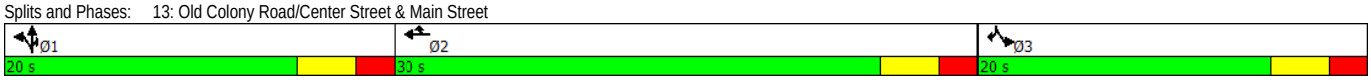
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	777	-	-	1378	-
HCM Lane V/C Ratio	0.133	-	-	0.016	-
HCM Control Delay (s)	10.3	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	545	260	55	110	175	275	0	65
Future Volume (vph)	0	0	0	0	545	260	55	110	175	275	0	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3406	1524	1687	1776	1509	1719	0	1538
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3406	1524	1666	1776	1509	1699	0	1538
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						283	109		190			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						18	9		6	6		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	7%	7%	7%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	592	283	60	120	190	299	0	71
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					17.5	17.5	9.7	9.7	9.7	13.7		13.7
Actuated g/C Ratio					0.31	0.31	0.17	0.17	0.17	0.24		0.24
v/c Ratio					0.56	0.42	0.16	0.39	0.46	0.72		0.16
Control Delay					18.9	4.6	2.5	26.6	8.2	33.8		3.2
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					18.9	4.6	2.5	26.6	8.2	33.8		3.2
LOS					B	A	A	C	A	C		A
Approach Delay					14.2			13.2			28.0	
Approach LOS					B			B			C	
Queue Length 50th (ft)					86	0	0	37	0	89		0
Queue Length 95th (ft)					146	45	9	87	48	#247		15
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1560	851	542	488	552	472		502
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.38	0.33	0.11	0.25	0.34	0.63		0.14

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 56.4
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 17.2 — Intersection LOS: B
Intersection Capacity Utilization 44.5% — ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	100	505	60	0	0	0	0	155	95	
Future Volume (vph)	0	0	0	100	505	60	0	0	0	0	155	95	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3221	0	0	0	0	0	3165	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3216	0	0	0	0	0	3165	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					44						103		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		15				7		2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	7%	7%	7%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	723	0	0	0	0	0	271	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					16.0						10.9		
Actuated g/C Ratio					0.40						0.28		
v/c Ratio					0.54						0.29		
Control Delay					10.6						10.5		
Queue Delay					0.0						0.0		
Total Delay					10.6						10.5		
LOS					B						B		
Approach Delay					10.6						10.5		
Approach LOS					B						B		
Queue Length 50th (ft)					44						11		
Queue Length 95th (ft)					144						58		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2851						2173		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.25						0.12		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 39.6			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 35.6%		ICU Level of Service A	
Analysis Period (min) 15			

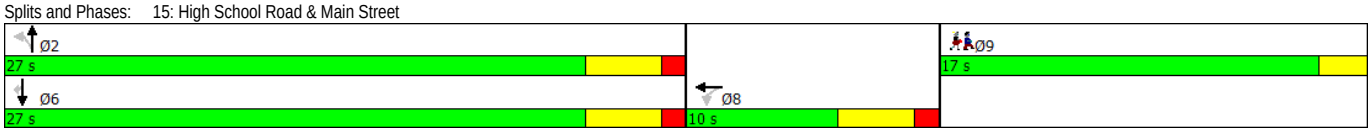
Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	65	410	100	65	120	0	0	125	60	
Future Volume (vph)	0	0	0	65	410	100	65	120	0	0	125	60	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3081	0	0	1855	0	0	1827	1553	
Flt Permitted					0.994			0.828					
Satd. Flow (perm)	0	0	0	0	3070	0	0	1562	0	0	1827	1533	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					37							65	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				7		13	1					1	
Confl. Bikes (#/hr)						2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	3%	6%	9%	2%	0%	0%	0%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	626	0	0	201	0	0	136	65	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					11.8			10.2			9.8	9.8	
Actuated g/C Ratio					0.54			0.46			0.45	0.45	
v/c Ratio					0.38			0.28			0.17	0.09	
Control Delay					15.5			8.5			7.8	3.7	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					15.5			8.5			7.8	3.7	
LOS					B			A			A	A	
Approach Delay					15.5			8.5			6.5		
Approach LOS					B			A			A		
Queue Length 50th (ft)					26			13			8	0	
Queue Length 95th (ft)					#206			83			57	19	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					1658			1407			1646	1388	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.38			0.14			0.08	0.05	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 22			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.38			
Intersection Signal Delay: 12.4		Intersection LOS: B	
Intersection Capacity Utilization 43.1%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	230	445	25	70	40	15	60	95	40	35	25	
Future Volume (vph)	230	445	25	70	40	15	60	95	40	35	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3335	0	1563	0	0	1567	1701	0	1763	0	
Flt Permitted		0.984					0.950					
Satd. Flow (perm)	0	3333	0	1529	0	0	1547	1701	0	1763	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Confl. Peds. (#/hr)	2				8	2	8					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	7%	5%	14%	3%	9%	8%	17%	5%	11%	3%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	761	0	119	0	0	81	146	0	65	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		20.1		11.6			11.6	11.6		8.7		
Actuated g/C Ratio		0.40		0.23			0.23	0.23		0.18		
v/c Ratio		0.57		0.28			0.19	0.37		0.21		
Control Delay		16.1		12.4			8.2	24.6		27.5		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		16.1		12.4			8.2	24.6		27.5		
LOS		B		B			A	C		C		
Approach Delay		16.1						18.8		27.5		
Approach LOS		B						B		C		
Queue Length 50th (ft)		85		9			0	35		16		
Queue Length 95th (ft)		253		64			37	129		73		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		2352		898			908	960		476		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.32		0.13			0.09	0.15		0.14		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 49.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 16.9		Intersection LOS: B	
Intersection Capacity Utilization 48.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

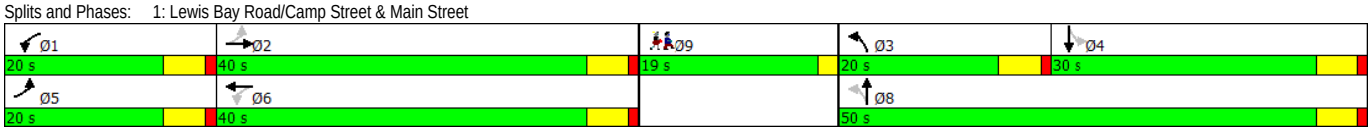


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	110	340	50	15	390	40	300	195	135	25	95	55	
Future Volume (vph)	110	340	50	15	390	40	300	195	135	25	95	55	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1805	1859	0	1805	1865	0	1805	1766	0	0	1779	0	
Flt Permitted	0.182			0.431			0.334				0.897		
Satd. Flow (perm)	343	1859	0	818	1865	0	634	1766	0	0	1606	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		6			4			30			16		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	16		1	1		16	1		3	3		1	
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	120	424	0	16	467	0	326	359	0	0	190	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	44.1	40.6		35.3	28.8		35.6	35.6			15.4		
Actuated g/C Ratio	0.46	0.42		0.37	0.30		0.37	0.37			0.16		
v/c Ratio	0.39	0.54		0.04	0.83		0.79	0.53			0.70		
Control Delay	22.2	28.3		19.9	48.3		42.7	28.0			52.9		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	22.2	28.3		19.9	48.3		42.7	28.0			52.9		
LOS	C	C		B	D		D	C			D		
Approach Delay		27.0			47.3			35.0			52.9		
Approach LOS		C			D			D			D		
Queue Length 50th (ft)	34	145		4	229		134	138			93		
Queue Length 95th (ft)	103	418		22	#577		#390	322			214		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	400	819		531	726		429	896			457		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.30	0.52		0.03	0.64		0.76	0.40			0.42		

Intersection Summary

Area Type: Other
Cycle Length: 129
Actuated Cycle Length: 96.3
Natural Cycle: 85
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 37.6 — Intersection LOS: D
Intersection Capacity Utilization 74.3% — ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	50	580	0	10	150
Future Volume (vph)	0	50	580	0	10	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1900	0	0	1876
Flt Permitted						0.997
Satd. Flow (perm)	1644	0	1900	0	0	1876
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Confl. Peds. (#/hr)				1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	0	630	0	0	174
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 40.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	580	0	10	150
Future Vol, veh/h	0	50	580	0	10	150
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	54	630	0	11	163

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	816	631	0	0	631	0
Stage 1	631	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	349	485	-	-	956	-
Stage 1	534	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	344	485	-	-	956	-
Mov Cap-2 Maneuver	344	-	-	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.4	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	485	956	-
HCM Lane V/C Ratio	-	-	0.112	0.011	-
HCM Control Delay (s)	-	-	13.4	8.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	225	355	35	100	50
Future Volume (vph)	0	225	355	35	100	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1859	0	0	1821
Flt Permitted						0.968
Satd. Flow (perm)	1644	0	1859	0	0	1821
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	245	0	424	0	0	163
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	225	355	35	100	50
Future Vol, veh/h	0	225	355	35	100	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	0	245	386	38	109	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	677	405	0	0	424	0
Stage 1	405	-	-	-	-	-
Stage 2	272	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	421	650	-	-	1141	-
Stage 1	678	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	379	650	-	-	1141	-
Mov Cap-2 Maneuver	379	-	-	-	-	-
Stage 1	678	-	-	-	-	-
Stage 2	701	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0	5.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	650	1141	-
HCM Lane V/C Ratio	-	-	0.376	0.095	-
HCM Control Delay (s)	-	-	13.8	8.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.7	0.3	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	240	150	0	150	50	0
Future Volume (vph)	240	150	0	150	50	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	1615	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1805	1615	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	261	163	0	163	54	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	240	150	0	150	50	0
Future Vol, veh/h	240	150	0	150	50	0
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	261	163	0	163	54	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	217	57	-	0	-	0
Stage 1	54	-	-	-	-	-
Stage 2	163	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	776	1015	0	-	-	0
Stage 1	974	-	0	-	-	0
Stage 2	871	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	776	1012	-	-	-	-
Mov Cap-2 Maneuver	776	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	871	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	776	1012	-
HCM Lane V/C Ratio	-	0.336	0.161	-
HCM Control Delay (s)	-	12	9.2	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	1.5	0.6	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	75	75	5	95	105
Future Volume (vph)	5	75	75	5	95	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1654	0	1848	0	0	1838
Flt Permitted	0.997					0.977
Satd. Flow (perm)	1654	0	1848	0	0	1838
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	87	0	0	217
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	75	75	5	95	105
Future Vol, veh/h	5	75	75	5	95	105
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	5	82	82	5	103	114

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	405	85	0	0	87	0
Stage 1	84	-	-	-	-	-
Stage 2	321	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	606	980	-	-	1515	-
Stage 1	944	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	562	979	-	-	1514	-
Mov Cap-2 Maneuver	562	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	686	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	936	1514	-
HCM Lane V/C Ratio	-	-	0.093	0.068	-
HCM Control Delay (s)	-	-	9.2	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	0	1	0	0	1	5	65	0	1	30	10
Future Volume (vph)	45	0	1	0	0	1	5	65	0	1	30	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1894	0	0	1835	0
Flt Permitted		0.953						0.997			0.999	
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1894	0	0	1835	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)	1					1	5		2	2		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	1	0	0	76	0	0	45	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	45	0	1	0	0	1	5	65	0	1	30	10
Future Vol, veh/h	45	0	1	0	0	1	5	65	0	1	30	10
Conflicting Peds, #/hr	1	0	0	0	0	1	5	0	2	2	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	49	0	1	0	0	1	5	71	0	1	33	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	128	129	43	125	135	74	48	0	0	73	0	0
Stage 1	45	45	-	84	84	-	-	-	-	-	-	-
Stage 2	83	84	-	41	51	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	850	765	1033	854	760	993	1572	-	-	1540	-	-
Stage 1	974	861	-	929	829	-	-	-	-	-	-	-
Stage 2	930	829	-	979	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	842	757	1028	849	752	990	1572	-	-	1539	-	-
Mov Cap-2 Maneuver	842	757	-	849	752	-	-	-	-	-	-	-
Stage 1	966	856	-	924	825	-	-	-	-	-	-	-
Stage 2	925	825	-	977	851	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	8.6	0.5	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1572	-	-	845	990	1539	-	-
HCM Lane V/C Ratio	0.003	-	-	0.059	0.001	0.001	-	-
HCM Control Delay (s)	7.3	0	-	9.5	8.6	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	2	0	110	40	10
Future Volume (vph)	15	2	0	110	40	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1791	0	0	1900	1847	0
Flt Permitted	0.957					
Satd. Flow (perm)	1791	0	0	1900	1847	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			10			10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	0	0	120	54	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	2	0	110	40	10
Future Vol, veh/h	15	2	0	110	40	10
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	2	0	120	43	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	179	59	64	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	120	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	815	1012	1551	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	800	1002	1551	-	-	-
Mov Cap-2 Maneuver	800	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	901	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1551	-	819	-	-
HCM Lane V/C Ratio	-	-	0.023	-	-
HCM Control Delay (s)	0	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	5	125	0	5	50
Future Volume (vph)	1	5	125	0	5	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1672	0	1900	0	0	1892
Flt Permitted	0.992					0.996
Satd. Flow (perm)	1672	0	1900	0	0	1892
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	136	0	0	59
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	5	125	0	5	50
Future Vol, veh/h	1	5	125	0	5	50
Conflicting Peds, #/hr	9	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	5	136	0	5	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	210	136	0	0	136	0
Stage 1	136	-	-	-	-	-
Stage 2	74	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	783	918	-	-	1461	-
Stage 1	895	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	773	918	-	-	1461	-
Mov Cap-2 Maneuver	773	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	942	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	890	1461	-
HCM Lane V/C Ratio	-	-	0.007	0.004	-
HCM Control Delay (s)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	80	25	10	120	30	135
Future Volume (vph)	80	25	10	120	30	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1736	0	0	1855	1658	0
Flt Permitted	0.963			0.996		
Satd. Flow (perm)	1736	0	0	1855	1658	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	117	3	3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	114	0	0	141	180	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	80	25	10	120	30	135
Future Vol, veh/h	80	25	10	120	30	135
Conflicting Peds, #/hr	117	3	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	27	11	130	33	147

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	378	112	182	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	269	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	624	941	1393	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	776	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	615	936	1389	-	-	-
Mov Cap-2 Maneuver	615	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1389	-	670	-	-
HCM Lane V/C Ratio	0.008	-	0.17	-	-
HCM Control Delay (s)	7.6	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	70	120	135	10	5	65
Future Volume (vph)	70	120	135	10	5	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1707	0	1883	0	0	1894
Flt Permitted	0.982					0.997
Satd. Flow (perm)	1707	0	1883	0	0	1894
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	206	0	158	0	0	76
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	70	120	135	10	5	65
Future Vol, veh/h	70	120	135	10	5	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	76	130	147	11	5	71

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	234	152	0	0	158	0
Stage 1	152	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	759	900	-	-	1434	-
Stage 1	881	-	-	-	-	-
Stage 2	946	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	756	900	-	-	1434	-
Mov Cap-2 Maneuver	756	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	942	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	841	1434	-
HCM Lane V/C Ratio	-	-	0.246	0.004	-
HCM Control Delay (s)	-	-	10.7	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	410	20	50	240	55	200
Future Volume (vph)	410	20	50	240	55	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1870	0	0	1885	1680	0
Flt Permitted				0.992	0.989	
Satd. Flow (perm)	1870	0	0	1885	1680	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	468	0	0	315	277	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 63.6%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	410	20	50	240	55	200
Future Vol, veh/h	410	20	50	240	55	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	446	22	54	261	60	217

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	467	0	827	457
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	370	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1105	-	344	608
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	703	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1105	-	324	608
Mov Cap-2 Maneuver	-	-	-	-	324	-
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	663	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	20.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	511	-	-	1105	-
HCM Lane V/C Ratio	0.542	-	-	0.049	-
HCM Control Delay (s)	20.1	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3.2	-	-	0.2	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	80	40	90	135	45
Future Volume (vph)	55	80	40	90	135	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1748	0	0	1872	1769	0
Flt Permitted				0.985	0.964	
Satd. Flow (perm)	1748	0	0	1872	1769	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)						4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	0	0	141	196	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	80	40	90	135	45
Future Vol, veh/h	55	80	40	90	135	45
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	60	87	43	98	147	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	147	0	288	107
Stage 1	-	-	-	-	103	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1447	-	707	953
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	852	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1441	-	684	949
Mov Cap-2 Maneuver	-	-	-	-	684	-
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	735	-	-	1441	-
HCM Lane V/C Ratio	0.266	-	-	0.03	-
HCM Control Delay (s)	11.7	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	660	545	95	165	245	440	0	70
Future Volume (vph)	0	0	0	0	660	545	95	165	245	440	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3505	1568	1770	1863	1583	1752	0	1568
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3505	1568	1767	1863	1583	1749	0	1568
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						592	109		266			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						21	1		1	1		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	717	592	103	179	266	478	0	76
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					21.8	21.8	11.6	11.6	11.6	15.2		15.2
Actuated g/C Ratio					0.34	0.34	0.18	0.18	0.18	0.24		0.24
v/c Ratio					0.60	0.64	0.25	0.53	0.53	1.15		0.17
Control Delay					20.0	5.3	6.8	30.4	7.8	119.1		3.5
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					20.0	5.3	6.8	30.4	7.8	119.1		3.5
LOS					B	A	A	C	A	F		A
Approach Delay					13.3			15.0			103.2	
Approach LOS					B			B			F	
Queue Length 50th (ft)					120	0	0	67	0	~251		0
Queue Length 95th (ft)					180	62	33	123	55	#435		18
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1392	979	504	444	580	417		456
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.52	0.60	0.20	0.40	0.46	1.15		0.17

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 63.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.15
Intersection Signal Delay: 34.4 — Intersection LOS: C
Intersection Capacity Utilization 63.0% — ICU Level of Service B
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	115	650	60	0	0	0	0	105	115	
Future Volume (vph)	0	0	0	115	650	60	0	0	0	0	105	115	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3325	0	0	0	0	0	3169	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3320	0	0	0	0	0	3169	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					37						125		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		18				6		7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	4%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	897	0	0	0	0	0	239	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					20.3						11.0		
Actuated g/C Ratio					0.44						0.24		
v/c Ratio					0.61						0.28		
Control Delay					12.4						11.5		
Queue Delay					0.0						0.0		
Total Delay					12.4						11.5		
LOS					B						B		
Approach Delay					12.4						11.5		
Approach LOS					B						B		
Queue Length 50th (ft)					59						9		
Queue Length 95th (ft)					180						51		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2680						1907		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.33						0.13		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 46.6			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 12.2		Intersection LOS: B	
Intersection Capacity Utilization 40.0%		ICU Level of Service A	
Analysis Period (min) 15			

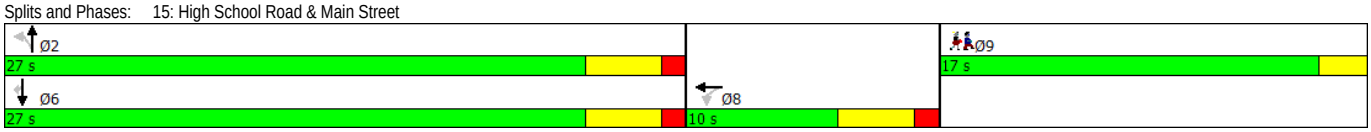
Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	35	635	100	40	60	0	0	85	30	
Future Volume (vph)	0	0	0	35	635	100	40	60	0	0	85	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3278	0	0	1818	0	0	1881	1615	
Flt Permitted					0.998								
Satd. Flow (perm)	0	0	0	0	3264	0	0	1851	0	0	1881	1586	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					25							61	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				20		16	9					9	
Confl. Bikes (#/hr)						1							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	3%	1%	1%	0%	4%	0%	0%	1%	0%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	837	0	0	108	0	0	92	33	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					12.7			8.8			8.7	8.7	
Actuated g/C Ratio					0.69			0.48			0.47	0.47	
v/c Ratio					0.37			0.12			0.10	0.04	
Control Delay					14.5			7.5			7.5	2.6	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					14.5			7.5			7.5	2.6	
LOS					B			A			A	A	
Approach Delay					14.5			7.5			6.2		
Approach LOS					B			A			A		
Queue Length 50th (ft)					0			0			0	0	
Queue Length 95th (ft)					#254			48			42	9	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					2246			1686			1713	1450	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.37			0.06			0.05	0.02	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 18.5			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 41.5%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	275	340	30	120	15	15	30	90	70	45	15	
Future Volume (vph)	275	340	30	120	15	15	30	90	70	45	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3426	0	1599	0	0	1758	1699	0	1709	0	
Flt Permitted		0.979					0.950					
Satd. Flow (perm)	0	3426	0	1599	0	0	1758	1699	0	1709	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	3%	0%	2%	9%	0%	4%	4%	5%	10%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	702	0	146	0	0	49	174	0	65	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		19.2		12.8			12.8	12.8		8.7		
Actuated g/C Ratio		0.38		0.26			0.26	0.26		0.17		
v/c Ratio		0.53		0.31			0.10	0.40		0.22		
Control Delay		16.5		13.5			3.1	23.9		28.2		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		16.5		13.5			3.1	23.9		28.2		
LOS		B		B			A	C		C		
Approach Delay		16.5						19.3		28.3		
Approach LOS		B						B		C		
Queue Length 50th (ft)		78		14			0	41		16		
Queue Length 95th (ft)		236		82			13	151		75		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		2429		942			1033	964		464		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.29		0.15			0.05	0.18		0.14		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 50.1			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 17.3		Intersection LOS: B	
Intersection Capacity Utilization 48.4%		ICU Level of Service A	
Analysis Period (min) 15			

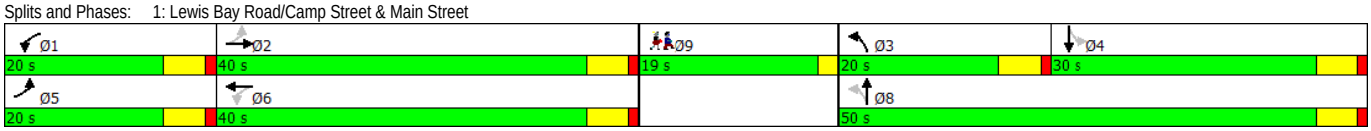
Splits and Phases: 16: Old Colony Road & Ocean Street & South Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	35	215	45	15	365	20	110	205	130	35	160	30	
Future Volume (vph)	35	215	45	15	365	20	110	205	130	35	160	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1787	1822	0	1805	1882	0	1805	1775	0	0	1829	0	
Flt Permitted	0.266			0.512			0.386				0.891		
Satd. Flow (perm)	500	1822	0	968	1882	0	733	1775	0	0	1642	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		8			2			27			5		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	1		7	7		1			1	1			
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	38	283	0	16	419	0	120	364	0	0	245	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	29.8	27.8		27.9	25.0		29.6	29.6			18.8		
Actuated g/C Ratio	0.38	0.36		0.36	0.32		0.38	0.38			0.24		
v/c Ratio	0.12	0.43		0.04	0.70		0.29	0.53			0.62		
Control Delay	20.3	26.9		20.3	36.2		23.4	24.4			41.2		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	20.3	26.9		20.3	36.2		23.4	24.4			41.2		
LOS	C	C		C	D		C	C			D		
Approach Delay		26.1			35.6			24.2			41.2		
Approach LOS		C			D			C			D		
Queue Length 50th (ft)	9	76		4	168		34	110			99		
Queue Length 95th (ft)	41	263		22	422		109	308			#274		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	525	1022		606	1046		570	1175			682		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.07	0.28		0.03	0.40		0.21	0.31			0.36		

Intersection Summary			
Area Type:	Other		
Cycle Length: 129			
Actuated Cycle Length: 78.3			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 30.7		Intersection LOS: C	
Intersection Capacity Utilization 72.5%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	15	430	15	40	180
Future Volume (vph)	0	15	430	15	40	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1892	0	0	1864
Flt Permitted						0.991
Satd. Flow (perm)	1644	0	1892	0	0	1864
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	483	0	0	239
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	430	15	40	180
Future Vol, veh/h	0	15	430	15	40	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	16	467	16	43	196

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	759	476	0	0	484	0
Stage 1	476	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	377	593	-	-	1084	-
Stage 1	629	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	360	593	-	-	1084	-
Mov Cap-2 Maneuver	360	-	-	-	-	-
Stage 1	629	-	-	-	-	-
Stage 2	735	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	593	1084	-
HCM Lane V/C Ratio	-	-	0.027	0.04	-
HCM Control Delay (s)	-	-	11.2	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	95	350	55	120	60
Future Volume (vph)	0	95	350	55	120	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1866	0	0	1821
Flt Permitted						0.968
Satd. Flow (perm)	1644	0	1866	0	0	1821
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	440	0	0	195
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	95	350	55	120	60
Future Vol, veh/h	0	95	350	55	120	60
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	103	380	60	130	65

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	737	411	0	0	441	0
Stage 1	411	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	389	645	-	-	1124	-
Stage 1	674	-	-	-	-	-
Stage 2	736	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	342	644	-	-	1124	-
Mov Cap-2 Maneuver	342	-	-	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	648	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	5.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	644	1124	-
HCM Lane V/C Ratio	-	-	0.16	0.116	-
HCM Control Delay (s)	-	-	11.7	8.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.4	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	270	105	0	135	60	0
Future Volume (vph)	270	105	0	135	60	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1787	1599	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1787	1599	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	293	114	0	147	65	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	270	105	0	135	60	0
Future Vol, veh/h	270	105	0	135	60	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	293	114	0	147	65	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	212	65	-	0	-	0
Stage 1	65	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	-	-
Pot Cap-1 Maneuver	779	1002	0	-	-	0
Stage 1	960	-	0	-	-	0
Stage 2	883	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	779	1002	-	-	-	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	883	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	779	1002	-
HCM Lane V/C Ratio	-	0.377	0.114	-
HCM Control Delay (s)	-	12.4	9.1	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	1.8	0.4	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	20	115	0	90	75
Future Volume (vph)	1	20	115	0	90	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1652	0	1881	0	0	1812
Flt Permitted	0.998					0.973
Satd. Flow (perm)	1652	0	1881	0	0	1812
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	23	0	125	0	0	180
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	20	115	0	90	75
Future Vol, veh/h	1	20	115	0	90	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	1	22	125	0	98	82

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	402	125	0	0	125	0
Stage 1	125	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	608	931	-	-	1462	-
Stage 1	906	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	565	931	-	-	1462	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	4.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	903	1462	-
HCM Lane V/C Ratio	-	-	0.025	0.067	-
HCM Control Delay (s)	-	-	9.1	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	0	0	0	0	1	0	35	0	0	40	30
Future Volume (vph)	25	0	0	0	0	1	0	35	0	0	40	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1845	0	0	1753	0
Flt Permitted		0.950										
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1845	0	0	1753	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	1	0	0	38	0	0	76	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	25	0	0	0	0	1	0	35	0	0	40	30
Future Vol, veh/h	25	0	0	0	0	1	0	35	0	0	40	30
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	27	0	0	0	0	1	0	38	0	0	43	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	100	99	61	98	115	38	77	0	0	38	0	0
Stage 1	61	61	-	38	38	-	-	-	-	-	-	-
Stage 2	39	38	-	60	77	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	886	795	1010	889	779	1040	1515	-	-	1572	-	-
Stage 1	955	848	-	982	867	-	-	-	-	-	-	-
Stage 2	981	867	-	957	835	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	884	794	1009	889	778	1040	1515	-	-	1572	-	-
Mov Cap-2 Maneuver	884	794	-	889	778	-	-	-	-	-	-	-
Stage 1	954	847	-	982	867	-	-	-	-	-	-	-
Stage 2	980	867	-	957	834	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	8.5	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	884	1040	1572	-	-
HCM Lane V/C Ratio	-	-	-	0.031	0.001	-	-	-
HCM Control Delay (s)	0	-	-	9.2	8.5	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	0	1	60	70	15
Future Volume (vph)	15	0	1	60	70	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	0	0	1861	1802	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1805	0	0	1861	1802	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			2			2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	66	92	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 15.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	0	1	60	70	15
Future Vol, veh/h	15	0	1	60	70	15
Conflicting Peds, #/hr	0	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	16	0	1	65	76	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	153	86	94	0	-	0
Stage 1	86	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	843	978	1500	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	839	976	1500	-	-	-
Mov Cap-2 Maneuver	839	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	958	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1500	-	839	-	-
HCM Lane V/C Ratio	0.001	-	0.019	-	-
HCM Control Delay (s)	7.4	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	70	5	20	85
Future Volume (vph)	0	0	70	5	20	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	0	1848	0	0	1862
Flt Permitted						0.990
Satd. Flow (perm)	1863	0	1848	0	0	1862
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9			1	1	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	81	0	0	114
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	70	5	20	85
Future Vol, veh/h	0	0	70	5	20	85
Conflicting Peds, #/hr	9	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	0	0	76	5	22	92

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	225	80	0	0	83	0
Stage 1	80	-	-	-	-	-
Stage 2	145	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	763	980	-	-	1520	-
Stage 1	943	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	744	979	-	-	1520	-
Mov Cap-2 Maneuver	744	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	861	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1520	-
HCM Lane V/C Ratio	-	-	-	0.014	-
HCM Control Delay (s)	-	-	0	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	75	40	15	55	65	55
Future Volume (vph)	75	40	15	55	65	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1737	0	0	1844	1782	0
Flt Permitted	0.968			0.990		
Satd. Flow (perm)	1737	0	0	1844	1782	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	110	1	1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	2%	2%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	125	0	0	76	131	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	75	40	15	55	65	55
Future Vol, veh/h	75	40	15	55	65	55
Conflicting Peds, #/hr	110	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	2	2	0	0
Mvmt Flow	82	43	16	60	71	60

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	304	103	131	0	-	0
Stage 1	102	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	690	955	1454	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	681	953	1453	-	-	-
Mov Cap-2 Maneuver	681	-	-	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1453	-	756	-	-
HCM Lane V/C Ratio	0.011	-	0.165	-	-
HCM Control Delay (s)	7.5	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	15	45	85	115	110
Future Volume (vph)	10	15	45	85	115	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1713	0	1716	0	0	1852
Flt Permitted	0.980					0.975
Satd. Flow (perm)	1713	0	1716	0	0	1852
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Peds. (#/hr)	1					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	141	0	0	245
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	15	45	85	115	110
Future Vol, veh/h	10	15	45	85	115	110
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	11	16	49	92	125	120

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	466	95	0	0	141	0
Stage 1	95	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	559	967	-	-	1455	-
Stage 1	934	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	507	967	-	-	1455	-
Mov Cap-2 Maneuver	507	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	637	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	710	1455	-
HCM Lane V/C Ratio	-	-	0.038	0.086	-
HCM Control Delay (s)	-	-	10.3	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	245	25	200	345	20	40
Future Volume (vph)	245	25	200	345	20	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1859	0	0	1866	1668	0
Flt Permitted				0.982	0.983	
Satd. Flow (perm)	1859	0	0	1866	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	293	0	0	592	65	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	245	25	200	345	20	40
Future Vol, veh/h	245	25	200	345	20	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	2	2
Mvmt Flow	266	27	217	375	22	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	293	0	1090	280
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	810	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1280	-	238	759
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	438	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1280	-	187	759
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	344	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	376	-	-	1280	-
HCM Lane V/C Ratio	0.173	-	-	0.17	-
HCM Control Delay (s)	16.6	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.6	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	100	75	15	25	70	20
Future Volume (vph)	100	75	15	25	70	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1790	0	0	1866	1775	0
Flt Permitted				0.982	0.963	
Satd. Flow (perm)	1790	0	0	1866	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)		3	3			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	191	0	0	43	98	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	100	75	15	25	70	20
Future Vol, veh/h	100	75	15	25	70	20
Conflicting Peds, #/hr	0	3	3	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	109	82	16	27	76	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	193	0	212	157
Stage 1	-	-	-	-	152	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1392	-	781	894
Stage 1	-	-	-	-	881	-
Stage 2	-	-	-	-	968	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1385	-	769	887
Mov Cap-2 Maneuver	-	-	-	-	769	-
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	956	-

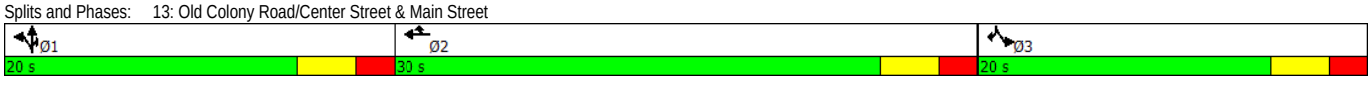
Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	792	-	-	1385	-
HCM Lane V/C Ratio	0.124	-	-	0.012	-
HCM Control Delay (s)	10.2	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	540	260	55	110	175	270	0	65
Future Volume (vph)	0	0	0	0	540	260	55	110	175	270	0	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3406	1524	1687	1776	1509	1719	0	1538
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3406	1524	1666	1776	1509	1699	0	1538
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						283	109		190			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						18	9		6	6		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	7%	7%	7%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	587	283	60	120	190	293	0	71
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					17.4	17.4	9.7	9.7	9.7	13.6		13.6
Actuated g/C Ratio					0.31	0.31	0.17	0.17	0.17	0.24		0.24
v/c Ratio					0.56	0.42	0.16	0.39	0.46	0.71		0.16
Control Delay					18.8	4.6	2.5	26.5	8.2	33.4		3.2
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					18.8	4.6	2.5	26.5	8.2	33.4		3.2
LOS					B	A	A	C	A	C		A
Approach Delay					14.2			13.2			27.5	
Approach LOS					B			B			C	
Queue Length 50th (ft)					85	0	0	37	0	87		0
Queue Length 95th (ft)					145	45	9	87	48	#240		15
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1567	854	544	490	554	474		503
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.37	0.33	0.11	0.24	0.34	0.62		0.14

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 56.2			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 44.1%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	95	505	60	0	0	0	0	150	95	
Future Volume (vph)	0	0	0	95	505	60	0	0	0	0	150	95	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3218	0	0	0	0	0	3161	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3213	0	0	0	0	0	3161	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					42						103		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		15				7		2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	7%	7%	7%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	717	0	0	0	0	0	266	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					15.9						10.9		
Actuated g/C Ratio					0.40						0.28		
v/c Ratio					0.54						0.28		
Control Delay					10.6						10.3		
Queue Delay					0.0						0.0		
Total Delay					10.6						10.3		
LOS					B						B		
Approach Delay					10.6						10.3		
Approach LOS					B						B		
Queue Length 50th (ft)					43						11		
Queue Length 95th (ft)					142						57		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2852						2176		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.25						0.12		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 39.5			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 35.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street

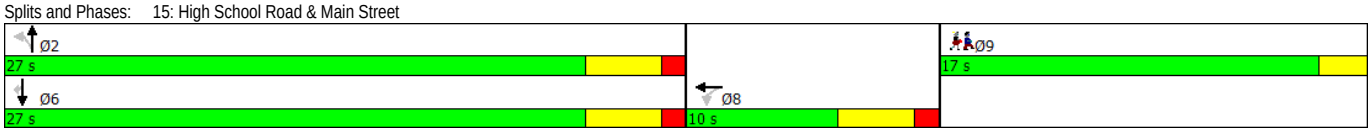


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	80	510	115	85	155	0	0	150	80	
Future Volume (vph)	0	0	0	80	510	115	85	155	0	0	150	80	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3088	0	0	1855	0	0	1827	1553	
Flt Permitted					0.994			0.822					
Satd. Flow (perm)	0	0	0	0	3077	0	0	1551	0	0	1827	1533	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					34							96	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				7		13	1					1	
Confl. Bikes (#/hr)						2							
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.63	0.63	0.63	0.83	0.83	0.83	
Heavy Vehicles (%)	2%	2%	2%	3%	6%	9%	2%	0%	0%	0%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	820	0	0	381	0	0	181	96	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					6.7			12.5			12.5	12.5	
Actuated g/C Ratio					0.22			0.42			0.42	0.42	
v/c Ratio					1.15			0.59			0.24	0.14	
Control Delay					103.7			12.0			7.4	2.8	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					103.7			12.0			7.4	2.8	
LOS					F			B			A	A	
Approach Delay					103.7			12.0			5.8		
Approach LOS					F			B			A		
Queue Length 50th (ft)					~55			28			11	0	
Queue Length 95th (ft)					#314			95			62	17	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					712			1305			1537	1305	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					1.15			0.29			0.12	0.07	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 30			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 61.7		Intersection LOS: E	
Intersection Capacity Utilization 51.1%		ICU Level of Service A	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	285	540	30	90	45	15	65	120	55	45	35	
Future Volume (vph)	285	540	30	90	45	15	65	120	55	45	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3335	0	1565	0	0	1566	1694	0	1758	0	
Flt Permitted		0.984					0.950					
Satd. Flow (perm)	0	3333	0	1531	0	0	1546	1694	0	1758	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Confl. Peds. (#/hr)	2				8	2	8					
Peak Hour Factor	0.88	0.88	0.88	0.84	0.84	0.84	0.84	0.84	0.84	0.88	0.88	
Heavy Vehicles (%)	7%	5%	14%	3%	9%	8%	17%	5%	11%	3%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	972	0	161	0	0	95	208	0	91	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		26.1		14.3			14.3	14.3		9.2		
Actuated g/C Ratio		0.42		0.23			0.23	0.23		0.15		
v/c Ratio		0.69		0.39			0.23	0.53		0.35		
Control Delay		20.8		16.7			10.0	30.1		34.4		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		20.8		16.7			10.0	30.1		34.4		
LOS		C		B			A	C		C		
Approach Delay		20.8						23.8		34.4		
Approach LOS		C						C		C		
Queue Length 50th (ft)		140		25			4	69		31		
Queue Length 95th (ft)		#384		84			39	163		97		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		1908		705			712	729		362		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.51		0.23			0.13	0.29		0.25		

Intersection Summary

Area Type: Other
Cycle Length: 94
Actuated Cycle Length: 61.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 21.8 Intersection LOS: C
Intersection Capacity Utilization 54.8% ICU Level of Service A
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

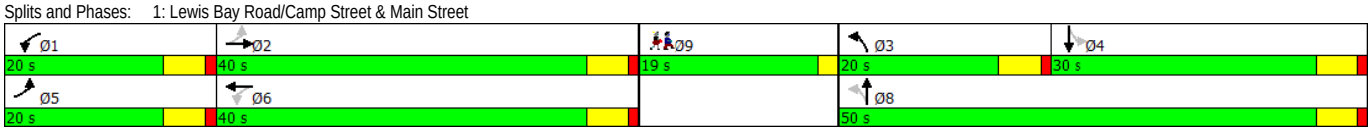


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	45	265	50	20	455	30	120	250	165	45	185	35	
Future Volume (vph)	45	265	50	20	455	30	120	250	165	45	185	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1787	1826	0	1805	1880	0	1805	1771	0	0	1829	0	
Flt Permitted	0.166			0.450			0.366				0.851		
Satd. Flow (perm)	312	1826	0	851	1880	0	695	1771	0	0	1569	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		7			3			28			5		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	1		7	7		1			1	1			
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.85	0.85	0.85	0.95	0.95	0.95	
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	48	339	0	21	511	0	141	488	0	0	279	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	42.2	39.4		38.6	33.9		40.9	40.9			25.9		
Actuated g/C Ratio	0.42	0.39		0.38	0.34		0.41	0.41			0.26		
v/c Ratio	0.21	0.47		0.05	0.81		0.36	0.66			0.69		
Control Delay	21.9	28.9		20.7	44.5		25.7	31.1			47.5		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	21.9	28.9		20.7	44.5		25.7	31.1			47.5		
LOS	C	C		C	D		C	C			D		
Approach Delay		28.0			43.6			29.9			47.5		
Approach LOS		C			D			C			D		
Queue Length 50th (ft)	15	122		6	265		53	220			149		
Queue Length 95th (ft)	50	328		27	#615		119	410			#367		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	360	750		511	677		453	833			406		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.13	0.45		0.04	0.75		0.31	0.59			0.69		

Intersection Summary

Area Type: Other
Cycle Length: 129
Actuated Cycle Length: 100.8
Natural Cycle: 95
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 36.2 — Intersection LOS: D
Intersection Capacity Utilization 85.1% — ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	20	515	20	50	205
Future Volume (vph)	0	20	515	20	50	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1890	0	0	1862
Flt Permitted						0.990
Satd. Flow (perm)	1644	0	1890	0	0	1862
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Peak Hour Factor	0.70	0.70	0.84	0.84	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	637	0	0	274
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	515	20	50	205
Future Vol, veh/h	0	20	515	20	50	205
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	84	84	93	93
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	29	613	24	54	220

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	953	625	0	0	637	0
Stage 1	625	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	290	488	-	-	951	-
Stage 1	537	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	271	488	-	-	951	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	537	-	-	-	-	-
Stage 2	686	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	488	951	-
HCM Lane V/C Ratio	-	-	0.059	0.057	-
HCM Control Delay (s)	-	-	12.8	9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	105	430	75	130	75
Future Volume (vph)	0	105	430	75	130	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1862	0	0	1823
Flt Permitted						0.969
Satd. Flow (perm)	1644	0	1862	0	0	1823
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.94	0.94	0.83	0.83	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	0	608	0	0	218
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	105	430	75	130	75
Future Vol, veh/h	0	105	430	75	130	75
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	83	83	94	94
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	112	518	90	138	80

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	920	564	0	0	609	0
Stage 1	564	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	303	529	-	-	974	-
Stage 1	573	-	-	-	-	-
Stage 2	713	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	258	528	-	-	974	-
Mov Cap-2 Maneuver	258	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	607	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	5.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	528	974	-
HCM Lane V/C Ratio	-	-	0.212	0.142	-
HCM Control Delay (s)	-	-	13.6	9.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.5	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	340	105	0	165	75	0
Future Volume (vph)	340	105	0	165	75	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1787	1599	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1787	1599	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Peak Hour Factor	0.87	0.87	0.77	0.77	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	391	121	0	214	85	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	340	105	0	165	75	0
Future Vol, veh/h	340	105	0	165	75	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	77	77	88	88
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	391	121	0	214	85	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	299	85	-	0	-	0
Stage 1	85	-	-	-	-	-
Stage 2	214	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	-	-
Pot Cap-1 Maneuver	694	977	0	-	-	0
Stage 1	941	-	0	-	-	0
Stage 2	824	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	694	977	-	-	-	-
Mov Cap-2 Maneuver	694	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	694	977	-
HCM Lane V/C Ratio	-	0.563	0.124	-
HCM Control Delay (s)	-	16.7	9.2	-
HCM Lane LOS	-	C	A	-
HCM 95th %tile Q(veh)	-	3.5	0.4	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	20	145	0	90	90
Future Volume (vph)	1	20	145	0	90	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1652	0	1881	0	0	1818
Flt Permitted	0.998					0.976
Satd. Flow (perm)	1652	0	1881	0	0	1818
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Peak Hour Factor	0.88	0.88	0.77	0.77	0.91	0.91
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	0	188	0	0	198
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	20	145	0	90	90
Future Vol, veh/h	1	20	145	0	90	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	77	77	91	91
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	1	23	188	0	99	99

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	485	188	0	0	188	0
Stage 1	188	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	545	859	-	-	1386	-
Stage 1	849	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	504	859	-	-	1386	-
Mov Cap-2 Maneuver	504	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	700	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	3.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	831	1386	-
HCM Lane V/C Ratio	-	-	0.029	0.071	-
HCM Control Delay (s)	-	-	9.5	7.8	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	0	0	0	0	1	0	50	0	0	45	40
Future Volume (vph)	30	0	0	0	0	1	0	50	0	0	45	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1845	0	0	1745	0
Flt Permitted		0.950										
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1845	0	0	1745	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.75	0.75	0.75	0.25	0.25	0.25	0.91	0.91	0.91	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	4	0	0	55	0	0	94	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	30	0	0	0	0	1	0	50	0	0	45	40
Future Vol, veh/h	30	0	0	0	0	1	0	50	0	0	45	40
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	25	25	25	91	91	91	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	40	0	0	0	0	4	0	55	0	0	50	44

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	130	128	73	127	150	55	95	0	0	55	0	0
Stage 1	73	73	-	55	55	-	-	-	-	-	-	-
Stage 2	57	55	-	72	95	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	847	766	995	851	745	1018	1493	-	-	1550	-	-
Stage 1	942	838	-	962	853	-	-	-	-	-	-	-
Stage 2	960	853	-	943	820	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	843	765	994	851	744	1018	1493	-	-	1550	-	-
Mov Cap-2 Maneuver	843	765	-	851	744	-	-	-	-	-	-	-
Stage 1	941	837	-	962	853	-	-	-	-	-	-	-
Stage 2	956	853	-	943	819	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	8.6	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1493	-	-	843	1018	1550	-	-
HCM Lane V/C Ratio	-	-	-	0.047	0.004	-	-	-
HCM Control Delay (s)	0	-	-	9.5	8.6	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	25	0	1	80	85	20
Future Volume (vph)	25	0	1	80	85	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	0	0	1861	1797	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1805	0	0	1861	1797	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			2			2
Peak Hour Factor	0.80	0.80	0.94	0.94	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	31	0	0	86	114	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	0	1	80	85	20
Future Vol, veh/h	25	0	1	80	85	20
Conflicting Peds, #/hr	0	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	94	94	92	92
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	31	0	1	85	92	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	192	105	116	0	-	0
Stage 1	105	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	801	955	1473	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	797	953	1473	-	-	-
Mov Cap-2 Maneuver	797	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	938	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1473	-	797	-	-
HCM Lane V/C Ratio	0.001	-	0.039	-	-
HCM Control Delay (s)	7.4	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	85	10	25	105
Future Volume (vph)	0	0	85	10	25	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	0	1835	0	0	1862
Flt Permitted						0.990
Satd. Flow (perm)	1863	0	1835	0	0	1862
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9			1	1	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.94	0.94	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	101	0	0	145
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	85	10	25	105
Future Vol, veh/h	0	0	85	10	25	105
Conflicting Peds, #/hr	9	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	94	94	90	90
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	0	0	90	11	28	117

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	278	97	0	0	102	0
Stage 1	97	-	-	-	-	-
Stage 2	181	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	712	959	-	-	1496	-
Stage 1	927	-	-	-	-	-
Stage 2	850	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	691	958	-	-	1496	-
Mov Cap-2 Maneuver	691	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	826	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1496	-
HCM Lane V/C Ratio	-	-	-	0.019	-
HCM Control Delay (s)	-	-	0	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	90	55	15	70	75	60
Future Volume (vph)	90	55	15	70	75	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1732	0	0	1846	1786	0
Flt Permitted	0.970			0.991		
Satd. Flow (perm)	1732	0	0	1846	1786	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	110	1	1			1
Peak Hour Factor	0.94	0.94	0.91	0.91	0.79	0.79
Heavy Vehicles (%)	1%	1%	2%	2%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	155	0	0	93	171	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	90	55	15	70	75	60
Future Vol, veh/h	90	55	15	70	75	60
Conflicting Peds, #/hr	110	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	91	91	79	79
Heavy Vehicles, %	1	1	2	2	0	0
Mvmt Flow	96	59	16	77	95	76

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	354	135	172	0	-	0
Stage 1	134	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	646	917	1405	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	637	915	1404	-	-	-
Mov Cap-2 Maneuver	637	-	-	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	808	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1404	-	720	-	-
HCM Lane V/C Ratio	0.012	-	0.214	-	-
HCM Control Delay (s)	7.6	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	20	60	115	155	130
Future Volume (vph)	15	20	60	115	155	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1715	0	1714	0	0	1849
Flt Permitted	0.979					0.973
Satd. Flow (perm)	1715	0	1714	0	0	1849
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Peds. (#/hr)	1					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.75	0.75	0.71	0.71	0.75	0.75
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	47	0	247	0	0	380
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	20	60	115	155	130
Future Vol, veh/h	15	20	60	115	155	130
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	71	71	75	75
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	20	27	85	162	207	173

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	753	165	0	0	246	0
Stage 1	165	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	380	885	-	-	1332	-
Stage 1	869	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	314	885	-	-	1332	-
Mov Cap-2 Maneuver	314	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	462	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	4.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	497	1332	-
HCM Lane V/C Ratio	-	-	0.094	0.155	-
HCM Control Delay (s)	-	-	13	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.5	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	300	35	250	430	30	50
Future Volume (vph)	300	35	250	430	30	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1855	0	0	1866	1674	0
Flt Permitted				0.982	0.982	
Satd. Flow (perm)	1855	0	0	1866	1674	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.95	0.95	0.89	0.89	0.96	0.96
Heavy Vehicles (%)	1%	1%	0%	0%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	353	0	0	764	83	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	300	35	250	430	30	50
Future Vol, veh/h	300	35	250	430	30	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	89	89	96	96
Heavy Vehicles, %	1	1	0	0	2	2
Mvmt Flow	316	37	281	483	31	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	353	0	1379	334
Stage 1	-	-	-	-	334	-
Stage 2	-	-	-	-	1045	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1217	-	159	708
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	339	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1217	-	109	708
Mov Cap-2 Maneuver	-	-	-	-	109	-
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	232	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	29.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	231	-	-	1217	-
HCM Lane V/C Ratio	0.361	-	-	0.231	-
HCM Control Delay (s)	29.1	-	-	8.8	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	1.6	-	-	0.9	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	125	80	15	30	75	20
Future Volume (vph)	125	80	15	30	75	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1799	0	0	1870	1775	0
Flt Permitted				0.984	0.962	
Satd. Flow (perm)	1799	0	0	1870	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)		3	3			5
Peak Hour Factor	0.93	0.93	0.70	0.70	0.78	0.78
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	220	0	0	64	122	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	125	80	15	30	75	20
Future Vol, veh/h	125	80	15	30	75	20
Conflicting Peds, #/hr	0	3	3	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	70	70	78	78
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	134	86	21	43	96	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	223	0	266	185
Stage 1	-	-	-	-	180	-
Stage 2	-	-	-	-	86	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1358	-	727	862
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	942	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1352	-	713	855
Mov Cap-2 Maneuver	-	-	-	-	713	-
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	927	-

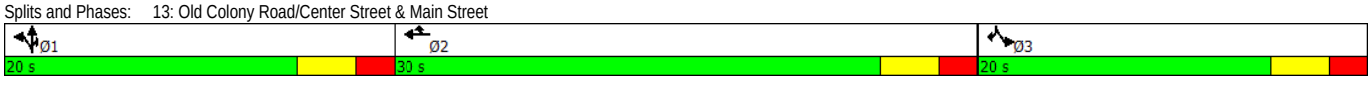
Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	739	-	-	1352	-
HCM Lane V/C Ratio	0.165	-	-	0.016	-
HCM Control Delay (s)	10.8	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	665	320	70	140	225	335	0	85
Future Volume (vph)	0	0	0	0	665	320	70	140	225	335	0	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3406	1524	1687	1776	1509	1719	0	1538
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3406	1524	1666	1776	1509	1700	0	1538
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						372	109		247			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						18	9		6	6		9
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.91	0.91	0.91	0.87	0.87	0.87
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	7%	7%	7%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	773	372	77	154	247	385	0	98
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					21.5	21.5	11.0	11.0	11.0	15.2		15.2
Actuated g/C Ratio					0.34	0.34	0.17	0.17	0.17	0.24		0.24
v/c Ratio					0.66	0.49	0.20	0.50	0.53	0.93		0.22
Control Delay					21.0	4.5	4.0	30.0	8.3	58.7		6.1
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					21.0	4.5	4.0	30.0	8.3	58.7		6.1
LOS					C	A	A	C	A	E		A
Approach Delay					15.7			14.6			48.1	
Approach LOS					B			B			D	
Queue Length 50th (ft)					131	0	0	57	0	157		0
Queue Length 95th (ft)					186	43	19	108	53	#323		28
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1371	835	490	429	552	415		454
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.56	0.45	0.16	0.36	0.45	0.93		0.22

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 63			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 56.0%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	115	630	75	0	0	0	0	180	120	
Future Volume (vph)	0	0	0	115	630	75	0	0	0	0	180	120	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3218	0	0	0	0	0	3154	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3213	0	0	0	0	0	3154	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					41						158		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		15				7		2	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.92	0.92	0.92	0.76	0.76	0.76	
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	7%	7%	7%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	900	0	0	0	0	0	395	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					21.7						12.4		
Actuated g/C Ratio					0.44						0.25		
v/c Ratio					0.63						0.44		
Control Delay					13.4						13.6		
Queue Delay					0.0						0.0		
Total Delay					13.4						13.6		
LOS					B						B		
Approach Delay					13.4						13.6		
Approach LOS					B						B		
Queue Length 50th (ft)					60						20		
Queue Length 95th (ft)					210						68		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2516						1856		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.36						0.21		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 49.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 40.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street

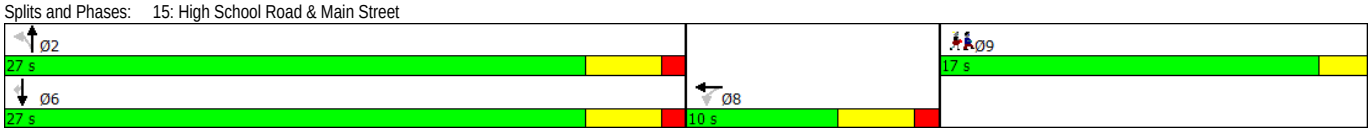


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	45	785	110	55	75	0	0	100	35	
Future Volume (vph)	0	0	0	45	785	110	55	75	0	0	100	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3288	0	0	1818	0	0	1881	1615	
Flt Permitted					0.998			0.801					
Satd. Flow (perm)	0	0	0	0	3274	0	0	1484	0	0	1881	1586	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					21							61	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				20		16	9					9	
Confl. Bikes (#/hr)						1							
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.88	0.88	0.88	0.76	0.76	0.76	
Heavy Vehicles (%)	2%	2%	2%	3%	1%	1%	0%	4%	0%	0%	1%	0%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	1044	0	0	148	0	0	132	46	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					11.5			9.3			9.2	9.2	
Actuated g/C Ratio					0.54			0.44			0.43	0.43	
v/c Ratio					0.59			0.23			0.16	0.06	
Control Delay					21.2			8.8			8.1	3.3	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					21.2			8.8			8.1	3.3	
LOS					C			A			A	A	
Approach Delay					21.2			8.8			6.9		
Approach LOS					C			A			A		
Queue Length 50th (ft)					~72			9			8	0	
Queue Length 95th (ft)					#340			63			46	9	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					1775			1344			1704	1442	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.59			0.11			0.08	0.03	

Intersection Summary

Area Type: Other
Cycle Length: 54
Actuated Cycle Length: 21.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 18.0 Intersection LOS: B
Intersection Capacity Utilization 47.9% ICU Level of Service A
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	350	415	40	150	15	15	35	105	90	60	25	
Future Volume (vph)	350	415	40	150	15	15	35	105	90	60	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3427	0	1601	0	0	1756	1693	0	1704	0	
Flt Permitted		0.979					0.950					
Satd. Flow (perm)	0	3427	0	1601	0	0	1756	1693	0	1704	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Peak Hour Factor	0.91	0.91	0.91	0.78	0.78	0.89	0.89	0.89	0.89	0.76	0.76	
Heavy Vehicles (%)	2%	3%	0%	2%	9%	0%	4%	4%	5%	10%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	885	0	211	0	0	56	219	0	112	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		23.5		14.9			14.9	14.9		9.9		
Actuated g/C Ratio		0.39		0.25			0.25	0.25		0.16		
v/c Ratio		0.66		0.46			0.11	0.52		0.40		
Control Delay		20.6		18.9			4.1	28.8		34.4		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		20.6		18.9			4.1	28.8		34.4		
LOS		C		B			A	C		C		
Approach Delay		20.6						23.7		34.4		
Approach LOS		C						C		C		
Queue Length 50th (ft)		134		39			0	69		37		
Queue Length 95th (ft)		323		105			17	185		99		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		1994		762			831	758		365		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.44		0.28			0.07	0.29		0.31		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 60.2			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 22.0		Intersection LOS: C	
Intersection Capacity Utilization 55.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

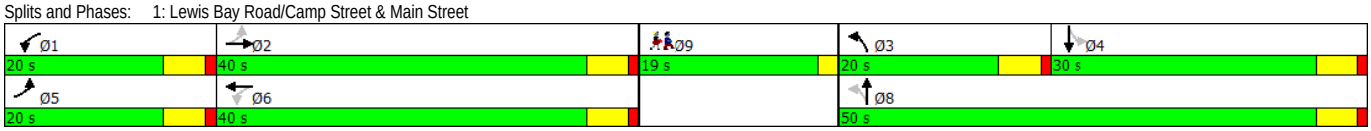


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	45	280	50	20	475	30	125	260	170	45	195	35	
Future Volume (vph)	45	280	50	20	475	30	125	260	170	45	195	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1787	1829	0	1805	1880	0	1805	1773	0	0	1831	0	
Flt Permitted	0.143			0.433			0.337				0.856		
Satd. Flow (perm)	269	1829	0	819	1880	0	640	1773	0	0	1580	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		7			2			28			5		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	1		7	7		1			1	1			
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	49	358	0	22	549	0	136	468	0	0	299	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	44.1	41.4		40.6	35.9		40.5	40.5			25.6		
Actuated g/C Ratio	0.43	0.40		0.40	0.35		0.40	0.40			0.25		
v/c Ratio	0.22	0.48		0.06	0.83		0.37	0.65			0.75		
Control Delay	22.2	29.0		20.6	46.1		26.3	31.0			51.3		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	22.2	29.0		20.6	46.1		26.3	31.0			51.3		
LOS	C	C		C	D		C	C			D		
Approach Delay		28.2			45.2			30.0			51.3		
Approach LOS		C			D			C			D		
Queue Length 50th (ft)	15	130		7	293		52	209			163		
Queue Length 95th (ft)	50	349		28	#685		122	424			#402		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	346	743		509	659		427	813			399		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.14	0.48		0.04	0.83		0.32	0.58			0.75		

Intersection Summary

Area Type: Other
Cycle Length: 129
Actuated Cycle Length: 102.4
Natural Cycle: 105
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 37.6 Intersection LOS: D
Intersection Capacity Utilization 87.5% ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	20	535	20	50	215
Future Volume (vph)	0	20	535	20	50	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1890	0	0	1864
Flt Permitted						0.991
Satd. Flow (perm)	1644	0	1890	0	0	1864
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	604	0	0	288
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	535	20	50	215
Future Vol, veh/h	0	20	535	20	50	215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	22	582	22	54	234

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	934	592	0	0	603	0
Stage 1	592	-	-	-	-	-
Stage 2	342	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	297	510	-	-	979	-
Stage 1	557	-	-	-	-	-
Stage 2	724	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	278	510	-	-	979	-
Mov Cap-2 Maneuver	278	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	678	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	510	979	-
HCM Lane V/C Ratio	-	-	0.043	0.056	-
HCM Control Delay (s)	-	-	12.4	8.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	110	445	80	135	80
Future Volume (vph)	0	110	445	80	135	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1860	0	0	1825
Flt Permitted						0.970
Satd. Flow (perm)	1644	0	1860	0	0	1825
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	120	0	571	0	0	234
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	110	445	80	135	80
Future Vol, veh/h	0	110	445	80	135	80
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	120	484	87	147	87

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	908	528	0	0	572	0
Stage 1	528	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	308	554	-	-	1006	-
Stage 1	596	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	260	553	-	-	1006	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	589	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	5.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	553	1006	-
HCM Lane V/C Ratio	-	-	0.216	0.146	-
HCM Control Delay (s)	-	-	13.3	9.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.5	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	355	110	0	170	80	0
Future Volume (vph)	355	110	0	170	80	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1787	1599	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1787	1599	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	386	120	0	185	87	0
Sign Control	Stop			Free	Free	

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

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	355	110	0	170	80	0
Future Vol, veh/h	355	110	0	170	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	386	120	0	185	87	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	272	87	-	0	-	0
Stage 1	87	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	-	-
Pot Cap-1 Maneuver	720	974	0	-	-	0
Stage 1	939	-	0	-	-	0
Stage 2	849	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	720	974	-	-	-	-
Mov Cap-2 Maneuver	720	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	849	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	720	974	-
HCM Lane V/C Ratio	-	0.536	0.123	-
HCM Control Delay (s)	-	15.6	9.2	-
HCM Lane LOS	-	C	A	-
HCM 95th %tile Q(veh)	-	3.2	0.4	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	20	150	0	90	100
Future Volume (vph)	1	20	150	0	90	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1652	0	1881	0	0	1820
Flt Permitted	0.998					0.977
Satd. Flow (perm)	1652	0	1881	0	0	1820
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	23	0	163	0	0	207
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	20	150	0	90	100
Future Vol, veh/h	1	20	150	0	90	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	1	22	163	0	98	109

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	467	163	0	0	163	0
Stage 1	163	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	558	887	-	-	1416	-
Stage 1	871	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	517	887	-	-	1416	-
Mov Cap-2 Maneuver	517	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	697	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	858	1416	-
HCM Lane V/C Ratio	-	-	0.027	0.069	-
HCM Control Delay (s)	-	-	9.3	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	0	0	0	0	1	0	55	0	0	50	40
Future Volume (vph)	30	0	0	0	0	1	0	55	0	0	50	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1845	0	0	1751	0
Flt Permitted		0.950										
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1845	0	0	1751	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	1	0	0	60	0	0	97	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	30	0	0	0	0	1	0	55	0	0	50	40
Future Vol, veh/h	30	0	0	0	0	1	0	55	0	0	50	40
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	33	0	0	0	0	1	0	60	0	0	54	43

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	137	137	77	136	159	60	99	0	0	60	0	0
Stage 1	77	77	-	60	60	-	-	-	-	-	-	-
Stage 2	60	60	-	76	99	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	838	758	990	840	737	1011	1488	-	-	1544	-	-
Stage 1	937	835	-	957	849	-	-	-	-	-	-	-
Stage 2	957	849	-	938	817	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	836	757	989	840	736	1011	1488	-	-	1544	-	-
Mov Cap-2 Maneuver	836	757	-	840	736	-	-	-	-	-	-	-
Stage 1	936	834	-	957	849	-	-	-	-	-	-	-
Stage 2	956	849	-	938	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	8.6	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1488	-	-	836	1011	1544	-	-
HCM Lane V/C Ratio	-	-	-	0.039	0.001	-	-	-
HCM Control Delay (s)	0	-	-	9.5	8.6	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	25	0	1	85	90	20
Future Volume (vph)	25	0	1	85	90	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	0	0	1861	1799	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1805	0	0	1861	1799	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			2			2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	0	93	120	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	0	1	85	90	20
Future Vol, veh/h	25	0	1	85	90	20
Conflicting Peds, #/hr	0	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	27	0	1	92	98	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	206	111	122	0	-	0
Stage 1	111	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	787	948	1465	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	783	946	1465	-	-	-
Mov Cap-2 Maneuver	783	-	-	-	-	-
Stage 1	917	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1465	-	783	-	-
HCM Lane V/C Ratio	0.001	-	0.035	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	100	10	25	110
Future Volume (vph)	0	0	100	10	25	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	0	1840	0	0	1864
Flt Permitted						0.991
Satd. Flow (perm)	1863	0	1840	0	0	1864
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9			1	1	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	120	0	0	147
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	100	10	25	110
Future Vol, veh/h	0	0	100	10	25	110
Conflicting Peds, #/hr	9	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	0	0	109	11	27	120

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	298	115	0	0	121	0
Stage 1	115	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	693	937	-	-	1473	-
Stage 1	910	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	673	936	-	-	1473	-
Mov Cap-2 Maneuver	673	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1473	-
HCM Lane V/C Ratio	-	-	-	0.018	-
HCM Control Delay (s)	-	-	0	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	95	55	20	80	80	60
Future Volume (vph)	95	55	20	80	80	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1732	0	0	1844	1790	0
Flt Permitted	0.969			0.990		
Satd. Flow (perm)	1732	0	0	1844	1790	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	110	1	1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	2%	2%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	163	0	0	109	152	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	95	55	20	80	80	60
Future Vol, veh/h	95	55	20	80	80	60
Conflicting Peds, #/hr	110	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	2	2	0	0
Mvmt Flow	103	60	22	87	87	65

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	361	122	153	0	-	0
Stage 1	121	-	-	-	-	-
Stage 2	240	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	640	932	1428	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	629	930	1427	-	-	-
Mov Cap-2 Maneuver	629	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	788	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1427	-	714	-	-
HCM Lane V/C Ratio	0.015	-	0.228	-	-
HCM Control Delay (s)	7.6	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	20	60	115	155	140
Future Volume (vph)	15	20	60	115	155	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1715	0	1714	0	0	1851
Flt Permitted	0.979					0.974
Satd. Flow (perm)	1715	0	1714	0	0	1851
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Peds. (#/hr)	1					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	190	0	0	320
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	20	60	115	155	140
Future Vol, veh/h	15	20	60	115	155	140
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	16	22	65	125	168	152

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	618	128	0	0	190	0
Stage 1	128	-	-	-	-	-
Stage 2	490	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	456	927	-	-	1396	-
Stage 1	903	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	396	927	-	-	1396	-
Mov Cap-2 Maneuver	396	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	538	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	4.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	589	1396	-
HCM Lane V/C Ratio	-	-	0.065	0.121	-
HCM Control Delay (s)	-	-	11.5	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.4	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	315	35	260	445	30	50
Future Volume (vph)	315	35	260	445	30	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1855	0	0	1866	1674	0
Flt Permitted				0.982	0.981	
Satd. Flow (perm)	1855	0	0	1866	1674	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	380	0	0	767	87	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.2%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	315	35	260	445	30	50
Future Vol, veh/h	315	35	260	445	30	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	2	2
Mvmt Flow	342	38	283	484	33	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	380	0	1410	361
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	1049	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1190	-	153	684
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	337	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1190	-	103	684
Mov Cap-2 Maneuver	-	-	-	-	103	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	227	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	31.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	220	-	-	1190	-
HCM Lane V/C Ratio	0.395	-	-	0.237	-
HCM Control Delay (s)	31.7	-	-	9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	1.8	-	-	0.9	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	135	80	15	35	75	20
Future Volume (vph)	135	80	15	35	75	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	0	0	1872	1775	0
Flt Permitted				0.985	0.962	
Satd. Flow (perm)	1805	0	0	1872	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)		3	3			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	234	0	0	54	104	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	135	80	15	35	75	20
Future Vol, veh/h	135	80	15	35	75	20
Conflicting Peds, #/hr	0	3	3	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	147	87	16	38	82	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	237	0	264	198
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	71	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1342	-	729	848
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1336	-	718	842
Mov Cap-2 Maneuver	-	-	-	-	718	-
Stage 1	-	-	-	-	843	-
Stage 2	-	-	-	-	946	-

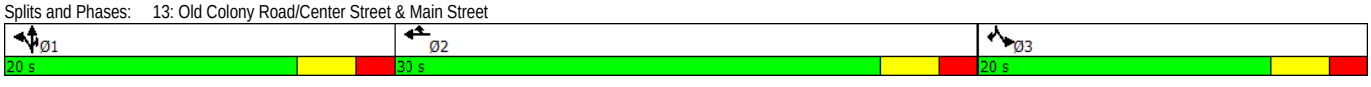
Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	741	-	-	1336	-
HCM Lane V/C Ratio	0.139	-	-	0.012	-
HCM Control Delay (s)	10.6	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	690	330	70	145	235	345	0	90
Future Volume (vph)	0	0	0	0	690	330	70	145	235	345	0	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3406	1524	1687	1776	1509	1719	0	1538
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3406	1524	1666	1776	1509	1700	0	1538
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						359	109		255			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						18	9		6	6		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	7%	7%	7%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	750	359	76	158	255	375	0	98
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					21.3	21.3	11.1	11.1	11.1	15.2		15.2
Actuated g/C Ratio					0.34	0.34	0.18	0.18	0.18	0.24		0.24
v/c Ratio					0.65	0.48	0.20	0.50	0.54	0.90		0.22
Control Delay					20.8	4.5	3.9	30.1	8.3	54.2		6.1
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					20.8	4.5	3.9	30.1	8.3	54.2		6.1
LOS					C	A	A	C	A	D		A
Approach Delay					15.5			14.6			44.3	
Approach LOS					B			B			D	
Queue Length 50th (ft)					126	0	0	58	0	150		0
Queue Length 95th (ft)					192	50	18	111	54	#329		31
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1375	829	491	430	558	416		455
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.55	0.43	0.15	0.37	0.46	0.90		0.22

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 62.8			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 21.9		Intersection LOS: C	
Intersection Capacity Utilization 57.5%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	120	650	80	0	0	0	0	185	125	
Future Volume (vph)	0	0	0	120	650	80	0	0	0	0	185	125	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3217	0	0	0	0	0	3150	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3213	0	0	0	0	0	3150	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					42						136		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		15				7		2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	7%	7%	7%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	924	0	0	0	0	0	337	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					21.8						12.0		
Actuated g/C Ratio					0.44						0.24		
v/c Ratio					0.64						0.39		
Control Delay					13.2						13.6		
Queue Delay					0.0						0.0		
Total Delay					13.2						13.6		
LOS					B						B		
Approach Delay					13.2						13.6		
Approach LOS					B						B		
Queue Length 50th (ft)					62						17		
Queue Length 95th (ft)					210						79		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2520						1844		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.37						0.18		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 49.2			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 41.7%		ICU Level of Service A	
Analysis Period (min) 15			

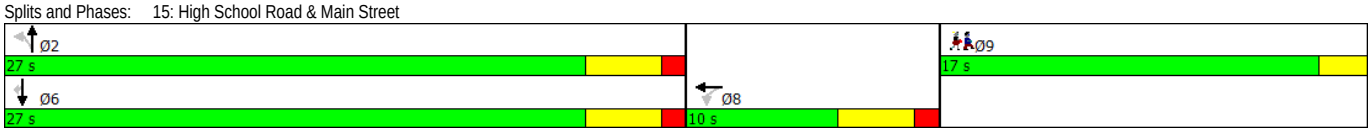
Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	85	530	120	90	160	0	0	155	85	
Future Volume (vph)	0	0	0	85	530	120	90	160	0	0	155	85	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3092	0	0	1852	0	0	1827	1553	
Flt Permitted					0.994			0.812					
Satd. Flow (perm)	0	0	0	0	3081	0	0	1531	0	0	1827	1533	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					34							92	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				7		13	1					1	
Confl. Bikes (#/hr)						2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	3%	6%	9%	2%	0%	0%	0%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	798	0	0	272	0	0	168	92	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					9.8			11.2			10.8	10.8	
Actuated g/C Ratio					0.38			0.44			0.42	0.42	
v/c Ratio					0.67			0.41			0.22	0.13	
Control Delay					22.3			9.7			7.9	3.1	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					22.3			9.7			7.9	3.1	
LOS					C			A			A	A	
Approach Delay					22.3			9.7			6.2		
Approach LOS					C			A			A		
Queue Length 50th (ft)					40			18			10	0	
Queue Length 95th (ft)					#295			112			66	21	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					1197			1354			1616	1366	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.67			0.20			0.10	0.07	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 25.6			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 16.6		Intersection LOS: B	
Intersection Capacity Utilization 52.7%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	295	560	30	95	45	15	65	125	55	45	35	
Future Volume (vph)	295	560	30	95	45	15	65	125	55	45	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3335	0	1566	0	0	1565	1697	0	1758	0	
Flt Permitted		0.984					0.950					
Satd. Flow (perm)	0	3333	0	1532	0	0	1546	1697	0	1758	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Confl. Peds. (#/hr)	2				8	2	8					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	7%	5%	14%	3%	9%	8%	17%	5%	11%	3%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	963	0	152	0	0	87	196	0	87	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		25.8		13.9			13.9	13.9		9.0		
Actuated g/C Ratio		0.42		0.23			0.23	0.23		0.15		
v/c Ratio		0.68		0.37			0.21	0.51		0.33		
Control Delay		20.4		15.9			8.9	29.5		33.9		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		20.4		15.9			8.9	29.5		33.9		
LOS		C		B			A	C		C		
Approach Delay		20.4						23.2		33.9		
Approach LOS		C						C		C		
Queue Length 50th (ft)		135		21			2	63		29		
Queue Length 95th (ft)		#395		87			40	168		97		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		1929		717			723	743		368		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.50		0.21			0.12	0.26		0.24		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 60.8			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 21.3		Intersection LOS: C	
Intersection Capacity Utilization 55.9%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

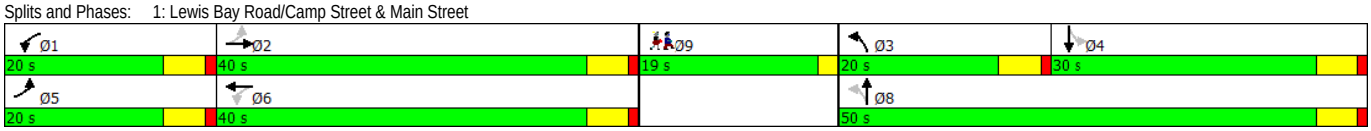


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	145	445	65	15	505	50	330	245	175	30	110	70	
Future Volume (vph)	145	445	65	15	505	50	330	245	175	30	110	70	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1805	1859	0	1805	1867	0	1805	1762	0	0	1775	0	
Flt Permitted	0.090			0.288			0.286				0.874		
Satd. Flow (perm)	170	1859	0	547	1867	0	543	1762	0	0	1561	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		6			4			31			17		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	16		1	1		16	1		3	3		1	
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	158	555	0	16	603	0	359	456	0	0	229	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	52.0	48.3		42.1	35.9		38.8	38.8			18.3		
Actuated g/C Ratio	0.48	0.45		0.39	0.33		0.36	0.36			0.17		
v/c Ratio	0.63	0.66		0.06	0.96		0.95	0.70			0.82		
Control Delay	34.7	32.5		20.6	65.8		68.1	35.3			64.2		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	34.7	32.5		20.6	65.8		68.1	35.3			64.2		
LOS	C	C		C	E		E	D			E		
Approach Delay		33.0			64.6			49.7			64.2		
Approach LOS		C			E			D			E		
Queue Length 50th (ft)	51	228		5	356		171	217			129		
Queue Length 95th (ft)	153	#635		22	#836		#414	439			#278		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	316	838		435	626		377	774			385		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.50	0.66		0.04	0.96		0.95	0.59			0.59		

Intersection Summary

Area Type: Other
Cycle Length: 129
Actuated Cycle Length: 107.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 50.0 Intersection LOS: D
Intersection Capacity Utilization 89.9% ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	65	685	5	15	175
Future Volume (vph)	0	65	685	5	15	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1898	0	0	1874
Flt Permitted						0.996
Satd. Flow (perm)	1644	0	1898	0	0	1874
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Confl. Peds. (#/hr)				1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	0	750	0	0	206
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	65	685	5	15	175
Future Vol, veh/h	0	65	685	5	15	175
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	71	745	5	16	190

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	971	748	0	0	751	0
Stage 1	748	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	283	416	-	-	863	-
Stage 1	471	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	277	416	-	-	863	-
Mov Cap-2 Maneuver	277	-	-	-	-	-
Stage 1	471	-	-	-	-	-
Stage 2	802	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.4	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	416	863	-
HCM Lane V/C Ratio	-	-	0.17	0.019	-
HCM Control Delay (s)	-	-	15.4	9.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	240	450	45	110	65
Future Volume (vph)	5	240	450	45	110	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1648	0	1859	0	0	1825
Flt Permitted	0.999					0.970
Satd. Flow (perm)	1648	0	1859	0	0	1825
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	266	0	538	0	0	191
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	240	450	45	110	65
Future Vol, veh/h	5	240	450	45	110	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	5	261	489	49	120	71

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	824	514	0	0	538	0
Stage 1	514	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	346	564	-	-	1035	-
Stage 1	605	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	304	564	-	-	1035	-
Mov Cap-2 Maneuver	304	-	-	-	-	-
Stage 1	605	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.4	0	5.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	554	1035	-
HCM Lane V/C Ratio	-	-	0.481	0.116	-
HCM Control Delay (s)	-	-	17.4	8.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.6	0.4	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	305	170	0	190	70	0
Future Volume (vph)	305	170	0	190	70	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	1615	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1805	1615	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	332	185	0	207	76	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	305	170	0	190	70	0
Future Vol, veh/h	305	170	0	190	70	0
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	332	185	0	207	76	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	283	79	-	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	711	987	0	-	-	0
Stage 1	952	-	0	-	-	0
Stage 2	832	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	711	984	-	-	-	-
Mov Cap-2 Maneuver	711	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	832	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	711	984	-
HCM Lane V/C Ratio	-	0.466	0.188	-
HCM Control Delay (s)	-	14.4	9.5	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	2.5	0.7	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	85	105	1	100	140
Future Volume (vph)	5	85	105	1	100	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1652	0	1861	0	0	1844
Flt Permitted	0.997					0.980
Satd. Flow (perm)	1652	0	1861	0	0	1844
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	97	0	115	0	0	261
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	85	105	1	100	140
Future Vol, veh/h	5	85	105	1	100	140
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	5	92	114	1	109	152

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	485	116	0	0	115	0
Stage 1	115	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	545	942	-	-	1480	-
Stage 1	915	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	501	941	-	-	1479	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	646	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	3.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	897	1479	-
HCM Lane V/C Ratio	-	-	0.109	0.073	-
HCM Control Delay (s)	-	-	9.5	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	0	1	0	0	1	5	95	0	1	40	15
Future Volume (vph)	60	0	1	0	0	1	5	95	0	1	40	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1807	0	0	1644	0	0	1896	0	0	1830	0
Flt Permitted		0.953						0.998			0.999	
Satd. Flow (perm)	0	1807	0	0	1644	0	0	1896	0	0	1830	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)	1					1	5		2	2		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	1	0	0	108	0	0	60	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	60	0	1	0	0	1	5	95	0	1	40	15
Future Vol, veh/h	60	0	1	0	0	1	5	95	0	1	40	15
Conflicting Peds, #/hr	1	0	0	0	0	1	5	0	2	2	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	65	0	1	0	0	1	5	103	0	1	43	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	175	175	57	170	183	106	65	0	0	105	0	0
Stage 1	59	59	-	116	116	-	-	-	-	-	-	-
Stage 2	116	116	-	54	67	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	792	722	1015	798	715	954	1550	-	-	1499	-	-
Stage 1	958	850	-	894	803	-	-	-	-	-	-	-
Stage 2	894	803	-	963	843	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	784	714	1010	793	707	951	1550	-	-	1498	-	-
Mov Cap-2 Maneuver	784	714	-	793	707	-	-	-	-	-	-	-
Stage 1	951	845	-	890	799	-	-	-	-	-	-	-
Stage 2	889	799	-	961	838	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	8.8	0.4	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1550	-	-	787	951	1498	-	-
HCM Lane V/C Ratio	0.004	-	-	0.084	0.001	0.001	-	-
HCM Control Delay (s)	7.3	0	-	10	8.8	7.4	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	3	5	150	55	15
Future Volume (vph)	15	3	5	150	55	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1786	0	0	1898	1847	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1786	0	0	1898	1847	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			10			10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	0	0	168	76	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	3	5	150	55	15
Future Vol, veh/h	15	3	5	150	55	15
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	3	5	163	60	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	252	78	86	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	741	988	1523	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	724	979	1523	-	-	-
Mov Cap-2 Maneuver	724	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	849	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1523	-	757	-	-
HCM Lane V/C Ratio	0.004	-	0.026	-	-
HCM Control Delay (s)	7.4	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	5	160	5	5	70
Future Volume (vph)	1	5	160	5	5	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1672	0	1892	0	0	1894
Flt Permitted	0.992					0.997
Satd. Flow (perm)	1672	0	1892	0	0	1894
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	179	0	0	81
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	18.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	5	160	5	5	70
Future Vol, veh/h	1	5	160	5	5	70
Conflicting Peds, #/hr	9	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	5	174	5	5	76

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	273	177	0	0	179	0
Stage 1	177	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	721	871	-	-	1409	-
Stage 1	859	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	712	871	-	-	1409	-
Mov Cap-2 Maneuver	712	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	921	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	840	1409	-
HCM Lane V/C Ratio	-	-	0.008	0.004	-
HCM Control Delay (s)	-	-	9.3	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	95	35	15	150	40	165
Future Volume (vph)	95	35	15	150	40	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1733	0	0	1855	1660	0
Flt Permitted	0.965			0.996		
Satd. Flow (perm)	1733	0	0	1855	1660	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	117	3	3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	141	0	0	179	222	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	95	35	15	150	40	165
Future Vol, veh/h	95	35	15	150	40	165
Conflicting Peds, #/hr	117	3	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	38	16	163	43	179

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	449	139	226	0	-	0
Stage 1	136	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	568	909	1342	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	557	904	1338	-	-	-
Mov Cap-2 Maneuver	557	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	729	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1338	-	621	-	-
HCM Lane V/C Ratio	0.012	-	0.228	-	-
HCM Control Delay (s)	7.7	0	12.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	90	155	165	15	10	85
Future Volume (vph)	90	155	165	15	10	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1707	0	1879	0	0	1890
Flt Permitted	0.982					0.995
Satd. Flow (perm)	1707	0	1879	0	0	1890
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	266	0	195	0	0	103
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	90	155	165	15	10	85
Future Vol, veh/h	90	155	165	15	10	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	98	168	179	16	11	92

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	302	188	0	0	196	0
Stage 1	188	-	-	-	-	-
Stage 2	114	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	694	859	-	-	1389	-
Stage 1	849	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	688	859	-	-	1389	-
Mov Cap-2 Maneuver	688	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	787	1389	-
HCM Lane V/C Ratio	-	-	0.338	0.008	-
HCM Control Delay (s)	-	-	11.9	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	535	25	70	310	70	250
Future Volume (vph)	535	25	70	310	70	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1870	0	0	1883	1680	0
Flt Permitted				0.991	0.989	
Satd. Flow (perm)	1870	0	0	1883	1680	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	609	0	0	413	348	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 79.1%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	14.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	535	25	70	310	70	250
Future Vol, veh/h	535	25	70	310	70	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	582	27	76	337	76	272

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	609	0	1084	595
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	489	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	979	-	242	508
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	621	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	979	-	219	508
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	561	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	53.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	394	-	-	979	-
HCM Lane V/C Ratio	0.883	-	-	0.078	-
HCM Control Delay (s)	53.5	-	-	9	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	8.9	-	-	0.3	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	70	85	45	130	115	50
Future Volume (vph)	70	85	45	130	115	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1759	0	0	1875	1760	0
Flt Permitted				0.987	0.966	
Satd. Flow (perm)	1759	0	0	1875	1760	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)						4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	0	0	190	179	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	70	85	45	130	115	50
Future Vol, veh/h	70	85	45	130	115	50
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	76	92	49	141	125	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	168	0	361	126
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	239	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1422	-	642	930
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	805	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1417	-	618	926
Mov Cap-2 Maneuver	-	-	-	-	618	-
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	774	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	687	-	-	1417	-
HCM Lane V/C Ratio	0.261	-	-	0.035	-
HCM Control Delay (s)	12.1	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	835	695	120	210	320	570	0	95
Future Volume (vph)	0	0	0	0	835	695	120	210	320	570	0	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3505	1568	1770	1863	1583	1752	0	1568
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3505	1568	1767	1863	1583	1749	0	1568
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						680	130		348			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						21	1		1	1		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	908	755	130	228	348	620	0	103
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					24.1	24.1	13.0	13.0	13.0	15.1		15.1
Actuated g/C Ratio					0.36	0.36	0.19	0.19	0.19	0.22		0.22
v/c Ratio					0.72	0.76	0.29	0.64	0.59	1.58		0.24
Control Delay					22.9	8.6	6.9	33.7	7.8	297.3		6.6
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					22.9	8.6	6.9	33.7	7.8	297.3		6.6
LOS					C	A	A	C	A	F		A
Approach Delay					16.4			16.0			255.9	
Approach LOS					B			B			F	
Queue Length 50th (ft)					174	21	0	88	0	~397		0
Queue Length 95th (ft)					240	134	40	155	62	#583		33
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1310	1012	497	418	625	393		436
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.69	0.75	0.26	0.55	0.56	1.58		0.24

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 67.2			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.58			
Intersection Signal Delay: 72.3		Intersection LOS: E	
Intersection Capacity Utilization 77.4%		ICU Level of Service D	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	145	820	85	0	0	0	0	130	145	
Future Volume (vph)	0	0	0	145	820	85	0	0	0	0	130	145	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3320	0	0	0	0	0	3165	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3315	0	0	0	0	0	3165	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					39						158		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		18				6		7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	4%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	1141	0	0	0	0	0	299	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					26.0						11.1		
Actuated g/C Ratio					0.50						0.21		
v/c Ratio					0.69						0.38		
Control Delay					13.0						12.9		
Queue Delay					0.0						0.0		
Total Delay					13.0						12.9		
LOS					B						B		
Approach Delay					13.0						12.9		
Approach LOS					B						B		
Queue Length 50th (ft)					84						14		
Queue Length 95th (ft)					259						63		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2414						1715		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.47						0.17		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 52.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 46.7%		ICU Level of Service A	
Analysis Period (min) 15			

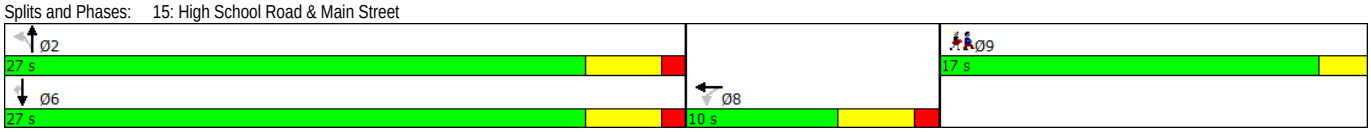
Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	45	815	115	55	80	0	0	105	35	
Future Volume (vph)	0	0	0	45	815	115	55	80	0	0	105	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3288	0	0	1819	0	0	1881	1615	
Flt Permitted					0.998								
Satd. Flow (perm)	0	0	0	0	3274	0	0	1852	0	0	1881	1586	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					22							61	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				20		16	9					9	
Confl. Bikes (#/hr)						1							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	3%	1%	1%	0%	4%	0%	0%	1%	0%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	1060	0	0	147	0	0	114	38	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					13.0			9.7			9.3	9.3	
Actuated g/C Ratio					0.68			0.51			0.49	0.49	
v/c Ratio					0.47			0.16			0.12	0.05	
Control Delay					18.1			7.1			7.1	2.8	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					18.1			7.1			7.1	2.8	
LOS					B			A			A	A	
Approach Delay					18.1			7.1			6.0		
Approach LOS					B			A			A		
Queue Length 50th (ft)					0			0			0	0	
Queue Length 95th (ft)					#344			61			49	10	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					2242			1678			1704	1443	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.47			0.09			0.07	0.03	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 19			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 15.6		Intersection LOS: B	
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	360	430	40	155	15	15	35	110	95	60	25	
Future Volume (vph)	360	430	40	155	15	15	35	110	95	60	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3426	0	1602	0	0	1756	1693	0	1704	0	
Flt Permitted		0.979					0.950					
Satd. Flow (perm)	0	3426	0	1602	0	0	1756	1693	0	1704	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	3%	0%	2%	9%	0%	4%	4%	5%	10%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	901	0	184	0	0	54	223	0	92	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		24.1		14.8			14.8	14.8		9.4		
Actuated g/C Ratio		0.40		0.25			0.25	0.25		0.16		
v/c Ratio		0.66		0.41			0.11	0.54		0.35		
Control Delay		20.2		17.3			3.7	29.3		33.9		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		20.2		17.3			3.7	29.3		33.9		
LOS		C		B			A	C		C		
Approach Delay		20.2						24.3		33.9		
Approach LOS		C						C		C		
Queue Length 50th (ft)		129		30			0	70		30		
Queue Length 95th (ft)		331		111			16	191		102		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		1993		760			828	755		363		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.45		0.24			0.07	0.30		0.25		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 60.3			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 56.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

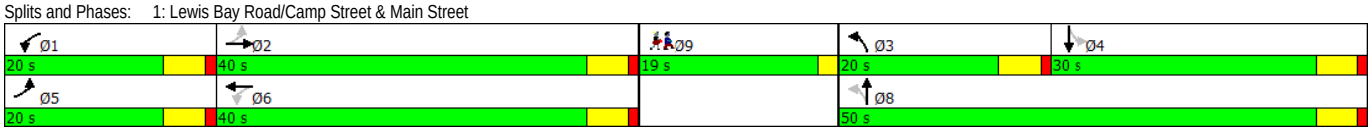


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	45	280	60	20	475	30	145	265	170	45	205	35	
Future Volume (vph)	45	280	60	20	475	30	145	265	170	45	205	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1787	1822	0	1805	1880	0	1805	1773	0	0	1831	0	
Flt Permitted	0.140			0.417			0.323				0.859		
Satd. Flow (perm)	263	1822	0	789	1880	0	614	1773	0	0	1585	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		8			2			28			5		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	1		7	7		1			1	1			
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	49	369	0	22	549	0	158	473	0	0	310	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	44.2	41.4		40.6	35.9		41.2	41.2			25.6		
Actuated g/C Ratio	0.43	0.40		0.39	0.35		0.40	0.40			0.25		
v/c Ratio	0.23	0.50		0.06	0.84		0.43	0.65			0.78		
Control Delay	22.6	29.6		20.9	46.9		27.1	31.0			53.8		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	22.6	29.6		20.9	46.9		27.1	31.0			53.8		
LOS	C	C		C	D		C	C			D		
Approach Delay		28.8			45.9			30.0			53.8		
Approach LOS		C			D			C			D		
Queue Length 50th (ft)	15	138		7	298		61	212			172		
Queue Length 95th (ft)	50	360		28	#685		140	430			#423		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	342	736		497	655		422	808			397		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.14	0.50		0.04	0.84		0.37	0.59			0.78		

Intersection Summary

Area Type: Other
Cycle Length: 129
Actuated Cycle Length: 103.1
Natural Cycle: 105
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 38.3 — Intersection LOS: D
Intersection Capacity Utilization 88.3% — ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	20	560	20	50	235
Future Volume (vph)	0	20	560	20	50	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1890	0	0	1864
Flt Permitted						0.991
Satd. Flow (perm)	1644	0	1890	0	0	1864
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	631	0	0	309
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 59.2%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	560	20	50	235
Future Vol, veh/h	0	20	560	20	50	235
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	22	609	22	54	255

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	984	620	0	0	630	0
Stage 1	620	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	278	492	-	-	957	-
Stage 1	540	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	260	492	-	-	957	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	660	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	492	957	-
HCM Lane V/C Ratio	-	-	0.044	0.057	-
HCM Control Delay (s)	-	-	12.7	9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	130	450	80	155	80
Future Volume (vph)	0	130	450	80	155	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1862	0	0	1821
Flt Permitted						0.968
Satd. Flow (perm)	1644	0	1862	0	0	1821
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	141	0	576	0	0	255
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 59.4%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	130	450	80	155	80
Future Vol, veh/h	0	130	450	80	155	80
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	141	489	87	168	87

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	958	534	0	0	577	0
Stage 1	534	-	-	-	-	-
Stage 2	424	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	288	550	-	-	1001	-
Stage 1	592	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	237	549	-	-	1001	-
Mov Cap-2 Maneuver	237	-	-	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	547	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0	6.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	549	1001	-
HCM Lane V/C Ratio	-	-	0.257	0.168	-
HCM Control Delay (s)	-	-	13.8	9.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0.6	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	355	140	0	175	80	0
Future Volume (vph)	355	140	0	175	80	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1787	1599	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1787	1599	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	386	152	0	190	87	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	355	140	0	175	80	0
Future Vol, veh/h	355	140	0	175	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	386	152	0	190	87	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	277	87	-	0	-	0
Stage 1	87	-	-	-	-	-
Stage 2	190	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	-	-
Pot Cap-1 Maneuver	715	974	0	-	-	0
Stage 1	939	-	0	-	-	0
Stage 2	845	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	715	974	-	-	-	-
Mov Cap-2 Maneuver	715	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	845	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	715	974	-
HCM Lane V/C Ratio	-	0.54	0.156	-
HCM Control Delay (s)	-	15.8	9.4	-
HCM Lane LOS	-	C	A	-
HCM 95th %tile Q(veh)	-	3.3	0.6	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	25	150	5	120	100
Future Volume (vph)	5	25	150	5	120	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1670	0	1874	0	0	1814
Flt Permitted	0.992					0.974
Satd. Flow (perm)	1670	0	1874	0	0	1814
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	168	0	0	239
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	25	150	5	120	100
Future Vol, veh/h	5	25	150	5	120	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	5	27	163	5	130	109

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	536	166	0	0	168	0
Stage 1	166	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	509	884	-	-	1410	-
Stage 1	868	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	459	884	-	-	1410	-
Mov Cap-2 Maneuver	459	-	-	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	634	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	4.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	766	1410	-
HCM Lane V/C Ratio	-	-	0.043	0.093	-
HCM Control Delay (s)	-	-	9.9	7.8	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	0	0	0	0	1	0	55	0	0	50	40
Future Volume (vph)	30	0	0	0	0	1	0	55	0	0	50	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1845	0	0	1751	0
Flt Permitted		0.950										
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1845	0	0	1751	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	3%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	1	0	0	60	0	0	97	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	30	0	0	0	0	1	0	55	0	0	50	40
Future Vol, veh/h	30	0	0	0	0	1	0	55	0	0	50	40
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	33	0	0	0	0	1	0	60	0	0	54	43

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	137	137	77	136	159	60	99	0	0	60	0	0
Stage 1	77	77	-	60	60	-	-	-	-	-	-	-
Stage 2	60	60	-	76	99	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	838	758	990	840	737	1011	1488	-	-	1544	-	-
Stage 1	937	835	-	957	849	-	-	-	-	-	-	-
Stage 2	957	849	-	938	817	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	836	757	989	840	736	1011	1488	-	-	1544	-	-
Mov Cap-2 Maneuver	836	757	-	840	736	-	-	-	-	-	-	-
Stage 1	936	834	-	957	849	-	-	-	-	-	-	-
Stage 2	956	849	-	938	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	8.6	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1488	-	-	836	1011	1544	-	-
HCM Lane V/C Ratio	-	-	-	0.039	0.001	-	-	-
HCM Control Delay (s)	0	-	-	9.5	8.6	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	25	0	1	85	90	20
Future Volume (vph)	25	0	1	85	90	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	0	0	1861	1799	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1805	0	0	1861	1799	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			2			2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	0	93	120	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	0	1	85	90	20
Future Vol, veh/h	25	0	1	85	90	20
Conflicting Peds, #/hr	0	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	27	0	1	92	98	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	206	111	122	0	-	0
Stage 1	111	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	787	948	1465	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	783	946	1465	-	-	-
Mov Cap-2 Maneuver	783	-	-	-	-	-
Stage 1	917	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1465	-	783	-	-
HCM Lane V/C Ratio	0.001	-	0.035	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	100	10	25	110
Future Volume (vph)	0	0	100	10	25	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	0	1840	0	0	1864
Flt Permitted						0.991
Satd. Flow (perm)	1863	0	1840	0	0	1864
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9			1	1	
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	120	0	0	147
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	100	10	25	110
Future Vol, veh/h	0	0	100	10	25	110
Conflicting Peds, #/hr	9	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	0	0	109	11	27	120

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	298	115	0	0	121	0
Stage 1	115	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	693	937	-	-	1473	-
Stage 1	910	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	673	936	-	-	1473	-
Mov Cap-2 Maneuver	673	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1473	-
HCM Lane V/C Ratio	-	-	-	0.018	-
HCM Control Delay (s)	-	-	0	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	100	55	20	80	80	70
Future Volume (vph)	100	55	20	80	80	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1735	0	0	1844	1780	0
Flt Permitted	0.969			0.990		
Satd. Flow (perm)	1735	0	0	1844	1780	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	110	1	1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	2%	2%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	169	0	0	109	163	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	100	55	20	80	80	70
Future Vol, veh/h	100	55	20	80	80	70
Conflicting Peds, #/hr	110	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	2	2	0	0
Mvmt Flow	109	60	22	87	87	76

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	366	127	164	0	-	0
Stage 1	126	-	-	-	-	-
Stage 2	240	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.218	-	-	-
Pot Cap-1 Maneuver	636	926	1414	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	625	924	1413	-	-	-
Mov Cap-2 Maneuver	625	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	788	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1413	-	706	-	-
HCM Lane V/C Ratio	0.015	-	0.239	-	-
HCM Control Delay (s)	7.6	0	11.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	20	65	115	155	150
Future Volume (vph)	15	20	65	115	155	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1715	0	1719	0	0	1852
Flt Permitted	0.979					0.975
Satd. Flow (perm)	1715	0	1719	0	0	1852
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Peds. (#/hr)	1					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	196	0	0	331
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	20	65	115	155	150
Future Vol, veh/h	15	20	65	115	155	150
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	16	22	71	125	168	163

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	634	133	0	0	196	0
Stage 1	133	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	446	922	-	-	1389	-
Stage 1	898	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	386	922	-	-	1389	-
Mov Cap-2 Maneuver	386	-	-	-	-	-
Stage 1	898	-	-	-	-	-
Stage 2	531	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	578	1389	-
HCM Lane V/C Ratio	-	-	0.066	0.121	-
HCM Control Delay (s)	-	-	11.7	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.4	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	315	35	270	445	30	55
Future Volume (vph)	315	35	270	445	30	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1855	0	0	1864	1672	0
Flt Permitted				0.981	0.983	
Satd. Flow (perm)	1855	0	0	1864	1672	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	380	0	0	777	93	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 72.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	315	35	270	445	30	55
Future Vol, veh/h	315	35	270	445	30	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	2	2
Mvmt Flow	342	38	293	484	33	60

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	380	0	1432	361
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	1071	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1190	-	148	684
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	329	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1190	-	98	684
Mov Cap-2 Maneuver	-	-	-	-	98	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	218	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	32.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	220	-	-	1190	-
HCM Lane V/C Ratio	0.42	-	-	0.247	-
HCM Control Delay (s)	32.7	-	-	9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	1.9	-	-	1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	135	100	25	35	95	25
Future Volume (vph)	135	100	25	35	95	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1792	0	0	1862	1777	0
Flt Permitted				0.980	0.962	
Satd. Flow (perm)	1792	0	0	1862	1777	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)		3	3			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	256	0	0	65	130	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	135	100	25	35	95	25
Future Vol, veh/h	135	100	25	35	95	25
Conflicting Peds, #/hr	0	3	3	0	0	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	147	109	27	38	103	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	258	0	296	209
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	92	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1318	-	699	836
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	937	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1312	-	682	830
Mov Cap-2 Maneuver	-	-	-	-	682	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	917	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	11.2
HCM LOS			B

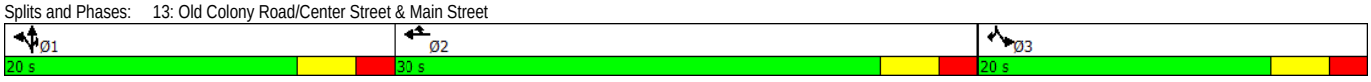
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	708	-	-	1312	-
HCM Lane V/C Ratio	0.184	-	-	0.021	-
HCM Control Delay (s)	11.2	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	705	335	70	145	235	355	0	90
Future Volume (vph)	0	0	0	0	705	335	70	145	235	355	0	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3406	1524	1687	1776	1509	1719	0	1538
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3406	1524	1666	1776	1509	1700	0	1538
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						364	109		255			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						18	9		6	6		9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	7%	7%	7%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	766	364	76	158	255	386	0	98
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					21.4	21.4	11.1	11.1	11.1	15.2		15.2
Actuated g/C Ratio					0.34	0.34	0.18	0.18	0.18	0.24		0.24
v/c Ratio					0.66	0.48	0.20	0.50	0.54	0.93		0.22
Control Delay					21.0	4.4	3.9	30.2	8.3	59.3		6.1
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					21.0	4.4	3.9	30.2	8.3	59.3		6.1
LOS					C	A	A	C	A	E		A
Approach Delay					15.7			14.7			48.5	
Approach LOS					B			B			D	
Queue Length 50th (ft)					130	0	0	58	0	158		0
Queue Length 95th (ft)					196	51	18	111	54	#341		31
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1371	831	490	429	557	415		454
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.56	0.44	0.16	0.37	0.46	0.93		0.22

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 63
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 23.0 — Intersection LOS: C
Intersection Capacity Utilization 58.5% — ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	125	660	80	0	0	0	0	195	125	
Future Volume (vph)	0	0	0	125	660	80	0	0	0	0	195	125	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3217	0	0	0	0	0	3157	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3213	0	0	0	0	0	3157	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					42						136		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		15				7		2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	7%	7%	7%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	940	0	0	0	0	0	348	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					22.1						12.1		
Actuated g/C Ratio					0.45						0.24		
v/c Ratio					0.65						0.40		
Control Delay					13.4						13.9		
Queue Delay					0.0						0.0		
Total Delay					13.4						13.9		
LOS					B						B		
Approach Delay					13.4						13.9		
Approach LOS					B						B		
Queue Length 50th (ft)					64						18		
Queue Length 95th (ft)					216						83		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2506						1836		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.38						0.19		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 49.6			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 42.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street

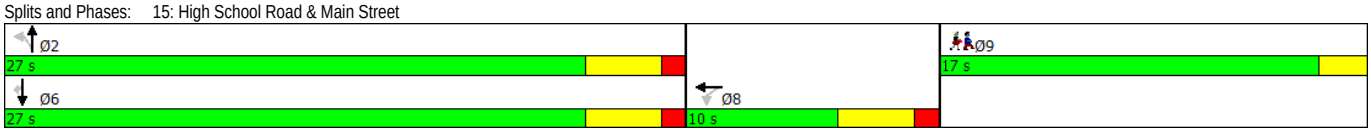


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	85	535	125	90	160	0	0	160	85	
Future Volume (vph)	0	0	0	85	535	125	90	160	0	0	160	85	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3087	0	0	1852	0	0	1827	1553	
Flt Permitted					0.994			0.810					
Satd. Flow (perm)	0	0	0	0	3076	0	0	1528	0	0	1827	1533	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					35							92	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				7		13	1					1	
Confl. Bikes (#/hr)						2							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	3%	6%	9%	2%	0%	0%	0%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	810	0	0	272	0	0	174	92	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					9.8			11.2			10.8	10.8	
Actuated g/C Ratio					0.38			0.44			0.42	0.42	
v/c Ratio					0.68			0.41			0.23	0.13	
Control Delay					22.6			9.7			7.9	3.1	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					22.6			9.7			7.9	3.1	
LOS					C			A			A	A	
Approach Delay					22.6			9.7			6.3		
Approach LOS					C			A			A		
Queue Length 50th (ft)					41			18			11	0	
Queue Length 95th (ft)					#299			112			68	21	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					1195			1351			1616	1366	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.68			0.20			0.11	0.07	

Intersection Summary

Area Type: Other
Cycle Length: 54
Actuated Cycle Length: 25.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 16.8 Intersection LOS: B
Intersection Capacity Utilization 53.3% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	295	575	30	95	50	15	75	125	55	45	35	
Future Volume (vph)	295	575	30	95	50	15	75	125	55	45	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3336	0	1564	0	0	1562	1697	0	1758	0	
Flt Permitted		0.984					0.950					
Satd. Flow (perm)	0	3334	0	1530	0	0	1543	1697	0	1758	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Confl. Peds. (#/hr)	2				8	2	8					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	7%	5%	14%	3%	9%	8%	17%	5%	11%	3%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	979	0	157	0	0	98	196	0	87	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		26.2		13.9			13.9	13.9		9.0		
Actuated g/C Ratio		0.43		0.23			0.23	0.23		0.15		
v/c Ratio		0.69		0.38			0.24	0.51		0.33		
Control Delay		20.5		16.5			10.5	29.8		34.1		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		20.5		16.5			10.5	29.8		34.1		
LOS		C		B			B	C		C		
Approach Delay		20.5						23.3		34.1		
Approach LOS		C						C		C		
Queue Length 50th (ft)		138		23			5	64		29		
Queue Length 95th (ft)		#406		92			47	168		97		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		1921		709			715	736		365		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.51		0.22			0.14	0.27		0.24		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 61.1			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 57.2%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

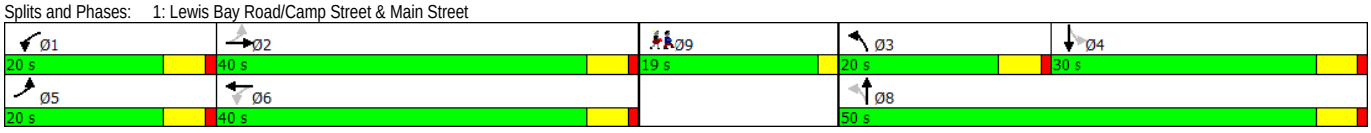


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	145	445	70	15	505	50	375	255	175	30	120	70	
Future Volume (vph)	145	445	70	15	505	50	375	255	175	30	120	70	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	100		0	100		0	0		0	0		0	
Storage Lanes	1		0	1		0	1		0	0		0	
Taper Length (ft)	100			100			25			25			
Satd. Flow (prot)	1805	1856	0	1805	1867	0	1805	1767	0	0	1779	0	
Flt Permitted	0.090			0.280			0.277				0.878		
Satd. Flow (perm)	170	1856	0	532	1867	0	526	1767	0	0	1572	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		6			4			29			16		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1442			1190			144			491		
Travel Time (s)		32.8			27.0			3.3			11.2		
Confl. Peds. (#/hr)	16		1	1		16	1		3	3		1	
Confl. Bikes (#/hr)						2						2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	158	560	0	16	603	0	408	467	0	0	239	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		Perm	NA		
Protected Phases	5	2		1	6		3	8			4		9
Permitted Phases	2			6			8			4			
Detector Phase	5	2		1	6		3	8		4	4		
Switch Phase													
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0		5.0
Minimum Split (s)	11.0	21.0		11.0	21.0		11.0	21.0		21.0	21.0		19.0
Total Split (s)	20.0	40.0		20.0	40.0		20.0	50.0		30.0	30.0		19.0
Total Split (%)	15.5%	31.0%		15.5%	31.0%		15.5%	38.8%		23.3%	23.3%		15%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		2.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0		
Lead/Lag	Lead	Lag		Lead	Lag		Lead			Lag	Lag		
Lead-Lag Optimize?													
Recall Mode	None	None		None	None		None	None		None	None		None
Act Effct Green (s)	52.0	48.3		42.1	35.9		39.5	39.5			19.0		
Actuated g/C Ratio	0.48	0.45		0.39	0.33		0.37	0.37			0.18		
v/c Ratio	0.64	0.67		0.06	0.97		1.09	0.70			0.83		
Control Delay	35.0	33.1		20.7	67.6		104.6	35.8			65.1		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0		
Total Delay	35.0	33.1		20.7	67.6		104.6	35.8			65.1		
LOS	D	C		C	E		F	D			E		
Approach Delay		33.5			66.4			67.9			65.1		
Approach LOS		C			E			E			E		
Queue Length 50th (ft)	52	237		5	364		~211	226			136		
Queue Length 95th (ft)	153	#645		22	#836		#514	454			#297		
Internal Link Dist (ft)		1362			1110			64			411		
Turn Bay Length (ft)	100			100									
Base Capacity (vph)	314	832		428	621		373	770			384		
Starvation Cap Reductn	0	0		0	0		0	0			0		
Spillback Cap Reductn	0	0		0	0		0	0			0		
Storage Cap Reductn	0	0		0	0		0	0			0		
Reduced v/c Ratio	0.50	0.67		0.04	0.97		1.09	0.61			0.62		

Intersection Summary

Area Type: Other
Cycle Length: 129
Actuated Cycle Length: 108.1
Natural Cycle: 125
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 57.2 Intersection LOS: E
Intersection Capacity Utilization 91.0% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Lewis Bay Road/Camp Street & Main Street





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	65	740	5	15	190
Future Volume (vph)	0	65	740	5	15	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1644	0	1898	0	0	1874
Flt Permitted						0.996
Satd. Flow (perm)	1644	0	1898	0	0	1874
Link Speed (mph)	30		30			30
Link Distance (ft)	506		280			144
Travel Time (s)	11.5		6.4			3.3
Confl. Peds. (#/hr)				1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	0	809	0	0	223
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	65	740	5	15	190
Future Vol, veh/h	0	65	740	5	15	190
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	0	71	804	5	16	207

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1047	808	0	0	811	0
Stage 1	808	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	255	384	-	-	820	-
Stage 1	442	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	249	384	-	-	820	-
Mov Cap-2 Maneuver	249	-	-	-	-	-
Stage 1	442	-	-	-	-	-
Stage 2	787	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	384	820	-
HCM Lane V/C Ratio	-	-	0.184	0.02	-
HCM Control Delay (s)	-	-	16.5	9.5	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	285	460	45	125	65
Future Volume (vph)	5	285	460	45	125	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1646	0	1859	0	0	1821
Flt Permitted	0.999					0.968
Satd. Flow (perm)	1646	0	1859	0	0	1821
Link Speed (mph)	30		30			30
Link Distance (ft)	148		649			280
Travel Time (s)	3.4		14.8			6.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	0	549	0	0	207
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.2%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	7.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	285	460	45	125	65
Future Vol, veh/h	5	285	460	45	125	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	5	310	500	49	136	71

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	866	524	0	0	549	0
Stage 1	524	-	-	-	-	-
Stage 2	342	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	326	557	-	-	1026	-
Stage 1	598	-	-	-	-	-
Stage 2	724	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	557	-	-	1026	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	624	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.1	0	6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	548	1026	-
HCM Lane V/C Ratio	-	-	0.575	0.132	-
HCM Control Delay (s)	-	-	20.1	9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	3.6	0.5	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	305	190	0	200	70	0
Future Volume (vph)	305	190	0	200	70	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1805	1615	0	1881	1863	0
Flt Permitted	0.950					
Satd. Flow (perm)	1805	1615	0	1881	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	591			88	649	
Travel Time (s)	13.4			2.0	14.8	
Confl. Peds. (#/hr)		3				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	332	207	0	217	76	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	305	190	0	200	70	0
Future Vol, veh/h	305	190	0	200	70	0
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	332	207	0	217	76	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	293	79	-	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	702	987	0	-	-	0
Stage 1	952	-	0	-	-	0
Stage 2	824	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	702	984	-	-	-	-
Mov Cap-2 Maneuver	702	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	702	984	-
HCM Lane V/C Ratio	-	0.472	0.21	-
HCM Control Delay (s)	-	14.6	9.6	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	2.5	0.8	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	95	105	5	120	140
Future Volume (vph)	10	95	105	5	120	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1660	0	1852	0	0	1838
Flt Permitted	0.995					0.977
Satd. Flow (perm)	1660	0	1852	0	0	1838
Link Speed (mph)	30		30			30
Link Distance (ft)	186		402			88
Travel Time (s)	4.2		9.1			2.0
Confl. Peds. (#/hr)		1				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	114	0	119	0	0	282
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	95	105	5	120	140
Future Vol, veh/h	10	95	105	5	120	140
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	11	103	114	5	130	152

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	530	118	0	0	120	0
Stage 1	117	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	513	939	-	-	1474	-
Stage 1	913	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	464	938	-	-	1473	-
Mov Cap-2 Maneuver	464	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	607	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	855	1473	-
HCM Lane V/C Ratio	-	-	0.133	0.089	-
HCM Control Delay (s)	-	-	9.9	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	0	1	0	0	1	5	95	0	1	40	15
Future Volume (vph)	60	0	1	0	0	1	5	95	0	1	40	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1807	0	0	1644	0	0	1896	0	0	1830	0
Flt Permitted		0.953						0.998			0.999	
Satd. Flow (perm)	0	1807	0	0	1644	0	0	1896	0	0	1830	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		230			312			595			193	
Travel Time (s)		5.2			7.1			13.5			4.4	
Confl. Peds. (#/hr)	1					1	5		2	2		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	1	0	0	108	0	0	60	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	60	0	1	0	0	1	5	95	0	1	40	15
Future Vol, veh/h	60	0	1	0	0	1	5	95	0	1	40	15
Conflicting Peds, #/hr	1	0	0	0	0	1	5	0	2	2	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	65	0	1	0	0	1	5	103	0	1	43	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	175	175	57	170	183	106	65	0	0	105	0	0
Stage 1	59	59	-	116	116	-	-	-	-	-	-	-
Stage 2	116	116	-	54	67	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	792	722	1015	798	715	954	1550	-	-	1499	-	-
Stage 1	958	850	-	894	803	-	-	-	-	-	-	-
Stage 2	894	803	-	963	843	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	784	714	1010	793	707	951	1550	-	-	1498	-	-
Mov Cap-2 Maneuver	784	714	-	793	707	-	-	-	-	-	-	-
Stage 1	951	845	-	890	799	-	-	-	-	-	-	-
Stage 2	889	799	-	961	838	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	8.8	0.4	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1550	-	-	787	951	1498	-	-
HCM Lane V/C Ratio	0.004	-	-	0.084	0.001	0.001	-	-
HCM Control Delay (s)	7.3	0	-	10	8.8	7.4	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	3	5	150	55	15
Future Volume (vph)	15	3	5	150	55	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1786	0	0	1898	1847	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1786	0	0	1898	1847	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	134			193	450	
Travel Time (s)	3.0			4.4	10.2	
Confl. Peds. (#/hr)			10			10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	0	0	168	76	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	3	5	150	55	15
Future Vol, veh/h	15	3	5	150	55	15
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	3	5	163	60	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	252	78	86	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	741	988	1523	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	724	979	1523	-	-	-
Mov Cap-2 Maneuver	724	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	849	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1523	-	757	-	-
HCM Lane V/C Ratio	0.004	-	0.026	-	-
HCM Control Delay (s)	7.4	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	5	160	5	5	70
Future Volume (vph)	1	5	160	5	5	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1672	0	1892	0	0	1894
Flt Permitted	0.992					0.997
Satd. Flow (perm)	1672	0	1892	0	0	1894
Link Speed (mph)	30		30			30
Link Distance (ft)	107		450			288
Travel Time (s)	2.4		10.2			6.5
Confl. Peds. (#/hr)	9					
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	179	0	0	81
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	5	160	5	5	70
Future Vol, veh/h	1	5	160	5	5	70
Conflicting Peds, #/hr	9	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	5	174	5	5	76

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	273	177	0	0	179	0
Stage 1	177	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	721	871	-	-	1409	-
Stage 1	859	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	712	871	-	-	1409	-
Mov Cap-2 Maneuver	712	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	921	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	840	1409	-
HCM Lane V/C Ratio	-	-	0.008	0.004	-
HCM Control Delay (s)	-	-	9.3	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	105	35	15	150	40	170
Future Volume (vph)	105	35	15	150	40	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1735	0	0	1855	1658	0
Flt Permitted	0.964			0.996		
Satd. Flow (perm)	1735	0	0	1855	1658	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	694			288	258	
Travel Time (s)	15.8			6.5	5.9	
Confl. Peds. (#/hr)	117	3	3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	152	0	0	179	228	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	105	35	15	150	40	170
Future Vol, veh/h	105	35	15	150	40	170
Conflicting Peds, #/hr	117	3	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	114	38	16	163	43	185

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	452	142	231	0	-	0
Stage 1	139	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	565	906	1337	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	554	901	1333	-	-	-
Mov Cap-2 Maneuver	554	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	729	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1333	-	613	-	-
HCM Lane V/C Ratio	0.012	-	0.248	-	-
HCM Control Delay (s)	7.7	0	12.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	1	-	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	90	155	175	15	10	90
Future Volume (vph)	90	155	175	15	10	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1707	0	1881	0	0	1890
Flt Permitted	0.982					0.995
Satd. Flow (perm)	1707	0	1881	0	0	1890
Link Speed (mph)	30		30			30
Link Distance (ft)	112		258			785
Travel Time (s)	2.5		5.9			17.8
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	266	0	206	0	0	109
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	90	155	175	15	10	90
Future Vol, veh/h	90	155	175	15	10	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	98	168	190	16	11	98

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	318	198	0	0	207	0
Stage 1	198	-	-	-	-	-
Stage 2	120	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	679	848	-	-	1376	-
Stage 1	840	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	674	848	-	-	1376	-
Mov Cap-2 Maneuver	674	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	903	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	775	1376	-
HCM Lane V/C Ratio	-	-	0.344	0.008	-
HCM Control Delay (s)	-	-	12.1	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	535	25	75	310	70	260
Future Volume (vph)	535	25	75	310	70	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1870	0	0	1881	1682	0
Flt Permitted				0.990	0.990	
Satd. Flow (perm)	1870	0	0	1881	1682	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1190			620	785	
Travel Time (s)	27.0			14.1	17.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	609	0	0	419	359	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	15.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	535	25	75	310	70	260
Future Vol, veh/h	535	25	75	310	70	260
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	582	27	82	337	76	283

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	609	0	1095	595
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	979	-	239	508
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	979	-	214	508
Mov Cap-2 Maneuver	-	-	-	-	214	-
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	550	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	58.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	393	-	-	979	-
HCM Lane V/C Ratio	0.913	-	-	0.083	-
HCM Control Delay (s)	58.9	-	-	9	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	9.7	-	-	0.3	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	70	100	50	130	160	60
Future Volume (vph)	70	100	50	130	160	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1748	0	0	1873	1766	0
Flt Permitted				0.986	0.965	
Satd. Flow (perm)	1748	0	0	1873	1766	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	148			694	242	
Travel Time (s)	3.4			15.8	5.5	
Confl. Peds. (#/hr)						4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	195	239	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	70	100	50	130	160	60
Future Vol, veh/h	70	100	50	130	160	60
Conflicting Peds, #/hr	0	0	0	0	0	4
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	76	109	54	141	174	65

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	185	0	380	134
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	250	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1402	-	626	920
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	796	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1397	-	600	916
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	763	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	662	-	-	1397	-
HCM Lane V/C Ratio	0.361	-	-	0.039	-
HCM Control Delay (s)	13.5	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.6	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	865	710	120	210	320	575	0	95
Future Volume (vph)	0	0	0	0	865	710	120	210	320	575	0	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	200		0	0		0
Storage Lanes	0		0	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	0	3505	1568	1770	1863	1583	1752	0	1568
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	0	0	3505	1568	1767	1863	1583	1749	0	1568
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						680	130		348			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		675			1442			1099			531	
Travel Time (s)		15.3			32.8			25.0			12.1	
Confl. Peds. (#/hr)						21	1		1	1		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	940	772	130	228	348	625	0	103
Turn Type					NA	Prot	Split	NA	Prot	Prot		Prot
Protected Phases					2	2	1	1	1	3		3
Permitted Phases												
Detector Phase					2	2	1	1	1	3		3
Switch Phase												
Minimum Initial (s)					10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)					15.0	15.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)					30.0	30.0	20.0	20.0	20.0	20.0		20.0
Total Split (%)					42.9%	42.9%	28.6%	28.6%	28.6%	28.6%		28.6%
Yellow Time (s)					3.0	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)					2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead			
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes			
Recall Mode					None	None	None	None	None	None		None
Act Effct Green (s)					24.4	24.4	13.0	13.0	13.0	15.1		15.1
Actuated g/C Ratio					0.36	0.36	0.19	0.19	0.19	0.22		0.22
v/c Ratio					0.74	0.77	0.29	0.64	0.59	1.60		0.24
Control Delay					23.5	9.4	6.9	33.8	7.8	307.1		6.6
Queue Delay					0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay					23.5	9.4	6.9	33.8	7.8	307.1		6.6
LOS					C	A	A	C	A	F		A
Approach Delay					17.1			16.1			264.6	
Approach LOS					B			B			F	
Queue Length 50th (ft)					183	26	0	88	0	~401		0
Queue Length 95th (ft)					251	152	40	155	62	#587		33
Internal Link Dist (ft)		595			1362			1019			451	
Turn Bay Length (ft)						150	200					
Base Capacity (vph)					1302	1010	495	415	623	390		434
Starvation Cap Reductn					0	0	0	0	0	0		0
Spillback Cap Reductn					0	0	0	0	0	0		0
Storage Cap Reductn					0	0	0	0	0	0		0
Reduced v/c Ratio					0.72	0.76	0.26	0.55	0.56	1.60		0.24

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 67.5
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.60
Intersection Signal Delay: 74.1 — Intersection LOS: E
Intersection Capacity Utilization 78.5% — ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Old Colony Road/Center Street & Main Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations													
Traffic Volume (vph)	0	0	0	150	845	85	0	0	0	0	135	145	
Future Volume (vph)	0	0	0	150	845	85	0	0	0	0	135	145	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	3320	0	0	0	0	0	3169	0	
Flt Permitted					0.993								
Satd. Flow (perm)	0	0	0	0	3316	0	0	0	0	0	3169	0	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)					39						158		
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		1541			675			817			634		
Travel Time (s)		35.0			15.3			18.6			14.4		
Confl. Peds. (#/hr)				14		18				6		7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	4%	4%	4%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	1173	0	0	0	0	0	305	0	
Turn Type				Perm	NA						NA		
Protected Phases					2						1		3
Permitted Phases				2									
Detector Phase				2	2						1		
Switch Phase													
Minimum Initial (s)				10.0	10.0						10.0		1.0
Minimum Split (s)				15.0	15.0						15.0		15.0
Total Split (s)				40.0	40.0						30.0		15.0
Total Split (%)				47.1%	47.1%						35.3%		18%
Yellow Time (s)				3.0	3.0						3.0		2.0
All-Red Time (s)				2.0	2.0						2.0		1.0
Lost Time Adjust (s)					0.0						0.0		
Total Lost Time (s)					5.0						5.0		
Lead/Lag				Lag	Lag						Lead		
Lead-Lag Optimize?				Yes	Yes						Yes		
Recall Mode				None	None						None		None
Act Effct Green (s)					26.7						11.1		
Actuated g/C Ratio					0.50						0.21		
v/c Ratio					0.70						0.39		
Control Delay					13.3						13.3		
Queue Delay					0.0						0.0		
Total Delay					13.3						13.3		
LOS					B						B		
Approach Delay					13.3						13.3		
Approach LOS					B						B		
Queue Length 50th (ft)					88						16		
Queue Length 95th (ft)					272						65		
Internal Link Dist (ft)		1461			595			737			554		
Turn Bay Length (ft)													
Base Capacity (vph)					2371						1688		
Starvation Cap Reductn					0						0		
Spillback Cap Reductn					0						0		
Storage Cap Reductn					0						0		
Reduced v/c Ratio					0.49						0.18		

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 53.1			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 47.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Ocean Street/Barnstable Road & Main Street

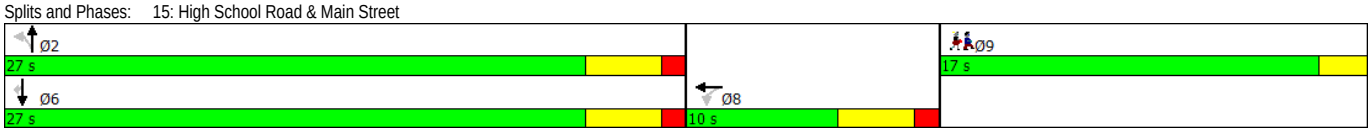


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Ø9
Lane Configurations													
Traffic Volume (vph)	0	0	0	45	830	125	55	80	0	0	110	35	
Future Volume (vph)	0	0	0	45	830	125	55	80	0	0	110	35	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		0	0		0	0		0	0		100	
Storage Lanes	0		0	0		0	0		0	0		1	
Taper Length (ft)	0			0			0			0			
Satd. Flow (prot)	0	0	0	0	3282	0	0	1819	0	0	1881	1615	
Flt Permitted					0.998			0.813					
Satd. Flow (perm)	0	0	0	0	3269	0	0	1506	0	0	1881	1586	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)					23							61	
Link Speed (mph)		30			30			30			30		
Link Distance (ft)		460			1541			470			490		
Travel Time (s)		10.5			35.0			10.7			11.1		
Confl. Peds. (#/hr)				20		16	9					9	
Confl. Bikes (#/hr)						1							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	2%	3%	1%	1%	0%	4%	0%	0%	1%	0%	
Parking (#/hr)		0			0								
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	1087	0	0	147	0	0	120	38	
Turn Type				Perm	NA		Perm	NA			NA	Perm	
Protected Phases					8			2			6		9
Permitted Phases				8			2					6	
Detector Phase				8	8		2	2			6	6	
Switch Phase													
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0	1.0
Minimum Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (s)				10.0	10.0		27.0	27.0			27.0	27.0	17.0
Total Split (%)				18.5%	18.5%		50.0%	50.0%			50.0%	50.0%	31%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0	2.0
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0	0.0
Lost Time Adjust (s)					0.0			0.0			0.0	0.0	
Total Lost Time (s)					4.0			4.0			4.0	4.0	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode				None	None		None	None			None	None	None
Act Effct Green (s)					11.5			9.3			9.1	9.1	
Actuated g/C Ratio					0.54			0.44			0.43	0.43	
v/c Ratio					0.61			0.22			0.15	0.05	
Control Delay					22.1			8.8			8.1	2.8	
Queue Delay					0.0			0.0			0.0	0.0	
Total Delay					22.1			8.8			8.1	2.8	
LOS					C			A			A	A	
Approach Delay					22.1			8.8			6.8		
Approach LOS					C			A			A		
Queue Length 50th (ft)					~77			9			7	0	
Queue Length 95th (ft)					#353			64			51	10	
Internal Link Dist (ft)		380			1461			390			410		
Turn Bay Length (ft)												100	
Base Capacity (vph)					1774			1364			1704	1443	
Starvation Cap Reductn					0			0			0	0	
Spillback Cap Reductn					0			0			0	0	
Storage Cap Reductn					0			0			0	0	
Reduced v/c Ratio					0.61			0.11			0.07	0.03	

Intersection Summary

Area Type: Other
Cycle Length: 54
Actuated Cycle Length: 21.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 49.9% ICU Level of Service A
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 15: High School Road & Main Street



Lane Group	EBL	EBT	EBR	NBR	NBR2	SBL2	SBL	SBT	SBR	NET	NER	Ø9
Lane Configurations												
Traffic Volume (vph)	360	440	40	155	20	15	40	115	95	60	25	
Future Volume (vph)	360	440	40	155	20	15	40	115	95	60	25	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3426	0	1599	0	0	1754	1695	0	1704	0	
Flt Permitted		0.979					0.950					
Satd. Flow (perm)	0	3426	0	1599	0	0	1754	1695	0	1704	0	
Right Turn on Red					Yes	Yes						
Satd. Flow (RTOR)				81			81					
Link Speed (mph)		30						30		30		
Link Distance (ft)		831						817		699		
Travel Time (s)		18.9						18.6		15.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	3%	0%	2%	9%	0%	4%	4%	5%	10%	0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	912	0	190	0	0	59	228	0	92	0	
Turn Type	Perm	NA		Perm		Perm	Perm	NA		NA		
Protected Phases		1						3		2		9
Permitted Phases	1			3		3	3					
Detector Phase	1	1		3		3	3	3		2		
Switch Phase												
Minimum Initial (s)	7.0	7.0		5.0		5.0	5.0	5.0		5.0		1.0
Minimum Split (s)	11.0	11.0		9.0		9.0	9.0	9.0		9.0		17.0
Total Split (s)	35.0	35.0		27.0		27.0	27.0	27.0		15.0		17.0
Total Split (%)	37.2%	37.2%		28.7%		28.7%	28.7%	28.7%		16.0%		18%
Yellow Time (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	1.0	1.0		1.0		1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0		
Total Lost Time (s)		4.0		4.0			4.0	4.0		4.0		
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?	Yes	Yes								Yes		
Recall Mode	None	None		None		None	None	None		None		None
Act Effct Green (s)		24.5		15.1			15.1	15.1		9.4		
Actuated g/C Ratio		0.40		0.25			0.25	0.25		0.15		
v/c Ratio		0.66		0.42			0.12	0.54		0.35		
Control Delay		20.5		17.7			4.6	29.5		34.4		
Queue Delay		0.0		0.0			0.0	0.0		0.0		
Total Delay		20.5		17.7			4.6	29.5		34.4		
LOS		C		B			A	C		C		
Approach Delay		20.5						24.4		34.4		
Approach LOS		C						C		C		
Queue Length 50th (ft)		137		33			0	74		31		
Queue Length 95th (ft)		336		116			19	195		102		
Internal Link Dist (ft)		751						737		619		
Turn Bay Length (ft)												
Base Capacity (vph)		1973		748			816	745		358		
Starvation Cap Reductn		0		0			0	0		0		
Spillback Cap Reductn		0		0			0	0		0		
Storage Cap Reductn		0		0			0	0		0		
Reduced v/c Ratio		0.46		0.25			0.07	0.31		0.26		

Intersection Summary			
Area Type:	Other		
Cycle Length: 94			
Actuated Cycle Length: 61.1			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 21.8		Intersection LOS: C	
Intersection Capacity Utilization 56.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 16: Old Colony Road & Ocean Street & South Street

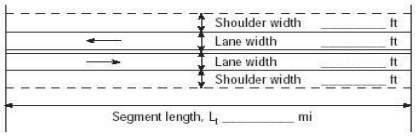


DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 175veh/h

Opposing direction vol., V_o 135veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.5	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990	0.986
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	192	149

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.9 mi/h
		Percent free flow speed, PFFS	83.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	191	147
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	20.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	57.7	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	53.3	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	B
Volume to capacity ratio, *v/c*	0.11

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	83.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	190.2
Effective width, Wv (Eq. 15-29) ft	13.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.35
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

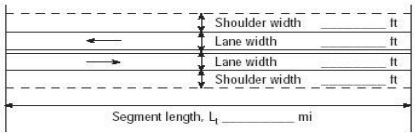
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 135veh/h

Opposing direction vol., V_o 175veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.7	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.986	0.990
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	149	192

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.9 mi/h
		Percent free flow speed, PFFS	83.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	147	191
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	16.5	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	57.7	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	41.6	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	B
Volume to capacity ratio, *v/c*	0.09

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	83.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	146.7
Effective width, Wv (Eq. 15-29) ft	17.23
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.58
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

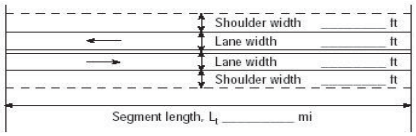
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 170veh/h

Opposing direction vol., V_o 200veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.6	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.988	0.990
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	187	220

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.3 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.4 mi/h
		Percent free flow speed, PFFS	81.9 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	185	218
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	21.0	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	61.9	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	49.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.11

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	81.9

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	184.8
Effective width, Wv (Eq. 15-29) ft	13.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.33
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

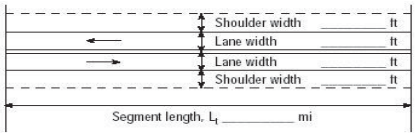
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 200veh/h

Opposing direction vol., V_o 170veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.5	1.6
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990	0.988
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	220	187

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.8 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.3 mi/h
		Percent free flow speed, PFFS	80.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	218	185
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	23.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	61.9	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	56.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.13

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	80.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	217.4
Effective width, Wv (Eq. 15-29) ft	13.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.42
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

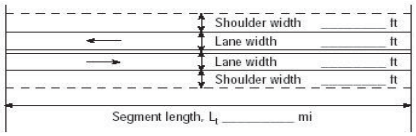
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *175*veh/h

Opposing direction vol., V_o *140*veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.5*	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*	*0.986*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*192*	*154*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.7 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*32.3 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*26.9 mi/h*
		Percent free flow speed, PFFS	*83.3 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*191*	*152*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*20.7*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*58.4*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*53.2*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*B*
Volume to capacity ratio, *v/c*	*0.11*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*83.3*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*190.2*
Effective width, Wv (Eq. 15-29) ft	*13.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.35*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

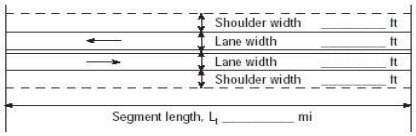
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *140*veh/h

Opposing direction vol., V_o *175*veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.7*	*1.5*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*	*0.990*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*154*	*192*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*3.5 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*32.3 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*26.1 mi/h*
		Percent free flow speed, PFFS	*80.8 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*152*	*191*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*17.0*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*58.4*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*42.9*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.09*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*80.8*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*152.2*
Effective width, Wv (Eq. 15-29) ft	*16.90*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*3.65*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

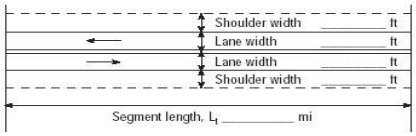
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling



Analysis direction vol., V_d	180 veh/h	Grade Length mi	Up/down
Opposing direction vol., V_o	205 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	2.0	No-passing zone	100%
Lane Width ft	11.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.5	% Recreational vehicles, P_R	0%
		Access points *mi*	40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.5	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990	0.990
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	198	225

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.9 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.0 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	25.8 mi/h
		Percent free flow speed, PFFS	78.2 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	196	223
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	21.9	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	62.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	50.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.12

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	78.2

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	195.7
Effective width, Wv (Eq. 15-29) ft	13.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.36
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

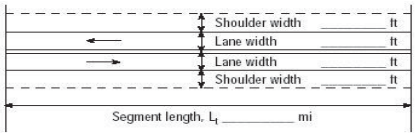
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling



Analysis direction vol., V_d	205 veh/h	Grade Length mi	Up/down
Opposing direction vol., V_o	180 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	2.0	No-passing zone	100%
Lane Width ft	11.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.5	% Recreational vehicles, P_R	0%
		Access points *mi*	40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.5	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990	0.990
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	225	198

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.5 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.0 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.2 mi/h
		Percent free flow speed, PFFS	79.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	223	196
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	23.6	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	62.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	56.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.13

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	79.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	222.8
Effective width, Wv (Eq. 15-29) ft	13.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.43
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

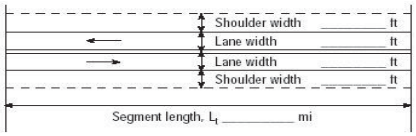
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *180*veh/h

Opposing direction vol., V_o *145*veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.5*	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*	*0.986*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*198*	*160*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.8 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*32.3 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*26.7 mi/h*
		Percent free flow speed, PFFS	*82.7 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*196*	*158*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*21.2*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*58.9*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*53.8*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.12*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*82.7*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*195.7*
Effective width, Wv (Eq. 15-29) ft	*13.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.36*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

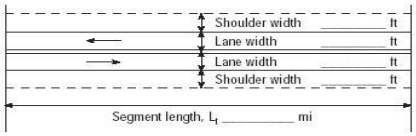
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *145* veh/h

Opposing direction vol., V_o *180* veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

Show North Arrow

% Trucks and Buses , P_T *2* %

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.7*	*1.5*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*	*0.990*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*160*	*198*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*3.5* *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*32.3* *mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*26.0* *mi/h*
		Percent free flow speed, PFFS	*80.6* %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*158*	*196*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*17.5*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*58.9*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*43.8*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.09*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*80.6*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*157.6*
Effective width, Wv (Eq. 15-29) ft	*16.58*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*3.73*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
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6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

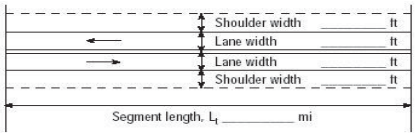
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 185 veh/h

Opposing direction vol., V_o 210 veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.5	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990	0.990
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	203	231

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	4.0 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.9 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	25.5 mi/h
		Percent free flow speed, PFFS	77.6 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	201	229
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	22.3	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	61.8	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	51.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.12

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	77.6

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	201.1
Effective width, Wv (Eq. 15-29) ft	13.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.38
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

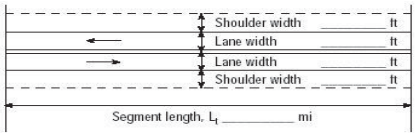
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *210*veh/h

Opposing direction vol., V_o *185*veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.5*	*1.5*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.990*	*0.990*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*231*	*203*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*3.4* *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*32.9* *mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*26.1* *mi/h*
		Percent free flow speed, PFFS	*79.4* %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*229*	*201*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*24.2*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*61.8*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*57.1*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.13*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*79.4*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*228.3*
Effective width, Wv (Eq. 15-29) ft	*13.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.44*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

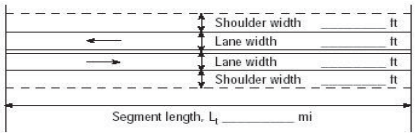
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 505veh/h

Opposing direction vol., V_o 75veh/h

Shoulder width ft 2.0
Lane Width ft 12.0
Segment Length mi 0.1



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	0.982
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	551	83

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.5 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	78.8 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	549	82
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	47.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	32.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	75.6	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.32

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	78.8

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	548.9
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.75
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

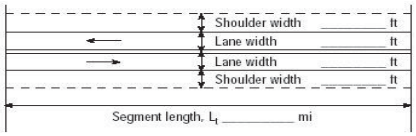
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Analysis direction vol., V_d 75veh/h

Opposing direction vol., V_o 505veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.9	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	83	551

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.5 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.0 mi/h
		Percent free flow speed, PFFS	75.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	82	549
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	13.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	32.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	17.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.05

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	75.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	81.5
Effective width, Wv (Eq. 15-29) ft	22.75
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	2.18
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

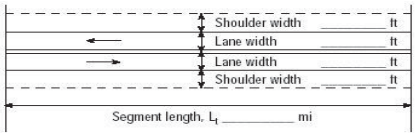
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions PK

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 38/mi

Analysis direction vol., V_d 535veh/h

Opposing direction vol., V_o 205veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.990
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	583	225

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.9 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.4 mi/h
		Percent free flow speed, PFFS	76.2 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	582	223
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	50.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	34.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	75.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.34

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	76.2

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	581.5
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.78
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

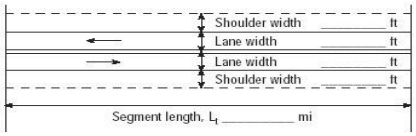
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions PK

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 38/mi

Analysis direction vol., V_d 205veh/h

Opposing direction vol., V_o 535veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.5	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	225	583

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.5 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.0 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.2 mi/h
		Percent free flow speed, PFFS	78.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	223	582
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	30.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	34.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	39.8	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.13

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	78.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	222.8
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.29
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

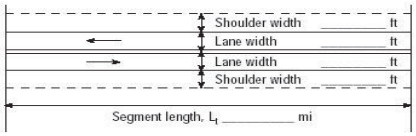
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 480 veh/h

Opposing direction vol., V_o 70 veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	0.982
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	524	77

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.1 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.0 mi/h
		Percent free flow speed, PFFS	79.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	522	76
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	46.1	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	33.6	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	75.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.31

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	79.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	521.7
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.73
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

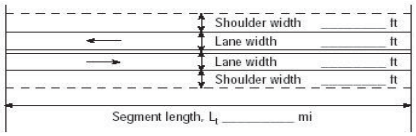
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☐ Level ☑ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Analysis direction vol., V_d 70veh/h

Opposing direction vol., V_o 480veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	2.7	1.8
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.1	1.1
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.967	0.984
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	0.67	0.95
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	117	558

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.5 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.4 mi/h
		Percent free flow speed, PFFS	77.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.9	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982	0.996
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	0.73	0.96
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	106	546
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	16.9	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	30.9	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	21.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.04
Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1690
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	77.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	76.1
Effective width, Wv (Eq. 15-29) ft	23.10
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	2.06
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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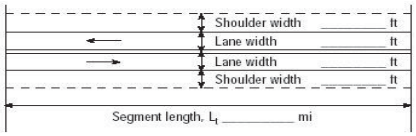
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 665 veh/h

Opposing direction vol., V_o 170 veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.6
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.988
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	724	187

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	4.0 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.1 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.0 mi/h
		Percent free flow speed, PFFS	70.1 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	723	185
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	57.1	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	30.4	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	81.3	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.43

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	70.1

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	722.8
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.89
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

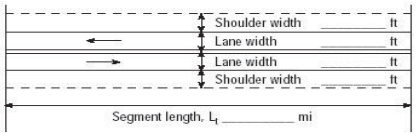
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

Show North Arrow

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *38*/mi

Analysis direction vol., V_d *170*veh/h

Opposing direction vol., V_o *665*veh/h

Shoulder width ft *2.0*

Lane Width ft *12.0*

Segment Length mi *0.1*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.6*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.988*	*0.998*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*187*	*724*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*4.0 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*37.1 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*26.1 mi/h*
		Percent free flow speed, PFFS	*70.2 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*185*	*723*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*28.3*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*30.4*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*34.5*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*D*
Volume to capacity ratio, *v/c*	*0.11*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*70.2*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*184.8*
Effective width, Wv (Eq. 15-29) ft	*14.00*
Effective speed factor, S_f (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.20*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

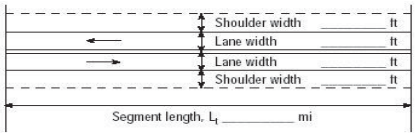
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 525veh/h

Opposing direction vol., V_o 80veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☐ Level ☑ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.7	2.7
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.1	1.1
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.986	0.967
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	0.96	0.67
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	603	134

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.6 mi/h
		Percent free flow speed, PFFS	76.6 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.2	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	0.982
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	0.97	0.73
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	591	121
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	50.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	28.2	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	73.6	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.34

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1690
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	76.6

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	570.7
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.77
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If $v_i(v_d$ or $v_o) >=1,700$ pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

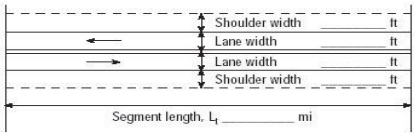
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 80 veh/h

Opposing direction vol., V_o 525 veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.9	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	89	572

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.7 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.3 mi/h
		Percent free flow speed, PFFS	78.6 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	87	571
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	14.5	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	31.0	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	18.6	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.05

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	78.6

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	87.0
Effective width, Wv (Eq. 15-29) ft	22.40
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	2.29
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

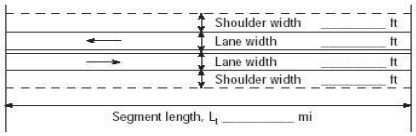
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Analysis direction vol., V_d 555veh/h

Opposing direction vol., V_o 115veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.8
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.984
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	604	127

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.1 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.8 mi/h
		Percent free flow speed, PFFS	74.1 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	603	125
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	50.8	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	31.0	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	76.5	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.35

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	74.1

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	603.3
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.80
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

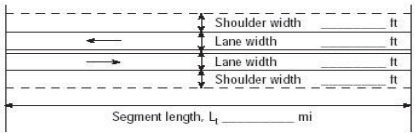
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: 14072.00 :: Project 2022

Input Data



Analysis direction vol., V_d 215 veh/h

Opposing direction vol., V_o 555 veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.5	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	236	604

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.0 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.7 mi/h
		Percent free flow speed, PFFS	76.5 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	234	603
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	31.5	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	33.7	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	40.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.14

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	76.5

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	233.7
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.32
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

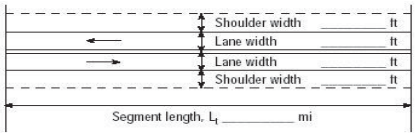
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *25/mi*

Analysis direction vol., V_d *495veh/h*

Opposing direction vol., V_o *70veh/h*

Shoulder width ft *2.0*

Lane Width ft *12.0*

Segment Length mi *0.1*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.2*	*1.9*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*	*0.982*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*540*	*77*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.4 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*34.2 mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*27.0 mi/h*
		Percent free flow speed, PFFS	*79.0 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*538*	*76*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*47.0*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*32.5*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*75.5*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.32*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*79.0*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*538.0*
Effective width, Wv (Eq. 15-29) ft	*14.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.74*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

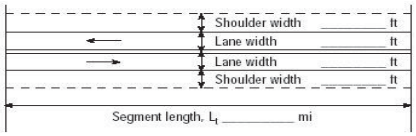
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 70veh/h

Opposing direction vol., V_o 495veh/h

Shoulder width ft 2.0
Lane Width ft 12.0
Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points *mi* 25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.9	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	77	540

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.9 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.5 mi/h
		Percent free flow speed, PFFS	80.5 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	76	538
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	13.0	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	32.5	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	17.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.04

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	80.5

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	76.1
Effective width, Wv (Eq. 15-29) ft	23.10
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	2.06
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

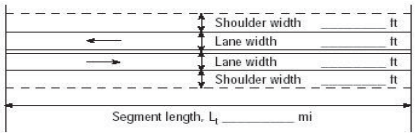
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 690veh/h

Opposing direction vol., V_o 175veh/h

Shoulder width ft 2.0
Lane Width ft 12.0
Segment Length mi 0.1



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.990
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	752	192

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	4.0 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.5 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.2 mi/h
		Percent free flow speed, PFFS	69.8 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	750	191
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	58.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	30.5	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	82.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.44

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	69.8

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	750.0
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.91
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

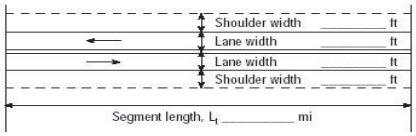
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 175veh/h

Opposing direction vol., V_o 690veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.5	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	192	752

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.6 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.9 mi/h
		Percent free flow speed, PFFS	77.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	191	750
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	29.5	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	30.5	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	35.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.11

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	77.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	190.2
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.21
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

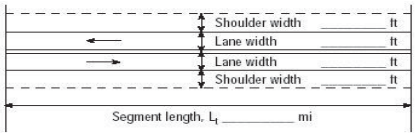
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☐ Level ☑ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%



% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Analysis direction vol., V_d 530veh/h

Opposing direction vol., V_o 80veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.7	2.7
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.1	1.1
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.986	0.967
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	0.97	0.67
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	602	134

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.6 mi/h
		Percent free flow speed, PFFS	76.6 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.2	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	0.982
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	0.97	0.73
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	596	121
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	50.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	27.9	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	73.6	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.34

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1690
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	76.6

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	576.1
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.78
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

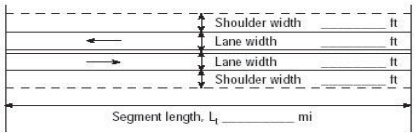
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Analysis direction vol., V_d 80veh/h

Opposing direction vol., V_o 530veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.9	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	89	577

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	78.5 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	87	576
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	14.8	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	30.6	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	18.8	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.05

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	78.5

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	87.0
Effective width, Wv (Eq. 15-29) ft	22.40
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	2.29
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

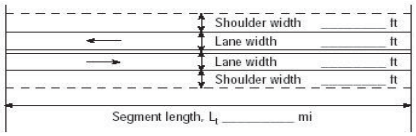
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Analysis direction vol., V_d 575veh/h

Opposing direction vol., V_o 230veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.4
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.992
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	626	252

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.3 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	25.9 mi/h
		Percent free flow speed, PFFS	71.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	625	250
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	54.1	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	33.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	77.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.37

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	71.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	625.0
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.82
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

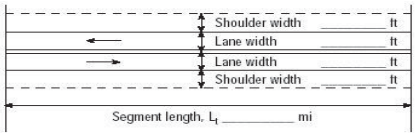
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 230veh/h

Opposing direction vol., V_o 575veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.4	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.992	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	252	626

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.0 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.3 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.5 mi/h
		Percent free flow speed, PFFS	75.7 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	250	625
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	33.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	33.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	42.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.15

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	75.7

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	250.0
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.35
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

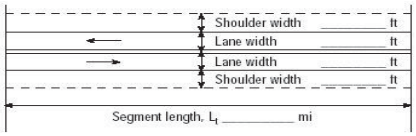
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 500veh/h

Opposing direction vol., V_o 70veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway

Show North Arrow

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	0.982
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	546	77

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.9 mi/h
		Percent free flow speed, PFFS	78.8 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	543	76
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	47.3	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	32.2	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	75.5	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.32

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	78.8

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	543.5
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.75
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

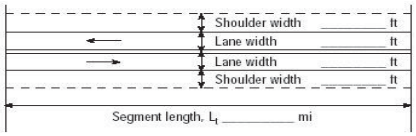
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Analysis direction vol., V_d 70veh/h

Opposing direction vol., V_o 500veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.9	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	77	546

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.9 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.2 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.5 mi/h
		Percent free flow speed, PFFS	80.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	76	543
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	12.9	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	32.2	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	16.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.04

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	80.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	76.1
Effective width, Wv (Eq. 15-29) ft	23.10
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	2.06
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

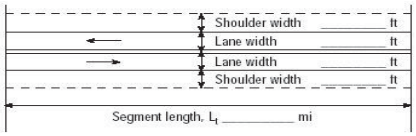
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 730veh/h

Opposing direction vol., V_o 180veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.990
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	795	198

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	4.0 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.3 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	25.6 mi/h
		Percent free flow speed, PFFS	68.6 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	793	196
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	60.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	30.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	84.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.47

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	68.6

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	793.5
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.94
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

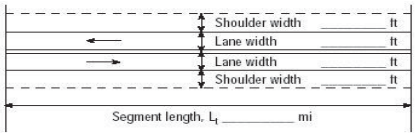
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 180veh/h

Opposing direction vol., V_o 730veh/h

Shoulder width ft 2.0
Lane Width ft 12.0
Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway

Show North Arrow

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.5	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	198	795

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.4 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.3 mi/h
		Percent free flow speed, PFFS	75.6 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	196	793
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	30.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	30.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	36.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.12

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	75.6

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	195.7
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.23
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

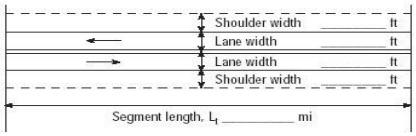
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 335 veh/h

Opposing direction vol., V_o 505 veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	366	551

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.6 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.2 mi/h
		Percent free flow speed, PFFS	75.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	365	549
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	42.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	38.6	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	57.8	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.21

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	75.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	364.1
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.40
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

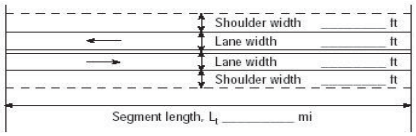
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions PK

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 505veh/h

Opposing direction vol., V_o 335veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	551	366

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.6 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.2 mi/h
		Percent free flow speed, PFFS	75.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	549	365
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	52.8	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	38.6	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	76.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.32

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	75.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	548.9
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.61
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2019 Existing Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	630	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	350
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.18

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	10.1
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	342	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.54
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

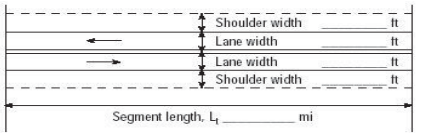
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	*ARP*	Highway / Direction of Travel	*Main Street EB*
Agency or Company	*VHB*	From/To	*Lewis Bay Rd to Center St*
Date Performed	*7/9/2019*	Jurisdiction	*Town of Barnstable*
Analysis Time Period	*Weekday Morning*	Analysis Year	*2019 Existing Conditions PK*

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *360* veh/h
Opposing direction vol., V_o *985* veh/h
Shoulder width ft *4.0*
Lane Width ft *11.0*
Segment Length mi *0.3*

☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF *0.92*
No-passing zone *100%*
% Trucks and Buses , P_T *2 %*
% Recreational vehicles, P_R *0%*
Access points *mi* *40*/mi

Show North Arrow

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.3*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.994*	*1.000*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*394*	*1071*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*21.8 mi/h*
		Percent free flow speed, PFFS	*60.9 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-18 or 15-19)	*1.1*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*392*	*1071*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*51.1*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*24.2*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*57.6*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.23*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	60.9
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	391.3
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.43
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

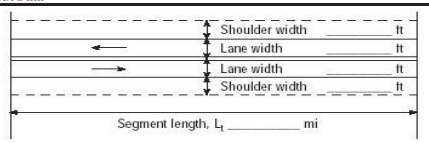
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*ARP*	Highway / Direction of Travel	*Main Street WB*
Agency or Company	*VHB*	From/To	*Lewis Bay Rd to Center St*
Date Performed	*7/9/2019*	Jurisdiction	*Town of Barnstable*
Analysis Time Period	*Weekday Morning*	Analysis Year	*2019 Existing Conditions PK*

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *985* veh/h
Opposing direction vol., V_o *360* veh/h
Shoulder width ft *4.0*
Lane Width ft *11.0*
Segment Length mi *0.3*



☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF *0.92*
No-passing zone *100%*
% Trucks and Buses , P_T *2 %*
% Recreational vehicles, P_R *0%*
Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.0	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	1.000	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	1071	394

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	21.7 mi/h
		Percent free flow speed, PFFS	60.9 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	1071	392
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	75.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	24.2	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	92.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	E
Volume to capacity ratio, *v/c*	0.63

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	60.9
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	1070.7
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.95
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

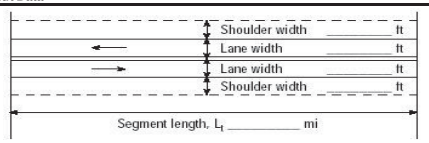
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 540veh/h
Opposing direction vol., V_o 545veh/h
Shoulder width ft 4.0
Lane Width ft 11.0
Segment Length mi 0.2

☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points *mi* 40/mi

Show North Arrow

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.998	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	588	594

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.0 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	39.0 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.8 mi/h
		Percent free flow speed, PFFS	71.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	587	592
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	57.5	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	35.2	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	75.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.35

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	71.4
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	587.0
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.64
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.
2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

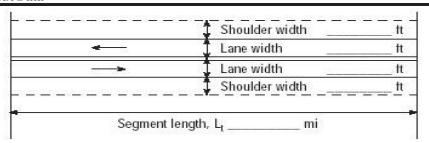
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Show North Arrow

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 545veh/h

Opposing direction vol., V_o 540veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.998	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	594	588

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.8 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	39.0 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	28.0 mi/h
		Percent free flow speed, PFFS	71.9 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	592	587
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	56.9	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	35.2	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	74.6	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.35

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*71.9*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*592.4*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.64*
Bicycle level of service (Exhibit 15-4)	*E*
Notes	
1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain. 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F. 3. For the analysis direction only and for v>200 veh/h. 4. For the analysis direction only 5. Exhibit 15-20 provides coefficients a and b for Equation 15-10. 6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.	

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2019 Existing Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	770	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	427
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.22

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	12.3
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	418	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.65
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

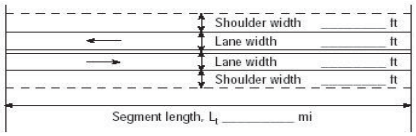
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Show North Arrow

Analysis direction vol., V_d	630veh/h	Grade Length mi	Up/down
Opposing direction vol., V_o	1475veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	4.0	No-passing zone	100%
Lane Width ft	11.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.3	% Recreational vehicles, P_R	0%
		Access points mi	40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	686	1603

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	15.4 mi/h
		Percent free flow speed, PFFS	43.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	685	1603
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	72.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	14.5	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	76.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	E
Volume to capacity ratio, v/c	0.40

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	43.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	684.8
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.72
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

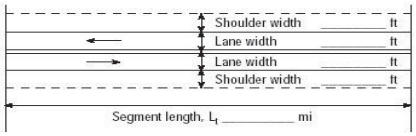
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *1475* veh/h

Opposing direction vol., V_o *630* veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Show North Arrow

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.0*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*0.998*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*1603*	*686*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*15.3 mi/h*
		Percent free flow speed, PFFS	*43.0 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*1603*	*685*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*87.4*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*14.5*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*97.6*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.94*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*43.0*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*1603.3*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*5.15*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

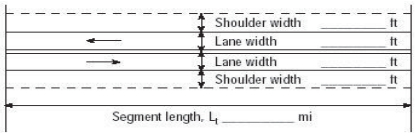
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 350veh/h

Opposing direction vol., V_o 525veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	383	572

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.1 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.9 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.4 mi/h
		Percent free flow speed, PFFS	74.9 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	381	571
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	43.6	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	37.8	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	58.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.22

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	74.9

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	380.4
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.42
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

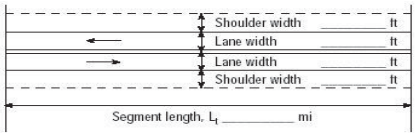
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling



Analysis direction vol., V_d	525 veh/h	Grade Length mi	Up/down
Opposing direction vol., V_o	350 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	4.0	No-passing zone	100%
Lane Width ft	11.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.2	% Recreational vehicles, P_R	0%
		Access points *mi*	40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	572	383

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.9 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.2 mi/h
		Percent free flow speed, PFFS	74.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	571	381
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	53.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	37.8	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	75.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.34

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	74.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	570.7
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.63
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 No-Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	630	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	350
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.18

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	10.1
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	342	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.54
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

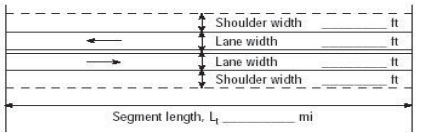
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: 14072.00 :: Project 2022

Input Data



Analysis direction vol., V_d 375 veh/h
Opposing direction vol., V_o 1020 veh/h
Shoulder width ft 4.0
Lane Width ft 11.0
Segment Length mi 0.3



☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points mi 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	1.000
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	410	1109

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	21.4 mi/h
		Percent free flow speed, PFFS	59.7 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	408	1109
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	52.8	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	23.0	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	59.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	E
Volume to capacity ratio, v/c	0.24

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	59.7
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	407.6
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.46
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

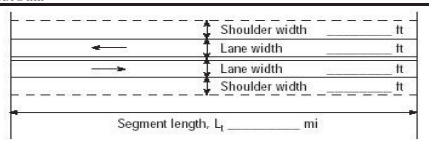
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 1020veh/h
Opposing direction vol., V_o 375veh/h
Shoulder width ft 4.0
Lane Width ft 11.0
Segment Length mi 0.3



☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.0	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	1.000	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	1109	410

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	21.3 mi/h
		Percent free flow speed, PFFS	59.7 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	1109	408
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	75.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	23.0	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	92.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	E
Volume to capacity ratio, *v/c*	0.65

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	59.7
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	1108.7
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.96
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

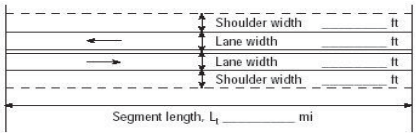
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*ARP*	Highway / Direction of Travel	*Main Street EB*
Agency or Company	*VHB*	From/To	*Bayview Street to Lewis Bay Rd*
Date Performed	*7/9/2019*	Jurisdiction	*Town of Barnstable*
Analysis Time Period	*Weekday Evening*	Analysis Year	

Project Description: *14072.00 :: Project 2022*

Input Data



Show North Arrow

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *560*veh/h

Opposing direction vol., V_o *570*veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.2*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.998	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	610	621

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.9 *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	39.4 *mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	28.0 *mi/h*
		Percent free flow speed, PFFS	70.9 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	609	620
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	58.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	33.6	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	75.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.36

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	70.9
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	608.7
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.66
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

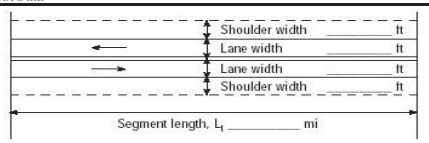
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 570veh/h
Opposing direction vol., V_o 560veh/h
Shoulder width ft 4.0
Lane Width ft 11.0
Segment Length mi 0.2

☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points *mi* 40/mi

Show North Arrow

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.998	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	621	610

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	39.4 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	28.2 mi/h
		Percent free flow speed, PFFS	71.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	620	609
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	59.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	33.6	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	76.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.36

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*71.4*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*619.6*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.67*
Bicycle level of service (Exhibit 15-4)	*E*
Notes	
1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain. 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F. 3. For the analysis direction only and for v>200 veh/h. 4. For the analysis direction only 5. Exhibit 15-20 provides coefficients a and b for Equation 15-10. 6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.	

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 No-Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	795	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	441
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.23

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	12.7
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	432	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.66
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

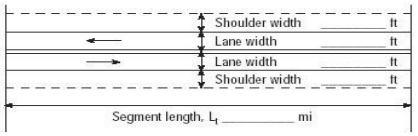
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NB PM_Main Street - Center to Barnstable.xuf

DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*



Analysis direction vol., V_d *655* veh/h

Opposing direction vol., V_o *1530* veh/h

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.1*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*1.000*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*713*	*1663*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*14.7 mi/h*
		Percent free flow speed, PFFS	*41.1 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*712*	*1663*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*73.5*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*14.5*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*77.8*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.42*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*41.1*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*712.0*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.74*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
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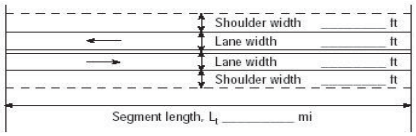
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *1530* veh/h

Opposing direction vol., V_o *655* veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.0*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*0.998*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*1663*	*713*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*14.7 mi/h*
		Percent free flow speed, PFFS	*41.1 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*1663*	*712*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*88.6*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*14.5*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*98.8*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.98*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*41.1*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*1663.0*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*5.17*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

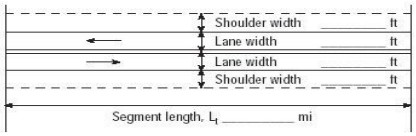
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*



Analysis direction vol., V_d *350* veh/h

Opposing direction vol., V_o *525* veh/h

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.2*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.3*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.994*	*0.998*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*383*	*572*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.1* *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*37.9* *mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*28.4* *mi/h*
		Percent free flow speed, PFFS	*74.9* %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*381*	*571*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*43.6*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*37.8*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*58.7*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*D*
Volume to capacity ratio, *v/c*	*0.22*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*74.9*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*380.4*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.42*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

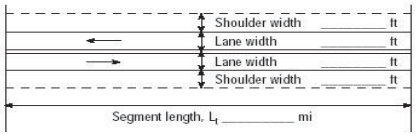
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 525veh/h

Opposing direction vol., V_o 350veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	572	383

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.9 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.2 mi/h
		Percent free flow speed, PFFS	74.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	571	381
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	53.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	37.8	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	75.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.34

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	74.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	570.7
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.63
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	660	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	366
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.19

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	10.5
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	359	Effective Speed Factor (St)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.57
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

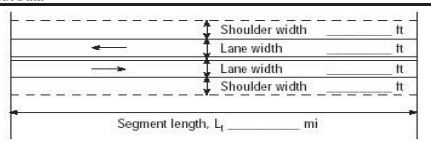
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	*ARP*	Highway / Direction of Travel	*Main Street EB*
Agency or Company	*VHB*	From/To	*Lewis Bay Rd to Center St*
Date Performed	*7/9/2019*	Jurisdiction	*Town of Barnstable*
Analysis Time Period	*Weekday Morning*	Analysis Year	*2026 Build Conditions PK*

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *380* veh/h
Opposing direction vol., V_o *1035* veh/h
Shoulder width ft *4.0*
Lane Width ft *11.0*
Segment Length mi *0.3*



☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF *0.92*
No-passing zone *100%*
% Trucks and Buses , P_T *2 %*
% Recreational vehicles, P_R *0%*
Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.3*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.994*	*1.000*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*416*	*1125*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*21.2 mi/h*
		Percent free flow speed, PFFS	*59.3 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*413*	*1125*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*52.9*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*22.6*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*59.0*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.24*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	59.3
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	413.0
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.46
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

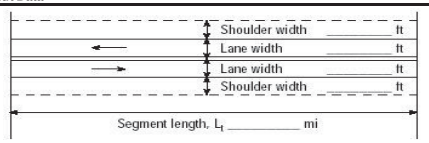
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Show North Arrow

Analysis direction vol., V_d	1035veh/h
Opposing direction vol., V_o	380veh/h
Shoulder width ft	4.0
Lane Width ft	11.0
Segment Length mi	0.3

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.0	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	1.000	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	1125	416

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	21.1 mi/h
		Percent free flow speed, PFFS	59.2 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	1125	413
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	77.1	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	22.6	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	93.6	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	E
Volume to capacity ratio, *v/c*	0.66

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	59.2
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	1125.0
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.97
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

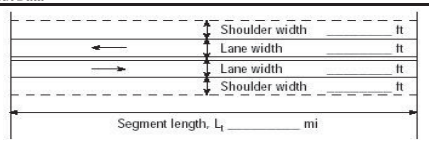
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Class I highway Class II highway Class III highway

Terrain Level Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 560veh/h

Opposing direction vol., V_o 570veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.998	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	610	621

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.9 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.2 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	25.7 mi/h
		Percent free flow speed, PFFS	69.2 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	609	620
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	58.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	33.6	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	75.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.36

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	69.2
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	608.7
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.66
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

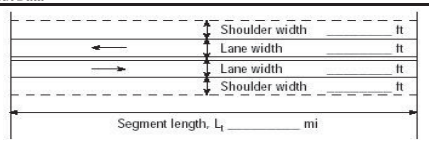
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 570veh/h
Opposing direction vol., V_o 560veh/h
Shoulder width ft 4.0
Lane Width ft 11.0
Segment Length mi 0.2



☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.998	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	621	610

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.1 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.2 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	24.5 mi/h
		Percent free flow speed, PFFS	65.9 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	620	609
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	59.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	33.6	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	76.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	E
Volume to capacity ratio, *v/c*	0.36

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*65.9*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*619.6*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.67*
Bicycle level of service (Exhibit 15-4)	*E*
Notes	
1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain. 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F. 3. For the analysis direction only and for v>200 veh/h. 4. For the analysis direction only 5. Exhibit 15-20 provides coefficients a and b for Equation 15-10. 6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.	

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HCS7 Multilane Highway Report

Project Information			
Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		
Direction 1 Geometric Data			
Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9
Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 1 Demand and Capacity			
Volume(V) veh/h	815	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	452
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.24
Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	13.0
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		
Direction 1 Bicycle LOS			
Flow Rate in Outside Lane (v_{OL}),veh/h	443	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.68
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

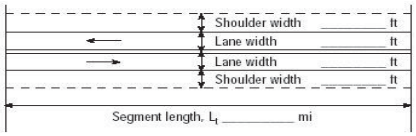
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BD PM_Main Street - Center to Barnstable.xuf

DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*



Analysis direction vol., V_d *660* veh/h

Opposing direction vol., V_o *1560* veh/h

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.1*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*1.000*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*719*	*1696*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6* *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7* *mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*14.4* *mi/h*
		Percent free flow speed, PFFS	*40.2* %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*717*	*1696*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*73.7*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*14.4*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*78.0*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.42*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*40.2*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*717.4*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.74*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

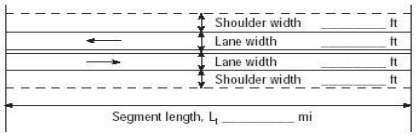
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions PK

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *1560* veh/h

Opposing direction vol., V_o *660* veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.0*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*0.998*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*1696*	*719*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*14.4 mi/h*
		Percent free flow speed, PFFS	*40.2 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*1696*	*717*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*88.8*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*14.4*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*98.9*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*1.00*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*40.2*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*1695.7*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*5.18*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

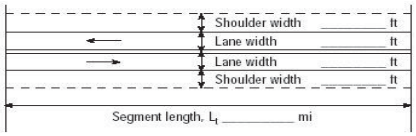
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

Show North Arrow

% Trucks and Buses , P_T *2* %

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *125*veh/h

Opposing direction vol., V_o *110*veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.8*	*1.8*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.984*	*0.984*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*138*	*122*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.4* *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*31.7* *mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*27.3* *mi/h*
		Percent free flow speed, PFFS	*86.1* %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*136*	*120*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*15.4*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*55.7*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*45.0*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*B*
Volume to capacity ratio, *v/c*	*0.08*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*86.1*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*135.9*
Effective width, Wv (Eq. 15-29) ft	*17.88*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*3.43*
Bicycle level of service (Exhibit 15-4)	*C*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

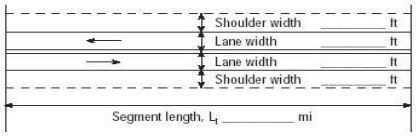
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 110veh/h

Opposing direction vol., V_o 125veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.8	1.8
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.984	0.984
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	122	138

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	31.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.0 mi/h
		Percent free flow speed, PFFS	85.1 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	120	136
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	13.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	55.7	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	39.8	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	B
Volume to capacity ratio, *v/c*	0.07

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	85.1

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	119.6
Effective width, Wv (Eq. 15-29) ft	18.85
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.18
Bicycle level of service (Exhibit 15-4)	C

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

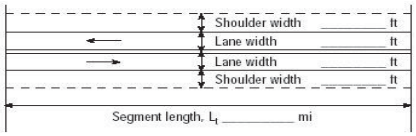
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Show North Arrow

Analysis direction vol., V_d	130 veh/h	Grade Length mi Up/down	
Opposing direction vol., V_o	155 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	2.0	No-passing zone	100%
Lane Width ft	11.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.5	% Recreational vehicles, P_R	0%
		Access points mi	40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.7	1.6
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.986	0.988
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	143	171

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.2 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.2 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	26.5 mi/h
		Percent free flow speed, PFFS	82.5 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	142	169
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	16.0	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	57.8	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	42.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.08

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	82.5

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	141.3
Effective width, Wv (Eq. 15-29) ft	17.55
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.50
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

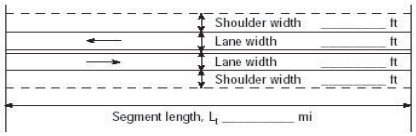
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 155veh/h

Opposing direction vol., V_o 130veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.6	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.988	0.986
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	171	143

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.5 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	84.6 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	169	142
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	18.6	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	57.8	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	50.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	B
Volume to capacity ratio, *v/c*	0.10

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	84.6

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	168.5
Effective width, Wv (Eq. 15-29) ft	15.93
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.86
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

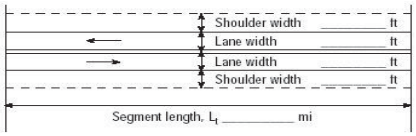
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *125* veh/h

Opposing direction vol., V_o *115* veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.8*	*1.8*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.984*	*0.984*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*138*	*127*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.4* *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*31.7* *mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*27.3* *mi/h*
		Percent free flow speed, PFFS	*86.0* %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*136*	*125*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*15.4*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*56.2*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*44.7*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*B*
Volume to capacity ratio, *v/c*	*0.08*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*86.0*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*135.9*
Effective width, Wv (Eq. 15-29) ft	*17.88*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*3.43*
Bicycle level of service (Exhibit 15-4)	*C*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

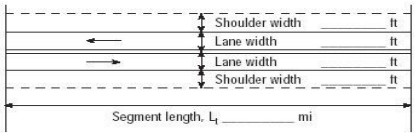
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *115* veh/h

Opposing direction vol., V_o *125* veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.8*	*1.8*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.984*	*0.984*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*127*	*138*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.5 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*31.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*27.2 mi/h*
		Percent free flow speed, PFFS	*85.6 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*125*	*136*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*14.2*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*56.2*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*41.1*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*B*
Volume to capacity ratio, *v/c*	*0.07*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*85.6*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*125.0*
Effective width, Wv (Eq. 15-29) ft	*18.52*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*3.27*
Bicycle level of service (Exhibit 15-4)	*C*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
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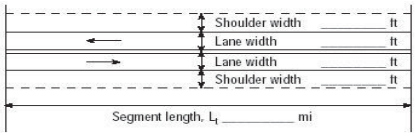
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 135 veh/h

Opposing direction vol., V_o 160 veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.7	1.6
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.986	0.988
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	149	176

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.2 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.5 mi/h
		Percent free flow speed, PFFS	82.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	147	174
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	16.5	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	58.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	43.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.09

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	82.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	146.7
Effective width, Wv (Eq. 15-29) ft	17.23
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.58
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

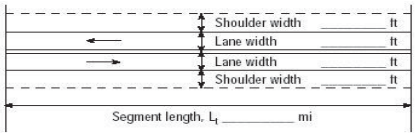
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 160veh/h

Opposing direction vol., V_o 135veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.6	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.988	0.986
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	176	149

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.5 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	84.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	174	147
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	19.1	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	58.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	50.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	B
Volume to capacity ratio, *v/c*	0.10

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	84.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	173.9
Effective width, Wv (Eq. 15-29) ft	15.60
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.93
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

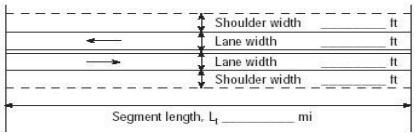
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 130veh/h

Opposing direction vol., V_o 120veh/h

Shoulder width ft 2.0

Lane Width ft 11.0

Segment Length mi 0.5

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.7	1.8
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.986	0.984
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	143	133

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	31.8 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	85.7 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	142	131
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	16.0	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	56.8	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	45.5	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	B
Volume to capacity ratio, *v/c*	0.08

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	85.7

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	141.3
Effective width, Wv (Eq. 15-29) ft	17.55
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.50
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

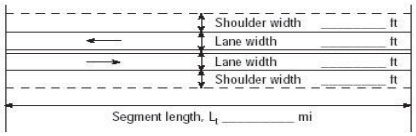
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road SB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *120*veh/h

Opposing direction vol., V_o *130*veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.8*	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.984*	*0.986*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*133*	*143*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.5* *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*31.8* *mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*27.1* *mi/h*
		Percent free flow speed, PFFS	*85.4* %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*131*	*142*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*14.9*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*56.8*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*42.2*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*B*
Volume to capacity ratio, *v/c*	*0.08*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*85.4*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*130.4*
Effective width, Wv (Eq. 15-29) ft	*18.20*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*3.34*
Bicycle level of service (Exhibit 15-4)	*C*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

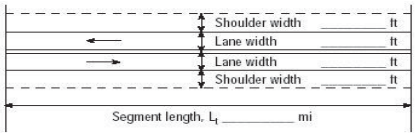
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *140*veh/h

Opposing direction vol., V_o *165*veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.7*	*1.6*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.986*	*0.988*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*154*	*182*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.7 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*32.3 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*27.0 mi/h*
		Percent free flow speed, PFFS	*83.6 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*152*	*180*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*17.0*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*58.9*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*44.0*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*B*
Volume to capacity ratio, *v/c*	*0.09*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*83.6*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*152.2*
Effective width, Wv (Eq. 15-29) ft	*16.90*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*3.65*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

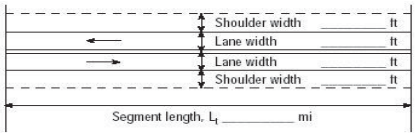
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Bayview Road NB
Agency or Company	VHB	From/To	Main Street to Willow Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *165* veh/h

Opposing direction vol., V_o *140* veh/h

Shoulder width ft *2.0*

Lane Width ft *11.0*

Segment Length mi *0.5*

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.6*	*1.7*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.988*	*0.986*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*182*	*154*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*3.3 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*32.3 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*26.4 mi/h*
		Percent free flow speed, PFFS	*81.7 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*180*	*152*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*19.7*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*58.9*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*51.6*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.11*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*81.7*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*179.3*
Effective width, Wv (Eq. 15-29) ft	*13.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.32*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

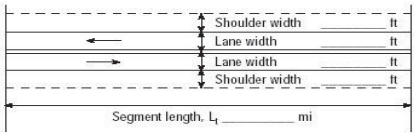
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling



Analysis direction vol., V_d	385 veh/h	Grade Length mi	Up/down
Opposing direction vol., V_o	60 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	2.0	No-passing zone	100%
Lane Width ft	12.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.1	% Recreational vehicles, P_R	0%
		Access points *mi*	25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.982
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	421	66

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.4 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	81.5 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	418	65
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	39.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	37.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	71.5	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.25

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	81.5

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	418.5
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.61
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

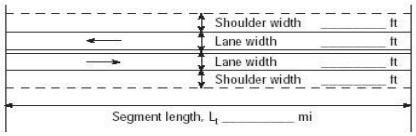
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling



Analysis direction vol., V_d	60 veh/h	Grade Length mi	Up/down
Opposing direction vol., V_o	385 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	2.0	No-passing zone	100%
Lane Width ft	12.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.1	% Recreational vehicles, P_R	0%
		Access points mi	25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.9	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	66	421

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.9 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.4 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.7 mi/h
		Percent free flow speed, PFFS	80.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	65	418
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	10.1	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	37.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	15.1	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.04

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	80.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	65.2
Effective width, Wv (Eq. 15-29) ft	23.80
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	1.82
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

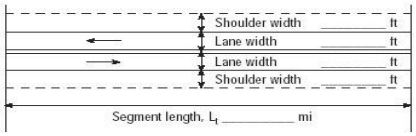
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 38/mi

Analysis direction vol., V_d 405veh/h

Opposing direction vol., V_o 160veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.6
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.988
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	443	176

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.8 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.5 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	25.9 mi/h
		Percent free flow speed, PFFS	75.1 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	440	174
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	40.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	45.0	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	72.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.26

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	75.1

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	440.2
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.64
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

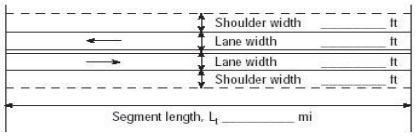
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *160* veh/h

Opposing direction vol., V_o *405* veh/h

Shoulder width ft *2.0*

Lane Width ft *12.0*

Segment Length mi *0.1*

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

Show North Arrow

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *38*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.6*	*1.3*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.988*	*0.994*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*176*	*443*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.8 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*34.6 mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*27.0 mi/h*
		Percent free flow speed, PFFS	*78.0 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*174*	*440*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*23.3*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*45.0*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*36.1*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.10*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*78.0*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*173.9*
Effective width, Wv (Eq. 15-29) ft	*16.80*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*3.74*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

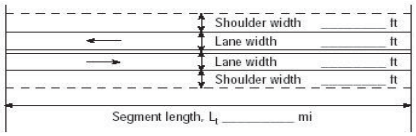
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling



Analysis direction vol., V_d	365 veh/h	Grade Length mi	Up/down
Opposing direction vol., V_o	50 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	2.0	No-passing zone	100%
Lane Width ft	12.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.1	% Recreational vehicles, P_R	0%
		Access points mi	25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.982
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	399	55

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.1 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	82.1 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	398	54
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	37.8	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	37.0	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	70.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.23

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	82.1

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	396.7
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.59
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

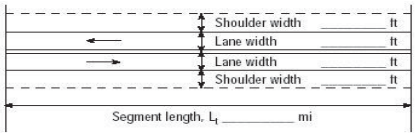
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*



Analysis direction vol., V_d *50*veh/h

Opposing direction vol., V_o *365*veh/h

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *25*/mi

Shoulder width ft *2.0*

Lane Width ft *12.0*

Segment Length mi *0.1*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.9*	*1.3*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.982*	*0.994*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*55*	*399*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.7 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*33.1 mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*26.9 mi/h*
		Percent free flow speed, PFFS	*81.2 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*54*	*398*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*8.4*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*37.0*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*12.8*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.03*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*81.2*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*54.3*
Effective width, Wv (Eq. 15-29) ft	*24.50*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*1.55*
Bicycle level of service (Exhibit 15-4)	*B*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

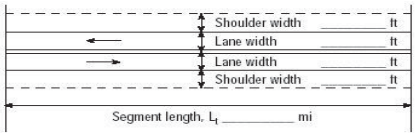
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 38/mi

Analysis direction vol., V_d 505veh/h

Opposing direction vol., V_o 130veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	0.986
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	551	143

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.4 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.6 mi/h
		Percent free flow speed, PFFS	78.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	549	142
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	47.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	35.7	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	76.1	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.32

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	78.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	548.9
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.75
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

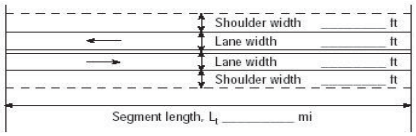
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☐ Level ☑ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%



% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 38/mi

Analysis direction vol., V_d 130veh/h

Opposing direction vol., V_o 505veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	2.5	1.8
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.1	1.1
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.971	0.984
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	0.70	0.96
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	208	581

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.5 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.6 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.9 mi/h
		Percent free flow speed, PFFS	78.6 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.8	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.984	0.996
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	0.76	0.96
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	189	574
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	27.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	32.0	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	35.1	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.08

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1690
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	78.6

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	141.3
Effective width, Wv (Eq. 15-29) ft	18.90
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.26
Bicycle level of service (Exhibit 15-4)	C

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

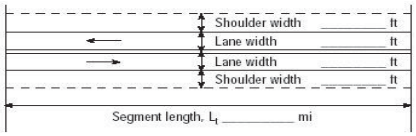
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 400 veh/h

Opposing direction vol., V_o 60 veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.982
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	437	66

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.5 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	81.2 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	435	65
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	40.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	36.5	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	72.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.26

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$ (Equation 15-11 - Class III only)	81.2

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	434.8
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.63
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

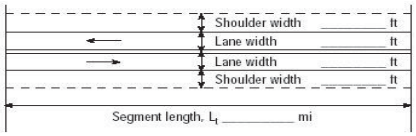
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 60veh/h

Opposing direction vol., V_o 400veh/h

Shoulder width ft 2.0
Lane Width ft 12.0
Segment Length mi 0.1



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.9	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	66	437

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.5 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.3 mi/h
		Percent free flow speed, PFFS	81.5 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	65	435
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	10.3	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	36.5	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	15.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.04

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	81.5

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	65.2
Effective width, Wv (Eq. 15-29) ft	23.80
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	1.82
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

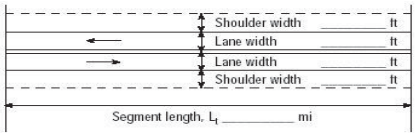
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 38/mi

Analysis direction vol., V_d 425veh/h

Opposing direction vol., V_o 165veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.6
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	0.988
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	464	182

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	4.0 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	25.7 mi/h
		Percent free flow speed, PFFS	74.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	462	180
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	42.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	43.2	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	73.3	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, v/c	0.27

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	74.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	462.0
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.66
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

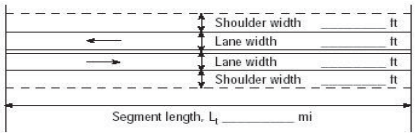
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



Analysis direction vol., V_d 165 veh/h

Opposing direction vol., V_o 425 veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.6	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.988	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	182	464

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.7 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.0 mi/h
		Percent free flow speed, PFFS	77.8 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	180	462
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	24.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	43.2	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	36.3	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.11

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	77.8

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	179.3
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.18
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

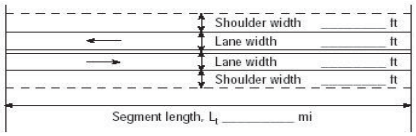
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Show North Arrow

Analysis direction vol., V_d	380 veh/h	Grade Length mi	Up/down
Opposing direction vol., V_o	50 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	2.0	No-passing zone	100%
Lane Width ft	12.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.1	% Recreational vehicles, P_R	0%
		Access points *mi*	25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.982
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	416	55

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.5 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.4 mi/h
		Percent free flow speed, PFFS	81.9 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	413	54
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	38.8	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	36.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	70.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.24

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	81.9

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	413.0
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.61
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

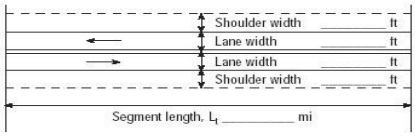
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 50veh/h

Opposing direction vol., V_o 380veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.9	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	55	416

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.5 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	81.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	54	413
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	8.6	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	36.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	12.8	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.03

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	81.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	54.3
Effective width, Wv (Eq. 15-29) ft	24.50
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	1.55
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

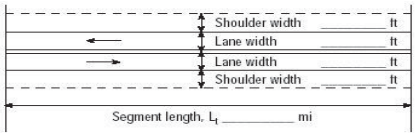
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 38/mi

Analysis direction vol., V_d 525veh/h

Opposing direction vol., V_o 135veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.986
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	572	149

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.2 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.6 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.8 mi/h
		Percent free flow speed, PFFS	75.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	571	147
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	49.0	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	34.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	76.3	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.34

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	75.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	570.7
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.77
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

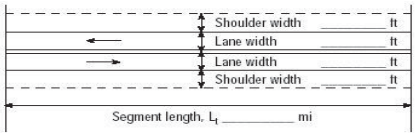
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 135 veh/h

Opposing direction vol., V_o 525 veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.7	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.986	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	149	572

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.9 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	28.2 mi/h
		Percent free flow speed, PFFS	79.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	147	571
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	22.0	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	34.3	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	29.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.09

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$ (Equation 15-11 - Class III only)	79.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	146.7
Effective width, Wv (Eq. 15-29) ft	18.55
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.34
Bicycle level of service (Exhibit 15-4)	C

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

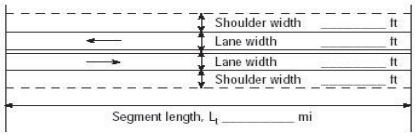
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

Show North Arrow

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *25*/mi

Analysis direction vol., V_d *405*veh/h

Opposing direction vol., V_o *60*veh/h

Shoulder width ft *2.0*

Lane Width ft *12.0*

Segment Length mi *0.1*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.3*	*1.9*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.994*	*0.982*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*443*	*66*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.7 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*33.5 mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*26.8 mi/h*
		Percent free flow speed, PFFS	*80.1 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*0.998*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*440*	*65*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*40.7*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*36.2*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*72.2*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.26*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*80.1*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*440.2*
Effective width, Wv (Eq. 15-29) ft	*14.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.64*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

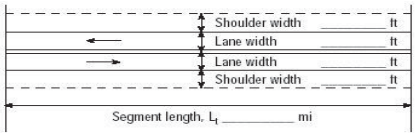
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☐ Level ☐ Rolling

Grade Length 0.25 mi Up/down 3.0

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Show North Arrow

Analysis direction vol., V_d 60veh/h

Opposing direction vol., V_o 405veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	2.6	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.1	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.969	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	0.78	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	86	443

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.5 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.6 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.0 mi/h
		Percent free flow speed, PFFS	80.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	65	440
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	10.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	36.2	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	14.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.04

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1697
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1564
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	80.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	65.2
Effective width, Wv (Eq. 15-29) ft	23.80
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	1.82
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
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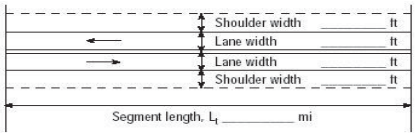
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 445 veh/h

Opposing direction vol., V_o 180 veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	0.990
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	486	198

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	4.0 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	34.8 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	25.5 mi/h
		Percent free flow speed, PFFS	73.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	484	196
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	43.6	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	41.6	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	73.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.28

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	73.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	483.7
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.69
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

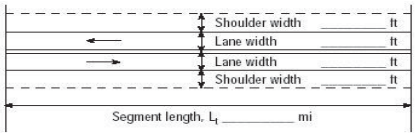
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *180* veh/h

Opposing direction vol., V_o *445* veh/h

Shoulder width ft *2.0*

Lane Width ft *12.0*

Segment Length mi *0.1*



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☐ Level ☑ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *38*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*2.3*	*1.8*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.1*	*1.1*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.975*	*0.984*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*0.75*	*0.94*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*268*	*523*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.1* *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*34.9* *mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*26.6* *mi/h*
		Percent free flow speed, PFFS	*76.3* %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.8*	*1.4*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.984*	*0.992*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*0.80*	*0.95*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*248*	*513*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*32.0*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*37.0*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*44.1*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*C*
Volume to capacity ratio, *v/c*	*0.12*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1690*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*76.3*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*195.7*
Effective width, Wv (Eq. 15-29) ft	*14.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.23*
Bicycle level of service (Exhibit 15-4)	*D*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

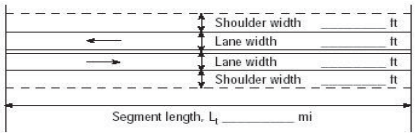
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 25/mi

Analysis direction vol., V_d 385veh/h

Opposing direction vol., V_o 50veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi 0.1

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.982
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	421	55

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.2 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.1 mi/h
		Percent free flow speed, PFFS	81.7 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	418	54
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	39.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	36.0	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	71.1	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.25

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	81.7

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	418.5
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.61
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

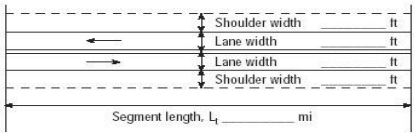
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Gleason Street to South Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☐ Level ☐ Rolling

Show North Arrow

Analysis direction vol., V_d	50 veh/h	Grade Length	0.25 mi
Opposing direction vol., V_o	385 veh/h	Up/down	3.0
Shoulder width ft	2.0	Peak-hour factor, PHF	0.92
Lane Width ft	12.0	No-passing zone	100%
Segment Length mi	0.1	% Trucks and Buses , P_T	2 %
		% Recreational vehicles, P_R	0%
		Access points *mi*	25/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	2.6	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.1	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.969	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	0.78	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	72	421

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	33.3 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.8 mi/h
		Percent free flow speed, PFFS	80.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	54	418
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	8.6	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	36.0	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	12.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.03

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1697
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1564
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	80.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	54.3
Effective width, Wv (Eq. 15-29) ft	24.50
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	1.55
Bicycle level of service (Exhibit 15-4)	B

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

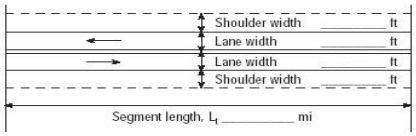
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road NB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Show North Arrow

Analysis direction vol., V_d	565 veh/h	Grade Length mi	Up/down
Opposing direction vol., V_o	145 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	2.0	No-passing zone	100%
Lane Width ft	12.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.1	% Recreational vehicles, P_R	0%
		Access points *mi*	38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	0.986
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	615	160

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.2 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.8 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.6 mi/h
		Percent free flow speed, PFFS	74.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	614	158
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	51.5	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	31.6	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	76.6	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.36

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	74.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	614.1
Effective width, Wv (Eq. 15-29) ft	14.00
Effective speed factor, S_f (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.81
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

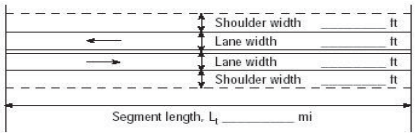
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Lewis Bay Road SB
Agency or Company	VHB	From/To	Main Street to Gleason Street
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 145 veh/h

Opposing direction vol., V_o 565 veh/h

Shoulder width ft 2.0

Lane Width ft 12.0

Segment Length mi

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 38/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.7	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.986	0.998
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	160	615

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.9 mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	1.8 mi/h	Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	28.0 mi/h
		Percent free flow speed, PFFS	78.2 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	158	614
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	24.0	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	31.6	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	30.5	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.09

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	78.2

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	157.6
Effective width, Wv (Eq. 15-29) ft	17.85
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	3.51
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

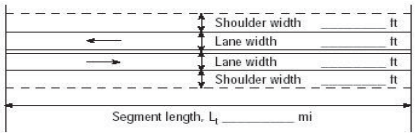
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 40/mi

Analysis direction vol., V_d 255veh/h

Opposing direction vol., V_o 385veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.4	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.992	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	279	421

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.7 mi/h
		Percent free flow speed, PFFS	77.5 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	278	418
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	33.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	48.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	52.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.16

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	77.5

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	277.2
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.26
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

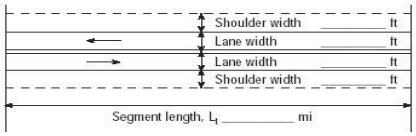
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points mi 40/mi

Analysis direction vol., V_d 385veh/h

Opposing direction vol., V_o 255veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.4
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.992
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	421	279

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, v		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	3.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	26.9 mi/h
		Percent free flow speed, PFFS	75.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	418	278
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	41.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	48.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	70.3	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, v/c	0.25

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	75.3

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	418.5
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.47
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2019 Existing Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	630	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	350
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.18

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	10.1
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	342	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.54
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

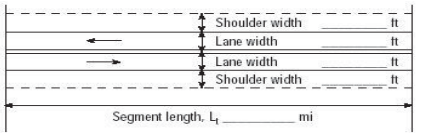
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	*ARP*	Highway / Direction of Travel	*Main Street EB*
Agency or Company	*VHB*	From/To	*Lewis Bay Rd to Center St*
Date Performed	*7/9/2019*	Jurisdiction	*Town of Barnstable*
Analysis Time Period	*Weekday Morning*	Analysis Year	*2019 Existing Conditions Avg*

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *275* veh/h
Opposing direction vol., V_o *755* veh/h
Shoulder width ft *4.0*
Lane Width ft *11.0*
Segment Length mi *0.3*

☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF *0.92*
No-passing zone *100%*
% Trucks and Buses , P_T *2 %*
% Recreational vehicles, P_R *0%*
Access points *mi* *40*/mi

Show North Arrow

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.4*	*1.1*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.992*	*0.998*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*301*	*822*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*24.4 mi/h*
		Percent free flow speed, PFFS	*68.4 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-18 or 15-19)	*1.1*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*300*	*821*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*40.6*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*29.3*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*48.4*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*D*
Volume to capacity ratio, *v/c*	*0.18*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	68.4
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	298.9
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.30
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

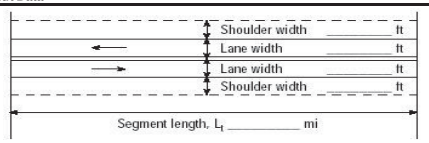
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Show North Arrow

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 755veh/h

Opposing direction vol., V_o 275veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.3

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.1	1.4
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.998	0.992
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	822	301

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	24.4 mi/h
		Percent free flow speed, PFFS	68.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	821	300
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	64.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	29.3	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	86.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.48

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	68.3
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	820.7
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.81
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

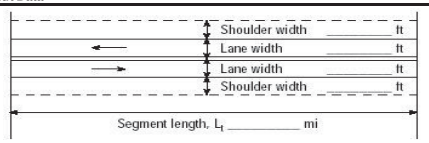
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 415veh/h
Opposing direction vol., V_o 425veh/h
Shoulder width ft 4.0
Lane Width ft 11.0
Segment Length mi 0.2

☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points *mi* 40/mi

Show North Arrow

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.996	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	453	464

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.9 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	73.7 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	451	462
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	47.2	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	42.9	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	68.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.27

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	73.7
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	451.1
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.51
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

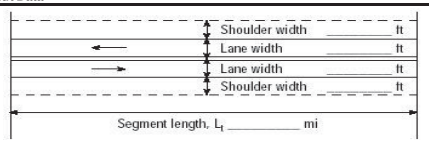
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Show North Arrow

Analysis direction vol., V_d 425veh/h

Opposing direction vol., V_o 415veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.996	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	464	453

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.4 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.9 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.4 mi/h
		Percent free flow speed, PFFS	74.2 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	462	451
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	48.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	42.9	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	70.1	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.27

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*74.2*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*462.0*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.52*
Bicycle level of service (Exhibit 15-4)	*E*
Notes	
1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain. 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F. 3. For the analysis direction only and for v>200 veh/h. 4. For the analysis direction only 5. Exhibit 15-20 provides coefficients a and b for Equation 15-10. 6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.	

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2019 Existing Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	770	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	427
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.22

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	12.3
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	418	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.65
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

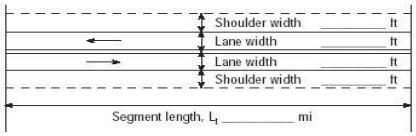
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 475veh/h

Opposing direction vol., V_o 1120veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.3

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996	1.000
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	518	1217

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	19.7 mi/h
		Percent free flow speed, PFFS	55.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	516	1217
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	60.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	18.0	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	66.1	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	E
Volume to capacity ratio, *v/c*	0.30

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	55.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	516.3
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.57
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

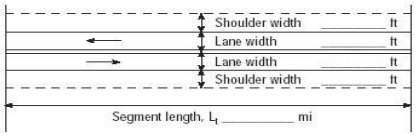
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2019 Existing Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *1120* veh/h

Opposing direction vol., V_o *475* veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

Show North Arrow

% Trucks and Buses , P_T *2* %

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.0*	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*0.996*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*1217*	*518*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6* *mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7* *mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*19.6* *mi/h*
		Percent free flow speed, PFFS	*55.0* %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*1217*	*516*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*79.4*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*18.0*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*92.0*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.72*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*55.0*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*1217.4*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*5.01*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

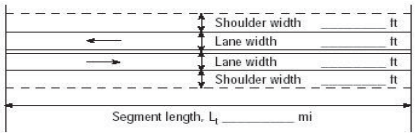
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%



% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 270veh/h

Opposing direction vol., V_o 390veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.4	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.992	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	296	426

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.0 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.7 mi/h
		Percent free flow speed, PFFS	77.0 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	294	424
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	34.4	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	47.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	53.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.17

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	77.0

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	293.5
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.29
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

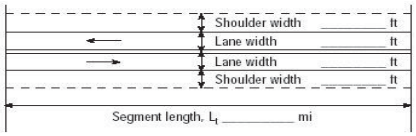
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 390veh/h

Opposing direction vol., V_o 270veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.4
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.992
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	426	296

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.9 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.0 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.5 mi/h
		Percent free flow speed, PFFS	76.4 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	424	294
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	42.9	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	47.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	70.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.25

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	76.4

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	423.9
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.48
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 No-Build Conditions Avg
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	850	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	472
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.25

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	13.6
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	462	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.70
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

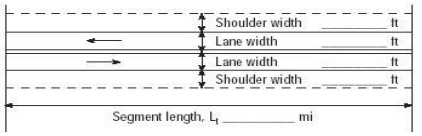
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Show North Arrow

Analysis direction vol., V_d	290 veh/h	Grade Length	mi Up/down
Opposing direction vol., V_o	785 veh/h	Peak-hour factor, PHF	0.92
Shoulder width ft	4.0	No-passing zone	100%
Lane Width ft	11.0	% Trucks and Buses , P_T	2 %
Segment Length mi	0.3	% Recreational vehicles, P_R	0%
		Access points *mi*	40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.4	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.992	1.000
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	318	853

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	24.1 mi/h
		Percent free flow speed, PFFS	67.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	316	853
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	42.5	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	28.6	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	50.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.19

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	67.3
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	315.2
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.32
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

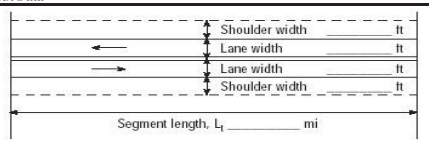
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 785veh/h
Opposing direction vol., V_o 290veh/h
Shoulder width ft 4.0
Lane Width ft 11.0
Segment Length mi 0.3

☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points *mi* 40/mi

Show North Arrow

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.0	1.4
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	1.000	0.992
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	853	318

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	24.0 mi/h
		Percent free flow speed, PFFS	67.3 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	853	316
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	67.1	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	28.6	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	88.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.50

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	67.3
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	853.3
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.83
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

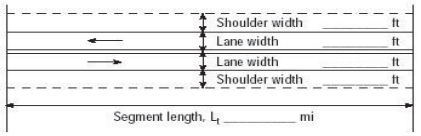
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*ARP*	Highway / Direction of Travel	*Main Street EB*
Agency or Company	*VHB*	From/To	*Bayview Street to Lewis Bay Rd*
Date Performed	*7/9/2019*	Jurisdiction	*Town of Barnstable*
Analysis Time Period	*Weekday Evening*	Analysis Year	*2026 No-Build Conditions Avg*

Project Description: *14072.00 :: Project 2022*

Input Data



Show North Arrow

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *430*veh/h

Opposing direction vol., V_o *445*veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.2*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.996	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	469	486

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.2 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	73.1 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	467	484
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	49.6	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	41.7	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	70.1	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.27

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	73.1
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	467.4
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.52
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

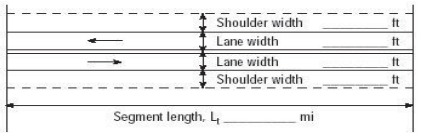
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*ARP*	Highway / Direction of Travel	*Main Street WB*
Agency or Company	*VHB*	From/To	*Bayview Street to Lewis Bay Rd*
Date Performed	*7/9/2019*	Jurisdiction	*Town of Barnstable*
Analysis Time Period	*Weekday Evening*	Analysis Year	*2026 No-Build Conditions Avg*

Project Description: *14072.00 :: Project 2022*

Input Data



Class I highway Class II highway Class III highway

Terrain Level Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

Show North Arrow

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *445*veh/h

Opposing direction vol., V_o *430*veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.2*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.996	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	486	469

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.2 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.5 mi/h
		Percent free flow speed, PFFS	73.9 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	484	467
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	50.3	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	41.7	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	71.5	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.28

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*73.9*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*483.7*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.54*
Bicycle level of service (Exhibit 15-4)	*E*
Notes	
1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain. 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F. 3. For the analysis direction only and for v>200 veh/h. 4. For the analysis direction only 5. Exhibit 15-20 provides coefficients a and b for Equation 15-10. 6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.	

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 No-Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LC_R), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	795	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	441
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.23

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	12.7
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	432	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.66
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

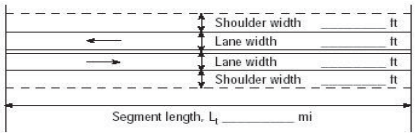
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *495* veh/h

Opposing direction vol., V_o *1160* veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*

☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Show North Arrow

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.2*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*	*1.000*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*540*	*1261*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*19.2 mi/h*
		Percent free flow speed, PFFS	*53.6 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*538*	*1261*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*62.4*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*17.1*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*67.5*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.32*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*53.6*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*538.0*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.60*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

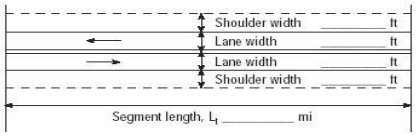
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 No-Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *1160* veh/h

Opposing direction vol., V_o *495* veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.0*	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*0.996*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*1261*	*540*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*19.1 mi/h*
		Percent free flow speed, PFFS	*53.6 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*1261*	*538*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*81.3*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*17.1*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*93.3*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.74*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*53.6*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*1260.9*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*5.03*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

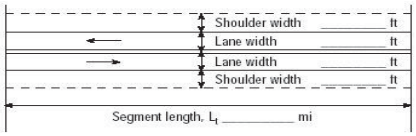
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 270veh/h

Opposing direction vol., V_o 400veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

☐ Class I highway ☐ Class II highway ☑ Class III highway



Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.4	1.3
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.992	0.994
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	296	437

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.7 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.0 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.6 mi/h
		Percent free flow speed, PFFS	76.7 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.1	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	294	435
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	35.1	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	46.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	53.7	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.17

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	76.7

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	293.5
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.29
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

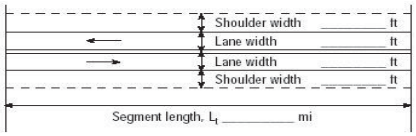
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92

No-passing zone 100%

Show North Arrow

% Trucks and Buses , P_T 2 %

% Recreational vehicles, P_R 0%

Access points *mi* 40/mi

Analysis direction vol., V_d 400veh/h

Opposing direction vol., V_o 270veh/h

Shoulder width ft 4.0

Lane Width ft 11.0

Segment Length mi 0.2

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.3	1.4
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994	0.992
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	437	296

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.9 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	36.0 mi/h
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	27.4 mi/h
		Percent free flow speed, PFFS	76.2 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	435	294
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	43.7	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	46.1	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	71.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	C
Volume to capacity ratio, *v/c*	0.26

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	76.2

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	434.8
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.49
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 Build Conditions Avg
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	860	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	477
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.25

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	13.7
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	467	Effective Speed Factor (St)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.70
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

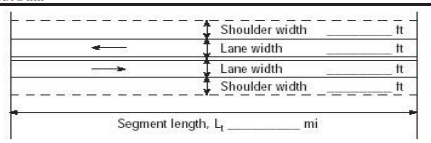
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	*ARP*	Highway / Direction of Travel	*Main Street EB*
Agency or Company	*VHB*	From/To	*Lewis Bay Rd to Center St*
Date Performed	*7/9/2019*	Jurisdiction	*Town of Barnstable*
Analysis Time Period	*Weekday Morning*	Analysis Year	*2026 Build Conditions Avg*

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *295* veh/h
Opposing direction vol., V_o *800* veh/h
Shoulder width ft *4.0*
Lane Width ft *11.0*
Segment Length mi *0.3*



☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF *0.92*
No-passing zone *100%*
% Trucks and Buses , P_T *2 %*
% Recreational vehicles, P_R *0%*
Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.4*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.992*	*1.000*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i (pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*323*	*870*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS} (Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*23.9 mi/h*
		Percent free flow speed, PFFS	*66.8 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.1*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.998*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*321*	*870*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*42.9*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*28.3*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*50.5*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*D*
Volume to capacity ratio, *v/c*	*0.19*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	66.8
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	320.7
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.33
Bicycle level of service (Exhibit 15-4)	D

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

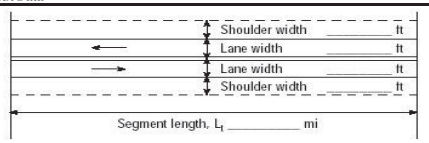
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Morning	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d 800veh/h
Opposing direction vol., V_o 295veh/h
Shoulder width ft 4.0
Lane Width ft 11.0
Segment Length mi 0.3



☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.0	1.4
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	1.000	0.992
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	870	323

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.7 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	23.8 mi/h
		Percent free flow speed, PFFS	66.8 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	0.998
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	870	321
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	67.5	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	28.3	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	88.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.51

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	66.8
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	869.6
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.84
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

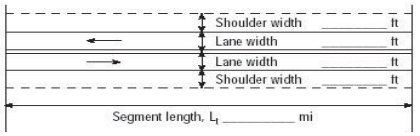
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	*ARP*	Highway / Direction of Travel	*Main Street EB*
Agency or Company	*VHB*	From/To	*Bayview Street to Lewis Bay Rd*
Date Performed	*7/9/2019*	Jurisdiction	*Town of Barnstable*
Analysis Time Period	*Weekday Evening*	Analysis Year	*2026 Build Conditions Avg*

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *430* veh/h
Opposing direction vol., V_o *445* veh/h
Shoulder width ft *4.0*
Lane Width ft *11.0*
Segment Length mi *0.2*



☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF *0.92*
No-passing zone *100%*
% Trucks and Buses , P_T *2 %*
% Recreational vehicles, P_R *0%*
Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.996	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	469	486

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.6 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.2 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.2 mi/h
		Percent free flow speed, PFFS	73.1 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	467	484
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	49.6	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	41.7	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	70.1	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.27

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	1700
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	1700
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	73.1
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	467.4
Effective width, Wv (Eq. 15-29) ft	15.00
Effective speed factor, S_t (Eq. 15-30)	3.39
Bicycle level of service score, BLOS (Eq. 15-31)	4.52
Bicycle level of service (Exhibit 15-4)	E

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

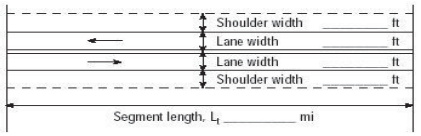
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Bayview Street to Lewis Bay Rd
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions Avg

Project Description: 14072.00 :: Project 2022

Input Data



Analysis direction vol., V_d 445veh/h
Opposing direction vol., V_o 430veh/h
Shoulder width ft 4.0
Lane Width ft 11.0
Segment Length mi 0.2



☐ Class I highway ☐ Class II highway ☑ Class III highway
Terrain ☑ Level ☐ Rolling
Grade Length mi Up/down
Peak-hour factor, PHF 0.92
No-passing zone 100%
% Trucks and Buses , P_T 2 %
% Recreational vehicles, P_R 0%
Access points *mi* 40/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	1.0	1.0
Heavy-vehicle adjustment factor, $f_{HV,ATS}$=1/ (1+ P_T (E_T -1)+P_R (E_R -1))	0.996	0.996
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	1.00	1.00
Demand flow rate[2], v_i (pc/h) v_i=V_i / (PHF* $f_{g,ATS}$ * $f_{HV,ATS}$)	486	469

Free-Flow Speed from Field Measurement		**Estimated Free-Flow Speed**	
Mean speed of sample[3], S_{FM}	30	Base free-flow speed[4], BFFS	mi/h
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	mi/h
Free-flow speed, FFS=S_{FM}+0.00776(*v*/ $f_{HV,ATS}$)		Adj. for access points[4], f_A (Exhibit 15-8)	mi/h
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	2.3 mi/h	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	37.2 mi/h
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	27.5 mi/h
		Percent free flow speed, PFFS	73.9 %

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ P_T(E_T-1)+P_R(E_R-1))	1.000	1.000
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	1.00	1.00
Directional flow rate[2], v_i(pc/h) v_i=V_i/(PHF*$f_{HV,PTSF}$* $f_{g,PTSF}$)	484	467
Base percent time-spent-following[4], $BPTSF_d$(%)=100(1-$e^{av_d^b}$)	50.3	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	41.7	
Percent time-spent-following, $PTSF_d$(%)=$BPTSF_d$+$f_{np,PTSF}$*($v_{d,PTSF}$ / $v_{d,PTSF}$ + $v_{o,PTSF}$)	71.5	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	D
Volume to capacity ratio, *v/c*	0.28

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*73.9*
Bicycle Level of Service	
Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*483.7*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.54*
Bicycle level of service (Exhibit 15-4)	*E*
Notes	
1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain. 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F. 3. For the analysis direction only and for v>200 veh/h. 4. For the analysis direction only 5. Exhibit 15-20 provides coefficients a and b for Equation 15-10. 6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.	

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HCS7 Multilane Highway Report

Project Information			
Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		
Direction 1 Geometric Data			
Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9
Direction 1 Adjustment Factors			
Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		
Direction 1 Demand and Capacity			
Volume(V) veh/h	1050	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	582
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.31
Direction 1 Speed and Density			
Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	16.7
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		
Direction 1 Bicycle LOS			
Flow Rate in Outside Lane (v_{OL}),veh/h	571	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.80
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

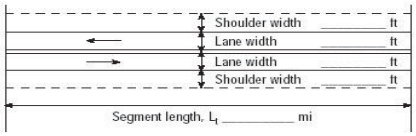
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BD PM_Main Street - Center to Barnstable.xuf

DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street EB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data





☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Analysis direction vol., V_d *500*veh/h

Opposing direction vol., V_o *1190*veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.2*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*0.996*	*1.000*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*546*	*1293*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, ATS_d=FFS-0.00776($v_{d,ATS}$ + $v_{o,ATS}$) - $f_{np,ATS}$	*18.9 mi/h*
		Percent free flow speed, PFFS	*52.8 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*543*	*1293*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*63.1*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*16.6*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*68.0*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.32*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*52.8*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*543.5*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*4.60*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

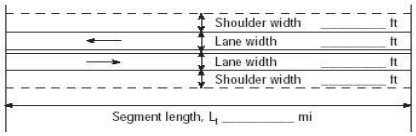
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DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	ARP	Highway / Direction of Travel	Main Street WB
Agency or Company	VHB	From/To	Lewis Bay Rd to Center St
Date Performed	7/9/2019	Jurisdiction	Town of Barnstable
Analysis Time Period	Weekday Evening	Analysis Year	2026 Build Conditions Avg

Project Description: *14072.00 :: Project 2022*

Input Data



Analysis direction vol., V_d *1190* veh/h

Opposing direction vol., V_o *500* veh/h

Shoulder width ft *4.0*

Lane Width ft *11.0*

Segment Length mi *0.3*



☐ Class I highway ☐ Class II highway ☑ Class III highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF *0.92*

No-passing zone *100%*

% Trucks and Buses , P_T *2 %*

% Recreational vehicles, P_R *0%*

Access points *mi* *40*/mi

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 15-11 or 15-12)	*1.0*	*1.2*
Passenger-car equivalents for RVs, E_R (Exhibit 15-11 or 15-13)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV,ATS}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*0.996*
Grade adjustment factor[1], $f_{g,ATS}$ (Exhibit 15-9)	*1.00*	*1.00*
Demand flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{g,ATS}*f_{HV,ATS})$	*1293*	*546*

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Mean speed of sample[3], S_{FM}	*30*	Base free-flow speed[4], BFFS	*mi/h*
Total demand flow rate, both directions, *v*		Adj. for lane and shoulder width,[4] f_{LS}(Exhibit 15-7)	*mi/h*
Free-flow speed, $FFS=S_{FM}+0.00776(v/f_{HV,ATS})$		Adj. for access points[4], f_A (Exhibit 15-8)	*mi/h*
Adj. for no-passing zones, $f_{np,ATS}$ (Exhibit 15-15)	*2.6 mi/h*	Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	*35.7 mi/h*
		Average travel speed, $ATS_d=FFS-0.00776(v_{d,ATS}+v_{o,ATS})-f_{np,ATS}$	*18.8 mi/h*
		Percent free flow speed, PFFS	*52.7 %*

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Passenger-car equivalents for RVs, E_R (Exhibit 15-18 or 15-19)	*1.0*	*1.0*
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	*1.000*	*1.000*
Grade adjustment factor[1], $f_{g,PTSF}$ (Exhibit 15-16 or Ex 15-17)	*1.00*	*1.00*
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV,PTSF}*f_{g,PTSF})$	*1293*	*543*
Base percent time-spent-following[4], $BPTSF_d(\%)=100(1-e^{av_d^b})$	*81.8*	
Adj. for no-passing zone, $f_{np,PTSF}$ (Exhibit 15-21)	*16.6*	
Percent time-spent-following, $PTSF_d(\%)=BPTSF_d+f_{np,PTSF}*(v_{d,PTSF}/v_{d,PTSF}+v_{o,PTSF})$	*93.5*	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 15-3)	*E*
Volume to capacity ratio, *v/c*	*0.76*

Capacity, $C_{d,ATS}$ (Equation 15-12) veh/h	*1700*
Capacity, $C_{d,PTSF}$ (Equation 15-13) veh/h	*1700*
Percent Free-Flow Speed $PFFS_d$(Equation 15-11 - Class III only)	*52.7*

Bicycle Level of Service

Directional demand flow rate in outside lane, v_{OL} (Eq. 15-24) veh/h	*1293.5*
Effective width, Wv (Eq. 15-29) ft	*15.00*
Effective speed factor, S_t (Eq. 15-30)	*3.39*
Bicycle level of service score, BLOS (Eq. 15-31)	*5.04*
Bicycle level of service (Exhibit 15-4)	*E*

Notes

1. Note that the adjustment factor for level terrain is 1.00,as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.

2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only
5. Exhibit 15-20 provides coefficients a and b for Equation 15-10.
6. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2019 Existing Conditions AVG
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	545	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	302
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.16

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	8.7
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	296	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.47
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2019 Existing Conditions AVG
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	720	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	400
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.21

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	11.5
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	391	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.61
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 No-Build Conditions AVG
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	565	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	314
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.17

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	9.0
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	307	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.49
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 No-Build Conditions AVG
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	745	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	413
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.22

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	11.9
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	405	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.63
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 Build Conditions AVG
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	575	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	319
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.17

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	9.2
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	312	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.50
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	D

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Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	770	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	427
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.22

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	12.3
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	418	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.65
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

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Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	340	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	188
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.10

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	5.4
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	185	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.23
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	355	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	197
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.10

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	5.7
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	193	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.25
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	355	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	197
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.10

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	5.7
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	193	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.25
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	370	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	205
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.11

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	5.9
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	201	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.27
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	385	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	214
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.11

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	6.1
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	209	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.29
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	D

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Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	390	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	216
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.11

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	6.2
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	212	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.30
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	D

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Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	705	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	391
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.21

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	11.2
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	383	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.60
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

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Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	940	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	522
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.27

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	15.0
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	511	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.75
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

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Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	735	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	408
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.21

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	11.7
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	399	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.62
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

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Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	975	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	540
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.28

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	15.5
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	530	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.77
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	E

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	745	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	413
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.22

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	11.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	405	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.63
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Westbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	1000	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	554
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.29

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	15.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	B
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	543	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.78
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	E

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2019 Existing Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	445	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	247
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.13

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	7.1
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	242	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.37
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2019 Existing Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	460	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	255
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.13

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	7.3
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	250	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.39
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 No-Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	465	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	258
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.14

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	7.4
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	253	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.39
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 No-Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	475	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.92	Flow Rate (Vp), pc/h/ln	264
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.14

Direction 1 Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (fLLC)	3.9	Density (D), pc/mi/ln	7.6
Median Type Adjustment (fM)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (fA)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (vOL),veh/h	258	Effective Speed Factor (St)	2.61
Effective Width of Volume (Wv), ft	12	Bicyle LOS Score (BLOS)	4.40
Average Effective Width (We), ft	12	Bicycle Level of Service (LOS)	D

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Morning
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	495	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	274
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.14

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	7.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	269	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.42
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	D

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HCS7 Multilane Highway Report

Project Information

Analyst	ARP	Date	7/11/2019
Agency	VHB	Analysis Year	2026 Build Conditions PK
Jurisdiction	Town of Barnstable	Time Period Analyzed	Weekday Evening
Project Description	14072.00 :: Project 2022		

Direction 1 Geometric Data

Direction 1	Eastbound		
Number of Lanes (N), ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	45.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Left-Side Lateral Clearance (LCR), ft	0
Median Type	Divided	Total Lateral Clearance (TLC), ft	0.00
Access Point Density, pts/mi	25.0	Free-Flow Speed (FFS), mi/h	34.9

Direction 1 Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Driver Population SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Driver Population CAF	1.000		

Direction 1 Demand and Capacity

Volume(V) veh/h	495	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	274
Total Trucks, %	2.00	Capacity (c), pc/h/ln	1900
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	1900
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.14

Direction 1 Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	34.8
Total Lateral Clearance Adj. (f_{LLC})	3.9	Density (D), pc/mi/ln	7.9
Median Type Adjustment (f_M)	0.0	Level of Service (LOS)	A
Access Point Density Adjustment (f_A)	6.3		

Direction 1 Bicycle LOS

Flow Rate in Outside Lane (v_{OL}),veh/h	269	Effective Speed Factor (S_t)	2.61
Effective Width of Volume (W_v), ft	12	Bicyle LOS Score (BLOS)	4.42
Average Effective Width (W_e), ft	12	Bicycle Level of Service (LOS)	D

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ITE TRIP GENERATION WORKSHEET
(10th Edition, Updated 2017)

TOTAL PROPOSED BUILDING

LANDUSE: Hospital
LANDUSE CODE: 610
SETTING/LOCATION: General Urban/Suburban
JOB NAME:
JOB NUMBER:

Independent Variable --- 1,000 Sq. Feet Gross Floor Area

FLOOR AREA (KSF): 122.542

WEEKDAY

RATES:

	# Studies	R^2	Total Trip Ends Average	Total Trip Ends Low	Total Trip Ends High	Independent Variable Range Average	Independent Variable Range Low	Independent Variable Range High	Directional Distribution Enter	Directional Distribution Exit
DAILY	8	0.67	10.72	6.12	67.52	563	75	1,800	50%	50%
AM PEAK OF GENERATOR	14	0.90	0.85	0.52	5.70	885	50	3,800	66%	34%
PM PEAK OF GENERATOR	17	0.91	0.97	0.58	7.63	843	50	3,800	34%	66%
AM PEAK (ADJACENT ST)	20	0.86	0.89	0.52	5.45	820	50	3,800	68%	32%
PM PEAK (ADJACENT ST)	19	0.88	0.97	0.44	6.94	773	50	3,800	32%	68%

TRIPS:

	BY AVERAGE Total	BY AVERAGE Enter	BY AVERAGE Exit	BY REGRESSION Total	BY REGRESSION Enter	BY REGRESSION Exit
DAILY	1,314	657	657	3,444	1,722	1,722
AM PEAK OF GENERATOR	104	69	35	189	125	64
PM PEAK OF GENERATOR	119	40	78	220	75	145
AM PEAK (ADJACENT ST)	109	74	35	217	148	69
PM PEAK (ADJACENT ST)	119	38	81	203	65	138

SATURDAY

RATES:

	# Studies	R^2	Total Trip Ends Average	Total Trip Ends Low	Total Trip Ends High	Independent Variable Range Average	Independent Variable Range Low	Independent Variable Range High	Directional Distribution Enter	Directional Distribution Exit
DAILY	2	NA	7.72	4.40	41.80	586	100	1,072	50%	50%
PEAK OF GENERATOR	2	NA	3.26	0.92	5.98	113	105	120	50%	50%

TRIPS:

	BY AVERAGE Total	BY AVERAGE Enter	BY AVERAGE Exit	BY REGRESSION Total	BY REGRESSION Enter	BY REGRESSION Exit
DAILY	946	473	473	N/A	N/A	N/A
PEAK OF GENERATOR	399	200	200	N/A	N/A	N/A

SUNDAY

RATES:

	# Studies	R^2	Total Trip Ends Average	Total Trip Ends Low	Total Trip Ends High	Independent Variable Range Average	Independent Variable Range Low	Independent Variable Range High	Directional Distribution Enter	Directional Distribution Exit
DAILY	2	--	6.77	3.62	39.13	586	100	1,100	50%	50%
PEAK OF GENERATOR	1	--	4.85	4.85	4.85	104	104	104	45%	55%

TRIPS:

	BY AVERAGE Total	BY AVERAGE Enter	BY AVERAGE Exit	BY REGRESSION Total	BY REGRESSION Enter	BY REGRESSION Exit
DAILY	830	415	415	N/A	N/A	N/A
PEAK OF GENERATOR	594	267	327	N/A	N/A	N/A

Project 2022
14072.00

12.5-PERCENT REDUCTION			
	Hospital		
Trip Gen Method	Net New Trips (122,542 SF)	12.5-Percent Reduction Requirement	Net New Trips with Trip Reduction
Weekday Daily			
Enter	657	82	575
Exit	657	82	575
Total	1314	164	1150
Weekday Morning			
Enter	69	9	60
Exit	35	4	31
Total	104	13	91
Weekday Evening			
Enter	40	5	35
Exit	78	10	68
Total	118	15	103

12.5% Trip Reduction

Stopping Sight Distance and Intersection Sight Distance Calculator [v0.97]
Based on 'A Policy on Geometric Design of Highways and Streets', AASHTO, 2004

Section I

Project Information

Project Number:	14072.00	**Analyst:**	KB
City/Town, State:	Hyannis, MA		
Location:	Lewis Bay Road at Site Drive	**Client:**	

Street Names and Directions

Major Street name:	Lewis Bay Road	NB/SB
Minor Street name:	Site Drive	EB/WB
Minor Street intersects *from* the:		east
The minor street *predominantly* serves...		Passenger Cars
Sight distance location intersection is...		Proposed
Total number of lanes on Major Street is...		2

Street Notes

Grade Information [enter down slope as a negative number]

Major Street Approach Grade:	0.00%	NB
	0.00%	SB
Minor Street Approach Grade:	0.00%	SB
	0.00%	NB

Major Street Speed Information

Posted		*Observed **
20	NB	20
20	SB	20

** note:* off-peak *85th percentile speeds*

Section II

ISD and SSD *Observations*

Instructions on how to observe and measure ISD and SSD are included on subsequent pages.

ISD - Intersection sight distance is the distance that is based on the time required for perception, reaction and completion of the desired critical exiting maneuver [typically, a left turn] once the driver on a minor street approach [or a site drive] decides to execute the maneuver. Calculation for the critical ISD includes the time to [1] turn left, and to clear the near half of the intersection without conflicting with the vehicles approaching from the left; and [2] upon turning left, to accelerate to the operating speed on the roadway without causing approaching vehicles on the main road to unduly reduce their speed. In this context, ISD can be considered as a *desirable* visibility criterion for the safe operation of an unsignalized intersection.

SSD - Stopping sight distance is the distance required for a vehicle approaching an intersection from either direction to perceive, react, and come to a complete stop before colliding with the exiting vehicle from a driveway. In this respect, SSD can be considered as the *minimum* visibility criterion for the safe operation of an unsignalized intersection.

			Limiting Factors:
***Observed* ISD:**	260	looking left [south]	
(rounded to nearest 5 feet)	500	looking right [north]	
***Observed* SSD:**	260	traveling NB	
(rounded to nearest 5 feet)	500	traveling SB	

Section III

ISD and SSD *Calculations* (rounded up to the next highest 5 feet) [sources: SSD - AASHTO, pp.110-117; ISD - AASHTO, pp. 650 - 664]

Cases are described in detail on subsequent pages. In summary...

B1: left turn from minor road, from stop control
B2: right turn from minor road, from stop control
B3: crossing maneuver from minor road, from stop control, assuming left- and right turns are not permitted *[otherwise, case B1 or B2 would supercede]*

***Desirable* Calculated...**		**Condition Met?**
... ISD, case B1:	225	**Yes**
... ISD, case B2:	195	**Yes**
... ISD, case B3:	195	**Yes**

[note: if number of lanes crossed exceeds 6, or if grades are steep, consult the manual]

***Minimum* Calculated ...**		**Condition Met?**
... ISD, case B1:	115	**Yes**
... ISD, case B2:	115	**Yes**
... ISD, case B3:	115	**Yes**

[note: minimum *ISD is equal to required SSD]*

Calculated ...			**Condition Met?**
... SSD:	115	traveling NB	**Yes**
	115	traveling SB	**Yes**

Section IV

AASHTO Guidance

Refer to AASHTO for specific guidance on SSD and ISD if presented with an unusual/atypical case.
Adequate ISD is not needed at signalized intersections, assuming traffic signal heads are visible on all approaches.
Any object that would obstruct the driver's view should be removed or lowered, if practical. Such objects include buildings, parked cars, highway structures, hedges/vegetation/trees/bushes/unmowed lawn, walls, fences, and terrain.
For ISD, an object should be considered an obstruction if it obstructs the vision of a driver whose eye height is 3.5 feet above the roadway surface and the object to be seen is 3.5 feet above the surface of the intersecting road.
Where horizontal sight restrictions occur on downgrades, particularly at the ends of long downgrades, it is desirable to provide SSD that exceeds those values indicated above (refer to page 114 of AASHTO).

Project 2022

Parking Inventory

Hyannis, MA

Employee Lot North
Tuesday 11/28/2017

	Unassigned	Out of Space	TOTAL	% of Capacity
Capacity	**531**		**531**	
10:00 AM	475	12	487	92%
11:00 AM	492	17	509	96%
12:00 PM	491	16	507	95%
1:00 PM	468	16	484	91%
2:00 PM	459	15	474	89%
3:00 PM	463	16	479	90%
Peak Occupancy	492	17	509	96%

*Note: shaded cells represent peak periods
Source: Parking counts conducted by VHB

Employee Lot South
Tuesday 11/28/2017

	Unassigned	Out of Space	Carpool	TOTAL	% of Capacity
Capacity	**189**		**9**	**198**	
10:00 AM	189	2	9	200	101%
11:00 AM	189	2	9	200	101%
12:00 PM	189	2	9	200	101%
1:00 PM	178	1	9	188	95%
2:00 PM	185	2	9	196	99%
3:00 PM	182	2	9	193	97%
Peak Occupancy	189	2	9	200	101%

*Note: shaded cells represent peak periods
Source: Parking counts conducted by VHB

Physician Parking Lot
Tuesday 11/28/2017

	Unassigned	Out of Space	TOTAL	% of Capacity
Capacity	**78**		**78**	
10:00 AM	72	0	72	92%
11:00 AM	70	0	70	90%
12:00 PM	75	0	75	96%
1:00 PM	66	0	66	85%
2:00 PM	69	0	69	88%
3:00 PM	76	0	76	97%
Peak Occupancy	76	0	76	97%

*Note: shaded cells represent peak periods
Source: Parking counts conducted by VHB

IDCS Lot
Tuesday 11/28/2017

	Unassigned	Out of Space	Handicap	IDCS Patients	TOTAL	% of Capacity
Capacity	**36**		**2**	**7**	**45**	
10:00 AM	26	0	0	1	27	60%
11:00 AM	26	0	0	3	29	64%
12:00 PM	27	0	0	1	28	62%
1:00 PM	28	0	0	0	28	62%
2:00 PM	29	0	0	0	29	64%
3:00 PM	36	0	1	4	41	91%
Peak Occupancy	36	0	1	4	41	91%

*Note: shaded cells represent peak periods
Source: Parking counts conducted by VHB

Two Level Back Lot
Tuesday 11/28/2017

	Upper Lot			Lower Lot					
	Unassigned	Out of Space	Handicap	Unassigned	Out of Space	C-Lab Patients	TOTAL	% of Capacity	Ambulance
Capacity	**29**		**1**	12		**3**	**45**		**8**
10:00 AM	29	2	1	10	0	3	45	100%	0
11:00 AM	28	2	1	9	0	2	42	93%	0
12:00 PM	28	4	1	11	0	2	46	102%	1
1:00 PM	26	3	1	12	0	1	43	96%	0
2:00 PM	23	1	1	11	0	1	37	82%	0
3:00 PM	25	1	1	12	1	1	41	91%	0
Peak Occupancy	29	4	1	12	1	3	46	102%	1

*Note: shaded cells represent peak periods
Source: Parking counts conducted by VHB

Main Visitor and Patient Lot
Tuesday 11/28/2017

	Visitor / Patient	Out of Space	Handicap	Cancer Center Patients	O'Keeffe Surgical Center Patients	TOTAL	% of Capacity
Capacity	**155**		**22**	**6**	**6**	**189**	
10:00 AM	155	0	20	6	6	187	99%
11:00 AM	154	0	20	6	6	186	98%
12:00 PM	149	0	20	5	4	178	94%
1:00 PM	148	1	19	6	6	180	95%
2:00 PM	148	1	21	6	5	181	96%
3:00 PM	147	0	16	5	4	172	91%
Peak Occupancy	155	1	21	6	6	187	99%

*Note: shaded cells represent peak periods
Source: Parking counts conducted by VHB

Valet / Loop
8
8
10
8
7
7
10

Lower Lots
Tuesday 11/28/2017

	Visitor / Patient	Handicap	Pulminary Rehab Patient	Barnstable Court	Out of Spaces	TOTAL	% of Capacity
Capacity	**179**	**12**	**3**	**1**		**195**	
10:00 AM	172	5	0	0	2	179	92%
11:00 AM	176	8	3	0	5	192	98%
12:00 PM	155	7	3	0	7	172	88%
1:00 PM	157	7	3	0	6	173	89%
2:00 PM	149	6	3	0	4	162	83%
3:00 PM	148	7	2	1	3	161	83%
Peak Occupancy	176	8	3	1	7	192	98%

*Note: shaded cells represent peak periods
Source: Parking counts conducted by VHB

Lower Lots
Tuesday 11/28/2017

	Valet	Out of Spaces	TOTAL	% of Capacity
Capacity	**111**		**111**	
10:00 AM	46	0	46	24%
11:00 AM	70	0	70	36%
12:00 PM	60	0	60	31%
1:00 PM	51	0	51	26%
2:00 PM	49	0	49	25%
3:00 PM	39	0	39	20%
Peak Occupancy	70	0	70	36%

*Note: shaded cells represent peak periods
Source: Parking counts conducted by VHB

Project 2022

Parking Inventory

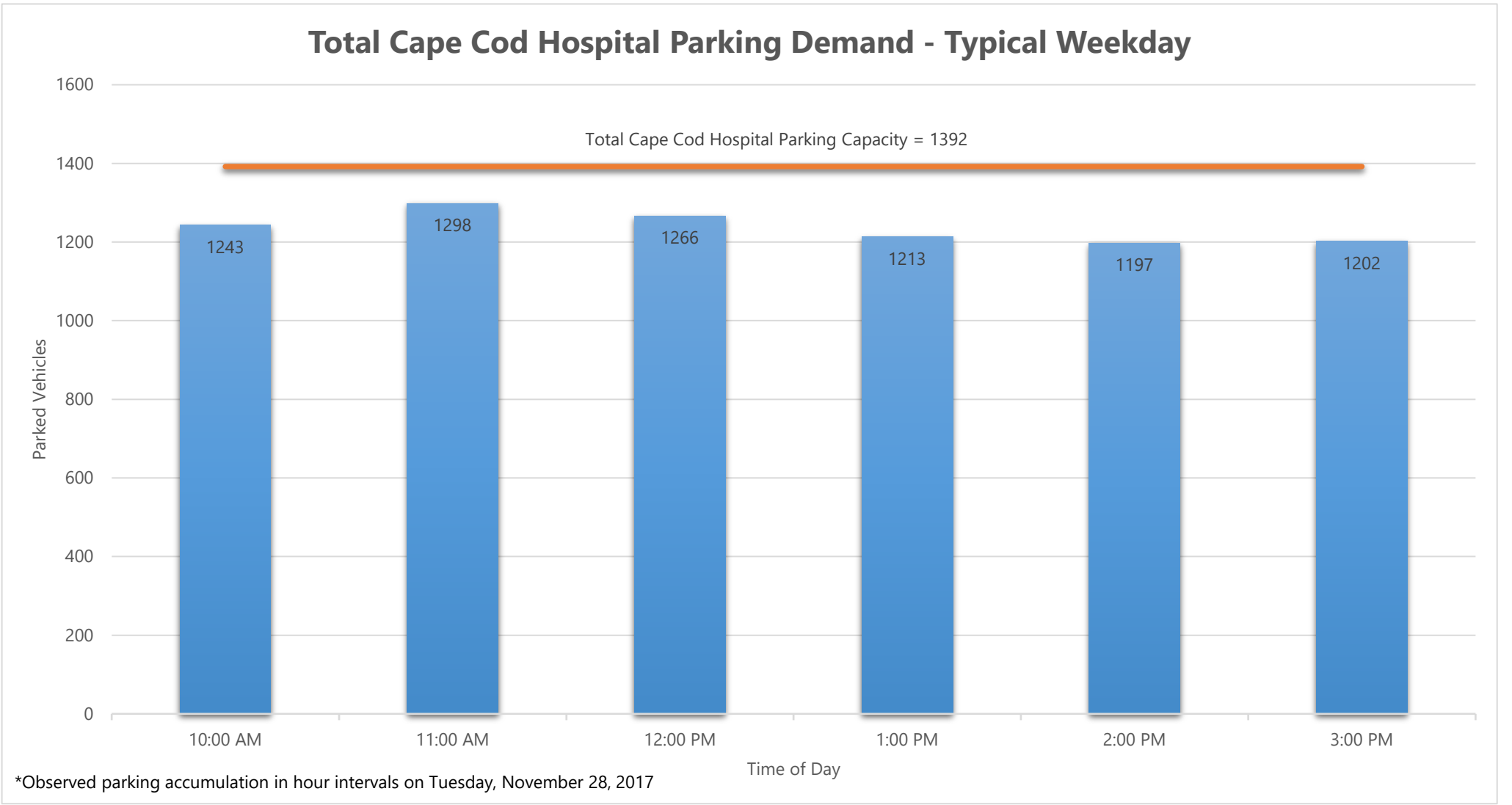
Hyannis, MA

Typical Weekday Occupancy
Tuesday 11/28/2017

	Employee Satellite Lot	Physician Lot	IDCS Lot	Two Level Back Lot	Main Visitor / Patient Lot	Quinlan Way Visitor / Patient Lots	Quinlan Way Valet Lot	TOTAL	% of Capacity
Capacity	**729**	**78**	**45**	**45**	**189**	**195**	**111**	**1392**	
10:00 AM	687	72	27	45	187	179	46	1243	89%
11:00 AM	709	70	29	42	186	192	70	1298	93%
12:00 PM	707	75	28	46	178	172	60	1266	91%
1:00 PM	672	66	28	43	180	173	51	1213	87%
2:00 PM	670	69	29	37	181	162	49	1197	86%
3:00 PM	672	76	41	41	172	161	39	1202	86%
Peak Occupancy	709	76	41	46	187	192	70	1298	93%

*Note: shaded cells represent peak periods

Source: Parking counts conducted by VHB on Tuesday, November 28, 2017



*Observed parking accumulation in hour intervals on Tuesday, November 28, 2017

PARKING -EXISTING SITE PLAN

OF LAND IN

HYANNIS, MA

27 PARK STREET

PREPARED FOR:

CAPE COD HOSPITAL

27 PARK STREET, HYANNIS, MA 02601

7/31/2019 SCALE: 1"=50'

NOTE:
THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN IS APPROXIMATE. PRIOR TO ANY EXCAVATION ON THIS SITE, THE EXCAVATING CONTRACTOR SHALL MAKE THE REQUIRED 72 HOUR NOTIFICATION TO DIG SAFE (1-888-344-7233) AND ANY OTHER UTILITIES WHICH MAY HAVE CABLE, PIPE OR EQUIPMENT IN THE CONSTRUCTION AREA FOR VERIFICATION OF LOCATIONS.

Scale: 1"= 50'

0 25 50 75 100 125 FEET

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fax 508-362-9880
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down cape engineering, inc.
civil engineers
land surveyors
939 Main Street (Rte 6A)
YARMOUTHPORT MA 02675
DCE # 17-005

17-005 CCH 2019.dwg

EAST MAIN STREET
PUBLIC WAY (JULY 18, 1895 STATE HIGHWAY LAYOUT "SOUTH ROAD YARMOUTH" PLAN 59-1)

MURRAY ROAD
(PRIVATE ROAD)

BAYVIEW STREET

PARK STREET

TOWN LINE BARNSTABLE-YARMOUTH

MAP 36 PCL 90
CAPE COD HOSPITAL
DB 21505 PG 245

MAP 36 PCL 92
CAPE COD HOSPITAL
DB 21000 PG 292

MAP 36 PCL 91
CAPE COD HOSPITAL
DB 10487 PG 274

MAP 36 PCL 87
SHIRLEY A. LUTZ LV.TR.
DB 28108 PG 9

MAP 36 PCL 89
BUILDING DREAMS, INC.
DB 28005 PG 304

MAP 36 PCL 93
CCH

MAP 36 PCL 4
ELIZABETH F. BAXTER TR
DB 27664 PG 346

MAP 36 PCL 5
JONATHAN H. BAXTER
DB 11121 PG 210

MAP 36 PCL 6
ANDREW T. HARJU
DB 1381 PG 1067

MAP 36 PCL 7
CAPE COD HOSPITAL
DB 1536 PG 12

MAP 36 PCL 8
CCH

MAP 36 PCL 9
CCH

MAP 36 PCL 10
CCH

MAP 36 PCL 11
CCH

MAP 36 PCL 12
CCH

MAP 36 PCL 13
CCH

MAP 36 PCL 14
CCH

MAP 36 PCL 3
CCH

MAP 28 PCL 58.1.1
CAPE COD HOSPITAL
DB 2115 PG 15

MAP 28 PCL 58.1.1
CAPE COD HOSPITAL
DB 2115 PG 15

#4

N 69°25'35" E
125.32'

S 22°30'33" E
100.06'

125.07'
N 69°25'35" E

S 22°30'33" E
60.18'

210.03'
N 71°20'37" E

S 09°26'33" E
94.44'

N 80°32'31" E
153.13'

C.B.

S 00°03'15" E
253.28'

N 09°46'58" E
195.95'

N 86°12'27" W
151.99'

N 20°12'16" W
111.70'

N 06°23'23" E
94.75'

28.08'
N 88°57'33" E

211.08'
N 10°25'47" E

R-25
B-1

181.26'
S 80°24'29" E

75.99'
N 10°26'37" E

YARMOUTH APD (ZONE II)
AREA NOT IN ZONE II

365.47'
N 09°47'49" E

183.19'
19.62'
38.54'
55.23'
95.43'

110.12'
30.53'

111.55'
5684 SF
DRAINAGE ESMNT

45.40'
56.94'

138.16'
S 31°52'44" W

N 75°02'22" W
359.09'

111.55'
S 13°30'59" W

N 82°43'34" W
169.88'

376.80'
S 05°02'01" W

190.92'
S 07°31'36" W

S 51°59'11" W
90.53'

28.9'
20.0'
56.0'
1102 SF
DRAINAGE ESMNT
56.0'
20.0'

346.31'
N 01°21'38" E

85.81'
S 12°27'12" E

160.17'
S 02°33'02" E

C.B.

28.00'
S 87°33'02" W

GARAGE

AREA

TOWN LINE BARNSTABLE-YARMOUTH

B1 ZONING DISTRICT
R-25 ZONING DISTRICT LINE

N

PARKING- EXISTING SITE PLAN

OF LAND IN

HYANNIS, MA

27 PARK STREET

PREPARED FOR:

CAPE COD HOSPITAL
27 PARK STREET, HYANNIS, MA 02601

7/31/2019 SCALE: 1"=50'

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Scale: 1"= 50'

0 25 50 75 100 125 FEET

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fax 508-362-9880
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civil engineers
land surveyors
939 Main Street (Rte 6A)
YARMOUTHPORT MA 02675

DCE # 17-005

SHEET 2 OF 2

17-005 CCH 2019.dwg

PROPOSED PARKING SITE PLAN

OF LAND IN

HYANNIS, MA

27 PARK STREET

PREPARED FOR:

CAPE COD HOSPITAL

27 PARK STREET, HYANNIS, MA 02601

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DCE # 17-005

SHEET 1 OF 2

17-005 CCH 2019.dwg

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CCH

MAP 36 PCL 14
CCH

MAP 36 PCL 3
CCH

MAP 28 PCL 58.1.1
CAPE COD HOSPITAL
DB 2115 PG 15

MAP 28 PCL 58.1.1
CAPE COD HOSPITAL
DB 2115 PG 15

#4

GARAGE

AREA

N 69°25'35" E 125.32'
S 22°30'33" E 100.06'
N 69°25'35" E 125.07'
S 22°30'33" E 60.18'
N 71°20'37" E 210.03'
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C.B.
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N 88°57'33" E 28.08'
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N 10°26'37" E 75.99'
S 80°24'29" E 181.26'
N 09°47'49" E 365.47'
N 01°21'38" E 346.31'
S 12°27'12" E 85.81'
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S 87°33'02" W 28.00'
N 75°02'22" W 359.09'
S 31°52'44" W 138.16'
S 13°30'59" W 111.55'
R-25
B-1
B1 ZONING DISTRICT
R-25 ZONING DISTRICT LINE
YARMOUTH APD (ZONE II)
AREA NOT IN ZONE II
5684 SF DRAINAGE ESMNT
1102 SF DRAINAGE ESMNT
56.0' ESMNT
20.0' ESMNT
110.12'
30.53'
14.55'
45.40'
56.94'
95.43'
38.54'
19.62'
183.19'
28.9'
56.0'
20.0'
C.B.
EDGE PAVE
EDGE GRAVEL
OFFICE AREA
STEEL
OFFICE
BATH
MECH
RAMP
OFFICE
HANDI RAMP
CONC. RAMP
CONC. STEPS
O.H. DOOR
WOOD RAMP
N

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Scale: 1"= 50'

0 25 50 75 100 125 FEET

PROPOSED PARKING SITE PLAN

OF LAND IN

HYANNIS, MA

27 PARK STREET

PREPARED FOR:

CAPE COD HOSPITAL
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7/31/2019 SCALE: 1"=50'

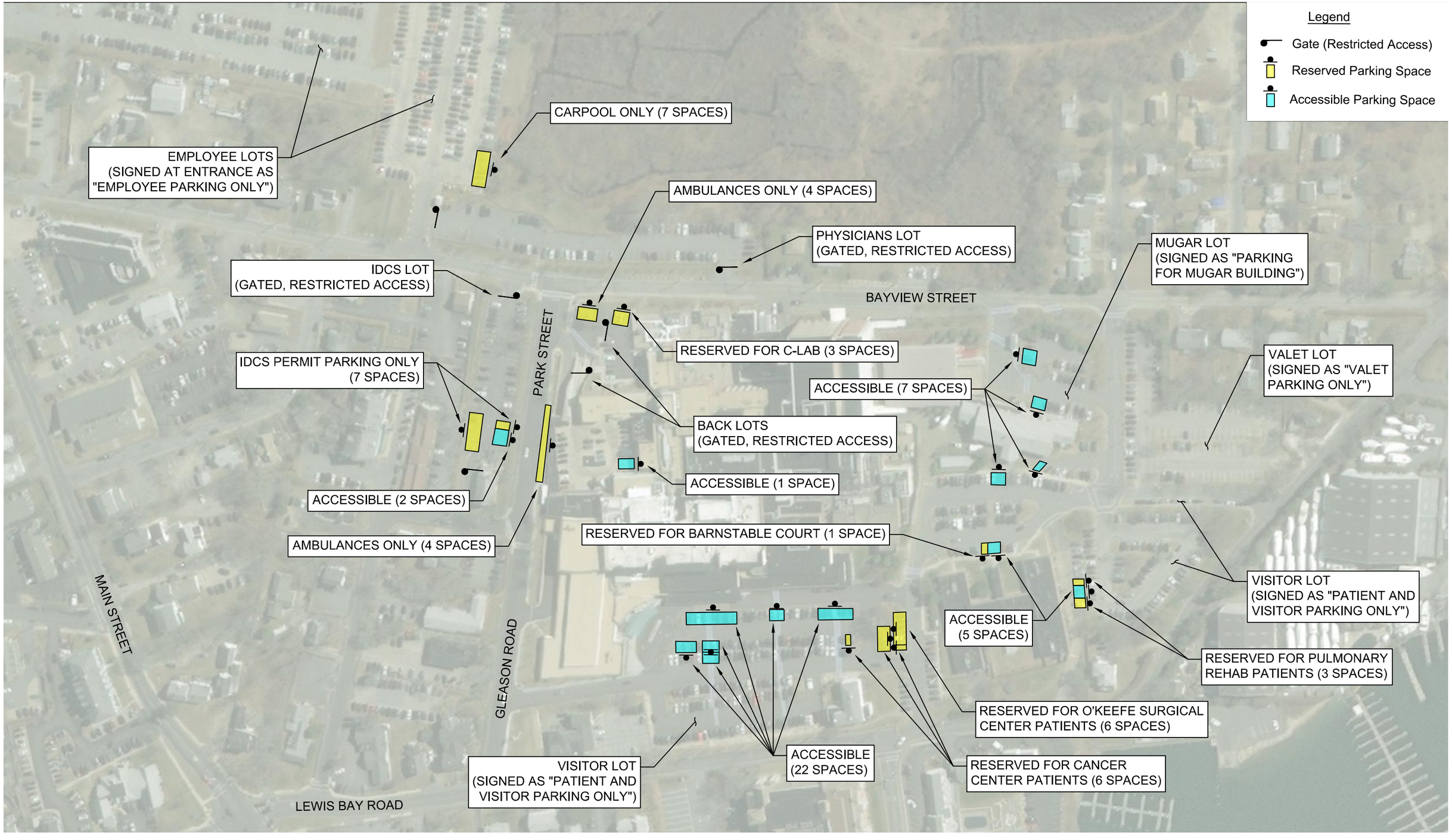
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YARMOUTHPORT MA 02675

DCE # 17-005

SHEET 2 OF 2

17-005 CCH 2019.dwg

\\vhb\gbl\proj\Wat-TS\14072.00\graphics\FIGURES\Signage Plan.dwg



0 75 150 Feet

Existing Parking Control and Signage
Project 2022
Hyannis, Massachusetts

13074_HD(COVER).DWG Plotted on 24-Apr-2019 8:52 AM

PLAN AND PROFILE OF

BAYVIEW STREET

IN THE TOWN OF

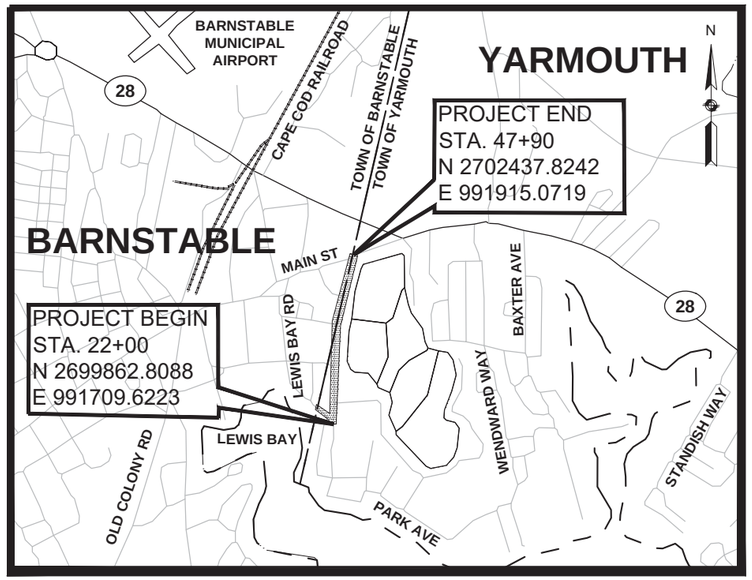
YARMOUTH/BARNSTABLE

BARNSTABLE COUNTY

THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED MARCH 1, 2019, THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH MASSACHUSETTS AMENDMENTS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, WILL GOVERN.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND & ABBREVIATIONS
3	KEY PLAN
4	TYPICAL SECTIONS & PAVEMENT NOTES
5-10	GENERAL PLANS
11-15	PROFILE
16-21	CURB TIE PLANS
22-27	SIGNING & STRIPING PLANS
28-31	TEMPORARY TRAFFIC CONTROL PLANS
32-33	CONSTRUCTION DETAILS
34	WHEELCHAIR RAMP DETAILS



0 1000 2000 3000 4000

SCALE: 1" = 1,000'

LENGTH OF PROJECT = 2590 FEET = 0.49 MILES

DESIGN DESIGNATION (BAYVIEW STREET)

DESIGN SPEED	35 MPH
FUNCTIONAL CLASSIFICATION	URBAN COLLECTOR

DATE	DESCRIPTION	REV #

ENGINEER DATE

Vanasse Hangen Brustlin, Inc.
101 Walnut St., PO Box 9151
Watertown, MA 02472
617.924.1770 FAX 617.924.2286

DESIGNED BY DJM/SJR	APPROVED BY SHK	SHEET 1 OF 34
DRAWN BY DJM/SJR	DFTG CHECKED BY SAG	VHB CAD FILE NAME 13074_HD(COVER).DWG
CHECKED BY LSA/RJM	DATE APRIL 22, 2019	JOB NO. 13074.00

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
	PB	PUSH BRACE POLE
		BUSH
SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
100 99		CONTOURS (ON-THE-GROUND SURVEY DATA)
100 99		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
x	x	CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT
		LIMIT OF GRADING

GENERAL ABBREVIATIONS

ABAN	ABANDON
ADJ	ADJUST
APPROX	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS / CONTINUED
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DIA	DIAMETER
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EXIST (or EX)	EXISTING
EXC	EXCAVATION
FDN.	FOUNDATION
FDP	FULL DEPTH PAVEMENT
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HWY	HIGHWAY
JCT	JUNCTION
L&S	LOAM AND SEED
LOAM	LOAM BORROW
LSA	LANDSCAPED AREA
LT	LEFT
MAHWL	MEAN AVERAGE HIGH WATER LINE
MAX	MAXIMUM
MB	MAILBOX
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
MOD	MODIFIED
MSE	MECHANICALLY STABILIZED EARTH
NERR	NEW ENGLAND RAILROAD
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
P.G.L.	PROFILE GRADE LINE
PREV	PREVIOUS/PREVIOUSLY
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PVMT	PAVEMENT
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RD	ROAD
RDWY	ROADWAY
REB	REBUILD
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SHLO/S.H.L.O.	STATE HIGHWAY LAYOUT LINE

GENERAL ABBREVIATIONS (CONT)

ST	STREET
STA	STATION
STD	STANDARD
SW	SIDEWALK
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TRANS	TRANSITION
TRM	TURF REINFORCING MAT
TYP	TYPICAL
VAR	VARIES
VERT	VERTICAL
WCR	WHEEL CHAIR RAMP
WP	WORKING POINT
X-SECT	CROSS SECTION

UTILITY ABBREVIATIONS

CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HDW	HEADWALL
HYD	HYDRANT
INV	INVERT
LB	LEACH BASIN
LP	LIGHT POLE
MH	MANHOLE
MW	MONITORING WELL
OHW	OVERHEAD WIRE
PVC	POLYVINYLCHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
SMH	SEWER MANHOLE
TSV&B	TAPPING SLEEVE VALVE & BOX
PB	PUSH BRACE POLE
UP	UTILITY POLE
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN

ALIGNMENT & GRADING ABBREVIATIONS

CC	CENTER OF CURVE
HP	HIGH POINT
I.T.	INTERSECTION OF TANGENT
LP	LOW POINT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PNT	POINT
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
∠PT	ANGLE POINT
R	RADIUS OF CURVATURE
T	TANGENT DISTANCE OF CURVE
TAN	TANGENT
25.45	SPOT ELEVATION

PROFILE ABBREVIATIONS

AD	ALGEBRAIC DIFFERENCE IN RATES OF GRADE
HSD	HORIZONTAL SIGHT DISTANCE
K	RATE OF VERTICAL CURVATURE
L	LENGTH OF CURVE
PVC	POINT OF VERTICAL CURVATURE
PVCC	POINT OF VERTICAL COMPOUND CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVRC	POINT OF VERTICAL REVERSE CURVATURE
PVT	POINT OF VERTICAL TANGENCY
SSD	STOPPING SIGHT DISTANCE
VC	VERTICAL CURVE

YARMOUTH/BARNSTABLE
BAYVIEW STREET
LEGEND & ABBREVIATIONS
SHEET 2 OF 34

GENERAL NOTES:

1. EXISTING CONDITIONS AND TOPOGRAPHICAL INFORMATION FROM AN ACTUAL FIELD SURVEY CONDUCTED BY VHB, INC. IN APRIL-MAY, 2015.
2. THE HORIZONTAL CONTROL IS BASED ON THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM AND THE NATIONAL GEODETIC SURVEY (NAD83). ALL ELEVATION IS US FEET, REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88).
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
5. DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.
6. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
7. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK.

CONTRACTOR PLEASE NOTE

8. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
9. EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS.
10. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
11. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
12. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
13. JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSANDED.
14. AFTER MILLING OPERATIONS AND PRIOR TO PAVING THE SUPERPAVE INTERMEDIATE OR SURFACES COURSES THE ENGINEER SHALL EVALUATE THE MILLED SURFACE AND SHALL APPLY THE APPROPRIATE REPAIR METHOD IF REQUIRED.
15. EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE STACKED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
16. IF SUITABLE, ALL EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
17. ALL EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
18. SHOULD ANY DAMAGE TO A BOUND RESULT FROM THE ACTIONS OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE THE BOUND REPLACED AND/OR REALIGNED BY A LICENSED PROFESSIONAL SURVEYOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
19. CONTRACTOR SHALL DELIVER ALL PAVEMENT MILLINGS TO THE TOWN OF BARNSTABLE INCLUDING MILLINGS FROM THE TOWN OF YARMOUTH.
20. DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.
21. LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF 0.01 FOOT PER FOOT (MINIMUM) UNLESS NOTED OTHERWISE ON THE PLANS.

13074_HD(LEG).DWG Plotted on 24-Apr-2019 8:52 AM

YARMOUTH/BARNSTABLE
BAYVIEW STREET
KEY PLAN
SHEET 3 OF 34

13974_HD(KEY).DWG Plotted on 24-Apr-2019 8:52 AM

N

LIMIT OF WORK
STA 22+00.00
N 2699862.8088
E 991709.6223

LIMIT OF WORK
STA 103+72.66
N 2700161.9004
E 991433.4003

LIMIT OF WORK
STA 47+90.00
N 2702437.8242
E 991915.0719

TOWN OF BARNSTABLE
TOWN OF YARMOUTH

WILLOW STREET
ALEX WAY
BAYVIEW STREET
NEWBURY STREET
CARLETON ROAD
ALBION ROAD
ROSSETTA STREET
TRENTON STREET
PARK STREET
PARKWAY PLACE
MAIN STREET

CONTINUED BELOW
CONTINUED ABOVE

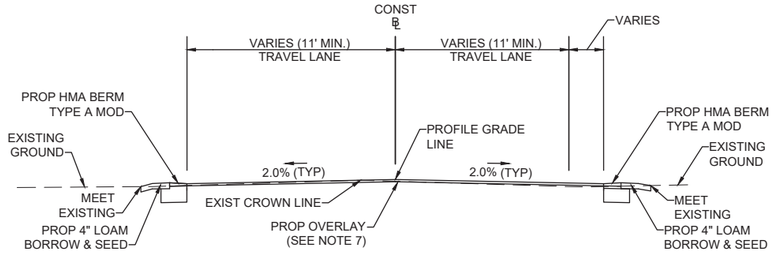
10 21 21
5 11 16 22
6 12 17 23
7 13 18 24
8 14 19 25
9 15 20 26

0 80 200 300
SCALE: 1" = 80'

LEGEND

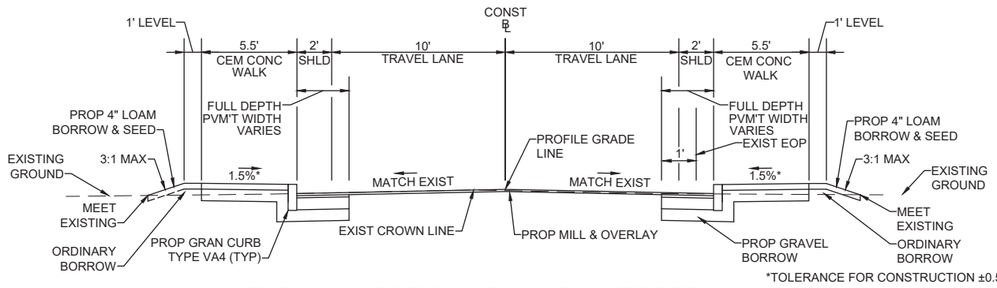
XX GENERAL PLANS
XX PROFILES
XX CURB TIE PLANS
XX SIGNING AND STRIPING PLANS

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TYPICAL SECTION - WILLOW STREET

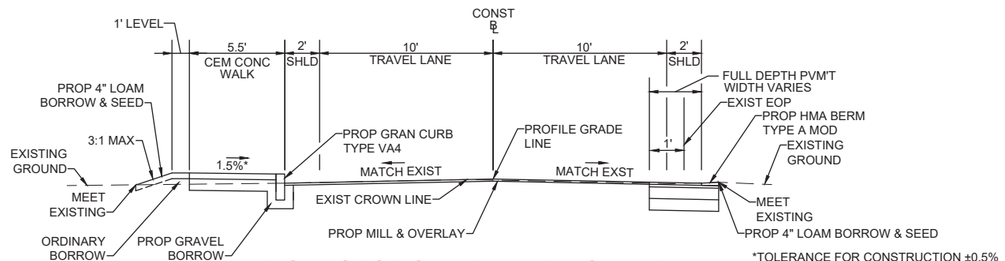
STA 100+46± TO STA 103+73±
NTS



*TOLERANCE FOR CONSTRUCTION ±0.5%

TYPICAL SECTION - BAYVIEW STREET

STA 34+00± TO STA 47+50±
NTS



*TOLERANCE FOR CONSTRUCTION ±0.5%

TYPICAL SECTION - BAYVIEW STREET

STA 22+00± TO STA 34+00±
NTS

PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT

SURFACE:	1.50"	HOT MIX ASPHALT SURFACE COURSE - 12.5 (SSC-12.5)
INTERMEDIATE:	1.75"	HOT MIX ASPHALT INTERMEDIATE COURSE - 19.0 (SIC-19.0)
BASE COURSE:	3.25"	HOT MIX ASPHALT BASE COURSE - 37.5 (SBC-37.5)
++SUBBASE:	12"	GRAVEL BORROW (TYPE b)

PROPOSED FULL DEPTH PAVEMENT LESS THAN 4.0' WIDE

SURFACE:	1.50"	HOT MIX ASPHALT SURFACE COURSE - 12.5 (SSC-12.5)
INTERMEDIATE:	1.75"	HOT MIX ASPHALT INTERMEDIATE COURSE - 19.0 (SIC-19.0)
BASE COURSE:	6"	HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE
++SUBBASE:	8"	GRAVEL BORROW (TYPE b)

PROPOSED PAVEMENT MICROMILLING AND OVERLAY (BAYVIEW STREET)

SURFACE:	1.50"	HOT MIX ASPHALT SURFACE COURSE - 12.5 (SSC-12.5)
MILLING:	1.5"	PAVEMENT MICROMILLING

PROPOSED PAVEMENT OVERLAY (WILLOW STREET)

SURFACE:	1.50"	HOT MIX ASPHALT SURFACE COURSE - 12.5 (SSC-12.5)

PROPOSED HOT MIX ASPHALT DRIVEWAY

SURFACE:	1.5"	HOT MIX ASPHALT SURFACE COURSE - 12.5 (SSC-12.5)
INTERMEDIATE:	1.75"	HOT MIX ASPHALT INTERMEDIATE COURSE - 19.0 (SIC-19.0)
++SUBBASE:	8"	GRAVEL BORROW (TYPE b)

PROPOSED CEMENT CONCRETE WHEELCHAIR RAMP/WALK

SURFACE:	4"	CEMENT CONCRETE AIR ENTRAINED 4000 PSI, ¾", 610
++SUBBASE:	8"	GRAVEL BORROW (TYPE b)

++ WHERE EXISTING GRAVEL IS FOUND TO BE SUITABLE, THE EXISTING GRAVEL MAY BE USED IN PROPOSED SUBBASE, AFTER APPROVAL BY THE ENGINEER.

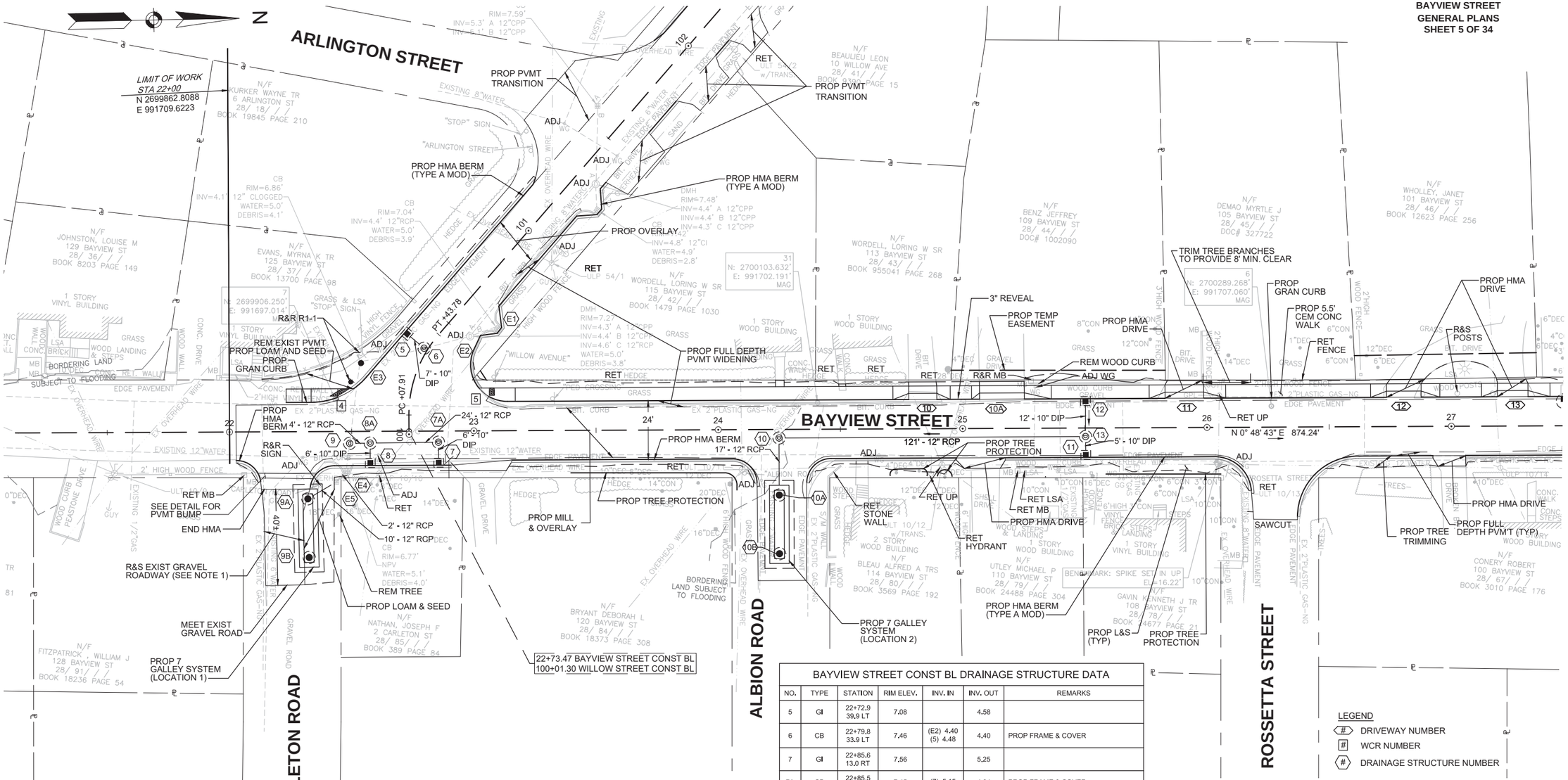
GENERAL NOTES:

1. ALL HOT MIX ASPHALT PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 450 QUALITY ASSURANCE FOR HMA.
2. ASPHALT EMULSION FOR TACK COAT (ITEM 452.) SHALL BE SPRAY APPLIED FOR DOUBLE OVERLAP COVERAGE AT 0.07 GAL/SY OVER MILLED SURFACES AND 0.05 GAL/SY OVER SMOOTH SURFACES.
3. HMA JOINT SEALANT (ITEM 453.) SHALL BE APPLIED IN SURFACE COURSE AT ALL VERTICAL COLD JOINTS PRIOR TO HMA PAVING.
4. ALL HOT MIX ASPHALT WALKS SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 702 OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
5. ALL HOT MIX ASPHALT DRIVEWAYS SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 703 OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
6. WHERE NECESSARY, CONTRACTOR SHALL VARY THE DEPTH OF MICROMILLING (1.5" MAX) AND TOP COURSE (1.5" MIN) TO MEET THE PROP CROWN LINE AND MATCH EXISTING CROSS SLOPES.
7. FOR WILLOW STREET, THE CONTRACTOR SHALL VARY THE DEPTH OF TOP COURSE (1.5" MIN) TO RECONSTRUCT THE NORMAL CROWN WITH 2% CROSS SLOPES.

13074_HD(CONST).DWG Plotted on 24-Apr-2019 8:53 AM

CONTINUED ON SHEET NO. 10

CONTINUED ON SHEET NO. 6



NOTES:

1. REMOVE AND STACK EXISTING GRAVEL ROADWAY MATERIAL. INSTALL GALLEY SYSTEM THEN REPLACE GRAVEL ROADWAY TO MATCH EXISTING DEPTH AND GRADE REUSING EXISTING GRAVEL MATERIAL.

BAYVIEW STREET CONST BL DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
5	GI	22+72.9 39.9 LT	7.08		4.58	
6	CB	22+79.8 33.9 LT	7.46	(E2) 4.40 (5) 4.48	4.40	PROP FRAME & COVER
7	GI	22+85.6 13.0 RT	7.56		5.25	
7A	CB	22+85.5 4.6 RT	7.45	(7) 5.15	4.34	PROP FRAME & COVER
8	GI	22+57.5 13.0 RT	7.16		4.66	
8A	CB	22+57.5 4.8 RT	7.21	(7A) 4.24 (8) 4.56	4.14	PROP FRAME & COVER
9	DMH	22+49.2 4.9 RT	7.17	(8A) 4.04 (E3) 4.03	4.03	
9A	DMH	22+31.9 27.5 RT	7.2±	(E5) 3.95		PROP 7 GALLEY SYSTEM
9B	DMH	22+32.4 51.5 RT	6.9±			PROP 7 GALLEY SYSTEM
E1	EX CB	23+09.8 41.7 LT	7.04		4.40	EXIST 600 GAL. LEACH BASIN
E2	EX DMH	22+98.7 38.7 LT	7.27	(E1) 4.40	4.60	
E3	CIT	22+54.0 28.0 LT	6.86	(6) 4.10	4.10	
E4	EX CB	22+47.8 16.1 RT	6.77	(9) 4.00	4.00	EXIST 600 GAL. LEACH BASIN
E5	EX CB	22+43.6 20.6 RT	7.27	(E4) 4.00	4.00	EXIST 600 GAL. LEACH BASIN

BAYVIEW STREET CONST BL DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
10	DMH	24+24.9 3.5 RT	10.97	(13) 4.00	3.25	
10A	DMH	24+24.9 26.9 RT	11.2±			PROP 7 GALLEY SYSTEM
10B	DMH	24+24.8 50.9 RT	12.1±			PROP 7 GALLEY SYSTEM
11	GICI	25+50.4 11.0 RT	13.77		11.27	
12	GICI	25+50.3 11.0 LT	13.60		11.10	
13	CB	25+50.3 3.5 RT	13.87	(11) 11.17 (12) 11.00	5.00	PROP FRAME & COVER

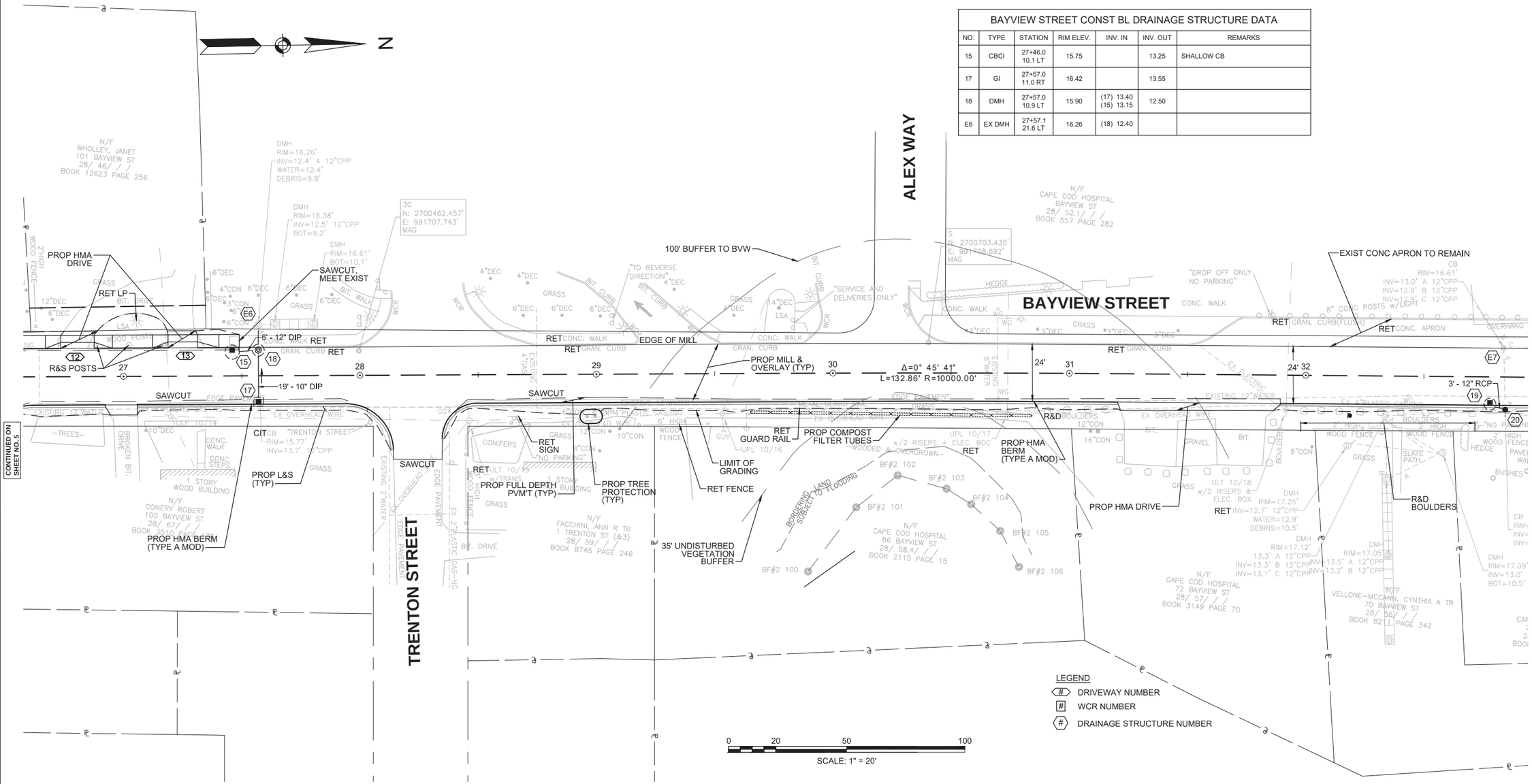
LEGEND
- (#) DRIVEWAY NUMBER
- [#] WCR NUMBER
- (#) DRAINAGE STRUCTURE NUMBER

FOR PROFILE:
SEE SHEET NO. 11

YARMOUTH/BARNSTABLE
BAYVIEW STREET
GENERAL PLANS
SHEET 6 OF 34

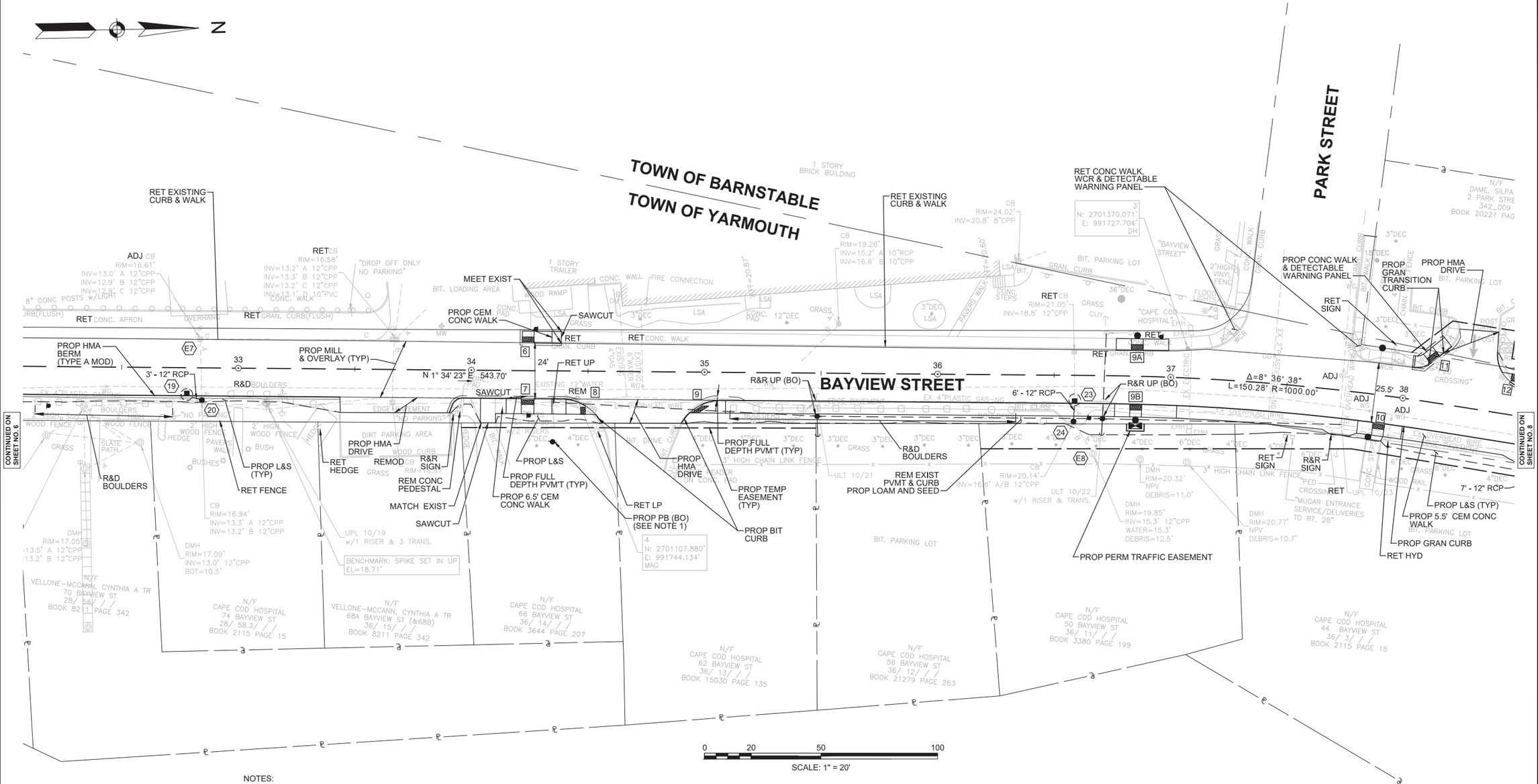
13074_HD(CONST).DWG Plotted on 24-Apr-2019 8:53 AM

BAYVIEW STREET CONST BL DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
15	CBCI	27+46.0 10.1 LT	15.75		13.25	SHALLOW CB
17	GI	27+57.0 11.0 RT	16.42		13.55	
18	DMH	27+57.0 10.9 LT	15.90	(17) 13.40 (15) 13.15	12.50	
E6	EX DMH	27+57.1 21.6 LT	16.26	(18) 12.40		



FOR PROFILE:
SEE SHEET NO. 12

13074_HD(CONST).DWG Plotted on 26-Apr-2019 3:01 PM



NOTES:

1. PUSH POLE LOCATION IS APPROXIMATE. EXACT LOCATION TO BE DETERMINED IN THE FIELD.

BAYVIEW STREET CONST BL DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
19	CBCI	32+78.0 11.9 RT	16.97		13.30	
20	CIT	32+84.5 13.8 RT	16.94	(E7) 13.30 (19) 13.20		PROP FRAME & COVER
E7	EX CB	32+83.6 12.2 LT	16.62		13.00	

BAYVIEW STREET CONST BL DRAINAGE STRUCTURE DATA

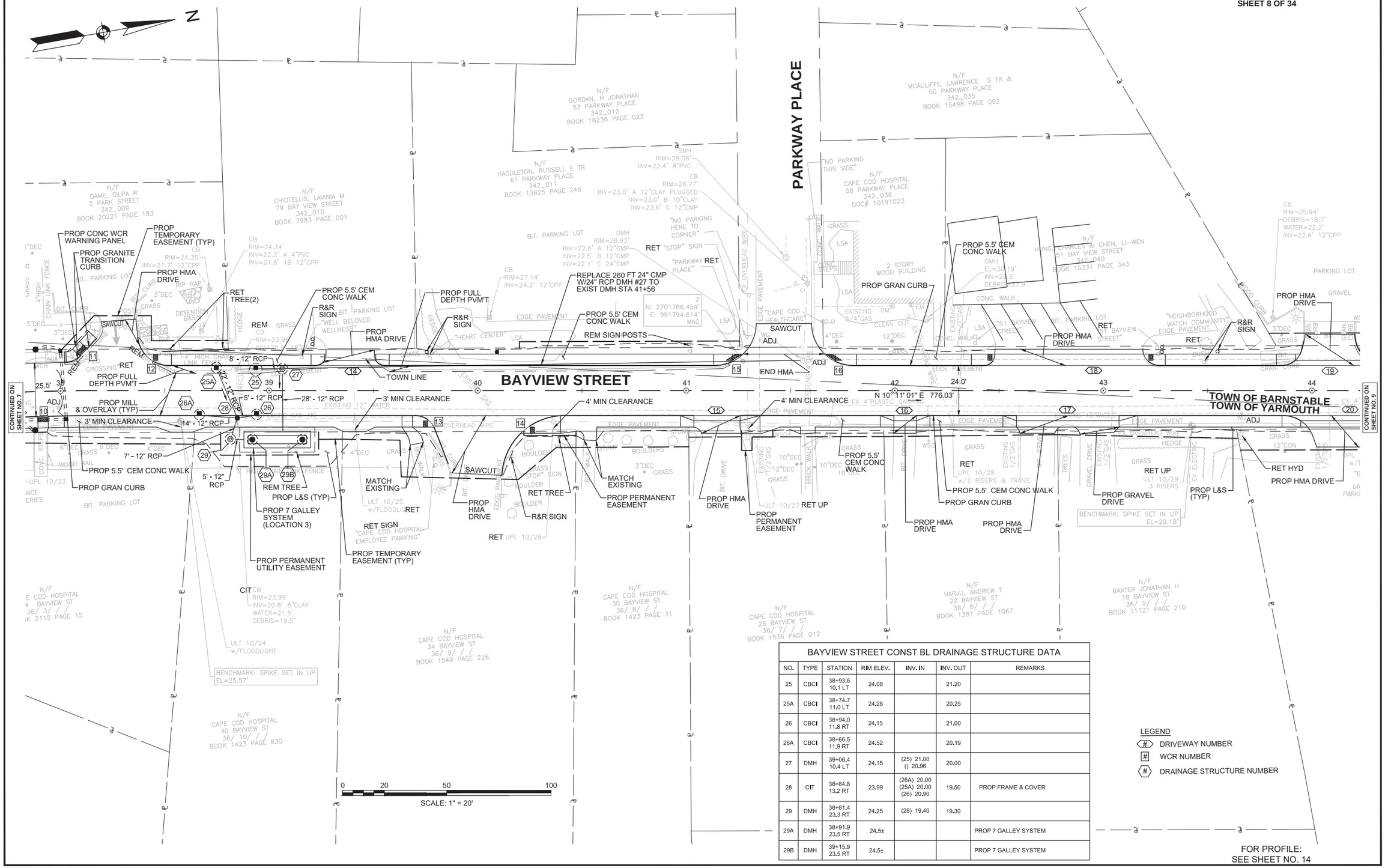
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
23	CBCI	36+58.9 10.1 RT	20.94		16.76	
24	CIT	36+58.4 19.8 RT	20.60	(23) 16.60	16.60	
E8	EX DMH	36+67.0 33.5 RT	19.85	(24) 15.30		

LEGEND
- ⟨#⟩ DRIVEWAY NUMBER
- [#] WCR NUMBER
- ⟨#⟩ DRAINAGE STRUCTURE NUMBER

FOR PROFILE:
SEE SHEET NO. 13

YARMOUTH/BARNSTABLE
BAYVIEW STREET
GENERAL PLANS
SHEET 8 OF 34

13074_HD(CONST).DWG Plotted on 24-Apr-2019 8:53 AM



BAYVIEW STREET CONST BL DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
25	CBCI	38+93.6 10.1 LT	24.08		21.20	
25A	CBCI	38+74.7 11.0 LT	24.28		20.25	
26	CBCI	38+94.0 11.8 RT	24.15		21.00	
26A	CBCI	38+66.5 11.9 RT	24.52		20.19	
27	DMH	39+06.4 10.4 LT	24.15	(25) 21.00 () 20.96	20.00	
28	CIT	38+84.8 13.2 RT	23.99	(26A) 20.00 (25A) 20.00 (26) 20.90	19.50	PROP FRAME & COVER
29	DMH	38+81.4 23.3 RT	24.25	(28) 19.40	19.30	
29A	DMH	38+91.9 23.5 RT	24.5±			PROP 7 GALLEY SYSTEM
29B	DMH	39+15.9 23.5 RT	24.5±			PROP 7 GALLEY SYSTEM

LEGEND
- (#) DRIVEWAY NUMBER
- [#] WCR NUMBER
- (#) DRAINAGE STRUCTURE NUMBER

FOR PROFILE: SEE SHEET NO. 14

YARMOUTH/BARNSTABLE
BAYVIEW STREET
GENERAL PLANS
SHEET 9 OF 34

13074_HD(CONST).DWG Plotted on 24-Apr-2019 8:53 AM

BAYVIEW STREET

CONTINUED ON SHEET NO. 8

TOWN OF BARNSTABLE
TOWN OF YARMOUTH

MAIN STREET

LIMIT OF WORK
STA 47+90
N 2702437.8242
E 991915.0719

N 6° 26' 31" E 239.14'

Δ=3° 44' 30"
L=65.30' R=1000.00'

PROP F&C
RIM=25.94'
DEBRIS=18.7'
WATER=22.2'
INV=22.6' 12"CPP

CIT CB
RIM=26.32'
INV=24.2' A 12"CMP
INV=24.2' B 6"CI
INV=24.2' C 6"CI
INV=24.2' D 12"CMP
INV=23.6' E 10"CMP

CB REM
RIM=26.34'
INV=24.4' 12"CMP

CB REMOD
RIM=26.15'
INV=24.2'± A/B 10"CMP CRUSHED
DEBRIS=21.5'
WATER=24.2'

CB REMOD
RIM=26.33'
DEBRIS=22.9'
WATER=24.5'
INV=24.6' 10"CMP

PROP HMA DRIVE
PROP MILL & OVERLAY
3" REVEAL
PROP GRAN CURB
PROP TEMPORARY EASEMENT (TYP)
PROP 5.5' CEM CONC WALK
PROP PERMANENT EASEMENT
PROP 5.5' CEM CONC WALK
PROP HMA DRIVE
PROP L&S (TYP)
PROP 5.5' CEM CONC WALK
PROP HMA DRIVE
PROP 5.5' CEM CONC WALK
PROP GRAN CURB
PROP TEMPORARY EASMENT (TYP)
PROP HMA DRIVE
PROP 5.5' CEM CONC WALK

MEET EXIST
MEET EXIST

RET
RET TREE
RET HYDRANT
RET UP
RET FENCE
RET SIGN
"CAPE COD HEALTHCARE CARDIOVASCULAR CENTER"
"CAPE COD HOSPITAL"
R&R SIGN
R&R SIGN (2)
"WELCOME TO BARNSTABLE"
"STOP" SIGN
"BAYVIEW STREET"
"HYANNIS MARINA"

4' - 12" DIP

SAWCUT LIMIT OF PAVING

N/F
MCAULIFFE, LAWRENCE S TR &
25 MAIN STREET (HYANNIS)
342_031
BOOK 13992 PAGE 343

N/F
SAGE, PAUL
14 MAIN STREET (HYANNIS)
342_029
BOOK 22086 PAGE 339

N/F
CONWAY, JOSEPH J & PATRICIA A
6 MAIN STREET (HYANNIS)
342_041
BOOK 4443 PAGE 006

N/F
CONWAY JOSEPH J MD
2 EAST MAIN ST
36/ 94/ / /
BOOK 4443 PAGE 6

N/F
CAPE COD HOSPITAL
4 BAYVIEW ST
36/ 93/ / /
BOOK 4094 PAGE 148

N/F
CAPE COD HOSPITAL
5 EAST MAIN ST
36/ 92/ / /
BOOK 21000 PAGE 292

N/F
BAXTER ELIZABETH F
10 BAYVIEW ST
36/ 4/ / /
BOOK 6396 PAGE 294

N/F
SOUSA JOSEPH J
6 EAST MAIN ST
36/ 95/ / /
BOOK 21628 PAGE 235

1
N: 2702448.750'
E: 991905.416'
MAG

BENCHMARK: SPIKE SET IN UP
EL=27.29'

CB
RIM=24.15'
NVP
DEBRIS=17.8'

CB
RIM=22.77'
NVP
DEBRIS=19.9'

ADJ 18
ADJ 17
ADJ

EX 4"PLASTIC GAS-NG
EX OVERHEAD WIRE
EXISTING 12"WATER
EXISTING 6"WATER
EX 6"PLASTIC GAS-NG

0 20 50 100
SCALE: 1" = 20'

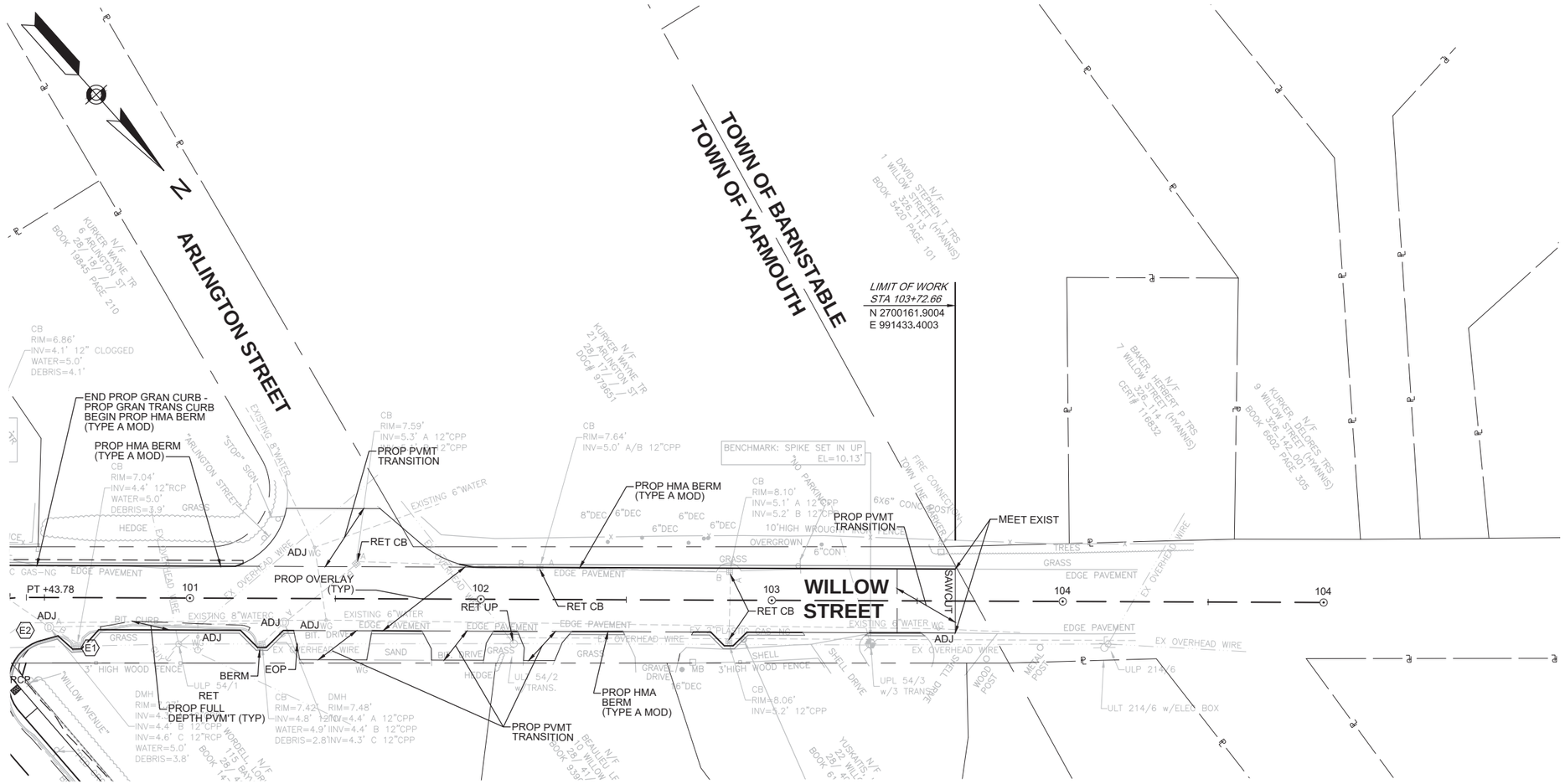
LEGEND
<20> DRIVEWAY NUMBER
[20] WCR NUMBER
<20> DRAINAGE STRUCTURE NUMBER

BAYVIEW STREET CONST BL DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
30	CBCI	44+90.4 11.0 LT	26.32		24.30	
31	CIT	44+84.2 15.0 LT	26.87	(30) 24.20		

FOR PROFILE:
SEE SHEET NO. 15

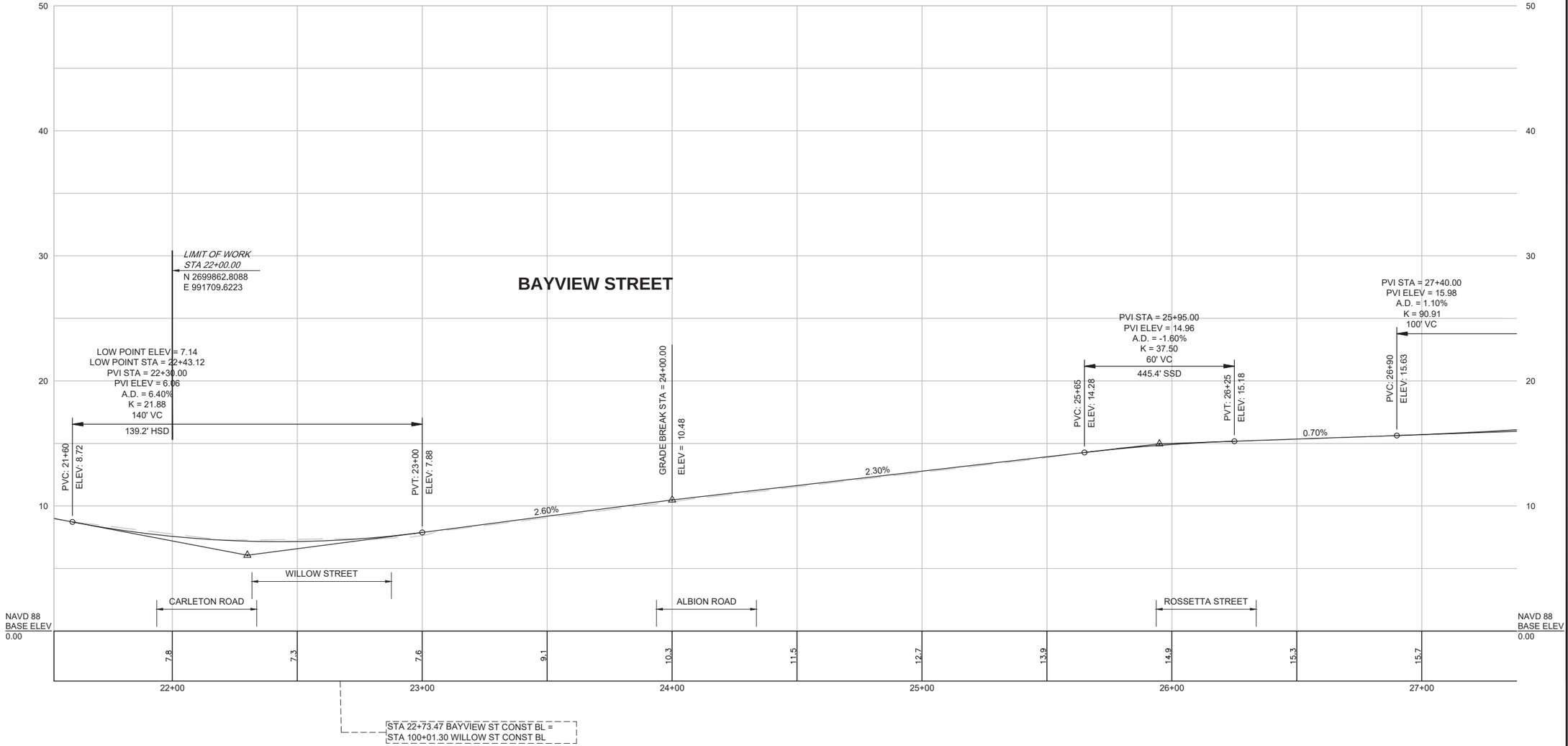
13074_HD(CONST).DWG Plotted on 24-Apr-2019 8:53 AM



BAYVIEW STREET CONST BL DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
E1	EX CB	23+09.8 41.7 LT	7.04		4.40	EXIST 600 GAL. LEACH BASIN
E2	EX DMH	22+98.7 38.7 LT	7.27	(E1) 4.40	4.60	

YARMOUTH/BARNSTABLE
BAYVIEW STREET
PROFILES
SHEET 11 OF 34

13074_HD(PROF).DWG Plotted on 24-Apr-2019 8:54 AM



CONTINUED ON SHEET NO. 12

STA 22+73.47 BAYVIEW ST CONST BL =
STA 100+01.30 WILLOW ST CONST BL

FOR CONSTRUCTION PLANS:
SEE SHEET NO. 5

HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

NOTE:

PROFILE FOR INFORMATIONAL PURPOSES ONLY. PROJECT IS A MILL & OVERLAY PROJECT AND PROFILE WILL FOLLOW EXISTING PROFILE.

YARMOUTH/BARNSTABLE
BAYVIEW STREET
PROFILES
SHEET 12 OF 34

CONTINUED ON SHEET NO. 11

CONTINUED ON SHEET NO. 13

BAYVIEW STREET

PVI STA = 27+40.00
PVI ELEV = 15.98
A.D. = 1.10%
K = 90.91
100' VC

PVC: 26+90
ELEV: 15.63

PVT: 27+90
ELEV: 16.88

1.80%

PVI STA = 28+54.00
PVI ELEV = 18.03
A.D. = -1.50%
K = 66.67
100' VC
493.1' SSD

PVC: 28+04
ELEV: 17.13

PVT: 29+04
ELEV: 18.18

0.30%

HIGH POINT ELEV = 18.70
HIGH POINT STA = 30+85.19
PVI STA = 31+10.00
PVI ELEV = 18.80
A.D. = -1.58%
K = 50.63
80' VC
460.6' SSD

PVC: 30+70
ELEV: 18.68

PVT: 31+50
ELEV: 18.29

-1.28%

LOW POINT ELEV = 17.13
LOW POINT STA = 32+81.01
PVI STA = 32+50.00
PVI ELEV = 17.01
A.D. = 1.58%
K = 63.29
100' VC

PVC: 32+00
ELEV: 17.65

50
40
30
20
10

TRENTON STREET

NAVD 88
BASE ELEV
0.00

15.7 16.2 17.0 17.7 18.1 18.3 18.5 18.6 18.7 18.3 17.7 17.2

27+00 28+00 29+00 30+00 31+00 32+00

FOR CONSTRUCTION PLANS:
SEE SHEET NO. 6

HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

NOTE:

PROFILE FOR INFORMATIONAL PURPOSES ONLY. PROJECT IS A MILL & OVERLAY PROJECT AND PROFILE WILL FOLLOW EXISTING PROFILE.

13074_HD(PROF).DWG Plotted on 24-Apr-2019 8:54 AM

YARMOUTH/BARNSTABLE
BAYVIEW STREET
PROFILES
SHEET 13 OF 34

13074_HD(PROF).DWG Plotted on 24-Apr-2019 8:54 AM

BAYVIEW STREET

CONTINUED ON SHEET NO. 12

= 17.13
32+81.01
50.00
7.01
%

PVT: 33+00
ELEV: 17.16

0.30%

LOW POINT ELEV = 17.64
LOW POINT STA = 34+60
PVI STA = 34+95.00
PVI ELEV = 17.74
A.D. = 1.30%
K = 53.85
70' VC
??? HSD

PVC: 34+60
ELEV: 17.64

PVT: 35+30
ELEV: 18.30

1.60%

PVI STA = 36+45.00
PVI ELEV = 20.14
A.D. = 3.30%
K = 54.55
180' VC
319.7' HSD

PVC: 35+55
ELEV: 18.70

PVC: 37+40
ELEV: 24.80

HIGH POINT ELEV = 25.93
HIGH POINT STA = 37+86.35
PVI STA = 37+75.00
PVI ELEV = 26.51
A.D. = -7.40%
K = 9.46
70' VC
124.8' SSD

PVT: 37+35
ELEV: 24.55

4.90%

PVC: 38+10
ELEV: 25.64

PVT: 38+10
ELEV: 25.64

-2.50%

LOW
LOW P
PV
P

CONTINUED ON SHEET NO. 14

50
40
30
20
10

CROSS WALK
CROSS WALK
PARK STREET
CROSS WALK

NAVD 88
BASE ELEV
0.00

17.2 17.1 17.3 17.4 17.6 17.9 18.6 19.7 21.0 22.9 25.2 25.9

33+00 34+00 35+00 36+00 37+00 38+00

HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

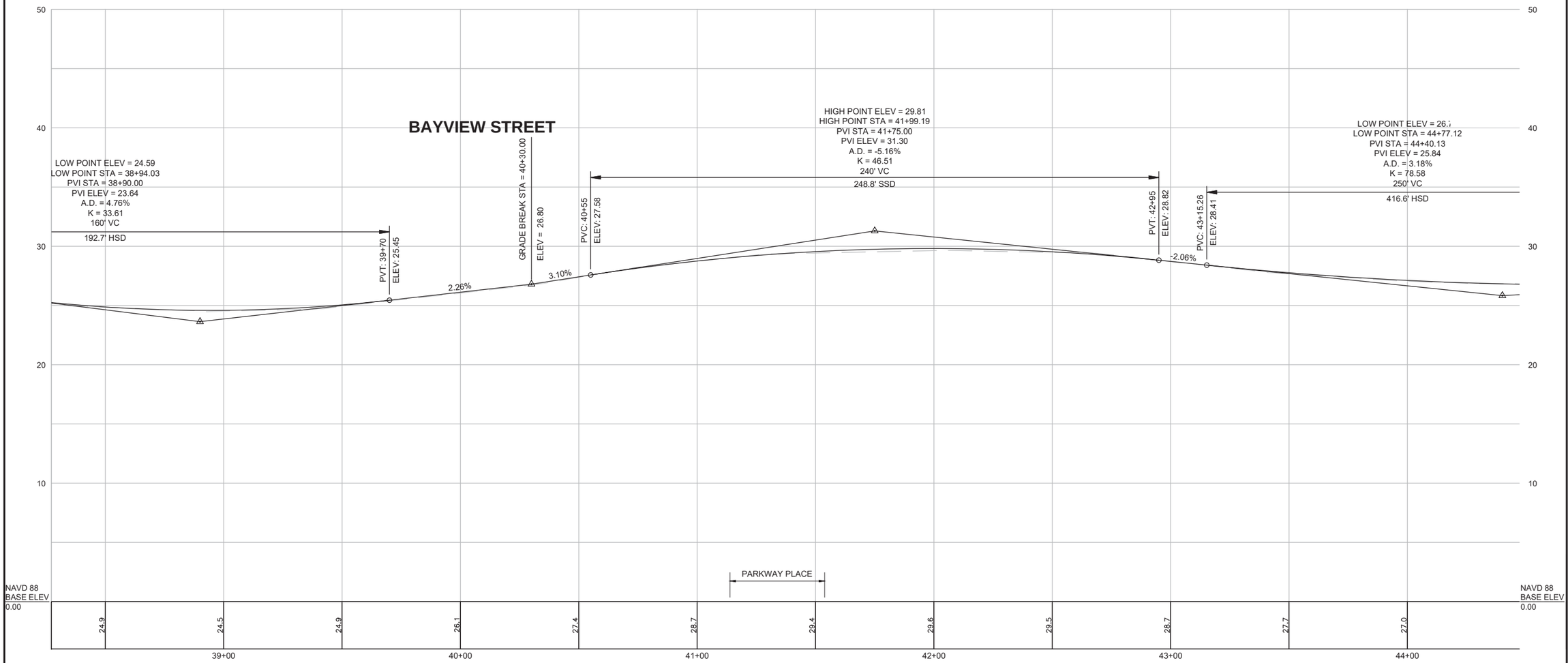
FOR CONSTRUCTION PLANS:
SEE SHEET NO. 7

NOTE:

PROFILE FOR INFORMATIONAL PURPOSES ONLY. PROJECT IS A MILL & OVERLAY PROJECT AND PROFILE WILL FOLLOW EXISTING PROFILE.

YARMOUTH/BARNSTABLE
BAYVIEW STREET
PROFILES
SHEET 14 OF 34

13074_HD(PROF).DWG Plotted on 24-Apr-2019 8:54 AM



CONTINUED ON SHEET NO. 13

CONTINUED ON SHEET NO. 15

HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

FOR CONSTRUCTION PLANS:
SEE SHEET NO. 8

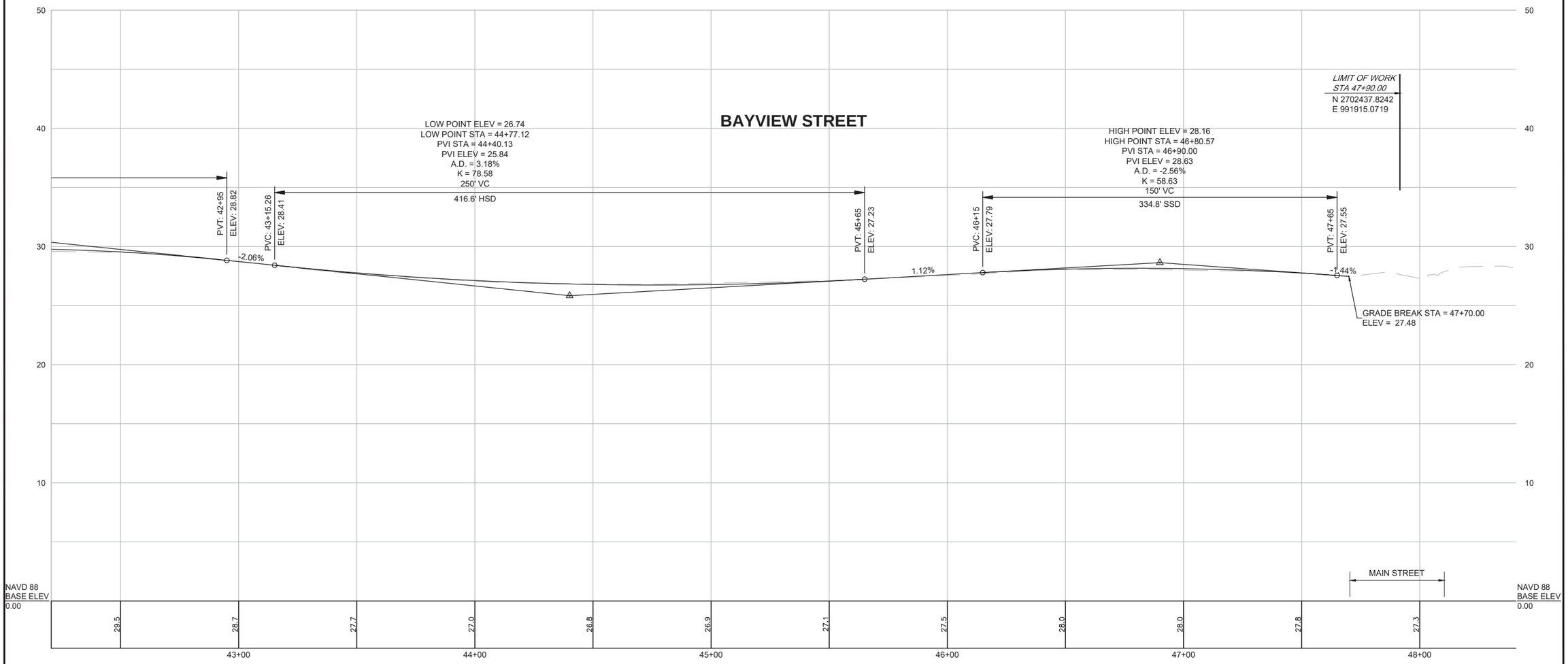
NOTE:

PROFILE FOR INFORMATIONAL PURPOSES ONLY. PROJECT IS A MILL & OVERLAY PROJECT AND PROFILE WILL FOLLOW EXISTING PROFILE.

YARMOUTH/BARNSTABLE
BAYVIEW STREET
PROFILES
SHEET 15 OF 34

13074_HD(PROF).DWG Plotted on 24-Apr-2019 8:54 AM

CONTINUED ON SHEET NO. 14



FOR CONSTRUCTION PLANS:
SEE SHEET NO. 9

HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

NOTE:

PROFILE FOR INFORMATIONAL PURPOSES ONLY. PROJECT IS A MILL & OVERLAY PROJECT AND PROFILE WILL FOLLOW EXISTING PROFILE.

YARMOUTH/BARNSTABLE
BAYVIEW STREET
CURB TIE PLANS
SHEET 16 OF 34

13074_HD(ALGN).DWG Plotted on 24-Apr-2019 8:54 AM

CONTINUED ON SHEET NO. 21

CONTINUED ON SHEET NO. 17

N

ARLINGTON STREET

WILLOW STREET

BAYVIEW STREET

CARLETON ROAD

ALBION ROAD

ROSSETTA STREET

LIMIT OF WORK
STA 22+00.00
N 2699862.8088
E 991709.6223

22+73.47 BAYVIEW STREET CONST BL =
100+01.30 WILLOW STREET CONST BL

N 0° 48' 43" E 874.24'

PT +18.27 | 22 | 23 | 24 | 25 | 26 | 27 | L4

12.00'

PC+02.71, 11.7' RT
PT+12.67, 20.5' RT
PC+42.89, 14.00' RT
PC+32.94, 23.0' RT
PT+19.35, 19.09' LT
PC+33.58, 12.00' LT
PT +43.78
PC+48.68, 14.87' RT
PT+13.79, 12.00' LT
PC +07.91
PT +10.10
PC+05.79, 12.00' RT
PT+15.79, 21.90' RT
PC+46.12, 12.00' RT
PC+36.12, 21.92' RT
PC+03.05, 12.00' RT
PT+18.01, 25.83' RT
PT+61.83, 12.00' RT
PC+36.84, 36.64' RT

MEET EXIST +31±, 63'± RT
MEET EXIST +15±, 63'± RT
MEET EXIST +16±, 62'± RT
MEET EXIST +36±, 62'± RT
MEET EXIST +19±, 38'± RT
MEET EXIST +37±, 38'± RT

BENCHMARK: SPIKE SET IN UP
EL=16.22'

CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
15	10.00	14.59	8.94	83° 34' 35"
16	10.00	14.72	9.06	84° 21' 54"
17	30.00	25.60	13.64	48° 54' 07"
18	15.00	30.17	23.66	115° 14' 45"
19	10.00	15.61	9.90	89° 26' 46"
20	10.00	15.63	9.92	89° 33' 46"
21	15.00	22.39	13.87	85° 31' 19"
22	25.00	38.91	24.65	89° 11' 11"

BAYVIEW STREET CONST BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	21+18.27	2699781.0866	991708.4643		N0°48'43"E 874.24'	29+92.51	2700655.2392	991720.8513

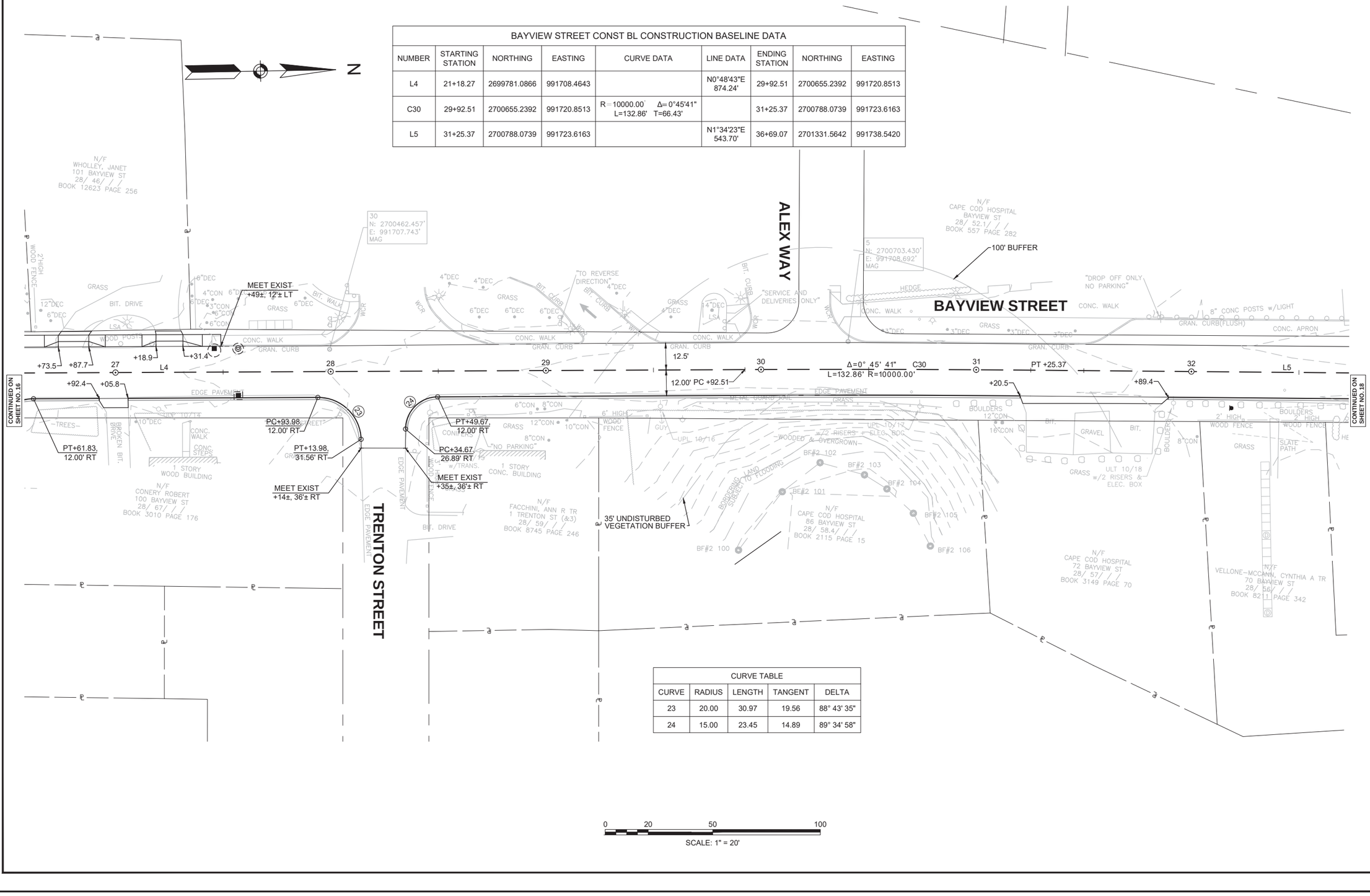
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SCALE: 1" = 20'

YARMOUTH/BARNSTABLE
BAYVIEW STREET
CURB TIE PLANS
SHEET 17 OF 34

Plotted on 24-Apr-2019 8:54 AM

13074_HD/ALGN.DWG

BAYVIEW STREET CONST BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	21+18.27	2699781.0866	991708.4643		N0°48'43"E 874.24'	29+92.51	2700655.2392	991720.8513
C30	29+92.51	2700655.2392	991720.8513	R=10000.00' Δ=0°45'41" L=132.86' T=66.43'		31+25.37	2700788.0739	991723.6163
L5	31+25.37	2700788.0739	991723.6163		N1°34'23"E 543.70'	36+69.07	2701331.5642	991738.5420

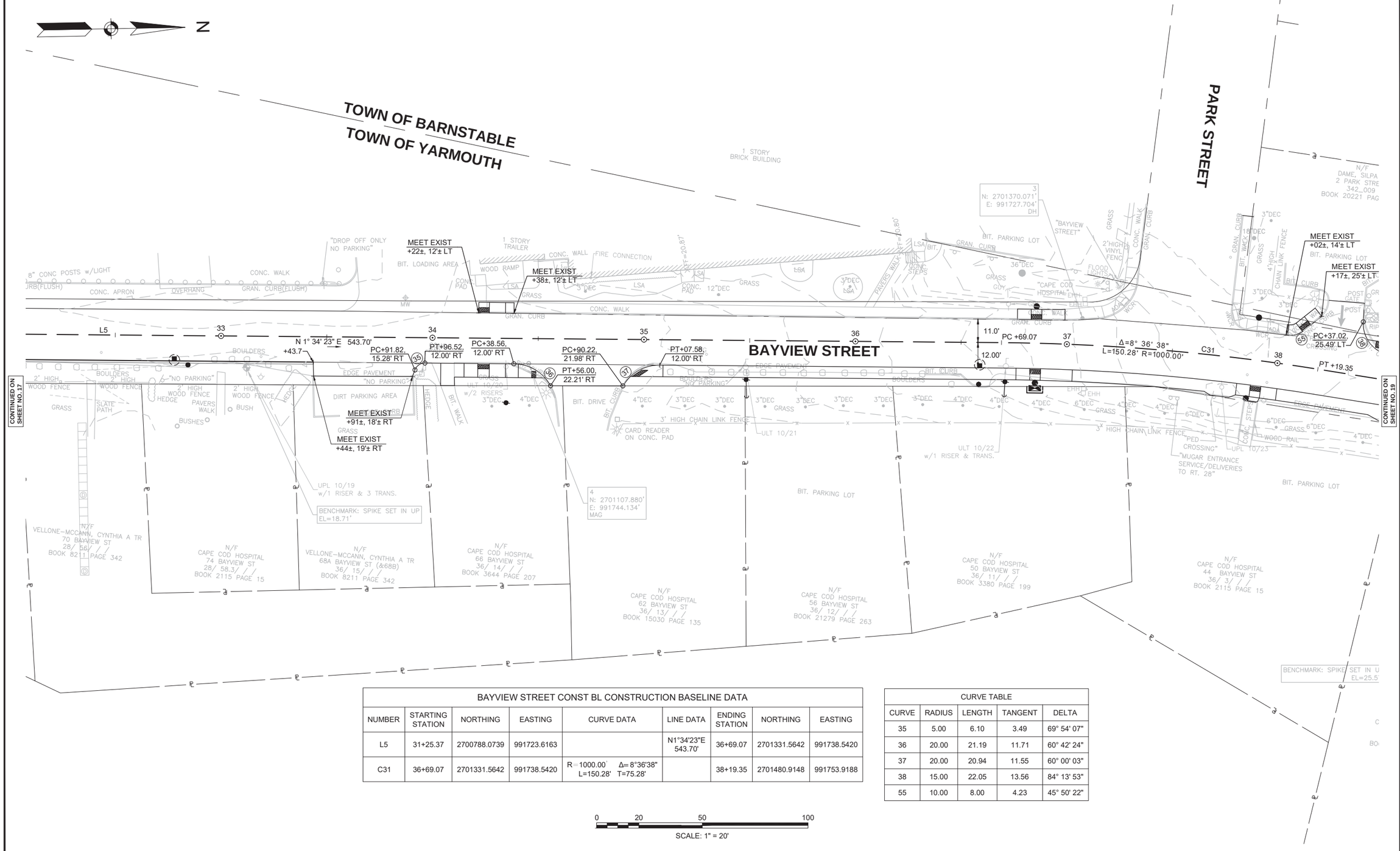


CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
23	20.00	30.97	19.56	88° 43' 35"
24	15.00	23.45	14.89	89° 34' 58"

0 20 50 100

SCALE: 1" = 20'

13074_HD/ALGN.DWG Plotted on 24-Apr-2019 8:54 AM



BAYVIEW STREET CONST BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L5	31+25.37	2700788.0739	991723.6163		N1°34'23"E 543.70'	36+69.07	2701331.5642	991738.5420
C31	36+69.07	2701331.5642	991738.5420	R=1000.00' Δ=8°36'38" L=150.28' T=75.28'		38+19.35	2701480.9148	991753.9188

CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
35	5.00	6.10	3.49	69° 54' 07"
36	20.00	21.19	11.71	60° 42' 24"
37	20.00	20.94	11.55	60° 00' 03"
38	15.00	22.05	13.56	84° 13' 53"
55	10.00	8.00	4.23	45° 50' 22"

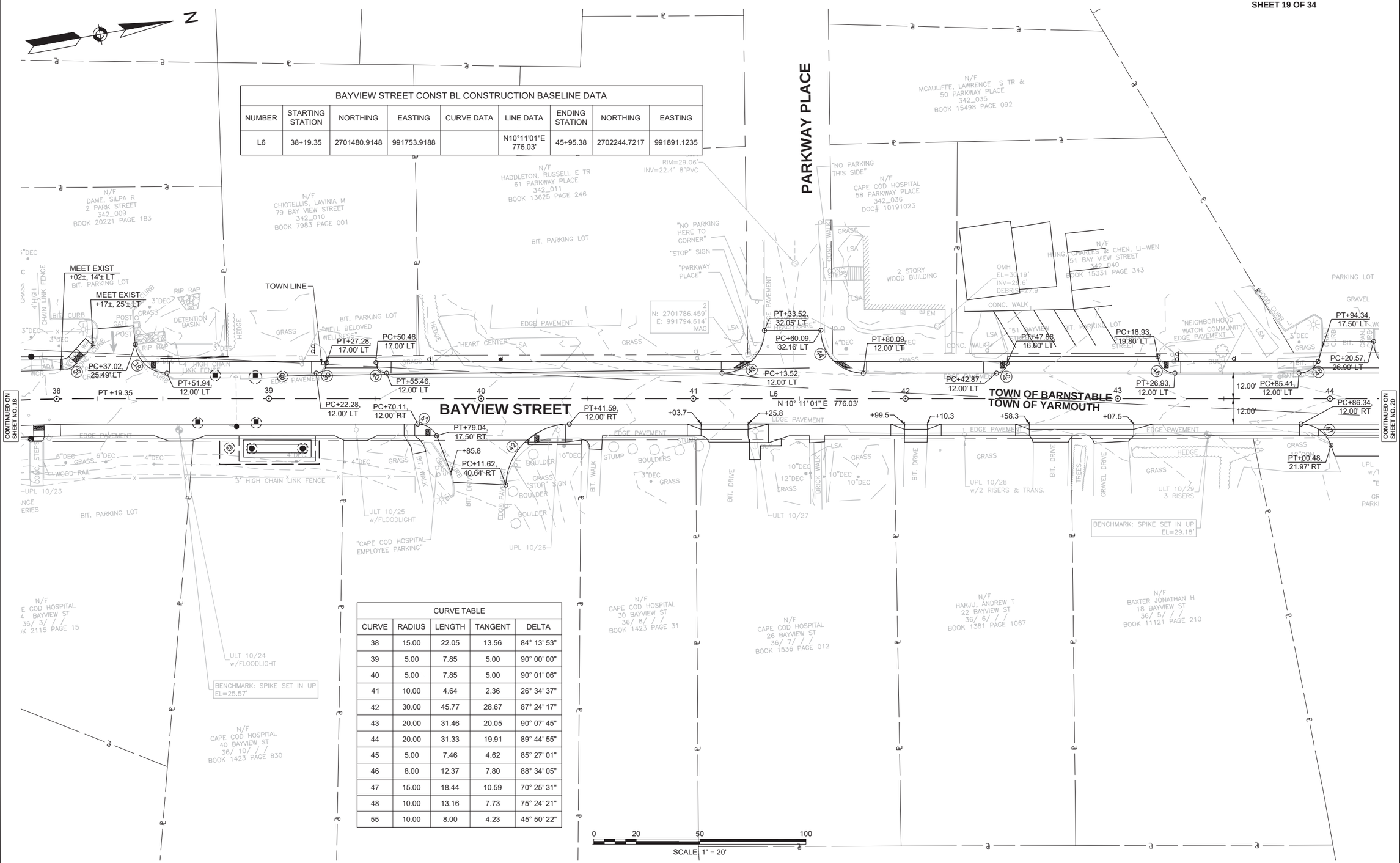
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SCALE: 1" = 20'

YARMOUTH/BARNSTABLE
BAYVIEW STREET
CURB TIE PLANS
SHEET 19 OF 34

13074_HDJALGN).DWG Plotted on 24-Apr-2019 8:54 AM

BAYVIEW STREET CONST BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L6	38+19.35	2701480.9148	991753.9188		N10°11'01"E 776.03'	45+95.38	2702244.7217	991891.1235



CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
38	15.00	22.05	13.56	84° 13' 53"
39	5.00	7.85	5.00	90° 00' 00"
40	5.00	7.85	5.00	90° 01' 06"
41	10.00	4.64	2.36	26° 34' 37"
42	30.00	45.77	28.67	87° 24' 17"
43	20.00	31.46	20.05	90° 07' 45"
44	20.00	31.33	19.91	89° 44' 55"
45	5.00	7.46	4.62	85° 27' 01"
46	8.00	12.37	7.80	88° 34' 05"
47	15.00	18.44	10.59	70° 25' 31"
48	10.00	13.16	7.73	75° 24' 21"
55	10.00	8.00	4.23	45° 50' 22"

YARMOUTH/BARNSTABLE
BAYVIEW STREET
CURB TIE PLANS
SHEET 20 OF 34

13074_HD/ALGN.DWG Plotted on 24-Apr-2019 8:54 AM

BAYVIEW STREET CONST BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L6	38+19.35	2701480.9148	991753.9188		N10°11'01"E 776.03'	45+95.38	2702244.7217	991891.1235
C32	45+95.38	2702244.7217	991891.1235	R=1000.00' Δ=3°44'30" L=65.30' T=32.66'		46+60.69	2702309.3263	991900.5631
L8	46+60.69	2702309.3263	991900.5631		N6°26'31"E 239.14'	48+99.83	2702546.9572	991927.3942

N

BAYVIEW STREET

LIMIT OF WORK
STA 47+90.00
N 2702437.8242
E 991915.0719

MEET EXIST
+43±, 54'± LT

MEET EXIST
+88±, 35'± RT

PT+94.34, 17.50' LT
PC+20.57, 26.00' LT
PT+35.57, 12.00' LT
PC+85.41, 12.00' LT
PC+86.34, 12.00' RT
PC+43.75, 14.00' RT
PT+47.75, 12.00' RT
PT+00.48, 21.97' RT
+38.3
PC+16.38, 12.00' LT
PT+26.61, 21.81' LT
PC+51.22, 22.59' LT
PC+23.22, 12.00' LT
PT+45.59, 48.15' LT
PT+61.42, 12.00' LT
PT +60.69
PC +95.38
Δ=3° 44' 30"
L=65.30' R=1000.00'
C32
PT+42.64, 12.00' RT
PC+62.01, 12.00' RT
+87.9
+99.8
PT+65.91, 16.90' RT
PC+37.90, 15.67' RT
PC+55.19, 12.00' RT
PT+86.44, 31.25' RT
N 6° 26' 31" E
239.14'
L8
48+99.83
BENCHMARK: SPIKE SET IN UP
EL=27.29'

CONTINUED ON SHEET NO.19

MAIN STREET

TOWN OF BARNSTABLE
TOWN OF YARMOUTH

CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
25	25.00	50.82	40.38	116° 28' 35"
26	35.00	38.64	21.55	63° 15' 14"
47	15.00	18.44	10.59	70° 25' 31"
48	10.00	13.16	7.73	75° 24' 21"
49	15.00	23.46	14.90	89° 36' 21"
50	5.00	4.64	2.50	53° 07' 48"
51	3.98	7.20	5.06	103° 39' 56"
52	10.00	15.57	9.87	89° 13' 53"
53	4.97	6.49	3.80	74° 49' 04"
54	10.00	16.35	10.66	93° 39' 32"

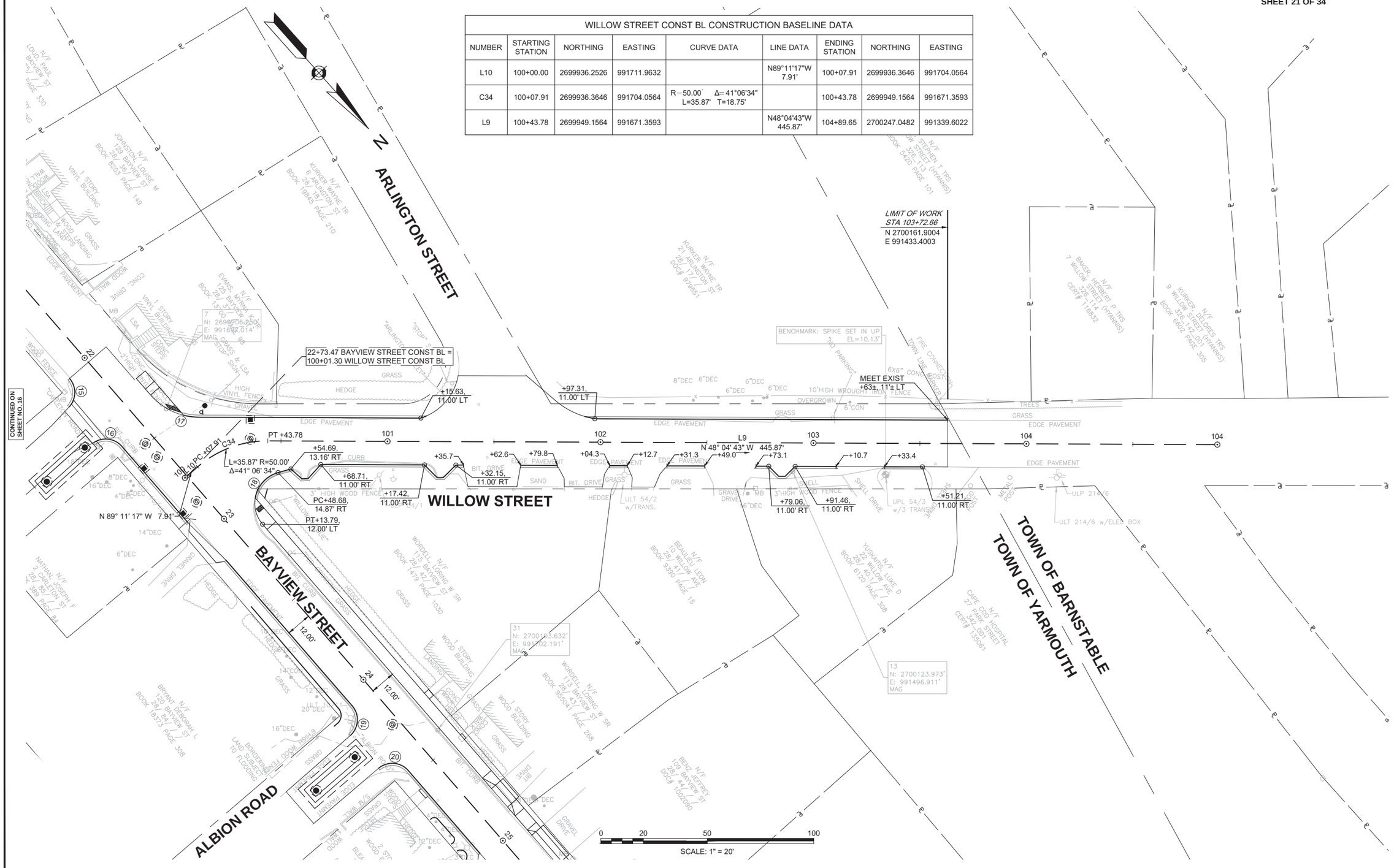
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SCALE: 1" = 20'

N/F SAGE, PAUL 14 MAIN STREET (HYANNIS) 342_029 BOOK 22086 PAGE 339
N/F CONWAY, JOSEPH J & PATRICIA A 6 MAIN STREET (HYANNIS) 342_041 BOOK 4443 PAGE 006
N/F CONWAY JOSEPH J MD 2 EAST MAIN ST 36/ 94/ / / BOOK 4443 PAGE 6
N/F SOUSA JOSEPH J 6 EAST MAIN ST 36/ 95/ / / BOOK 21628 PAGE 235
N/F CAPE COD HOSPITAL 4 BAYVIEW ST 36/ 93/ / / BOOK 4094 PAGE 148
N/F CAPE COD HOSPITAL 5 EAST MAIN ST 36/ 92/ / / BOOK 21000 PAGE 292
N/F BAXTER ELIZABETH F 10 BAYVIEW ST 36/ 47/ / / BOOK 6396 PAGE 294

YARMOUTH/BARNSTABLE
BAYVIEW STREET
CURB TIE PLANS
SHEET 21 OF 34

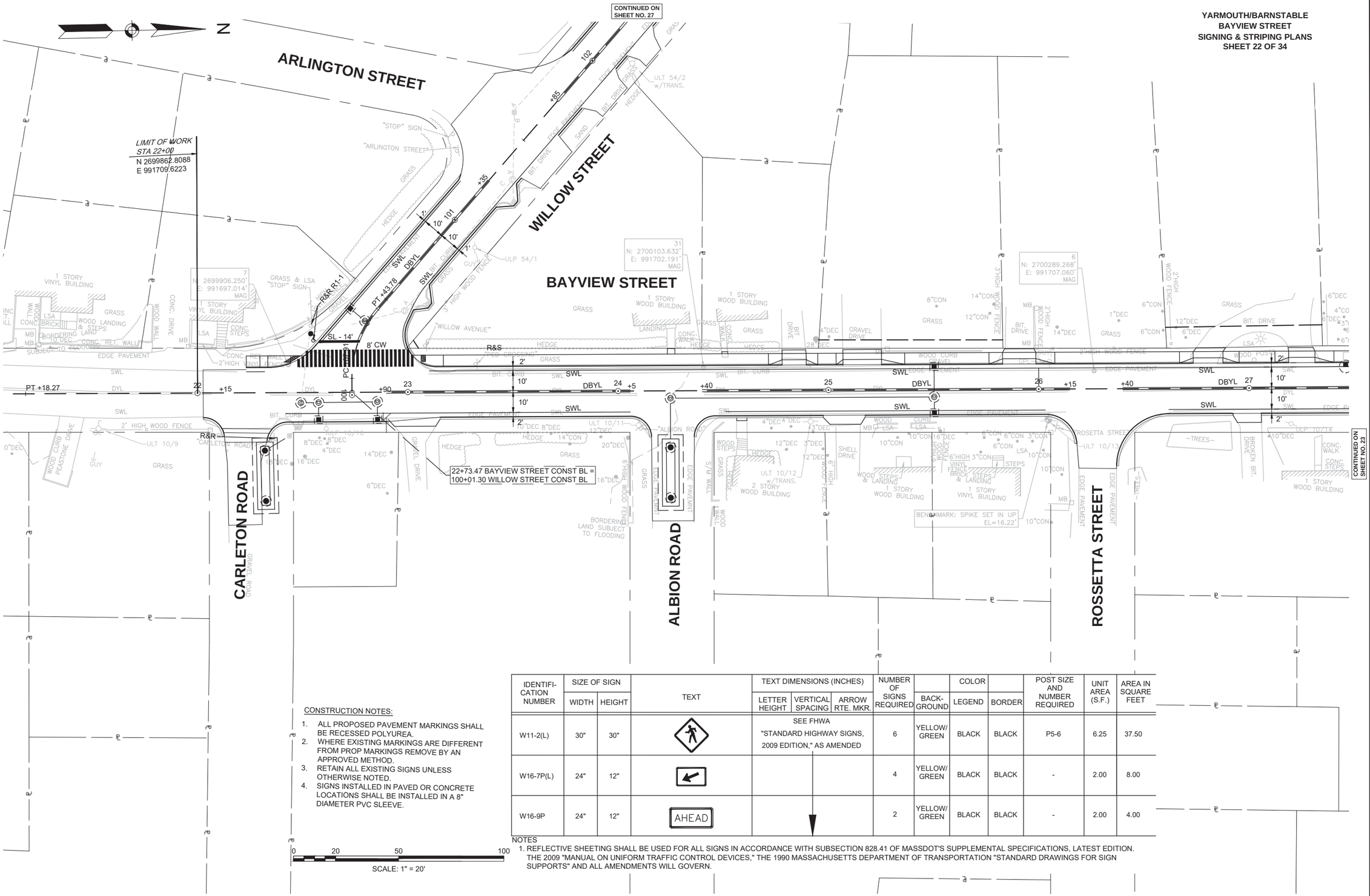
13074_HD(ALGN).DWG Plotted on 24-Apr-2019 8:54 AM

WILLOW STREET CONST BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	100+00.00	2699936.2526	991711.9632		N89°11'17"W 7.91'	100+07.91	2699936.3646	991704.0564
C34	100+07.91	2699936.3646	991704.0564	R=50.00' Δ=41°06'34" L=35.87' T=18.75'		100+43.78	2699949.1564	991671.3593
L9	100+43.78	2699949.1564	991671.3593		N48°04'43"W 445.87'	104+89.65	2700247.0482	991339.6022



YARMOUTH/BARNSTABLE
BAYVIEW STREET
SIGNING & STRIPING PLANS
SHEET 22 OF 34

13074_HD(STRP).DWG Plotted on 24-Apr-2019 8:55 AM



CONSTRUCTION NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE RECESSED POLYUREA.
2. WHERE EXISTING MARKINGS ARE DIFFERENT FROM PROP MARKINGS REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
4. SIGNS INSTALLED IN PAVED OR CONCRETE LOCATIONS SHALL BE INSTALLED IN A 8" DIAMETER PVC SLEEVE.

0 20 50 100
SCALE: 1" = 20'

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED		COLOR		POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
W11-2(L)	30"	30"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2009 EDITION," AS AMENDED			6	YELLOW/ GREEN	BLACK	BLACK	P5-6	6.25	37.50
W16-7P(L)	24"	12"					4	YELLOW/ GREEN	BLACK	BLACK	-	2.00	8.00
W16-9P	24"	12"	AHEAD				2	YELLOW/ GREEN	BLACK	BLACK	-	2.00	4.00

NOTES
1. REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS IN ACCORDANCE WITH SUBSECTION 828.41 OF MASSDOT'S SUPPLEMENTAL SPECIFICATIONS, LATEST EDITION. THE 2009 "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," THE 1990 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION "STANDARD DRAWINGS FOR SIGN SUPPORTS" AND ALL AMENDMENTS WILL GOVERN.

YARMOUTH/BARNSTABLE
BAYVIEW STREET
SIGNING & STRIPING PLANS
SHEET 23 OF 34

13074_HD(STRP).DWG Plotted on 24-Apr-2019 8:55 AM

N

ALEX WAY

BAYVIEW STREET

TRENTON STREET

30
N: 2700462.457'
E: 991707.743'
MAG

5
N: 2700703.430'
E: 991708.692'
MAG

PC +92.51

PT +25.37

"TO REVERSE DIRECTION"

"SERVICE AND DELIVERIES ONLY"

"DROP OFF ONLY NO PARKING"

"NO PARKING"

W11-2
W16-9P

CONTINUED ON SHEET NO.22

CONTINUED ON SHEET NO.24

CONSTRUCTION NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE RECESSED POLYUREA.
2. WHERE EXISTING MARKINGS ARE DIFFERENT FROM PROP MARKINGS REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
4. SIGNS INSTALLED IN PAVED OR CONCRETE LOCATIONS SHALL BE INSTALLED IN A 8" DIAMETER PVC SLEEVE.

0 20 50 100

SCALE: 1" = 20'

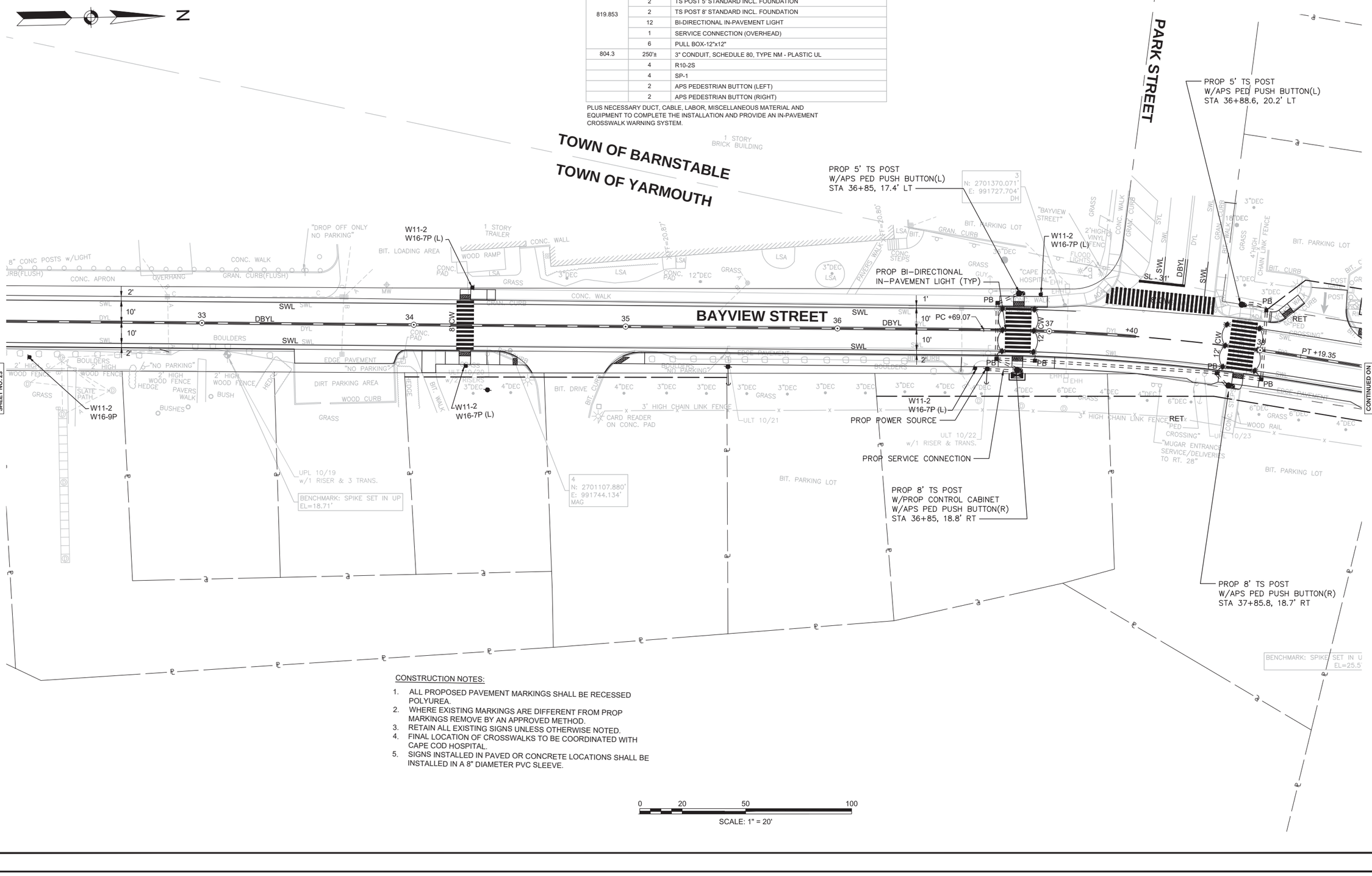
13074_HD(STRP).DWG Plotted on 24-Apr-2019 8:55 AM

LIST OF MAJOR ITEMS REQUIRED

BAYVIEW STREET AT PARK STREET

PAY ITEM	QUANTITY	DESCRIPTION
819.853	1	CONTROLLER UNIT WITH POST MOUNTED CABINET
	2	TS POST 5' STANDARD INCL. FOUNDATION
	2	TS POST 8' STANDARD INCL. FOUNDATION
	12	BI-DIRECTIONAL IN-PAVEMENT LIGHT
	1	SERVICE CONNECTION (OVERHEAD)
	6	PULL BOX-12"x12"
804.3	250'±	3" CONDUIT, SCHEDULE 80, TYPE NM - PLASTIC UL
	4	R10-2S
	4	SP-1
	2	APS PEDESTRIAN BUTTON (LEFT)
	2	APS PEDESTRIAN BUTTON (RIGHT)

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN IN-PAVEMENT CROSSWALK WARNING SYSTEM.



CONSTRUCTION NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE RECESSED POLYUREA.
2. WHERE EXISTING MARKINGS ARE DIFFERENT FROM PROP MARKINGS REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
4. FINAL LOCATION OF CROSSWALKS TO BE COORDINATED WITH CAPE COD HOSPITAL.
5. SIGNS INSTALLED IN PAVED OR CONCRETE LOCATIONS SHALL BE INSTALLED IN A 8" DIAMETER PVC SLEEVE.

0 20 50 100

SCALE: 1" = 20'

YARMOUTH/BARNSTABLE
BAYVIEW STREET
SIGNING & STRIPING PLANS
SHEET 25 OF 34

13074_HD(STRP).DWG Plotted on 24-Apr-2019 8:55 AM

N

BAYVIEW STREET

PARKWAY PLACE

PT +19.35

CONTINUED ON SHEET NO.24

CONTINUED ON SHEET NO.26

"NO PARKING THIS SIDE"

"NO PARKING HERE TO CORNER"

"STOP" SIGN

"PARKWAY PLACE"

"CAPE COD HEALTHCARE"

"CAPE COD HOSPITAL EMPLOYEE PARKING"

"HEART CENTER"

"WELL BELOVED WELLNESS"

"NEIGHBORHOOD WATCH COMMUNITY"

"51 BAYVIEW STREET"

W11-2
W16-9P

SMH
RIM=29.06'
INV=22.4' 8"PVC

2
N: 2701786.459'
E: 991794.614'
MAG

2 STORY WOOD BUILDING

BIT. PARKING LOT

GRAVEL

CONC. WALK

EDGE PAVEMENT

SL - 16'

SL - 14'

8' CW

DBYL

SWL

DYL

BENCHMARK: SPIKE SET IN UP
EL=25.57'

BENCHMARK: SPIKE SET IN UP
EL=29.18'

ULT 10/24
w/FLOODLIGHT

ULT 10/25
w/FLOODLIGHT

ULT 10/26

ULT 10/27

UPL 10/23

UPL 10/28
w/2 RISERS & TRANS.

ULT 10/29
3 RISERS

CONSTRUCTION NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE RECESSED POLYUREA.
2. WHERE EXISTING MARKINGS ARE DIFFERENT FROM PROP MARKINGS REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
4. SIGNS INSTALLED IN PAVED OR CONCRETE LOCATIONS SHALL BE INSTALLED IN A 8" DIAMETER PVC SLEEVE.

0 20 50 100

SCALE: 1" = 20'

YARMOUTH/BARNSTABLE
BAYVIEW STREET
SIGNING & STRIPING PLANS
SHEET 26 OF 34

13074_HD(STRP).DWG Plotted on 24-Apr-2019 8:55 AM

N

BAYVIEW STREET

MAIN STREET

TOWN OF BARNSTABLE
TOWN OF YARMOUTH

LIMIT OF WORK
STA 47+90.00
N 2702437.8242
E 991915.0719

1
N: 2702448.750'
E: 991905.416'
MAG

BENCHMARK: SPIKE SET IN UP
EL=27.29'

PC +95.38
PT +60.69

R&R
R&R "STOP" SIGN
R&R "BAYVIEW STREET"

"NO PARKING"

"CAPE COD HEALTHCARE CARDIOVASCULAR CENTER"

"CAPE COD HOSPITAL"

"CAPE COD HEALTHCARE"

"HYANNIS MARINA"

"WELCOME TO BARNSTABLE"

"BAXTER"

PARKING LOT
GRAVEL
GRAVEL PARKING LOT
GRAVEL DRIVE
BIT. DRIVE
BIT. PARKING LOT

WOOD CURB
GRAN. CURB
GRAN. EDGE
CONC. CURB
CONC. WALK
BIT. CURB
BIT. WALK
EDGE PAVEMENT
SWL
DBYL
DYL
LSA
GRASS
BUSH
SHRUBS
MARKER
GUY
EHH
MB
SMH
RIM=28.39
INV=21.6" 8"PVC

2' HIGH WOOD FENCE
2-4' HIGH WOOD FENCE

UPL 10/30 w/TRANS.
UPL 10/31 w/2 RISERS
UPL 59/1
UPL 1532/1 w/4 RISERS & 3 TRANS.
ULT 37/5 w/TRANS.
ULT 37/6 w/4 RISERS

36"DEC STONE WALL
STONE WALL
12"DEC
3"DEC
4"DEC
6"DEC
10"DEC
14"DEC
16"DEC
18"CON
12"CON
14"CON
10"CON
38"CON
6"CON
8"CON

8' CW

44
45
46
47
48

10'
2'

CONTINUED ON SHEET NO.25

CONSTRUCTION NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE RECESSED POLYUREA.
2. WHERE EXISTING MARKINGS ARE DIFFERENT FROM PROP MARKINGS REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
4. SIGNS INSTALLED IN PAVED OR CONCRETE LOCATIONS SHALL BE INSTALLED IN A 8" DIAMETER PVC SLEEVE.

0 20 50 100
SCALE: 1" = 20'

13074_HD(STRP).DWG Plotted on 24-Apr-2019 8:55 AM

CONTINUED ON SHEET NO.22

ARLINGTON STREET

WILLOW STREET

BAYVIEW STREET

TOWN OF BARNSTABLE

TOWN OF YARMOUTH

LIMIT OF WORK
STA 103+72.66
N 2700161.9004
E 991433.4003

BENCHMARK: SPIKE SET IN UP
EL=10.13'

MEET EXISTING MARKINGS

EP +89.65

PT +43.78

SCALE: 1" = 20'

CONSTRUCTION NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE RECESSED POLYUREA.
2. WHERE EXISTING MARKINGS ARE DIFFERENT FROM PROP MARKINGS REMOVE BY AN APPROVED METHOD.
3. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
4. SIGNS INSTALLED IN PAVED OR CONCRETE LOCATIONS SHALL BE INSTALLED IN A 8" DIAMETER PVC SLEEVE.

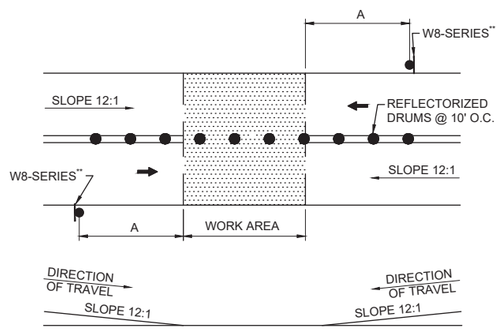
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TEMPORARY TRAFFIC CONTROL GENERAL NOTES

1. ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED, THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWIRE (MASH).
2. CONTRACTOR SHALL SCHEDULE WEEKLY MEETING WITH TOWN OF BARNSTABLE, TOWN OF YARMOUTH, CAPE COD HOSPITAL REPRESENTATIVES, AND THE ENGINEER TO COORDINATE CONSTRUCTION STAGING, WORK HOURS, AND ANY REQUIRED DETOURS. CHANGES WILL NOT BE MADE WITHOUT PRIOR APPROVAL FROM THE TOWN.
3. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS.
4. WORK HOURS SHALL BE 7AM TO 3PM UNLESS OTHERWISE APPROVED BY THE TOWNS OF YARMOUTH AND BARNSTABLE. NO WORK IMPACTING THE PUBLIC WAY WILL BE ALLOWED DURING PEAK PERIODS (MONDAY THRU FRIDAY, 7AM-9AM AND 3PM-6PM). NO WORK SHALL BE PERFORMED IN THE VICINITY OF THE CAPE COD HOSPITAL DURING SHIFT CHANGES. CONTRACTOR SHALL COORDINATE ALL WORK HOURS WITH TOWNS OF BARNSTABLE AND YARMOUTH AND THE CAPE COD HOSPITAL.
5. NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY STARTING ON THE FRIDAY BEFORE MEMORIAL DAY UNTIL AFTER LABOR DAY OR ON STATE RECOGNIZED HOLIDAYS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. ALL DRUMS OUTSIDE TAPERS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
7. REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
8. CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
9. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
10. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OR RESTRICTION OF ACCESS.
11. FOR DROP-OFFS 4" OR LESS WITHIN THE CLEAR ZONE, CONDITION MAY BE MITIGATED WITH W8-9 (LOW SHOULDER) SIGN OR TEMPORARY CHANNELIZATION DEVICES. FOR DROP-OFFS GREATER THAN 4" BUT NO MORE THAN 12", DETERMINE WHETHER IT IS MORE COST EFFECTIVE TO INSTALL BOTH TEMPORARY CHANNELIZATION DEVICES AND A 1V:4H (MIN) TO 1V:6H (DESIRED) WEDGE OR TO SHIELD IT.
12. CONTRACTOR SHALL STAGE WORK SUCH THAT A DROP-OFF OF NO MORE THAN 12" AT THE END OF EACH WORK DAY EXISTS WITHIN THE CLEAR ZONE AT ANY TIME AND ENSURE DROP-FF IS MITIGATED WITHOUT BARRIER PER NOTE 11.
13. CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:
    - 4' IF POSTED SPEED IS LESS THAN 35 MPH
    - 8' IF POSTED SPEED IS 35 MPH
    - 15' IF POSTED SPEED IS 40 MPH
    - 20' IF POSTED SPEED IS 45 MPH
14. 10' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
15. NON-ESSENTIAL TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
16. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
17. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
18. SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN.
19. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN NCHRP 350 AND/OR MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD.
20. W20-1c OR MA-R2-10a SIGNS SHOWN ON ADVANCE SIGN SCHEMATIC MAY BE USED IN LIEU OF THOSE SIGNS SHOWN ON TYPICAL DETAILS IF MINIMUM SIGN SPACING IS MET.
21. MA-W20-7b SIGNS SHALL BE REPLACED BY W20-7 SIGNS WHEN FLAGGERS ARE USED IN LIEU OF POLICE OFFICER DETAILS.
22. W21-7 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF AREAS WHERE UTILITY CASTINGS HAVE BEEN RAISED IN ADVANCE OF PAVING OPERATIONS OR AS REQUESTED BY THE ENGINEER.
23. W8-15 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF PAVEMENT MILLING AREAS OR AS REQUESTED BY THE ENGINEER.
24. TEMPORARY MARKINGS SHALL BE WATER-BORNE PAINT OR SURFACE-APPLIED REMOVEBLE TAPE, AS APPROVED BY THE ENGINEER.
25. ALL TEMPORARY DOUBLE YELLOW LINES (DBYL) SHALL BE 6 INCHES WIDE.
26. CONTRACTOR SHALL SECURE WORK AREAS TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
27. THERE IS NO DESIGNATED BICYCLE LANE ON THE ROADWAY WITHIN THE PROJECT LIMITS. BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC.
28. CONTRACTOR TO COORDINATE WITH CAPE COD HOSPITAL WITH REGARDS TO PATIENT PICK UP/ DROP-OFF, SERVICE DELIVERIES, LOADING DOCKS, PEDESTRIAN ACCOMMODATION DURING CONSTRUCTION PRIOR TO START OF ANY WORK ON BAYVIEW STREET.
29. CONTRACTOR TO COORDINATE WITH CAPE COD REGIONAL TRANSIT AUTHORITY REGARDING BUSING OPERATIONS TO/FROM CAPE COD HOSPITAL DURING CONSTRUCTION A MINIMUM OF 14 DAYS PRIOR TO START OF ANY WORK.
30. CONTRACTOR TO MAINTAIN EXIST SIDEWALK BETWEEN MAIN STREET AND TRENTON ST AT ALL TIMES UNTIL ALL PROPOSED SIDEWALKS ON EAST SIDE OF BAYVIEW STREET HAVE BEEN FULLY CONSTRUCTED IN THIS AREA. CONTRACTOR SHALL DETOUR PEDESTRIANS TO NEW EASTERN SIDEWALK USING PEDESTRIAN BYPASS TYPE II DETAIL PRIOR TO CONSTRUCTION OF PROPOSED WEST SIDE SIDEWALK.

SUGGESTED CONSTRUCTION STAGING

1. CONSTRUCT UNDERGROUND DRAINAGE STRUCTURES.
2. CONSTRUCT FULL DEPTH PAVEMENT, HMA BERM, POROUS HMA WALK ON THE EAST SIDE OF BAYVIEW STREET.
3. CONSTRUCT FULL DEPTH PAVEMENT, POROUS HMA WALK, GRANITE CURB ON THE WEST SIDE OF BAYVIEW STREET.
4. MILL & OVERLAY BAYVIEW STREET AND INSTALL FINAL SIGNING AND PAVEMENT MARKINGS WITHIN THE PROJECT LIMITS.

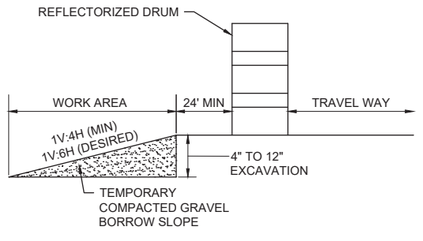


NOTES:
1. SQUARE OFF THE FULL WIDTH OF THE ROADWAY AT THE END OF WORK DAY
2. ** CONTRACTOR SHALL INSTALL W8-1, W8-3, OR W8-8 SIGN, AS APPROPRIATE, ON ALL ROADWAYS IN ADVANCE OF THE TRANSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

LEGEND	
	FLAGGER
	POLICE OFFICER
	REFLECTORIZED DRUM
	TEMPORARY CONSTRUCTION SIGN
	TYPE III BARRICADE
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRAFFIC FLOW
NTS	NOT TO SCALE

TEMPORARY PAVEMENT TRANSITION

SCALE: NTS



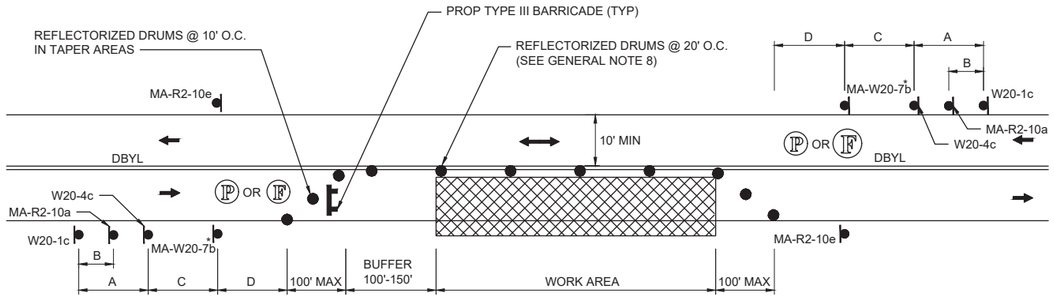
NOTE:
1. CONTRACTOR SHALL INSTALL W8-9 SIGN ON ALL ROADWAYS 350 FT IN ADVANCE OF THE START OF DROP-OFF CONDITION.

TYPICAL ROADWAY DROP-OFF PROTECTION

SCALE: N.T.S.

ADVANCE SIGN SPACING				
	DISTANCE BETWEEN SIGNS (FEET)			
ROADWAY	A	B	C	D
BAYVIEW ST & MAIN ST	350	150	350	350
ALL OTHER ROADWAYS	100	50	100	100

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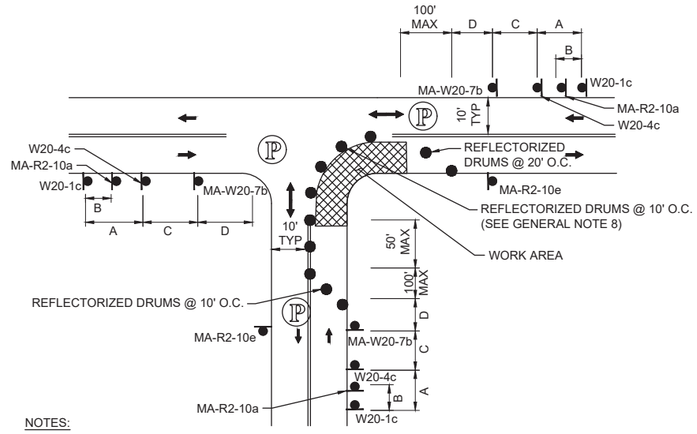


NOTES:

1. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 28.
2. * SEE GENERAL NOTE 21 ON SHEET 28.

TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

SCALE: NTS

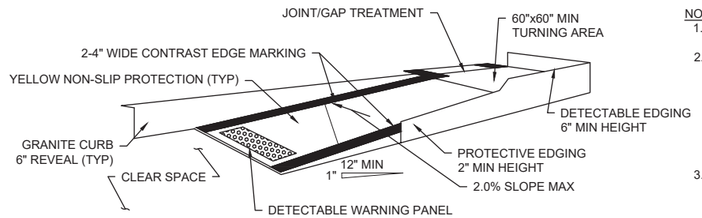


NOTES:

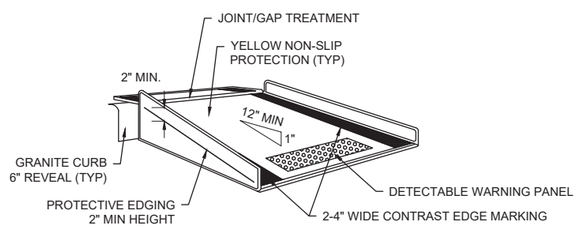
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 28.

ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTION

SCALE: NTS



TEMPORARY CURB RAMP-PARALLEL TO CURB



TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

NOTES:

1. CURB RAMPS SHALL BE 60" MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2" MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
5. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
6. CLEAR SPACE OF 48"x48" MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5" LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25" HIGH, AND BEVELED AT 1:2 BETWEEN 0.25" AND 0.5" HEIGHT.
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.

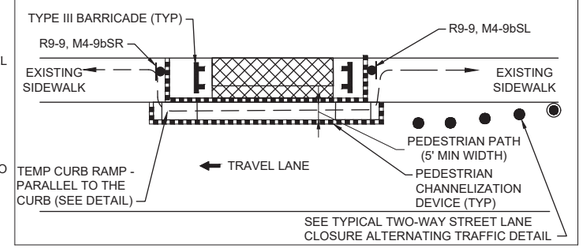
TEMPORARY CURB RAMPS

SCALE: NTS

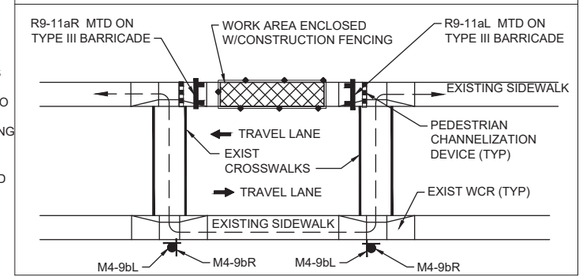
NOTES:

1. ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY AS DETERMINED BY THE ENGINEER.
2. CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. ◄— — ► INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
5. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, THE APPROPRIATE SIGNS SHALL BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AT EXISTING OR TEMPORARY CROSSWALKS AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER.
6. PROPOSED TEMPORARY CROSSWALKS SHALL BE 12" WIDE SURFACE APPLIED TAPE OR REFLECTORIZED PAINT AS DIRECTED BY THE ENGINEER.
7. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MAAB AND ADAAG REQUIREMENTS AND INCLUDE THE USE OF A COMPLIANT TEMPORARY PEDESTRIAN MANAGEMENT GUIDANCE SYSTEM AT ALL TIMES.
8. CONTRACTOR SHALL MAINTAIN AS WIDE OF A PEDESTRIAN ACCESS AS POSSIBLE AT ALL TIMES. EXCEPT WHERE NECESSARY, THE CONTRACTOR MAY TEMPORARILY REDUCE PEDESTRIAN PATHWAYS TO 4 FEET IN WIDTH (EXCLUDING CURB) FOR NO MORE THAN 200 LINEAR FEET AT A TIME IN ACCORDANCE WITH ALL STANDARDS. A 5' x 5' PASSING AREA SHALL BE PROVIDED IN INTERVALS NOT EXCEEDING 200 FEET.
9. TEMPORARY WHEELCHAIR RAMPS IF NEEDED SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT, MAAB, AND ADAAG REQUIREMENTS.

PEDESTRIAN BYPASS TYPE I



PEDESTRIAN BYPASS TYPE II



PEDESTRIAN BYPASS DETAIL

SCALE: NTS

YARMOUTH/BARNSTABLE
BAYVIEW STREET
TEMPORARY TRAFFIC CONTROL PLANS
SHEET 30 OF 34

13074-HD_TTCP_ADV_SIGN.DWG 24-Apr-2019

ADVANCE SIGN SCHEMATIC
N.T.S.
SIGNS TO BE INSTALLED AT THE PROJECT LIMITS AS SHOWN.
ALL ADVANCE SIGNS TO BE IN PLACE FOR THE DURATION OF THE PROJECT.

PCMS #1 & #2 MESSAGE TEXT

14 DAYS PRIOR TO START OF WORK	BAYVIEW ST ROAD WORK	BEGINS XX/XX/XX
7 DAYS DURING CONSTRUCTION	BAYVIEW ST ROAD WORK	AHEAD USE CAUTION

PCMS #3 MESSAGE TEXT

14 DAYS PRIOR TO START OF WORK	ROAD WORK BEGINS	XX/XX/XX USE CAUTION
7 DAYS DURING CONSTRUCTION	ROAD WORK AHEAD	USE CAUTION

PCMS NOTES:

1. PCMS SHALL BE INSTALLED WITHIN THE EXISTING RIGHT-OF-WAY (ROW) OFF THE ROADWAY AT APPROX. LOCATIONS SHOWN OR AS DIRECTED BY THE TOWN. PCMS SHALL NOT BLOCK EXIST SIDEWALK.
2. DATE AND TIMES ON PCMS MESSAGING SHALL BE COORDINATED WITH THE TOWN.
3. CONTRACTOR SHALL PROVIDE PCMS A MINIMUM OF 14 DAYS PRIOR TO START OF CONSTRUCTION OR AS DIRECTED BY THE TOWN.
4. CONTRACTOR SHALL REMOVE ALL PCMS SHOWN 7 DAYS AFTER START OF CONSTRUCTION OR AS DIRECTED BY THE TOWN.

BAYVIEW BEACH
RAILWAY BLUFF
ARLINGTON ST
LIMIT OF WORK
LIMIT OF WORK
BARNSTABLE
YARMOUTH
ALEX WAY
BAYVIEW ST
BAYVIEW ST
NEWBURY ST
CARLETON RD
ALBION RD
ROSETTA ST
TRENTON ST
WINDMILL LN
SOMERSET ST
HIGHLAND ST
PARK AVE
SOUTH ST
SCHOOL ST
MAIN ST
CAMP ST
LEWIS BAY RD
W20-1c
MA-R2-10e
MA-R2-10a
100'
50'
JEFFREY WAY
QUINLAN WAY
WILLOW ST
CAPE COD HOSPITAL
GLEASON ST
PARK ST
CEDAR ST
PARKWAY PL
PCMS #1 (LOCATED APPROXIMATELY 500' WEST OF BAYVIEW ST AT PARKWAY PL INTERSECTION)
PCMS #3
PCMS #2 (LOCATED APPROXIMATELY 400' EAST OF BAYVIEW ST AT SPEEDWAY GAS STATION EASTERN DRIVEWAY)
350'
150'

NOTES:

1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. SEE GENERAL NOTE 20 ON SHEET 28.

0 125 250 375 500
SCALE: 1" = 125'

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TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER
MA-R2-10a	48"	36"	WORK ZONE / SPEEDING FINES DOUBLED	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK
MA-R2-10e	36"	48"	END ROAD WORK / DOUBLE FINES END				FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK
R9-9	24"	12"	SIDEWALK CLOSED	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK
R9-11aL	24"	12"	SIDEWALK CLOSED ← CROSS HERE				WHITE	BLACK	BLACK
R9-11aR	24"	12"	SIDEWALK CLOSED → CROSS HERE				WHITE	BLACK	BLACK
W8-1	36"	36"	BUMP				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-3	36"	36"	PAVEMENT ENDS				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-8	36"	36"	ROUGH ROAD				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-9	36"	36"	LOW SHOULDER				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-15	36"	36"	GROOVED PAVEMENT				FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-1c	36"	36"	ROAD WORK AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-4c	36"	36"	ONE LANE ROAD AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK

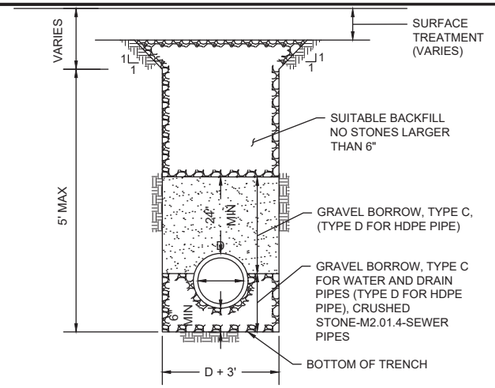
NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
2. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY (CONTINUED)

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER
W20-7	36"	36"	↑ ↓	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK
W21-7	36"	36"	UTILITY WORK AHEAD	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bL	30"	24"	DETOUR ←				FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bR	30"	24"	DETOUR →				FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bSL	30"	24"	DETOUR ↖				FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bSR	30"	24"	DETOUR ↗				FLUOR-ESCENT ORANGE	BLACK	BLACK

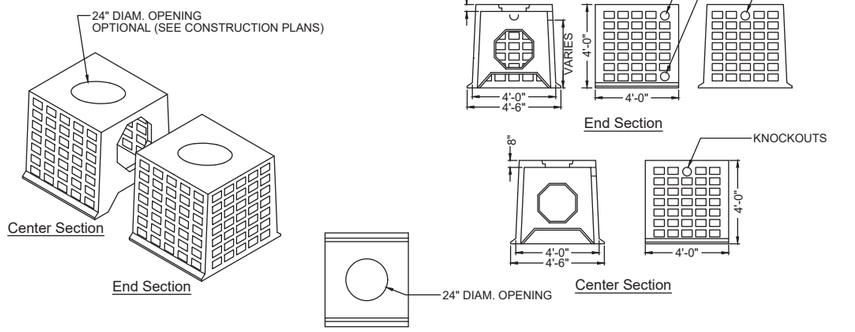
NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
2. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

13074_HD(DET).DWG Plotted on 29-Apr-2019 9:51 AM



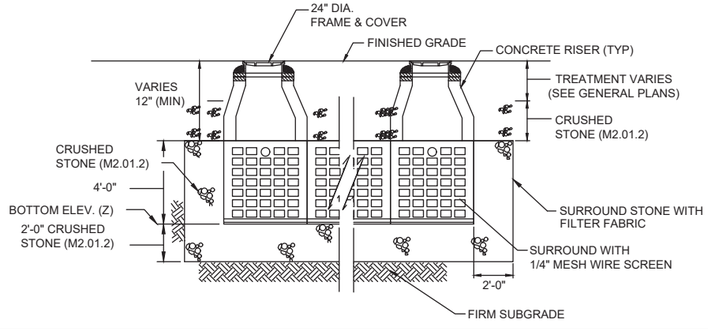
TRENCH DETAIL

SCALE: N.T.S. DWG: TRENCH-05 DATE: AUGUST 2018



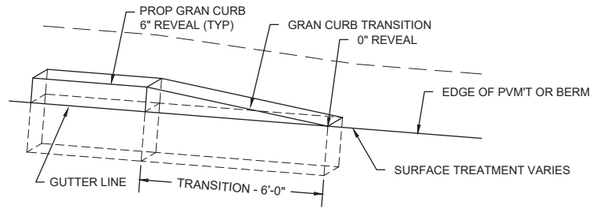
NOTES:
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. ALL HOLES AND KNOCKOUTS SHALL BE MORTARED FLUSH WITH STRUCTURE SURFACE BOTH INSIDE AND OUTSIDE.
3. PROVIDE PRECAST OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. REFER TO PLANS FOR LOCATIONS OF ACCESS PORTS (RISER WITH FRAME & COVER).
5. REFER TO PLANS FOR QUANTITY OF GALLEYS PER LOCATION.
6. WHERE 24-INCH OPENINGS ARE NOT REQUIRED, GALLEYS SHALL BE CONSTRUCTED WITHOUT OPENING, OR A CAP SHALL BE PROVIDED.

BAYVIEW STREET CONST BL LEACHING GALLEY DATA							
SYSTEM NO.	RIM NO.	STATION	RIM ELEV.	RIM NO.	STATION	RIM ELEV.	'Z' ELEV.
1	9A	22+31.9 27.5 RT	7.2±	9B	22+32.4 51.5 RT	6.9±	-1.1
2	10A	24+24.9 26.9 RT	11.2±	10B	24+24.8 50.9 RT	12.1±	3.2
3	29A	38+15.9 23.5 RT	24.5±	29B	39+15.9 23.5 RT	24.5±	16.5



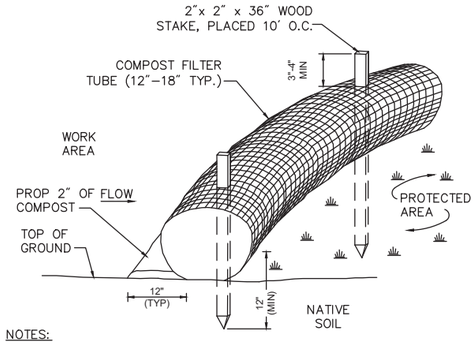
LEACHING GALLEY

SCALE: N.T.S.



GRANITE CURB TRANSITION PIECE

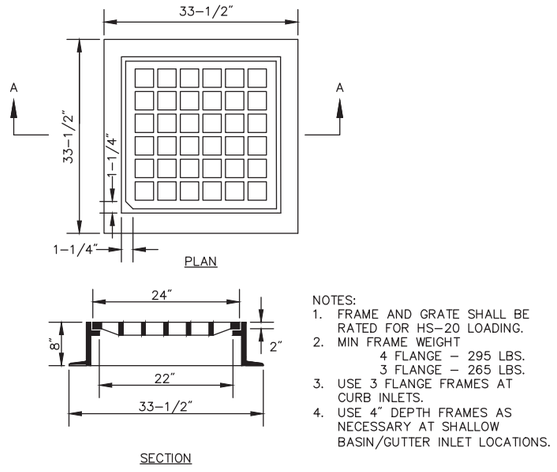
SCALE: N.T.S.



NOTES:
1. FILTER TUBE SHALL BE FILLED BY BLOWN IN ORGANIC COMPOST AND PLACED AS ILLUSTRATED ON THE PROJECT PLANS.
2. COMPOST FILTER TUBES SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIRED OR REPLACED AS NEEDED.
3. AT COMPLETION OF PROJECT, COMPOST FILTER TUBES SHALL BE CUT OPEN AND COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
4. THE EMPTY FILTER TUBE FABRIC SHALL BE COLLECTED AND DISPOSED OF PROPERLY.

COMPOST FILTER TUBE

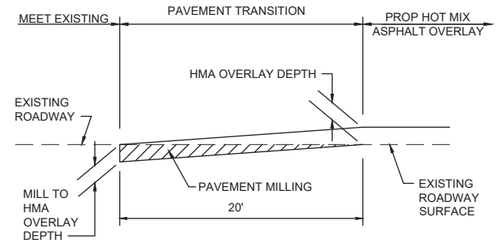
SCALE: NOT TO SCALE



NOTES:
1. FRAME AND GRATE SHALL BE RATED FOR HS–20 LOADING.
2. MIN FRAME WEIGHT
   4 FLANGE – 295 LBS.
   3 FLANGE – 265 LBS.
3. USE 3 FLANGE FRAMES AT CURB INLETS.
4. USE 4" DEPTH FRAMES AS NECESSARY AT SHALLOW BASIN/GUTTER INLET LOCATIONS.

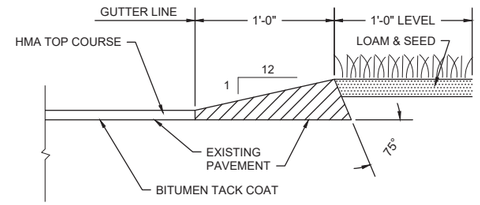
FRAME AND GRATE

SCALE: N.T.S.



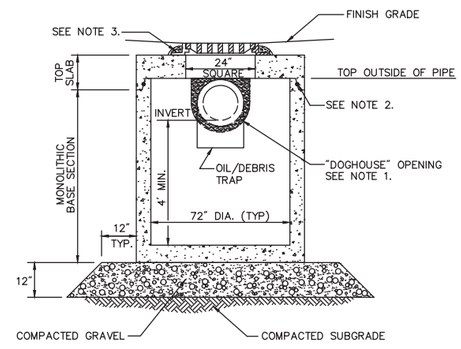
OVERLAY TRANSITION LONGITUDINAL SECTION

SCALE: N.T.S.



HMA BERM TYPE A-MODIFIED AT PAVEMENT OVERLAY

SCALE: N.T.S.

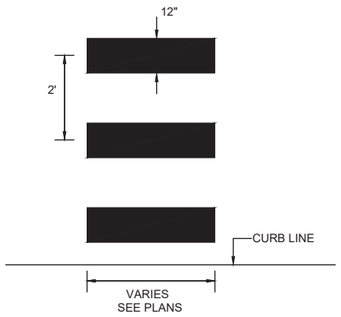


STANDARD SHALLOW CATCH BASIN SECTION

NOTES:
1. PROVIDE DOGHOUSE OPENING FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. TOP SLAB SHALL NOT REST DIRECTLY ON PIPE. GROUT ALL PIPE CONNECTIONS (NON–SHRINK GROUT).
2. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
3. CATCH BASIN FRAME AND GRATE (4" DEPTH) SHALL BE SET IN FULL MORTAR BED.
4. ADJUST TO FINISH GRADE WITH CLAY BRICK AND MORTAR AS REQUIRED.

SHALLOW CATCH BASIN

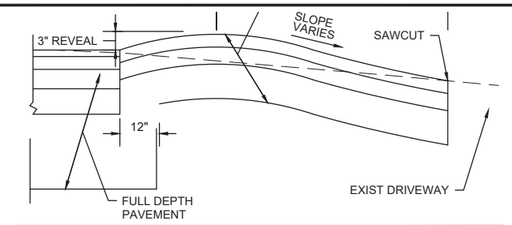
SCALE: N.T.S.



1. ALL 12" THERMOPLASTIC LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6" LINES) WILL BE ACCEPTED.
2. LAYOUT OF CROSSWALKS SHALL BE APPROVED BY THE GOVERNING JURISDICATION PRIOR TO APPLICATION. OF THERMOPLASTIC
3. ALL CROSSWALKS INSTALLED SHALL CONFORM TO THE RELEVANT PROVISIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT "STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGES" DATED 1988, SECTION 860 FOR REFLECTORIZED LINE (THERMO-PLASTIC) & MATERIAL M7.01.20, LATEST REVISIONS.

STANDARD CROSSWALK WITH DIAGONAL LINES

SCALE: NOT TO SCALE. DWG: PM-20 DATE: APRIL 2014



TYPICAL PAVEMENT BUMP

SCALE: N.T.S.

YARMOUTH/BARNSTABLE
BAYVIEW STREET
CONSTRUCTION DETAILS
SHEET 33 OF 34

13974_HD(DET).DWG Plotted on 24-Apr-2019 8:56 AM

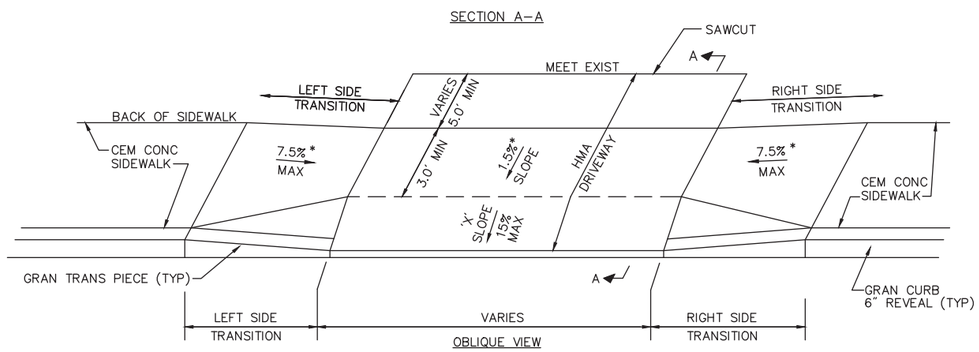
TYPE 1 TRANSITION CURB FOR HMA DRIVEWAYS WITH SIDEWALK

NO.	STATION	ROADWAY GUTTER	'X' SLOPE	LEFT SIDE		RIGHT SIDE	
				REVEAL	TRANSITION	REVEAL	TRANSITION
10	24+83.8 LT	2.60%	5.0%	6"	6.5'	3"	5.5'
10A	25+16.3 LT	1.88%	15.0%	3"	3.25'	6"	11'
11	25+90.8 LT	1.49%	5.0%	6"	6.5'	6"	9'
12	26+80.6 LT	0.65%	5.0%	6"	6.5'	6"	7.67'
13	27+25.7 LT	0.98%	5.0%	6"	6.5'	6"	9'
15	41+14.7 RT	−1.85%	15.0%	6"	9'	6"	6.5'
16	42+04.9 RT	0.13%	5.0%	6"	6.5'	6"	6.5'
17	42+82.9 RT	1.73%	15.0%	6"	9'	6"	6.5'

TYPE 2 TRANSITION CURB FOR HMA DRIVEWAYS WITH SIDEWALK

NO.	STATION	ROADWAY GUTTER	'X' SLOPE	LEFT SIDE		RIGHT SIDE	
				REVEAL	TRANSITION	REVEAL	TRANSITION
14	39+38.9 LT	0.62%	5.0%	6"	6.5'	6"	6.5'
18	42+84.9 LT	−1.69%	5.0%	6"	9'	6"	6.5'
19	44+10.7 LT	−0.87%	5.0%	6"	9'	6"	6.5'
20	44+19.8 RT	0.71%	5.0%	6"	6.5'	6"	9'
21	45+74.5 RT	−0.76%	5.0%	3"	3.83'*	6"	6.5'
22	46+21.2 RT	−0.97%	15.0%	6"	7.33'	3"	3.25'*
23	46+38.5 LT	0.95%	5.0%	6"	6.5'	6"	7.67'

*TYPE 1 DRIVEWAY TRANSITION

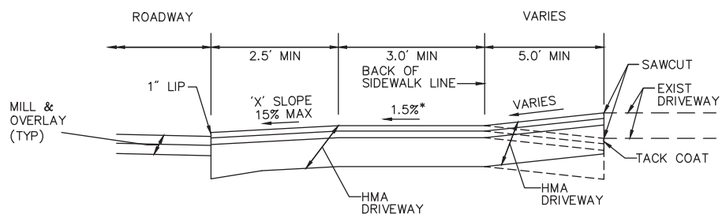


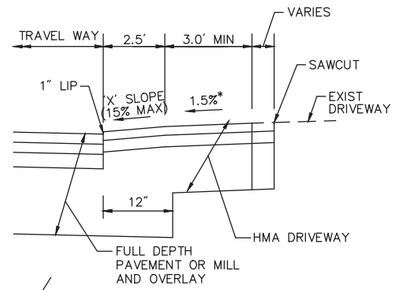
*TOLERANCE FOR CONSTRUCTION ±0.5%

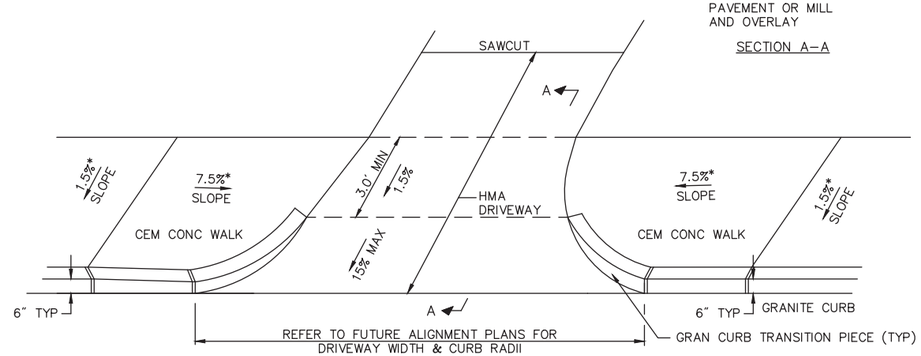
NOTE: SEE DETAILS FOR "HMA DRIVEWAY WITH HMA SIDEWALK – CURB TRANSITION" TYPES 1, 2, AND 3 FOR CURB TRANSITION PLACEMENT PARALLEL OR PERPENDICULAR TO DRIVEWAY ENTRANCES.

HMA DRIVEWAY WITH SIDEWALK - CURB TRANSITION TYPE 1

SCALE: N.T.S







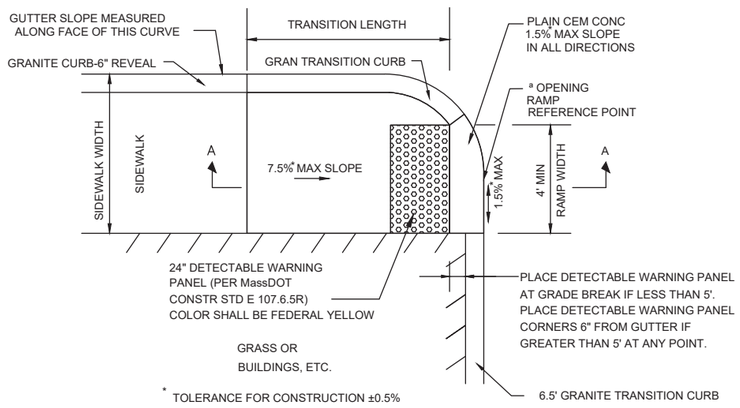
*TOLERANCE FOR CONSTRUCTION ±0.5%

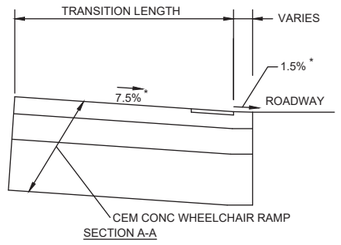
HMA DRIVEWAY WITH SIDEWALK - CURB TRANSITION TYPE 2

SCALE: N.T.S

13074_HD(DET-WCR).DWG Plotted on 24-Apr-2019 8:56 AM

WHEELCHAIR RAMP DATA							
NO.	LOCATION (REF. POINT)	SIDEWALK WIDTH	RAMP WIDTH	OPENING ELEV	TRANS	ROADWAY GUTTER	NOTES
4	22+47.8 15.57' LT	5.5	3.0'	7.23'	7.7'	-0.5%	
5	23+04.0 15.6' LT	5.5	3.0'	7.68'	6.5'	2.5%	
8	34+51.4 16.7' RT	5.5'	3.0'	17.64'	6.5'	0.3%	
9	34+96.1 15.6' RT	5.5'	3.0'	17.86'	7.7'	0.9%	
12	38+42.2 15.6' LT	5.5'	3.0'	25.07'	6.5'	-1.4%	
13	39+77.8 15.65' RT	5.5'	3.0'	25.27'	6.5'	1.9%	
14	40+22.8 18.65' RT	8.5'	3.0'	26.36'	11.0'	2.6%	
15	41+25.0 15.6' LT	5.5'	3.0'	28.75'	6.5'	1.5%	
16	41+68.7 15.6' LT	5.5'	3.0'	29.06'	7.7'	0.70%	





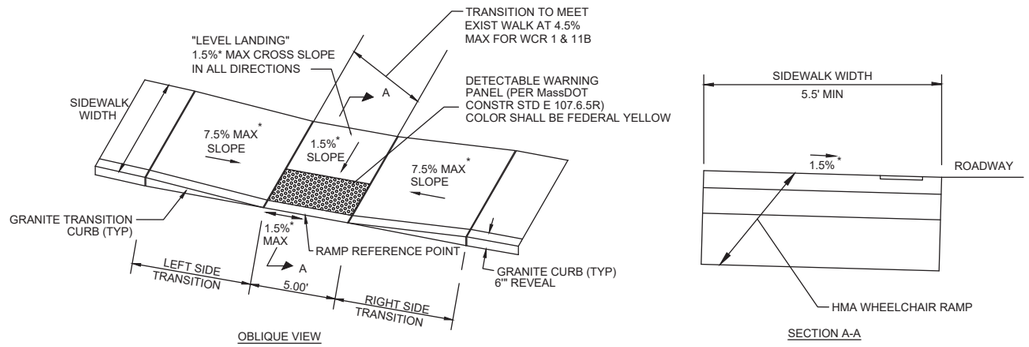
WHEELCHAIR RAMP FOR ONE DIRECTION OF PED TRAVEL

SCALE: N.T.S.

WHEELCHAIR RAMP DATA											
NO.	LOCATION (REF. POINT)	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE			RIGHT SIDE			OPENING ELEV	NOTES
				ROADWAY GUTTER	REVEAL	TRANS	ROADWAY GUTTER	REVEAL	TRANS		
6	34+24.3 12.0' LT	5.5'	5.0'	-	-	-	1.00%	6"	7.7'	17.27'	NO LEFT WING
7	34+24.3 12.0' RT	6.5'	5.0'	0.34%	6"	7.7'	0.34%	6"	6.5'	17.33'	
9A	36+85.3 11.0' LT	5.5'	5.0'	-3.18%	6"	6.5'	3.95%	6"	14.0'	22.28'	
9B	36+85.3 12.0' RT	5.5'	5.0'	4.47%	6"	15.0'	-3.95%	6"	6.5'	22.04'	
10	37+91.4 12.0' RT	5.5'	5.0'	0.64%	6"	7.7'	0.04%	6"	6.5'	25.71'	
11	38+11.5 18.6' LT	5.5'	5.0'	-1.71%	6"	9.0'	-1.50%	6"	6.5'	25.89'	
17	47+44.5 23.8' LT	5.5'	5.0'	-0.35%	6"	6.5'	4.5%	6"	15.0'	28.34'	
18	47+65.2 13.45' RT	5.5'	5.0'	-3.55%	6"	6.5'	1.28%	6"	9.0'	27.03'	

LEGEND

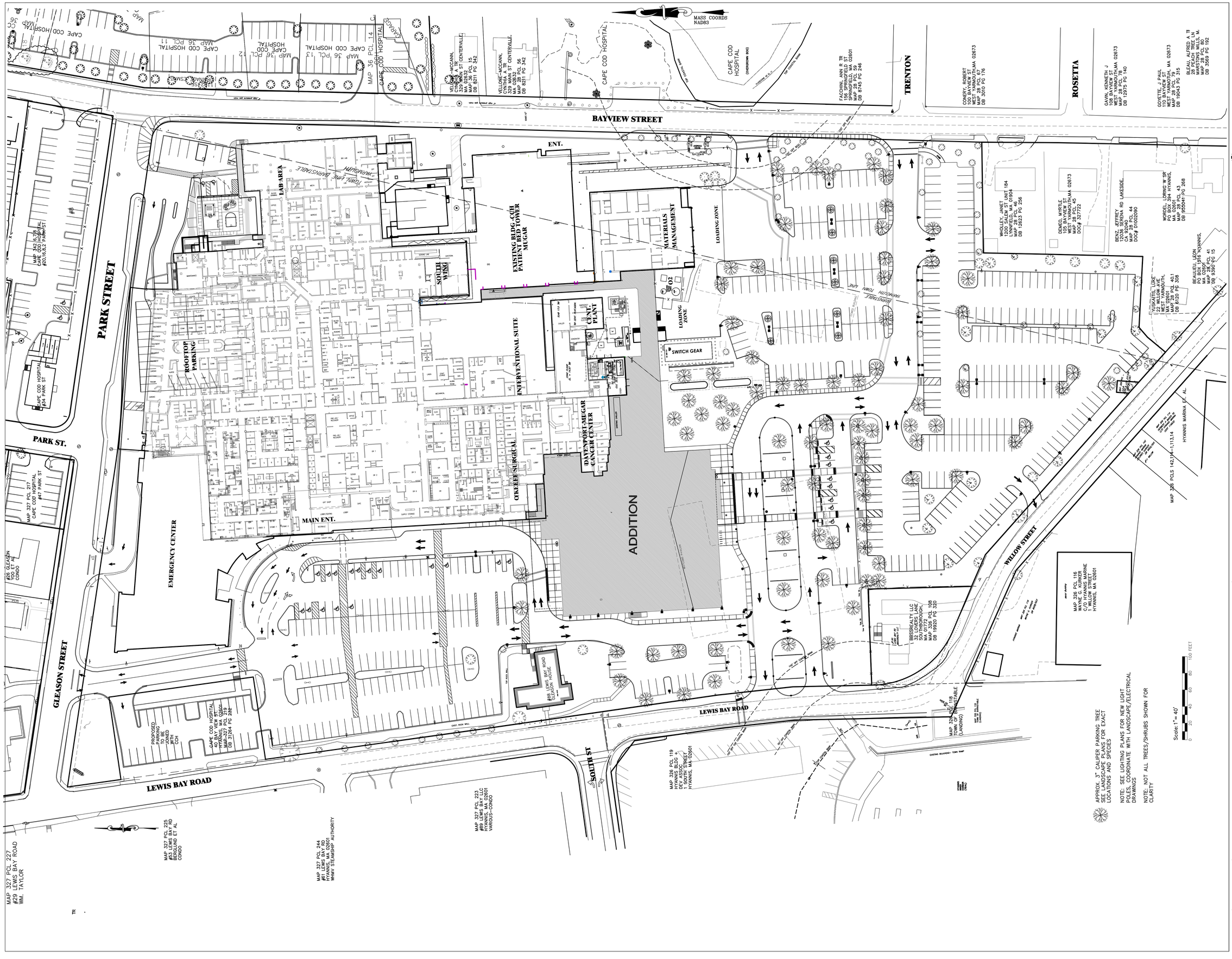
= DETECTABLE WARNING PANEL (COLOR: BRICK RED)



* TOLERANCE FOR CONSTRUCTION ±0.5%

WHEELCHAIR RAMP IN SIDEWALK LESS THAN 6' - 6"

SCALE: N.T.S.



TSOI KOBUS DESIGN

60 STATE STREET, SUITE 1800
Boston, MA 02109

Tel: 617-475-4000 Fax: 617-475-4445
www.tsoikobus.design

CAPE COD HEALTHCARE

PROJECT 2022

27 Park Street

Hyannis, MA 02601

Cape Cod Commission Submission

Structural	ODEH ENGINEERS 1223 Mineral Spring Ave., North Providence, RI 02904 Tel. (401) 724-1771
Civil	DOWN CAPE ENGINEERING, INC 939 Main St., Yarmouthport, MA Tel. (508) 362-4541
HVAC Design	ENGINEERED SOLUTIONS, INC. 6 Union St, Natick MA 01760 Tel. (508) 647-9200
Electrical Engineer	ENGINEERED SOLUTIONS, INC. 6 Union St, Natick MA 01760 Tel. (508) 647-9200
Plumbing and Fire Protection	ENGINEERED SOLUTIONS, INC. 6 Union St, Natick MA 01760 Tel. (508) 647-9200
Lighting	LAM PARTNERS 84 Sherman St., Cambridge MA 02140 Tel. (617) 354-4502
Landscape Architect	STIMSON 228 Norfolk St., Cambridge MA 02139 Tel. (617) 876-8960
Elevators	VDA 100 Summer Street, Suite 1600, Boston, MA 02110 Tel. (617) 574-5099

Stamp

NOT FOR CONSTRUCTION

Revisions

No.	Description	Date

off 508-362-4541
fax 508-362-9880
downcape.com ©
down cape engineering, inc.
civil engineers
land surveyors
939 Main Street (Rte 6A)
YARMOUTHPORT MA 02675

Drawing Title

Overview / Proposed Site

Job Number	38010-00
Drawn by	CJF/DAO
Checked	DAO
Date	7-31-2019
Scale	1"=40'

Drawing No.

C 300

Memorandum

To: Cape Cod Commission
3225 Main Street
P.O. Box 226
Barnstable, MA 02630

Date: December 17, 2019

Project #: 14720.00

From: Randy Hart, Principal

Re: Project 2022
Cape Cod Hospital

Collision diagrams for the intersections of Main Street High School Road and At South Street at Ocean Street and Old Colony Road have been completed and are provided as an attachment to this document along with the Barnstable Police crash records that they were derived from.

VHB
101 Walnut St.
PO Box 9151
Watertown, MA 02472

Attachments

- Crash Diagrams
- Crash Reports – High School Road at Main Street
- Crash Reports – South Street at Ocean Street and Old Colony Road

COLLISION DIAGRAM

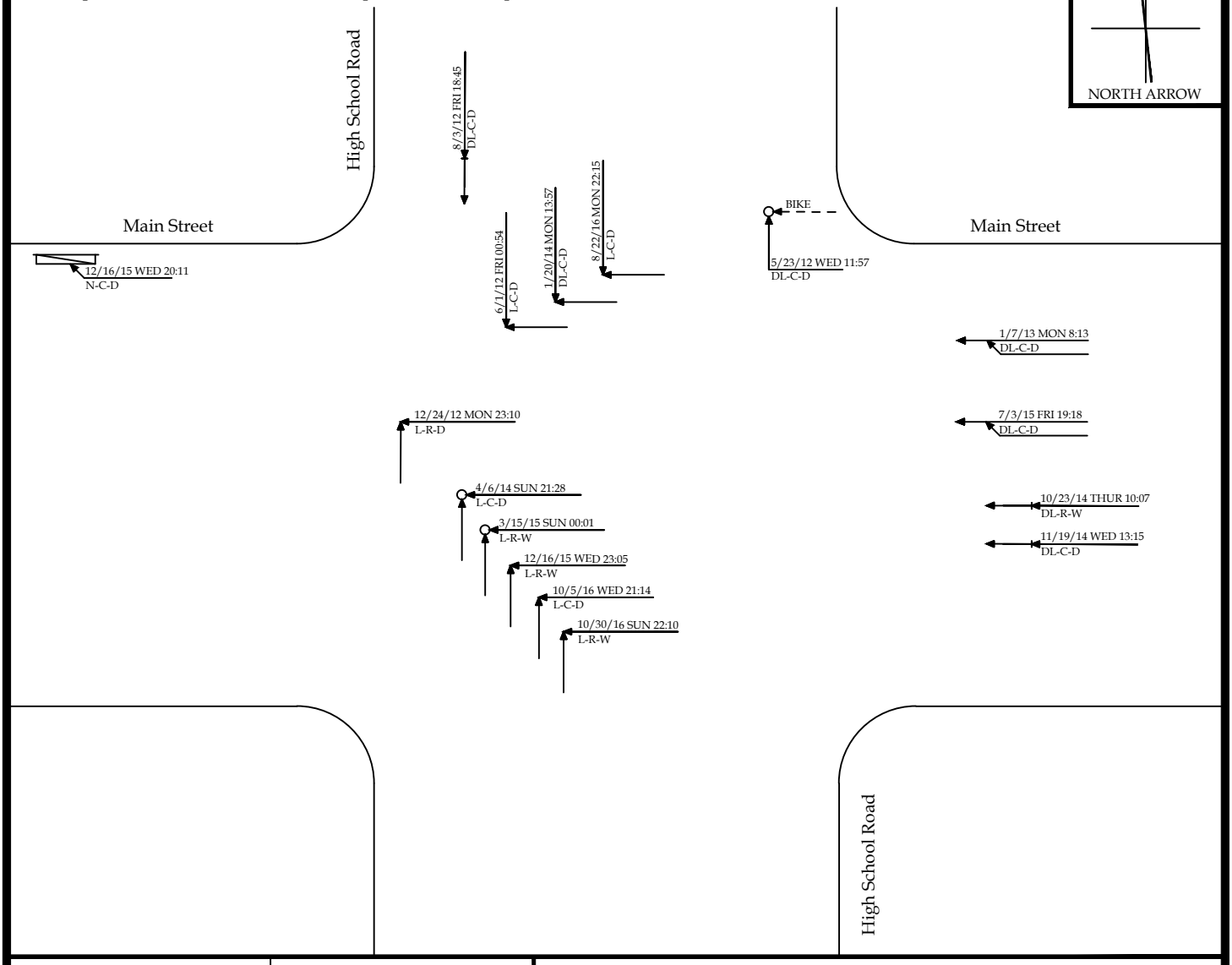
INTERSECTION Main Street at High School Road

PERIOD 5 years FROM 2012 TO 2016

MUNICIPALITY Town of Barnstable, Massachusetts PREPARED BY A. Prichard

JOB NUMBER 14072.00 DATE PREPARED 12/17/2019

Note: Collision diagram prepared based on local and state crash data obtained from the Town of Barnstable Police Department and the Massachusetts Department of Transportation.



PAVEMENT/WEATHER/LIGHTING

D	DRY
C	CLEAR
W	WET
R	RAIN
F	FOGGY
S	SNOWY, ICY
O	OTHER
DL	DAYLIGHT
N	DARK - NO LIGHTS
L	DARK - LIGHTED

TYPES OF COLLISION

- REAR END
- HEAD ON
- SIDE SWIPE
- OUT OF CONTROL
- LEFT TURN
- RIGHT ANGLE

SYMBOLS

- MOVING VEHICLE
- BACKING VEHICLE
- PEDESTRIAN
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH

CRASH SUMMARY

	DAYLIGHT			NIGHT			TOTALS			
TYPE	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	TOTAL
ANGLE			1		2	6		2	7	9
REAR-END						3			3	3
HEAD-ON										
LEFT TURN										
SIDESWIPE			2						2	2
FIXED OBJECT										
SINGLE VEH		1				1		1	1	2
OTHER										
TOTAL		1	3		2	10		3	13	16

COLLISION DIAGRAM

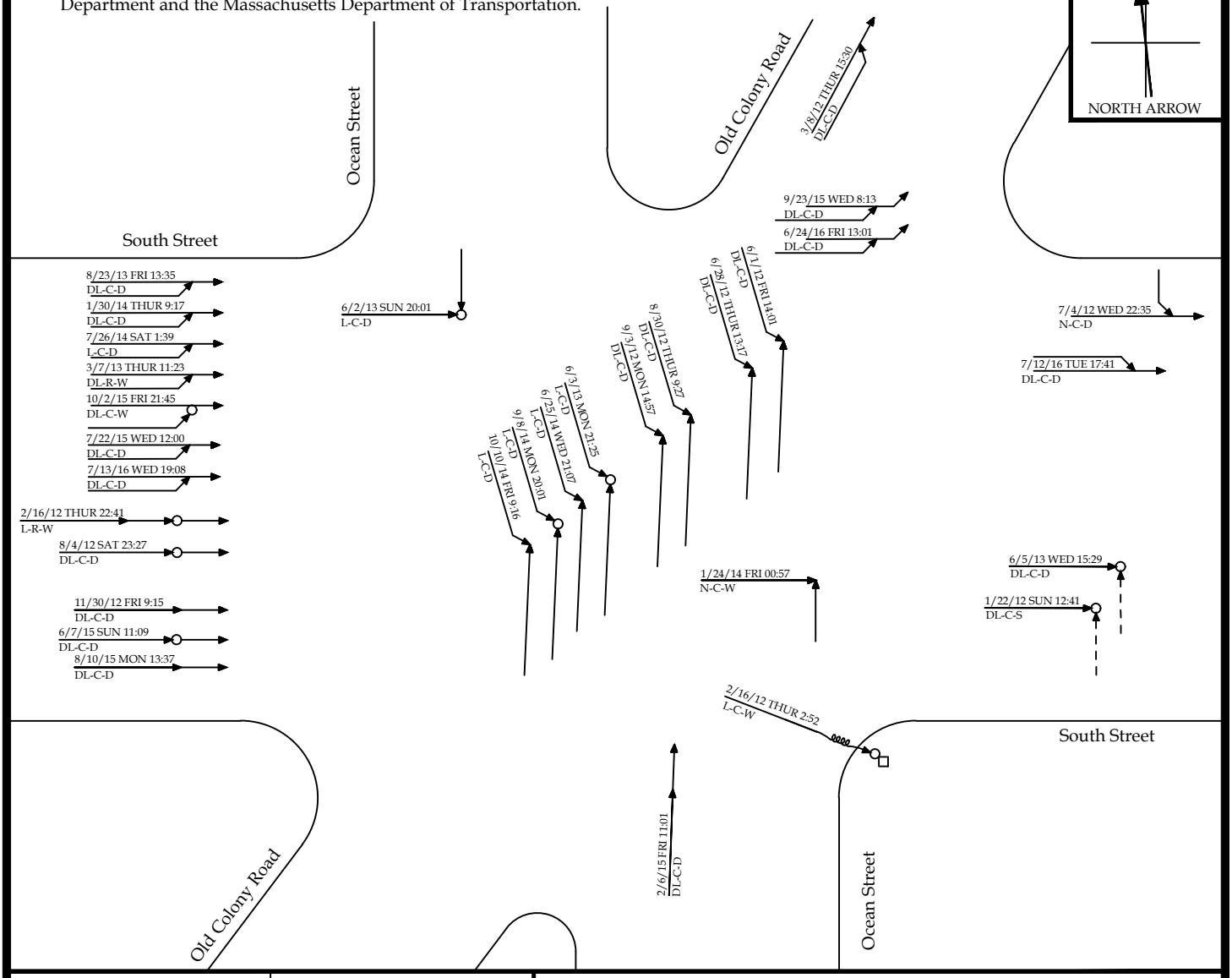
INTERSECTION South Street at Ocean Street and Old Colony Road

PERIOD 5 years FROM 2012 TO 2016

MUNICIPALITY Town of Barnstable, Massachusetts PREPARED BY A. Prichard

JOB NUMBER 14072.00 DATE PREPARED 12/17/2019

Note: Collision diagram prepared based on local and state crash data obtained from the Town of Barnstable Police Department and the Massachusetts Department of Transportation.



PAVEMENT/WEATHER/LIGHTING	
D	DRY
C	CLEAR
W	WET
R	RAIN
F	FOGGY
S	SNOWY, ICY
O	OTHER
DL	DAYLIGHT
N	DARK - NO LIGHTS
L	DARK - LIGHTED

TYPES OF COLLISION

- REAR END
- HEAD ON
- SIDE SWIPE
- OUT OF CONTROL
- LEFT TURN
- RIGHT ANGLE

SYMBOLS

- MOVING VEHICLE
- BACKING VEHICLE
- PEDESTRIAN
- PARKED VEHICLE
- FIXED OBJECT
- FATAL CRASH
- INJURY CRASH

CRASH SUMMARY

	DAYLIGHT			NIGHT			TOTALS			
TYPE	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	FATAL	INJURY	PROP. DAM.	TOTAL
ANGLE			4		3	4		3	8	11
REAR-END		2	3		1			3	3	6
HEAD-ON										
LEFT TURN										
SIDESWIPE		1	9			1		1	10	11
FIXED OBJECT					1			1		1
SINGLE VEH		2						2		2
OTHER										
TOTAL		5	16		5	5		10	21	31

12-396-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
05/23/2012	11:57 24H R	Barnstable	1	1		State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 / 1 — Route# | Direction | Name of Roadway/Street: **MAIN ST**
At
Route# | Direction | Name of Intersecting Roadway/Street: **HIGH SCHOOL RD**
Also at intersection with
2 / 1 — Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | Mile Marker | or | Exit Number
Feet N S E W of | Route# | Intersecting Roadway/Street (11: 3)
Feet N S E W of | Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-396-AC

Vehicle 1

License# **S13146036** St **MA** DOB/Age **68** | Reg# **882EZ4** Reg Type **PAN** Reg State **MA**
Sex **F** Lic. Class **D** (19) (19) Lic. Restrictions (20) CDL Endorsement | Veh Year **2008** Veh Make **TOYT** Veh Config. **1** (21) (12: 1)
Operator **NESBITT, PAULENE M** (Last First Middle) | Owner **NESBITT, PAULENE M** (Last First Middle)
4 / 3 — Address **1 JENNIFER CIR** | Address **1 JENNIFER CIR**
City **PLYMOUTH** State **MA** Zip **02360** | City **PLYMOUTH** State **MA** Zip **02360**
Insurance Company **MASS HOMELAND INS** | Vehicle Action Prior to Crash **2** (22) | Damaged Area Code: **3** (27) **4** (27) (27)
Vehicle Travel Direction N S E W | Responding to Emergency? **2** | Event Sequence **4** (23) (23) (23) (23) | Test Status: (28)
5 / 1 — Citation # (if Issued) | Most Harmful Event **4** (24) | Type of Test: (29)
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code **1** (25) (25) | BAC Test Result: (30)
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32) (13: 4)
6 / 1 — Towed from scene? **2** (33)

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

7 / 2 — Please Select One of the Following: ☐ Vehicle | #Occupants | ☑ Non-Motorist A | Type **2** (15) | Action **2** (16) | Location **1** (17) | Condition **1** (18) | ☐ Hit/Run | ☐ Moped

Non-Motorist A

License# | St | DOB/Age **38** | Reg# | Reg Type | Reg State
Sex **M** Lic. Class (19) (19) Lic. Restrictions (20) CDL Endorsement | Veh Year | Veh Make | Veh Config. (21)
Operator **BAKER, IAN M** (Last First Middle) | Owner (Last First Middle)
Address **22 KEEL WAY** | Address
City **HYANNIS** State **MA** Zip **02601** | City | State | Zip (14)
8 / 1 — Insurance Company | Vehicle Action Prior to Crash (22) | Damaged Area Code: (27) (27) (27)
Vehicle Travel Direction N S E W | Responding to Emergency? | Event Sequence (23) (23) (23) (23) | Test Status: (28)
Citation # (if Issued) | Most Harmful Event (24) | Type of Test: (29)
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code (25) (25) | BAC Test Result: (30)
9 / 2 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32)
Towed from scene? (33)

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Non-Motorist	*See Above*	-	-	1					4	2	Cape Cod Hospital

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-396-AC

Crash Diagram:

ie: → 1 → 2 → →

No Diagram

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

PHOTOS: County CIO. INJURIES: Unknown, but Baker was transported for observation. GIST: MV #1 operated by Nesbitt was stopped on Main Street at Highschool Rd. The light turned green for the Main Street traffic and MV #1 made a legal right turn onto Highschool Rd., when the cyclist (Baker) came off of the sidewalk and crashed into the right rear door of MV putting a small dent in the door. MV #1 had already completed the turn and was on Highschool Rd., when the cyclist came up Main Street on the sidewalk and left the sidewalk to cross Highschool Rd. and stay on Main Street. The cyclist disregarded the traffic light and traffic and struck the side of the MV. The cyclist was at fault in this accident. NOTE: THE BIKE WAS STORED AT THE MAIN STREET STATION.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

KEVIN DONOVAN	KJD/165	Barnstable Police Department		5/24/2012
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

12-421-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
06/01/2012	00:54 24H R	Barnstable	2	0	25 Lat. Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: 4 — Route# | Direction | MAIN ST — Name of Roadway/Street
At
Route# | Direction | HIGH SCHOOL RD — Name of Intersecting Roadway/Street
Also at intersection with
21: Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | Mile Marker | or | Exit Number
11: 3 — Feet N S E W of | Route# | Intersecting Roadway/Street
Feet N S E W of | Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-421-AC

Vehicle 1

License# S11838185 St MA DOB/Age 37 | Reg# 75BA92 Reg Type PAN Reg State MA
Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 1997 | Veh Make NISS | Veh Config. 21: 1 — 12: 1
Operator ZLATKOV, STANISLAV S (Last First Middle) | Owner MIKOVA, NATALIA (Last First Middle)
43: Address 33 CLIPPER CIR | Address 33 CLIPPER CIR
City SANDWICH State MA Zip 02563 | City SANDWICH State MA Zip 02563
Insurance Company COMMERCE INSURANCE | Vehicle Action Prior to Crash 22: 1
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 23: 1 | Most Harmful Event 24: 1
51: 1 — Citation # (if Issued)
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 25: 1 | Driver Distracted by 26
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)
Damaged Area Code: 27: 4 | Test Status: 28 | Type of Test: 29 | BAC Test Result: 30 | Susp. Alcohol: 31 | Susp. Drug: 32 — 13: 1 | Towed from scene? 33: 2

61: 1 — Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

71: 1 — Please Select One of the Following: ☐ Vehicle | #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

Vehicle 2

License# | St | DOB/Age | Reg# | Reg Type | Reg State
Sex | Lic. Class 19 | 19 | Lic. Restrictions 20 | CDL Endorsement | Veh Year | Veh Make | Veh Config. 21
Operator (Last First Middle) | Owner (Last First Middle)
Address | Address
City State Zip | City State Zip — 14
82: 2 — Insurance Company
Vehicle Travel Direction N S E W | Responding to Emergency? | Event Sequence 23 | Most Harmful Event 24
Citation # (if Issued)
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 25 | Driver Distracted by 26
92: 2 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)
Damaged Area Code: 27 | Test Status: 28 | Type of Test: 29 | BAC Test Result: 30 | Susp. Alcohol: 31 | Susp. Drug: 32 | Towed from scene? 33

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-421-AC

Crash Diagram:

ie: → 1 → 2 → →

NO DIAGRAM AVAILABLE

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

GIST: Vehicle #1 was traveling west on Main St. approaching the intersection with High School Rd. Vehicle #2 was traveling south on High School Rd. approaching the intersection with Main St. Vehicle #1 had the green light and proceeded into the intersection. Vehicle #2 failed to stop at the red light and entered the intersection colliding with the back rear passenger side of Vehicle #1. Vehicle #2 then left the scene.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

THOMAS HARMON	TJH/238	Barnstable Police Department	6/1/2012
Police Officer Name (Please Print) Signature	ID/Badge#	Department Precinct/Barracks	Date

12-694-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
08/03/2012	18:45 24H R	Barnstable	2	0		Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 1 — Route# | Direction | Name of Roadway/Street: HIGH SCHOOL RD
At
Route# | Direction | Name of Intersecting Roadway/Street: MAIN ST
Also at intersection with
2 1 — Route# | Direction | Name of Intersecting Roadway/Street:

Route# | Direction | Address# | Name of Roadway/Street:
Feet N S E W of | Mile Marker | or | Exit Number
Feet N S E W of | Route# | Intersecting Roadway/Street (11: 2)
Feet N S E W of | Landmark

3 — Please Select One of the Following: ✓ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

12-694-AC

License# S29880925 | St MA | DOB/Age 56 | Reg# 6273EG | Reg Type PAN | Reg State MA
Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 2008 | Veh Make TOYT | Veh Config. 21: 2 (12: 1)
Operator CAREY, GERALD S (Last First Middle) | Owner CAREY, GERALD S (Last First Middle)
4 3 — Address 126 SEARSVILLE RD | Address 126 SEARSVILLE RD
City DENNIS | State MA | Zip 02638 | City DENNIS | State MA | Zip 02638
Insurance Company COMMERCE INSURANCE | Vehicle Action Prior to Crash 3: 22 | Damaged Area Code: 4 27, 5 27, 6 27
5 1 — Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23, 23, 23, 23 | Test Status: 28
Citation # (if Issued) | Most Harmful Event 1: 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1: 25, 25 | BAC Test Result: 30
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 (13: 1)
6 1 — Towed from scene? 2: 33

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
CAREY, KELLY	126 SEARSVILLE RD, SOUTH DENNIS MA 02127	45	F	3	1	4	0	0	5	1	

7 3 — Please Select One of the Following: ✓ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# | St | DOB/Age 17 | Reg# 8XF200 | Reg Type PAN | Reg State MA
Sex M | Lic. Class 19: 99 | 19: | Lic. Restrictions 20: | CDL Endorsement | Veh Year 2000 | Veh Make HOND | Veh Config. 21: 2
Operator BORGES, MATTHEW (Last First Middle) | Owner BORGES, FILHO EPOTIDES (Last First Middle)
Address 9 PLEASANT PARK AVE | Address 9 PLEASANT PARK AVE
City HYANNIS | State MA | Zip 02601 | City HYANNIS | State MA | Zip 02601 (14)
8 2 — Insurance Company SAFETY INSURANCE | Vehicle Action Prior to Crash 1: 22 | Damaged Area Code: 1 27, 2 27, 27
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23, 23, 23, 23 | Test Status: 28
Citation # (if Issued) [redacted] | Most Harmful Event 1: 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) [redacted] | Viol. 2 (Ch/Sec/Sub) [redacted] | Driver Contributing Code 5: 25, 19: 25 | BAC Test Result: 30
Viol. 3: Ch/Sec/Sub [redacted] | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32
9 2 — Towed from scene? 99: 33

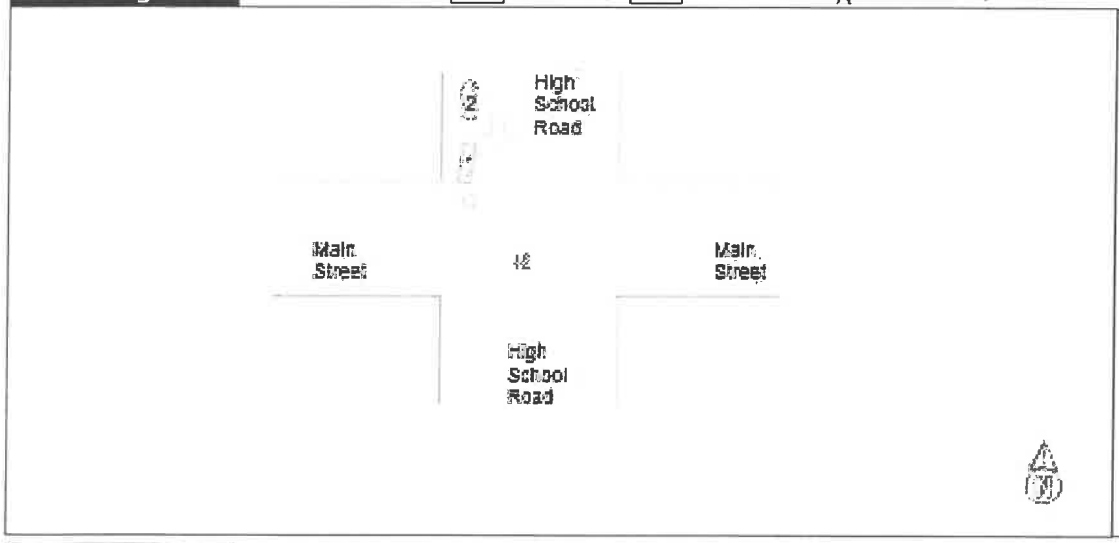
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-694-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

On Friday 08/03/2012 at 1645hrs. while assinged to a Mountain Bike Patrol on Main Street Hyannis, I was first advised of a hit-and-run MVA while at The Hyannis Station by a passerby who described the M/V's as a red pick-up truck as being the victim and a bluish-grey caravan as the suspect M/V. The passerby also stated that the partial plate number was MA Reg 8XF... The reporting party further stated that both M/V's sped off down Main Street with the red truck that was struck chasing the bluish-grey caravan that rear-ended it. Just as I was calling in the incident to dispatch, dispatch was sending me to 7-Eleven on North Street for an argument involving the operators of the desribed M/V's from the hit& Run Accident. It turns out that OP#2 Mr. Matthew Borgues does not have a license and decided to leave the scene after he rear-ended M/V#1, when OP#1 was forced to stop abruptly for a pedestrian.744

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement
[redacted]	[redacted]		

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

BRIAN MORRISON	**BDM/205**	**Barnstable Police Department**		**8/5/2012**
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

12-1182-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
12/24/2012	23:10 24H R	Barnstable	2	0	25	State Police ☐ Local Police ☑ MBTA Police ☐ Other

Lat. Lon.

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: MAIN ST — Route# | Direction | Name of Roadway/Street

At

HIGH SCHOOL RD EXT — Route# | Direction | Name of Intersecting Roadway/Street

Also at intersection with

23: Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of ____ or ____ (Mile Marker | Exit Number)

11: 3

Feet N S E W of ____ Route# ____ Intersecting Roadway/Street

Feet N S E W of ____ Landmark

32: Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-1182-AC

License# S59628124 St MA DOB/Age 33 — Reg# 8261JV Reg Type PAN Reg State MA

Sex M Lic. Class 19: D 19: ____ Lic. Restrictions 20: 1 CDL ____ Endorsement — Veh Year 2002 Veh Make TOYT Veh Config. 21: 1 — 12: 1

Operator MCWILLIAMS, DAVID EDWARD (Last | First | Middle) — Owner MCWILLIAMS, DAVID EDWARD (Last | First | Middle)

43: Address 274 SOUTH ST2 — Address 274 SOUTH ST2

City HYANNIS State MA Zip 02601 — City HYANNIS State MA Zip 02601

Insurance Company COMMERCE INS — Vehicle Action Prior to Crash 22: 1 — Damaged Area Code: 1 27, 3 27, 27

51: Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 1 23, 23, 23, 23 — Test Status: 28

Citation # (if Issued) — Most Harmful Event 1 24 — Type of Test: 29

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 1 25, 25 — BAC Test Result: 30

Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 Susp. Drug: 32 — 13: 1

61: Towed from scene? 1 33

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

72: Please Select One of the Following: ☑ Vehicle 2 | 2 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S13577801 St MA DOB/Age 19 — Reg# 862HW1 Reg Type PAN Reg State MA

Sex F Lic. Class 19: D 19: 99 Lic. Restrictions 20: 1 CDL ____ Endorsement — Veh Year 2002 Veh Make HYUN Veh Config. 21: 1

Operator SILVA, SAVERIA (Last | First | Middle) — Owner LARGEY, LOUISE M (Last | First | Middle)

Address 1770A MASSASOIT RD — Address 1770A MASSASOIT RD

City EASTHAM State MA Zip 02642 — City EASTHAM State MA Zip 02651 — 14

81: Insurance Company COMMERCE INS — Vehicle Action Prior to Crash 22: 1 — Damaged Area Code: 1 27, 2 27, 8 27

Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 1 23, 23, 23, 23 — Test Status: 28

Citation # (if Issued) R0576565 — Most Harmful Event 1 24 — Type of Test: 29

Viol. 1 (Ch/Sec/Sub) 89/9 — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 3 25, 25 — BAC Test Result: 30

92: Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 Susp. Drug: 32

Towed from scene? 1 33

Please fill out for operator and all occupants

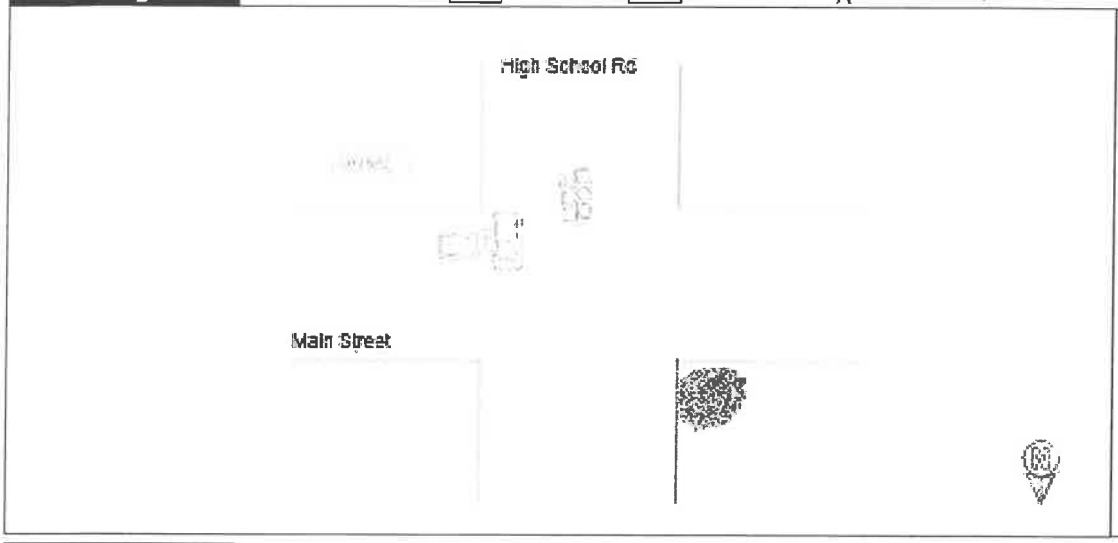
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	99	0	0	5	1	
THORTON, JOHNATHAN R	7 BUTLER AVE, WEST YARMOUTH MA 02673	20	M	3	1	99	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-1182-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Operator #1 stated that he had a green light as he passed through the intersection.
Operator #2 said that she ran a red light and struck vehicle #1.
Injuries: None
Tows: Rotary Towing for both vehicles
Gist: Operator #1 was travelling North High School Rd ext. and was struck broadside by Vehicle #2 as it passed through the intersection of Main Street (headed West). The impact caused Vehicle #1 up onto the sidewalk where a planter was struck.

Witnesses:

Name (Last. First. Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last. First. Middle)	Address	Phone #	41-Type	Description of Damaged Property
TOWN OF BARNSTABLE	**SOUTH ST, HYANNIS MA 02601**		**Other**	**LARGE PLANTER**

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

ANSON MOORE | **APM/22 2** | **Barnstable Police Department** | **12/26/2012**

Police Officer Name (Please Print) Signature | ID/Badge# Department | Precinct/Barracks | Date

Last Mod: 12/27/2012 10:09 AM

https://www.crashlogic.com

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

13-21-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
01/07/2013	08:13 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other ☐

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** — 10: 2

1 1 — Route# | Direction | Name of Roadway/Street: HIGH SCHOOL RD EXT
At
Route# | Direction | Name of Intersecting Roadway/Street: MAIN ST
2 1 — Route# | Direction | Name of Intersecting Roadway/Street: Also at intersection with

Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | Mile Marker | or | Exit Number
11 4 — Feet N S E W of | Route# | Intersecting Roadway/Street
Feet N S E W of | Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

13-21-AC

License# S45741141 | St MA | DOB/Age 55 | Reg# F1051 | Reg Type PAN | Reg State MA
Sex M | Lic. Class 19 D | 19 | Lic. Restrictions 20 1 | CDL Endorsement | Veh Year 2003 | Veh Make ACUR | Veh Config. 21 1 — 12 1
Operator HARTNETT, RICHARD G (Last / First / Middle) | Owner HARTNETT, RICHARD G (Last / First / Middle)
4 3 — Address 69 RIDGEWOOD | Address 69 RIDGEWOOD DR
City YARMOUTHPORT | State MA | Zip 02675 | City YARMOUTHPORT | State MA | Zip 02675-2346
Insurance Company COMMERCE INS | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 6 27 7 27 8 27
5 1 — Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28
Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1 25 25 | BAC Test Result: 30
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 — 13 1
6 1 — Towed from scene? 2 33

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
HARTNETT, ALEXIS	69 RIDGWOOD DR, YARMOUTHPORT MA 02675	25	F	3	1	4	0	0	5	1	

7 3 — Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S11611718 | St MA | DOB/Age 53 | Reg# 3JNM90 | Reg Type PAN | Reg State MA
Sex F | Lic. Class 19 D | 19 | Lic. Restrictions 20 1 | CDL Endorsement | Veh Year 2002 | Veh Make HYUN | Veh Config. 21 1
Operator ST. PIERRE, LISA J (Last / First / Middle) | Owner ST. PIERRE, LISA J (Last / First / Middle)
Address 25 CONSTANCE AVE | Address 25 CONSTANCE AVE
City WEST YARMOUTH | State MA | Zip 02673-0000 | City WEST YARMOUTH | State MA | Zip 02673-0000 — 14
8 4 — Insurance Company COMMERCE INS | Vehicle Action Prior to Crash 5 22 | Damaged Area Code: 2 27 3 27 4 27
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28
Citation # (if Issued) [redacted] | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) [redacted] | Viol. 2 (Ch/Sec/Sub) [redacted] | Driver Contributing Code 10 25 19 25 | BAC Test Result: 30
9 2 — Viol. 3: Ch/Sec/Sub [redacted] | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32
Towed from scene? 2 33

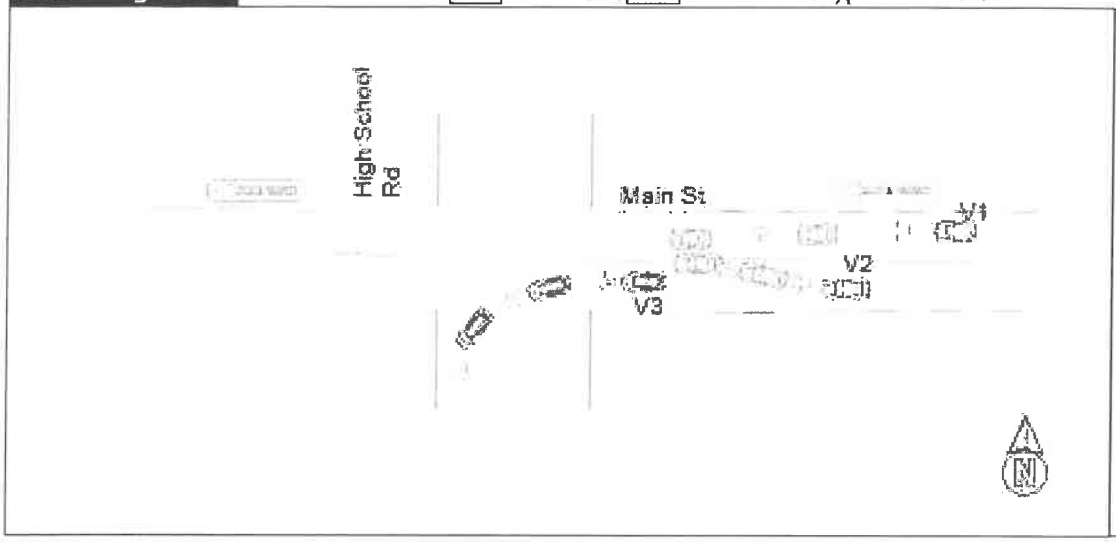
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

13-21-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Gist: MV1 was driving on Main St. in the right lane. MV2 was driving on Main St. in the left lane. At the intersection of Main St. and High School Rd., there was a car (MV3) in the left lane making a left turn. MV2 drifted into MV1's lane of travel, causing the passenger side of MV2 to hit the driver's side of MV1.

778

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

KEVIN FULLAM	KCF/278	Barnstable Police Department		1/7/2013
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

14-66-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	State Police / Local Police / MBTA Police / Other
01/20/2014	13:57 24H R	Barnstable	2	0	30 Lat. Lon.	Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 1 — Route# | Direction | Name of Roadway/Street: **MAIN ST**
At
Route# | Direction | Name of Intersecting Roadway/Street: **HIGH SCHOOL RD EXT**
Also at intersection with
2 1 — Route# | Direction | Name of Intersecting Roadway/Street:

Route# | Direction | Address# | Name of Roadway/Street
Feet [N S E W] of ____ Mile Marker or ____ Exit Number
3 11 — Feet [N S E W] of ____ Route# ____ Intersecting Roadway/Street
Feet [N S E W] of ____ Landmark

3 2 — Please Select One of the Following: ✓ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

14-66-AC

License# **S16537905** St **MA** DOB/Age **53** | Reg# **N12022** Reg Type **CON** Reg State **MA**
Sex **M** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL ____ Endorsement | Veh Year **1999** Veh Make **GMC** Veh Config. **2** (21) — 1 12
Operator **DUTRA, DAVID W** (Last First Middle) | Owner **DUTRA, DAVID W** (Last First Middle)
4 3 — Address **114 GOOSEBERRY LN** | Address **114 GOOSEBERRY LN**
City **MARSTONS MILLS** State **MA** Zip **02648** | City **MARSTONS MILLS** State **MA** Zip **02648**
Insurance Company **NATIONAL CONTINENT** | Vehicle Action Prior to Crash **1** (22) | Damaged Area Code: **2** (27) **3** (27) (27)
5 1 — Vehicle Travel Direction [N S E W] | Responding to Emergency? **1** | Event Sequence **1** (23) (23) (23) (23) | Test Status: (28)
Citation # (if Issued) **R4308852** | Most Harmful Event **1** (24) | Type of Test: (29)
Viol. 1 (Ch/Sec/Sub) **89/9** | Viol. 2 (Ch/Sec/Sub) **90/9** | Driver Contributing Code **19** (25) (25) | BAC Test Result: (30)
Viol. 3: Ch/Sec/Sub ____ | Viol. 4 (Ch/Sec/Sub) ____ | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32) — 1 13
6 1 — Towed from scene? **2** (33)

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 2 — Please Select One of the Following: ✓ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type (15) | Action (16) | Location (17) | Condition (18) | ☐ Hit/Run | ☐ Moped

License# **S48522761** St **MA** DOB/Age **72** | Reg# **21NV50** Reg Type **PAN** Reg State **MA**
Sex **M** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL ____ Endorsement | Veh Year **2003** Veh Make **CHEV** Veh Config. **1** (21)
Operator **WILLOUGHBY, KENDALL G** (Last First Middle) | Owner **WILLOUGHBY, KENDALL G** (Last First Middle)
Address **200 STEVENS STA11** | Address **200 STEVENS STA11**
City **HYANNIS** State **MA** Zip **02601** | City **HYANNIS** State **MA** Zip **02601** — 14
8 4 — Insurance Company **Commerce** | Vehicle Action Prior to Crash **1** (22) | Damaged Area Code: **1** (27) **2** (27) **8** (27)
Vehicle Travel Direction [N S E W] | Responding to Emergency? **2** | Event Sequence **1** (23) (23) (23) (23) | Test Status: (28)
Citation # (if Issued) ____ | Most Harmful Event **1** (24) | Type of Test: (29)
Viol. 1 (Ch/Sec/Sub) ____ | Viol. 2 (Ch/Sec/Sub) ____ | Driver Contributing Code **1** (25) (25) | BAC Test Result: (30)
9 2 — Viol. 3: Ch/Sec/Sub ____ | Viol. 4 (Ch/Sec/Sub) ____ | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32)
Towed from scene? **2** (33)

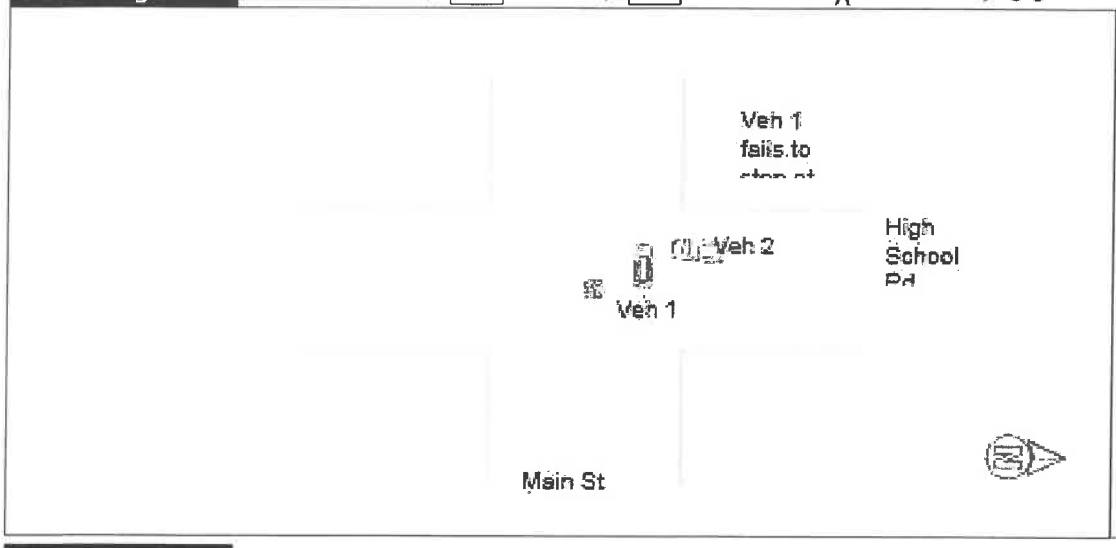
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

14-66-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Vehicle 1 failed to stop for red light while traveling WB on Main St. Vehicle 2 entered the intersection while traveling SB on High School RD Ext and struck vehicle 1. The operator of vehicle 1 admitted that he failed to stop for the red light because he was changing the station on his radio. A query of vehicle 1's registration came back as expired. The operator of vehicle 1 was issued citation R4308852 for the following:
89/9 Red light Violation
90/9 Unregistered MV.

No injuries were reported at the time of the accident not were any vehicles towed.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

ROBERT BITINAS | **REB/266** | **Barnstable Police Department** | **1/20/2014**

Police Officer Name (Please Print) | Signature | ID/Badge# | Department | Precinct/Barracks | Date

Last Mod: 1/23/2014 10:22 AM

https://www.crashlogic.com

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

14-295-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	
04/06/2014	21:28 24H R	Barnstable	2	1		State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

4 (1) Route# | Direction | MAIN ST — Name of Roadway/Street

At

Route# | Direction | HIGH SCHOOL RD — Name of Intersecting Roadway/Street

Also at intersection with

2 (1) Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of ____ or ____ (Mile Marker / Exit Number)

3 (11): Feet N S E W of ____ Route# ____ Intersecting Roadway/Street

Feet N S E W of ____ Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

14-295-AC

License# S57522992 St MA DOB/Age 38 | Reg# 266NJ4 Reg Type PAN Reg State MA

Sex M | Lic. Class D (19) (19) | Lic. Restrictions (20) | CDL Endorsement | Veh Year 2011 Veh Make TOYT Veh Config. 1 (21) (12: 1)

Operator WILLIAMS, FREDERICK E (Last First Middle) | Owner CURCIO, ANTHONY J (Last First Middle)

4 (3) Address 16 ANTHONY DR | Address 411 BISHOPS TER

City HYANNIS State MA Zip 02601 | City HYANNIS State MA Zip 02188-3907

Insurance Company LIBERTY MUTUAL INS | Vehicle Action Prior to Crash 1 (22) | Damaged Area Code: 1 (27) 2 (27) 8 (27)

5 (1) Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 (23) | Test Status: (28)

Citation # (if Issued) | Most Harmful Event 1 (24) | Type of Test: (29)

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 3 (25) 10 (25) | BAC Test Result: (30)

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32) | Towed from scene? 1 (33) (13: 1)

6 (1) Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	4	2	Cape Cod Hospital

7 (2) Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type (15) | Action (16) | Location (17) | Condition (18) | ☐ Hit/Run | ☐ Moped

License# S98971296 St MA DOB/Age 28 | Reg# 479ZY8 Reg Type PAN Reg State MA

Sex M | Lic. Class D (19) (19) | Lic. Restrictions (20) | CDL Endorsement | Veh Year 2014 Veh Make MAZD Veh Config. 1 (21)

Operator SIGUENCIAFERNAND, JORGE L (Last First Middle) | Owner SIGUENCIAFERNAND, JORGE L (Last First Middle)

Address 660 PITCHER'S WAY | Address 660 PITCHER'S WAY

City HYANNIS State MA Zip 02601-2580 | City HYANNIS State MA Zip 02601-2580 (14)

8 (1) Insurance Company COMMERCE INSURANCE | Vehicle Action Prior to Crash 1 (22) | Damaged Area Code: 1 (27) 2 (27) 8 (27)

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 (23) | Test Status: (28)

Citation # (if Issued) | Most Harmful Event 1 (24) | Type of Test: (29)

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1 (25) (25) | BAC Test Result: (30)

9 (2) Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32) | Towed from scene? 1 (33)

Please fill out for operator and all occupants

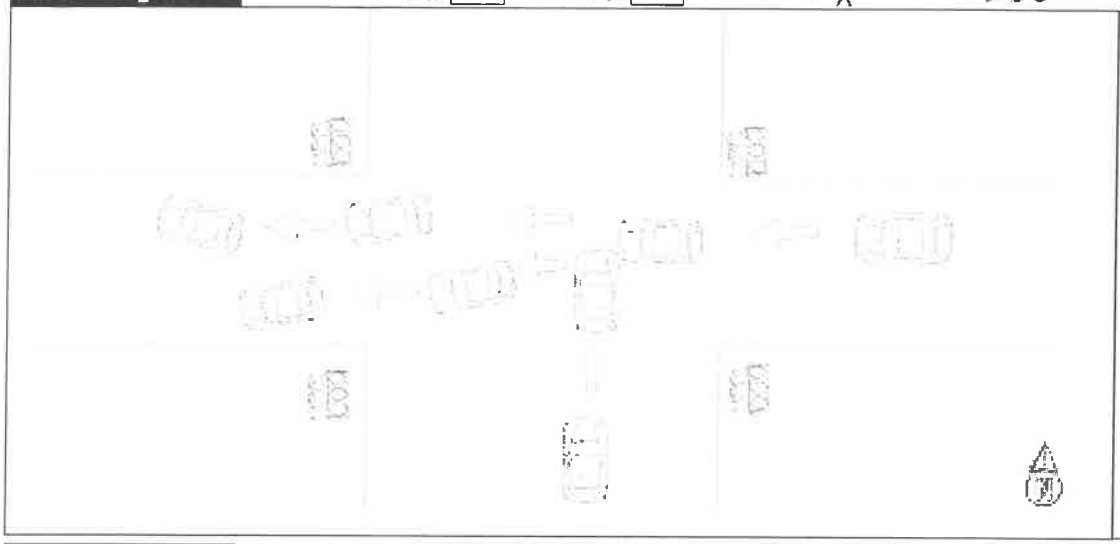
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

14-295-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Fredrick Williams - "I was going straight and the car ran the red light and hit me. I know my light was green."
Jorge Siguenciaferand - "The light was green and he blew through and hit me. The light was green for a little while before I went through the intersection."

Gist- I reviewed the camera on Main St. and High School Rd. and it clearly shows that MV # 1 (Williams) went through the red light wihtout slowing down. As MV # 1 went through the red light he collided with MV # 2 causing the vehicle to turn 90 degrees and come to rest on Main Street.
Both motor vehicles were towed by Cape Way Towing.
Photos were taken by Patrolman Needham.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

DENNIS STAMPFL	DMS/269	Barnstable PD	4/7/2014
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks Date

14-1021-AC

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
10/23/2014	10:07 24H R	Barnstable	2	0		State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** — 10: 2

1: 1
Route# HIGH SCHOOL RD Direction Name of Roadway/Street
At
Route# MAIN ST Direction Name of Intersecting Roadway/Street
Also at intersection with
2: 3
Route# Direction Name of Intersecting Roadway/Street

Route# Direction Address# Name of Roadway/Street
Feet N S E W of Mile Marker or Exit Number
11: 2
Feet N S E W of Route# Intersecting Roadway/Street
Feet N S E W of Landmark

3: Please Select One of the Following: ☑ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

14-1021-AC

License# S57310474 St MA DOB/Age 46 — Reg# 74HP80 Reg Type PAN Reg State MA
Sex F Lic. Class 19: D 19: Lic. Restrictions 20: 1 CDL Endorsement — Veh Year 2006 Veh Make MERZ Veh Config. 21: 1 — 12: 1
Operator VEARA, AMY BETH BETH (Last First Middle) — Owner VEARA, AMY BETH BETH (Last First Middle)
4: 3
Address 91 RIDGEWOOD DR — Address 91 RIDGEWOOD DR
City BREWSTER State MA Zip 02631-1026 — City BREWSTER State MA Zip 02631-1026
Insurance Company COMMERCE INSURANCE — Vehicle Action Prior to Crash 22: 1 — Damaged Area Code: 27: 2 27 27
Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1 23 23 23 — Test Status: 28
5: 1
Citation # (if Issued) — Most Harmful Event 24: 1 — Type of Test: 29
Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: 99 25 — BAC Test Result: 30
Viol. 3: Ch/Sec/Sub — Viol. 4 (Cn/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 Susp. Drug: 32 — 13: 1
6: 2
Towed from scene? 33: 2

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7: 2
Please Select One of the Following: ☑ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist — Type 15 — Action 16 — Location 17 — Condition 18 — ☐ Hit/Run — ☐ Moped

License# S36528051 St MA DOB/Age 48 — Reg# 4135 Reg Type PAN Reg State MA
Sex M Lic. Class 19: D 19: Lic. Restrictions 20: 1 CDL Endorsement — Veh Year 2002 Veh Make HOND Veh Config. 21: 1
Operator ROONEY, JAMES T (Last First Middle) — Owner MORIN, JOAN A (Last First Middle)
Address 83 ENSIGN RD — Address 83 ENSIGN RD
City CENTERVILLE State MA Zip 02632-2646 — City CENTERVILLE State MA Zip 02632-2646 — 14
8: 4
Insurance Company METROPOLITAN PROP — Vehicle Action Prior to Crash 22: 2 — Damaged Area Code: 27: 6 27 27
Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1 23 23 23 — Test Status: 28
Citation # (if Issued) — Most Harmful Event 24: 1 — Type of Test: 29
Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: 99 25 — BAC Test Result: 30
9: 2
Viol. 3: Ch/Sec/Sub — Viol. 4 (Cn/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 Susp. Drug: 32
Towed from scene? 33: 2

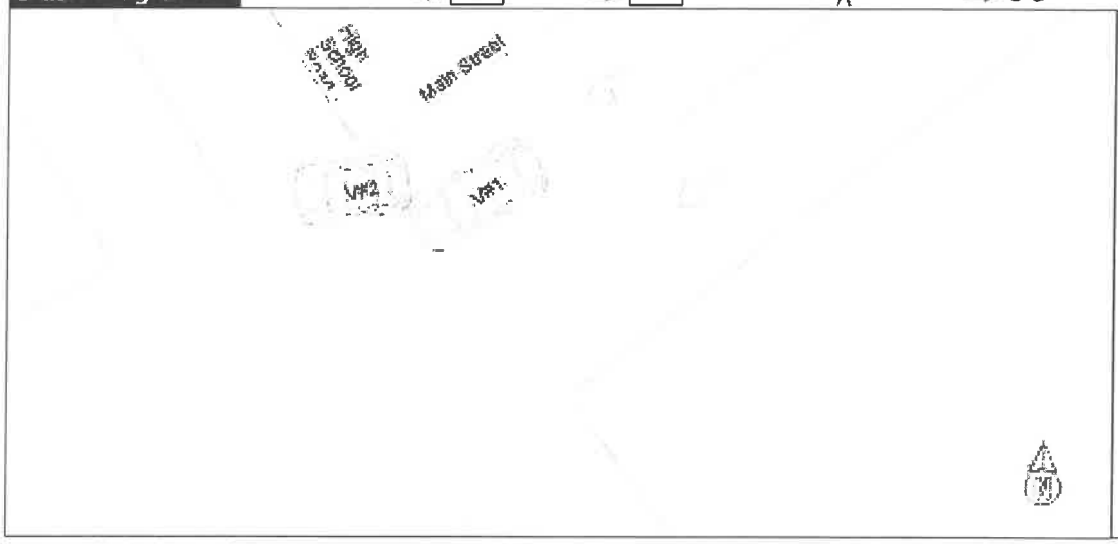
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

14-1021-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Encountered minor traffic collision while on patrol. Verified neither operator injured. V#1 had minor damage consisting of scratched paint and paint transfer on passenger side front bumper. V#2 had minor damage consisting of scratched paint and paint transfer on driver side rear bumper. OP# 1 stated she was traveling Westerly on Main Street when she slowed to stop for V#2 which was stopped Westerly at the traffic signal. OP#1 stated she skidded on the wet roadway surface and struck rear bumper of V#2. OP#2 stated he was traveling Westerly on Main Street, turning right onto High School Road, when he abruptly stopped for a crossing cyclist. OP#2 stated V#2 suddenly struck his rear bumper.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

JASON STURGIS	JES/236	Barnstable PD		10/23/2014
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

14-1109-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
11/19/2014	13:15 24H R	Barnstable	2	0		Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 1 — Route# | Direction | Name of Roadway/Street: | At | Route# | Direction | Name of Intersecting Roadway/Street:

2 1 — Also at intersection with: Route# | Direction | Name of Intersecting Roadway/Street:

491 MAIN ST — Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of ____ or ____ — Mile Marker | Exit Number (11: 2)

Feet N S E W of ____ Route# Intersecting Roadway/Street

Feet N S E W of ____ Landmark

3 — Please Select One of the Following: ✓ Vehicle 1 | 4 #Occupants | ☐ Hit/Run | ☐ Moped

14-1109-AC

License# 246968414 St MA DOB/Age 60 — Reg# 646AX2 Reg Type PAN Reg State MA (12: 1)

Sex F Lic. Class 19 D 19 Lic. Restrictions 20 99 CDL H Endorsement — Veh Year 2009 Veh Make HOND Veh Config. 21 1

Operator FARREN, PAULA T (Last First Middle) — Owner HOUSING ASSISTANCE CORP. (Last First Middle)

4 3 — Address 12 CAHOON LN — Address 460 MAIN ST

City DENNIS State MA Zip 02638 — City HYANNIS State MA Zip 02601

Insurance Company PHILADELPHIA INDEM — Vehicle Action Prior to Crash 2 22 — Damaged Area Code: 4 27 5 27 6 27

Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 1 23 23 23 23 — Test Status: 28

5 1 — Citation # (if Issued) — Most Harmful Event 1 24 — Type of Test: 29

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 1 25 25 — BAC Test Result: 30

Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 Susp. Drug: 32 (13: 1)

6 1 — Towed from scene? 2 33

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	
KELLY, KRISTEN M	309 SOUTH STB, HYANNIS MA 02601	26	F	99	99	4	0	0	5	1	
[redacted]	[redacted]	1	F	5	4	4	0	0	5	1	
MORGAN, ALICIA LEE	309 SOUTH STD, HYANNIS MA 02601	24	F	99	4	4	0	0	5	1	

7 2 — Please Select One of the Following: ✓ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S10523697 St MA DOB/Age 27 — Reg# 848VJ1 Reg Type PAN Reg State MA

Sex F Lic. Class 19 D 19 Lic. Restrictions 20 99 CDL Endorsement — Veh Year 2000 Veh Make CHRY Veh Config. 21 1

Operator PLOTCZYK, JESSICA A (Last First Middle) — Owner PLOTCZYK, LAWRENCE R (Last First Middle)

Address 8 JAN SEBASTIAN DR8 — Address 8 JAN SEBASTIAN DR

City SANDWICH State MA Zip 02563-2360 — City SANDWICH State MA Zip 02563-2358 (14)

8 1 — Insurance Company NGM INSURANCE — Vehicle Action Prior to Crash 2 22 — Damaged Area Code: 1 27 2 27 8 27

Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 1 23 23 23 23 — Test Status: 28

Citation # (if Issued) — Most Harmful Event 1 24 — Type of Test: 29

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 5 25 97 25 — BAC Test Result: 30

9 2 — Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 Susp. Drug: 32

Towed from scene? 2 33

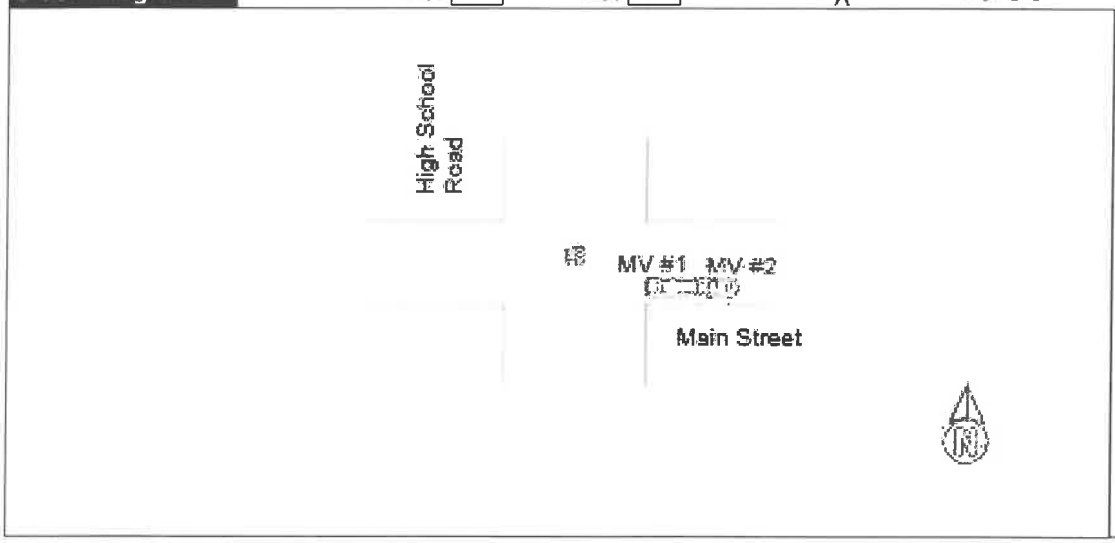
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

14-1109-AC

Crash Diagram:

ie: 1 → 2



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

MV #1 was stopped on Main Street at the traffic light at High School Road preparing to take a left onto High School Road. MV #2 was travelling behind MV #1. OP #2 failed to use care stopping and collided into the rear-end of MV #1, causing the accident. There was minimal damage to both vehicles. No citations were issued. OP #2 was given a verbal warning.

A 4th passenger in MV #1 is added below to the "witness" section.

Witnesses:

Name (Last. First. Middle)	Address	Phone #	Statement
LANDOLFI, ANGELA M	**309 SOUTH ST, HYANNIS MA 02601**		

Property Damage:

Owner (Last. First. Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

JENNIFER ELLIS		**JPE/220**	**Barnstable PD**		**1/12/2015**
Police Officer Name (Please Print)	Signature	ID/Badge#	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

15-254-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
03/15/2015	00:01 24H R	Barnstable	2	3		Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: MAIN ST — Route# — Direction — Name of Roadway/Street

At

HIGH SCHOOL RD — Route# — Direction — Name of Intersecting Roadway/Street

Also at intersection with

22: Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address# — Name of Roadway/Street

Feet N S E W of — Mile Marker — or — Exit Number

11: 5

Feet N S E W of — Route# — Intersecting Roadway/Street

Feet N S E W of — Landmark

3 — Please Select One of the Following: ✓ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

15-254-AC

License# S42680395 — St MA — DOB/Age 24 — Reg# P71441 — Reg Type CON — Reg State MA

Sex F — Lic. Class 19: D — 19: — Lic. Restrictions 20: — CDL Endorsement — Veh Year 1966 — Veh Make FORD — Veh Config. 21: 2 — 12: 1

Operator MCNULTY, MINDIE M (Last First Middle) — Owner EQUINE MANURE REMOVAL SERVICE (Last First Middle)

43: Address 21 JOCELYN AVE — Address 21 JOCELYN AVE

City PLYMOUTH — State MA — Zip 02360-2723 — City PLYMOUTH — State MA — Zip 02360-2723

Insurance Company FARM FAMILY MUTUAL — Vehicle Action Prior to Crash 22: 1 — Damaged Area Code: 27: 1, 27: 2, 27: 27

51: Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1, 23, 23, 23 — Test Status: 28 — Type of Test: 29

Citation # (if Issued) [redacted] — Most Harmful Event 24: 1 — BAC Test Result: 30

Viol. 1 (Ch/Sec/Sub) [redacted] — Viol. 2 (Ch/Sec/Sub) [redacted] — Driver Contributing Code 25: 3, 25: 4 — Susp. Alcohol: 31 — Susp. Drug: 32 — 13: 1

Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Towed from scene? 33: 1

62: Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	4	2	Cape Cod Hospital

72: Please Select One of the Following: ✓ Vehicle 2 — 2 #Occupants — ☐ Non-Motorist — Type 15: — Action 16: — Location 17: — Condition 18: — ☐ Hit/Run — ☐ Moped

License# S14300887 — St MA — DOB/Age 48 — Reg# 1RK831 — Reg Type PAN — Reg State MA

Sex F — Lic. Class 19: D — 19: — Lic. Restrictions 20: — CDL Endorsement — Veh Year 2006 — Veh Make ACUR — Veh Config. 21: 1

Operator FAY, PATRICIA J (Last First Middle) — Owner FAY, PATRICIA J (Last First Middle)

Address 15 GORHAM LN — Address 15 GORHAM LN

City CENTERVILLE — State MA — Zip 02632-0000 — City CENTERVILLE — State MA — Zip 02632-0000 — 14

84: Insurance Company AMICA MUTUAL — Vehicle Action Prior to Crash 22: 1 — Damaged Area Code: 27: 1, 27: 7, 27: 8

Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1, 23, 23, 23 — Test Status: 28 — Type of Test: 29

Citation # (if Issued) — Most Harmful Event 24: 1 — BAC Test Result: 30

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: 1, 25 — Susp. Alcohol: 31 — Susp. Drug: 32

92: Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Towed from scene? 33: 1

Please fill out for operator and all occupants

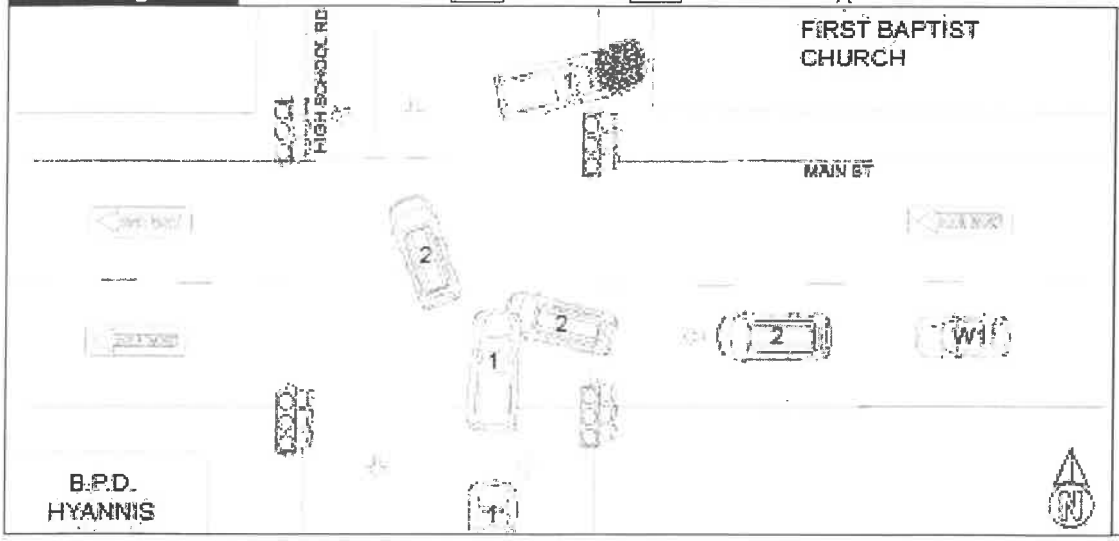
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	3	0	0	4	1	
LATIMER, STEPHEN	426 SCUDDER AVE, HYANNIS MA 02601	49	M	3	1	3	0	0	4	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-254-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

0P1 STATED (SUMMATION) THAT SHE WAS TRAVELING NORTH ON HIGH SCHOOL RD AND DOES NOT KNOW WHAT HAPPENED. SHE STATED THAT SHE THOUGHT THE TRAFFIC LIGHT WAS GREEN AND PROCEEDED THROUGH THE INTERSECTION CRASHING INTO V2.
OP2 STATED (SUMMATION) THAT SHE WAS TRAVELING WEST ON MAIN ST AND THE TRAFFIC LIGHT WAS GREEN FOR HER AND WHEN SHE WENT THROUGH THE INTERSECTION, V1 CRASHED INTO HER DRIVER'S SIDE.
W1 STATED (SUMMATION) THAT HE WAS BEHIND V2 ON MAIN ST AND THEY HAD A GREEN LIGHT AND THAT V1 RAN HER RED LIGHT AND CRASHED INTO V2.

OP1 CITED FOR RED LIGHT VIOLATION (89/9), NO INSPECTION (90/20) #R5265399 795

Witnesses:

Name (Last. First. Middle)	Address	Phone #	Statement
CONLON, ADAM S	**25 STANDISH WAY, DENNIS MA 02638**		

Property Damage:

Owner (Last. First. Middle)	Address	Phone #	41-Type	Description of Damaged Property
TOWN OF BARNSTABLE	**382 FALMOUTH RD RTE 28, HYANNIS MA 02601**		**Other**	**(TREE)NE CORNER OF MAIN/HIGH SCHOOL**

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

CHRISTOPHER BOTSFORD | **CAB/275 Barnstable PD** | **3/16/2015**

Police Officer Name (Please Print) Signature | ID/Badge# Department | Precinct/Barracks | Date

Last Mod: 3/17/2015 2:38 PM

https://www.crashlogic.com

15-1225-AC

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
12/16/2015	23:05 24H R	Barnstable	2	0		Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: MAIN ST
Route# | Direction | Name of Roadway/Street
At
HIGH SCHOOL RD EXT
Route# | Direction | Name of Intersecting Roadway/Street
Also at intersection with
23:
Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | Mile Marker | or | Exit Number
11: 3
Feet N S E W of | Route# | Intersecting Roadway/Street
Feet N S E W of | Landmark

3: Please Select One of the Following: ✓ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

15-1225-AC

License# S93733941 St MA DOB/Age 37 | Reg# 3JX637 | Reg Type PAN | Reg State MA (12: 1)
Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL | Endorsement | Veh Year 2012 | Veh Make HYUN | Veh Config. 21: 1
Operator LIGHTFOOT, CLINT D (Last First Middle) | Owner LIGHTFOOT, CHAD D (Last First Middle)
43: Address 3 AVON DR | Address 39 HITCHCOCK LN
City SANDWICH | State MA | Zip 02563-2405 | City ATTLEBORO | State MA | Zip 02703-5418
Insurance Company Progressive | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 1 27 2 27 27
51: Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28
Citation # (if Issued) [redacted] | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) [redacted] | Viol. 2 (Ch/Sec/Sub) [redacted] | Driver Contributing Code 19 25 25 | BAC Test Result: 30
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 (13: 1)
62: Towed from scene? 1 33

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

72: Please Select One of the Following: ✓ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S46934200 St MA DOB/Age 47 | Reg# 1LV861 | Reg Type PAN | Reg State MA
Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 99 | CDL | Endorsement | Veh Year 1999 | Veh Make MERC | Veh Config. 21: 1
Operator FOSS, DONALD W (Last First Middle) | Owner FOSS, DONALD W (Last First Middle)
Address 70 MAIN ST14 | Address 70 MAIN ST14
City HYANNIS | State MA | Zip 02601 | City HYANNIS | State MA | Zip 02601 (14)
84: Insurance Company Commerce | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 1 27 8 27 27
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28
Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1 25 25 | BAC Test Result: 30
92: Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32
Towed from scene? 1 33

Please fill out for operator and all occupants

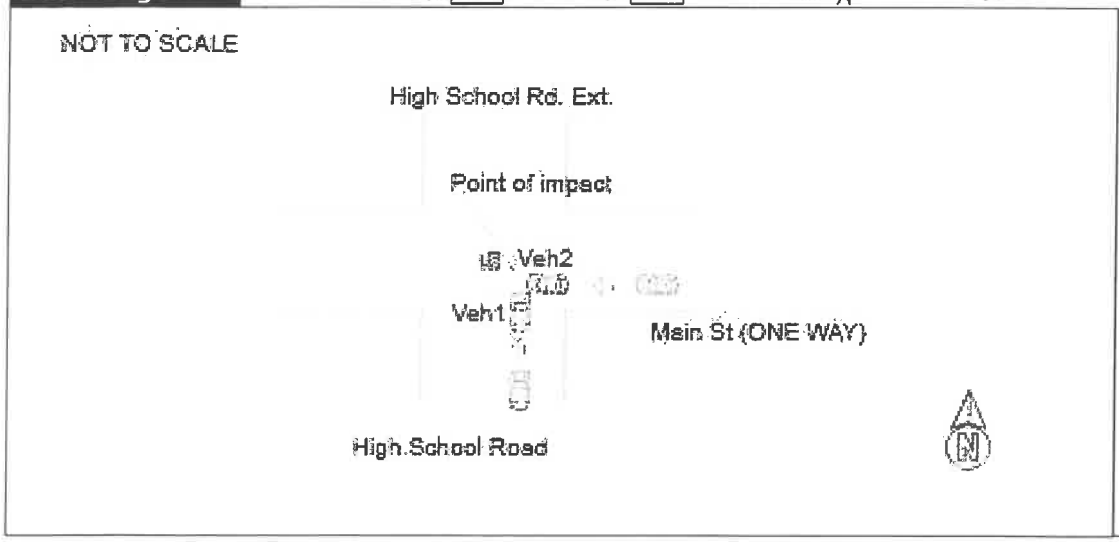
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-1225-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

According to op of veh 1 - "I was adjusting my glasses and didn't notice the red light as I crossed Main Street. I went out in front of the other vehicle and crashed into him." No injury reported by this operator. Veh. towed by Davis. This op. [redacted]

According to op. of veh 2 - "Driving down Main Street when I had a green light. The other car went through the intersection crashing into me." This op. was evaluated by HYA FD and refused medical. Veh. was towed by Davis.

[redacted]

Witnesses:

Name (Last. First. Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last. First. Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

DANIEL RUTH	**DDR/259**	**Barnstable PD**	**12/17/2015**
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks Date

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

15-616-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
07/03/2015	19:18 24H R	Barnstable	3	0		Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 1	Route#	Direction	Name of Roadway/Street	
			At	
	Route#	Direction	Name of Intersecting Roadway/Street	
			Also at intersection with	
2 1	Route#	Direction	Name of Intersecting Roadway/Street	

491 MAIN ST (Route# / Direction / Address# / Name of Roadway/Street)

Feet N S E W of ____ Mile Marker or ____ Exit Number

Feet N S E W of ____ Route# Intersecting Roadway/Street (11: 4)

Feet N S E W of ____ Landmark

3 — Please Select One of the Following: ✓ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

15-616-AC

License# S36914991 St MA DOB/Age 48 | Reg# 765ZF8 Reg Type PAN Reg State MA

Sex M | Lic. Class 19 D | 19 | Lic. Restrictions 20 | CDL Endorsement | Veh Year 2001 Veh Make FORD | Veh Config. 21 2 (12: 1)

Operator GRISWOLD, LANCE E (Last First Middle) | Owner FRENCH, JASON S (Last First Middle)

4 1 Address 127 HAMDEN CIR | Address 265 NYE RD

City HYANNIS State MA Zip 02601-5320 | City CENTERVILLE State MA Zip 02632-2617

Insurance Company occidental fire | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 2 27 27 27

5 — Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 1 23 22 23 22 23 | Test Status: 28

Citation # (if Issued) [redacted] | Most Harmful Event 22 24 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) [redacted] | Viol. 2 (Ch/Sec/Sub) [redacted] | Driver Contributing Code 10 25 97 25 | BAC Test Result: 30

Viol. 3: Ch/Sec/Sub [redacted] | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 Susp. Drug: 32 (13: 1)

6 1 — Towed from scene? 1 33

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	
PISTOLE, JENNIFER R	HOMELESS, HYANNIS MA 02601	32	F	3	99	4	0	0	5	1	

7 1 — Please Select One of the Following: ✓ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# M635461488093 St MD DOB/Age 31 | Reg# 7BP2211 Reg Type PC Reg State MD

Sex F | Lic. Class 19 99 | 19 | Lic. Restrictions 20 | CDL Endorsement | Veh Year 2014 Veh Make TOYT | Veh Config. 21 1

Operator MARTIN, KARNISHA L (Last First Middle) | Owner MARTINEZ, MARIA (Last First Middle)

Address 59 OAK SHADE RD | Address 21030 GOSHEN RD

City GAITHERSBURG State MD Zip 20878 | City GAITHERSBURG State MD Zip 20882 (14)

8 4 — Insurance Company GIECO | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 6 27 7 27 8 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28

Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1 25 25 | BAC Test Result: 30

9 2 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 Susp. Drug: 32

Towed from scene? 2 33

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

15-616-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
07/03/2015	19:18 24H R	Barnstable	3	0		State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10) 2

(1) 1 Route# | Direction | Name of Roadway/Street | At | Route# | Direction | Name of Intersecting Roadway/Street | Also at intersection with | Route# | Direction | Name of Intersecting Roadway/Street

491 MAIN ST — Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of | Mile Marker | or | Exit Number

(11) 4 Feet N S E W of | Route# | Intersecting Roadway/Street

(2) 1 Feet N S E W of | Landmark

(3) Please Select One of the Following: ☑ Vehicle 3 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

15-616-AC

License# S64189923 | St MA | DOB/Age 43 | Reg# 1LBT80 | Reg Type PAN | Reg State MA

Sex M | Lic. Class (19) D | (19) | Lic. Restrictions (20) | CDL | Endorsement | Veh Year 2010 | Veh Make NISS | Veh Config. (21) 1 | (12) 1

Operator HUGHES, JOHN (Last / First / Middle) | Owner HUGHES, JOHN (Last / First / Middle)

(4) 1 Address 511 OCEAN ST | Address 511 OCEAN ST

City HYANNIS | State MA | Zip 02601 | City HYANNIS | State MA | Zip 02601

Insurance Company GIECO | Vehicle Action Prior to Crash (22) 1 | Damaged Area Code: (27) 6 (27) 7 (27) 8

(5) Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence (23) 1 (23) (23) (23) | Test Status: (28)

Citation # (if Issued) | Most Harmful Event (24) 1 | Type of Test: (29)

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code (25) 1 (25) | BAC Test Result: (30)

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) | Susp. Drug: (32) | (13) 1

(6) 1 Towed from scene? (33) 2

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

(7) 1 Please Select One of the Following: ☐ Vehicle | #Occupants | ☐ Non-Motorist | Type (15) | Action (16) | Location (17) | Condition (18) | ☐ Hit/Run | ☐ Moped

License# | St | DOB/Age | Reg# | Reg Type | Reg State

Sex | Lic. Class (19) | (19) | Lic. Restrictions (20) | CDL | Endorsement | Veh Year | Veh Make | Veh Config. (21)

Operator (Last / First / Middle) | Owner (Last / First / Middle)

Address | Address

City | State | Zip | City | State | Zip | (14)

(8) 4 Insurance Company | Vehicle Action Prior to Crash (22) | Damaged Area Code: (27) (27) (27)

Vehicle Travel Direction N S E W | Responding to Emergency? | Event Sequence (23) (23) (23) (23) | Test Status: (28)

Citation # (if Issued) | Most Harmful Event (24) | Type of Test: (29)

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code (25) (25) | BAC Test Result: (30)

(9) 2 Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) | Susp. Drug: (32) | Towed from scene? (33)

Please fill out for operator and all occupants

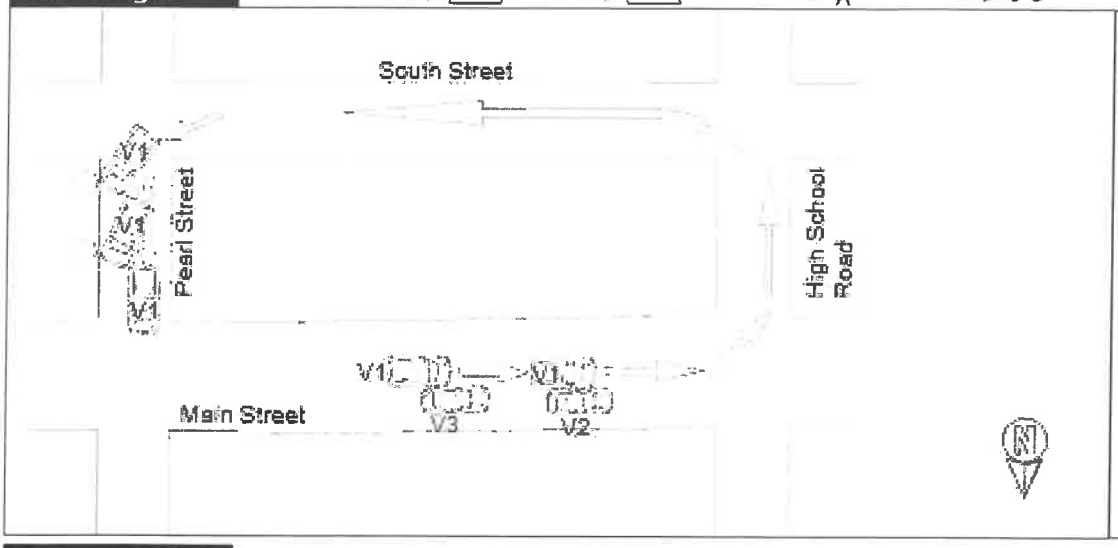
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-616-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Vehicle 2 and 3 were in the right lane of Main Street, vehicle 1 was in the left lane. Vehicle 1 side swiped vehicle 3 and 2 then fled by taking a left turn. Vehicle 1 then later struck 2 utility poles on Pearl Street, 44/5 and 44/4. The damage cause by these 2 collisions made vehicle 1 undrivable.
Vehicle 2 and 3 both recieved minor damage to the drivers side of the vehicles. Vehicle 1 has severe damage to the front passenger side.
Operator 1 was at fault and cited.

[redacted]

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

PETER MYRBECK		**PSM/249 Barnstable PD**		**7/4/2015**
Police Officer Name (Please Print)	Signature	ID/Badge# Department	Precinct/Barracks	Date

15-1223-AC

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	State Police / Local Police / MBTA Police / Other
12/16/2015	20:11 24H R	Barnstable	2	0	Lat. Lon.	Local Police ☑

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

Location

Route# | Direction | Name of Roadway/Street: 491 MAIN ST

At

Route# | Direction | Name of Intersecting Roadway/Street

Also at intersection with

Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of ____ or ____

Mile Marker | Exit Number

Feet N S E W of ____ Route# ____ Intersecting Roadway/Street (11: 3)

Feet N S E W of ____ Landmark

Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

15-1223-AC

License# S12916887 St MA DOB/Age ____ | Reg# MP432E | Reg Type MVN | Reg State MA

Sex M | Lic. Class 19: B | 19: ____ | Lic. Restrictions 20: 1 | CDL Endorsement ____ | Veh Year 2013 | Veh Make FORD | Veh Config. 21: ____ (12: 7)

Operator: FELICIANO, ARMANDO (Last First Middle) | Owner: TOWN OF BARNSTABLE POLICE DEPARTMENT (Last First Middle)

Address: 1200 PHINNEY'S LN (41) | Address: 1200 PHINNEY'S LN

City: HYANNIS | State MA | Zip 02601 | City: HYANNIS | State MA | Zip 02601

Insurance Company: ARGONAUT INS | Vehicle Action Prior to Crash 22: 3 | Damaged Area Code 27: 3 | 27 | 27 | 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2 (51) | Event Sequence 23: 2 | 23 | 23 | 23 | 23 | Test Status 28: ____

Citation # (if Issued) ____ | Most Harmful Event 24: 2 | Type of Test 29: ____

Viol. 1 (Ch/Sec/Sub) ____ | Viol. 2 (Ch/Sec/Sub) ____ | Driver Contributing Code 25: 1 | 25 | BAC Test Result 30: ____

Viol. 3: Ch/Sec/Sub ____ | Viol. 4 (Ch/Sec/Sub) ____ | Driver Distracted by 26: ____ | Susp. Alcohol 31: ____ | Susp. Drug 32: ____ (13: 2)

Towed from scene? 33: 2 (61)

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

Please Select One of the Following: ☑ Vehicle 2 | 0 #Occupants | ☐ Non-Motorist | Type 15: ____ | Action 16: ____ | Location 17: ____ | Condition 18: ____ | ☐ Hit/Run | ☐ Moped (79)

License# ____ St ____ DOB/Age ____ | Reg# MP5814 | Reg Type MVN | Reg State MA

Sex ____ | Lic. Class 19: ____ | 19: ____ | Lic. Restrictions 20: ____ | CDL Endorsement ____ | Veh Year 2011 | Veh Make FORD | Veh Config. 21: 1

Operator ____ (Last First Middle) | Owner: TOWN OF BARNSTABLE POLICE DEPARTMENT (Last First Middle)

Address ____ | Address: 1200 PHINNEY'S LN

City ____ | State ____ | Zip ____ | City: HYANNIS | State MA | Zip 02601 (14)

Insurance Company: ARGONAUT INS (84) | Vehicle Action Prior to Crash 22: 11 | Damaged Area Code 27: 1 | 8 | 27 | 27

Vehicle Travel Direction N S E W | Responding to Emergency? ____ | Event Sequence 23: 97 | 23 | 23 | 23 | Test Status 28: ____

Citation # (if Issued) ____ | Most Harmful Event 24: 97 | Type of Test 29: ____

Viol. 1 (Ch/Sec/Sub) ____ | Viol. 2 (Ch/Sec/Sub) ____ | Driver Contributing Code 25: ____ | BAC Test Result 30: ____

Viol. 3: Ch/Sec/Sub ____ | Viol. 4 (Ch/Sec/Sub) ____ | Driver Distracted by 26: ____ | Susp. Alcohol 31: ____ | Susp. Drug 32: ____ (92)

Towed from scene? 33: 2

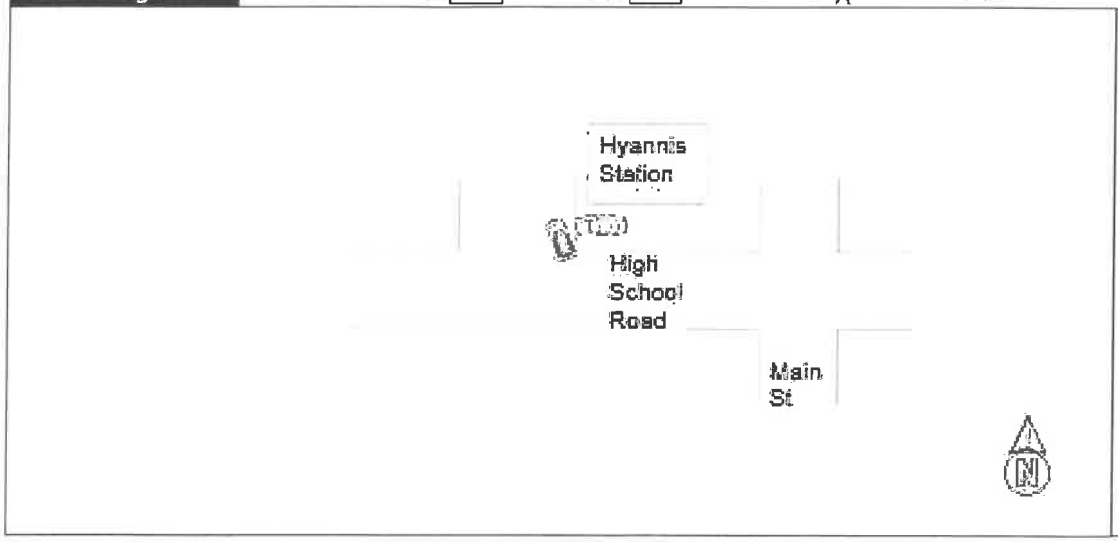
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-1223-AC

Crash Diagram:

ie: 1 → 2 → → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Barnstable cruiser E-224 was parked next to the Hyannis Station on the east side of the building. Ptl. Feliciano was operating Barnstable cruiser E-226, turning right from High School Road into the parking lot behind the station. E-226 struck E-224 while completing the turn, E-226 sustained minor damage to the passenger side front door, there was minor scuff mark on the push bar on E-224. No injuries, no wreckers, no citation, no witnesses. Photos were taken by BCI Officer Jason Arthurs.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

MICHAEL CLARK		**MJC/197 Barnstable PD**		**12/16/2015**
Police Officer Name (Please Print)	Signature	ID/Badge# Department	Precinct/Barracks	Date

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

16-938-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
10/05/2016	21:14 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other ☐

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

4 — Route# 1 | Direction | MAIN ST (Name of Roadway/Street)
At
Route# | Direction | HIGH SCHOOL RD (Name of Intersecting Roadway/Street)
Also at intersection with
21 — Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | Mile Marker | or | Exit Number
11: 3 — Feet N S E W of Route# | Intersecting Roadway/Street
Feet N S E W of Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

16-938-AC

License# 972405392 | St NY | DOB/Age 73 | Reg# BVR1016 | Reg Type PC | Reg State NY
Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: | CDL | Endorsement | Veh Year 2006 | Veh Make BUIC | Veh Config. 21: 1 | 12: 1
Operator GUNN, SANFORD C (Last First Middle) | Owner GUNN, SANFORD C (Last First Middle)
43 — Address 108 MIDLAKE CIR | Address 108 MIDLAKE CIR
City E SYRACUSE | State NY | Zip 13057 | City E SYRACUSE | State NY | Zip 13057
Insurance Company ECONOMY PREMIER ASSUR CO | Vehicle Action Prior to Crash 1: 22 | Damaged Area Code: 27 27 27
51 — Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 43 23 23 | Test Status: 28
Citation # (if Issued) R7431433 | Most Harmful Event 43 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) 89/9 | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 19 25 3 25 | BAC Test Result: 30
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 0 26 | Susp. Alcohol: 31 | Susp. Drug: 32 | 13: 1
61 — Towed from scene? 1 33

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	2	5	1	
GUNN, FAY L	108 MIDLAKE CIR, E SYRACUSE NY 13057	73	F	3	1	4	0	2	5	1	

72 — Please Select One of the Following: ☑ Vehicle 2 | 2 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S35409931 | St MA | DOB/Age 25 | Reg# 2XG932 | Reg Type PAN | Reg State MA
Sex F | Lic. Class 19: D | 19: | Lic. Restrictions 20: B | CDL | Endorsement | Veh Year 2010 | Veh Make HOND | Veh Config. 21: 1
Operator SILVA, PRIENNY P (Last First Middle) | Owner SILVA, PRIENNY P (Last First Middle)
Address 99 RIDGEWOOD AVE | Address 99 RIDGEWOOD AVE
City HYANNIS | State MA | Zip 02601-3024 | City HYANNIS | State MA | Zip 02601-3024 | 14: 1
81 — Insurance Company PROGRESSIVE DIRECT | Vehicle Action Prior to Crash 1: 22 | Damaged Area Code: 27 27 27
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28
Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1 25 25 | BAC Test Result: 30
92 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 0 26 | Susp. Alcohol: 31 | Susp. Drug: 32
Towed from scene? 1 33

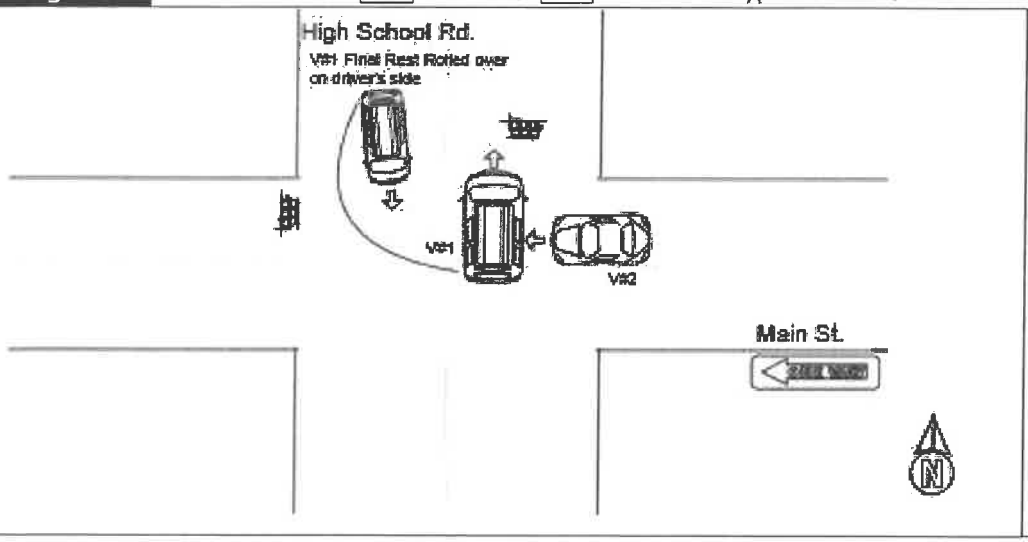
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	1	0	0	5	1	
[redacted]	[redacted]	16	M	3	1	1	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

ie: → 1 → 2 → → →

16-938-AC

Crash Diagram:



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

v# 1 was traveling North bound on High School Rd. V#2 was traveling west bound on Main St. As V#1 crossed the intersection of Main St. and High School Rd. It was struck in the passenger side rear door by V#2. V#1 spun almost 180 degrees and rolled landing on to its driver's side door facing South bound.

V#1 stated they were on High School Rd. headed across Main St. the operator V#1 did not see the red traffic signal until it was too late and admitted to running the red light.

Op V#2 stated she was stopped at a red light at the intersection of Main St. and High School Rd. Op V#2 stated her light turned green she proceeded through the intersection. V#1 came out of nowhere ran the red light and she struck V#1.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

SPENCER JACKSON		**SLJ/279**	**Barnstable PD**		**10/5/2016**
Police Officer Name (Please Print)	Signature	ID/Badge#	Department	Precinct/Barracks	Date

16-1012-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
10/30/2016	22:10 24HR	Barnstable	2	0		Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: Route# MAIN ST (Direction / Name of Roadway/Street)
At
Route# HIGH SCHOOL RD (Direction / Name of Intersecting Roadway/Street)
Also at intersection with
23: Route# (Direction / Name of Intersecting Roadway/Street)

Route# (Direction) Address# (Name of Roadway/Street)
Feet N S E W of (Mile Marker) or (Exit Number)
11: 3
Feet N S E W of Route# (Intersecting Roadway/Street)
Feet N S E W of (Landmark)

3: Please Select One of the Following: ✓ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

16-1012-AC

License# S83747651 St MA DOB/Age 30 | Reg# 1RB288 Reg Type PAN Reg State MA
Sex F Lic. Class 19: D 19: Lic. Restrictions 20: 99 CDL Endorsement | Veh Year 2008 Veh Make TOYT Veh Config. 21: 1 (12: 1)
Operator HATCH, ADRIENNE (Last First Middle) | Owner HATCH, ADRIENNE (Last First Middle)
43: Address 8013 AMBASSADOR DR | Address 8013 AMBASSADOR DR
City WESTBOROUGH State MA Zip 01581 | City WESTBOROUGH State MA Zip 01581
Insurance Company
Vehicle Travel Direction N S E W (51: 1) Responding to Emergency? 2 | Vehicle Action Prior to Crash 1: 22 | Damaged Area Code: 27 27 27
Citation # (if Issued) | Event Sequence 1: 23 23 23 23 | Test Status: 1: 28
Most Harmful Event 1: 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) 89/9 Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 3: 25 25 | BAC Test Result: 30
Viol. 3: Ch/Sec/Sub Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 99: 26 | Susp. Alcohol: 31 Susp. Drug: 32 (13: 1)
62: Towed from scene? 1: 33

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	0	1	0	0	5	1	

72: Please Select One of the Following: ✓ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S26951347 St MA DOB/Age 21 | Reg# 1GL254 Reg Type PAN Reg State MA
Sex M Lic. Class 19: D 19: Lic. Restrictions 20: 99 CDL Endorsement | Veh Year 2004 Veh Make CHRY Veh Config. 21: 1
Operator DEMIRANDA, BRUNO (Last First Middle) | Owner SARDINHA, CRISTINA GEBAUER (Last First Middle)
Address 329 MAIN ST | Address 329 WEST MAIN ST12
City HYANNIS State MA Zip 02601 | City HYANNIS State MA Zip 02601 (14: 4)
81: Insurance Company gov't employee | Vehicle Action Prior to Crash 1: 22 | Damaged Area Code: 27 27 27
Vehicle Travel Direction N S E W Responding to Emergency? 2 | Event Sequence 1: 23 23 23 23 | Test Status: 1: 28
Citation # (if Issued) | Most Harmful Event 1: 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1: 25 25 | BAC Test Result: 30
92: Viol. 3: Ch/Sec/Sub Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 0: 26 | Susp. Alcohol: 2: 31 Susp. Drug: 2: 32
Towed from scene? 1: 33

Please fill out for operator and all occupants

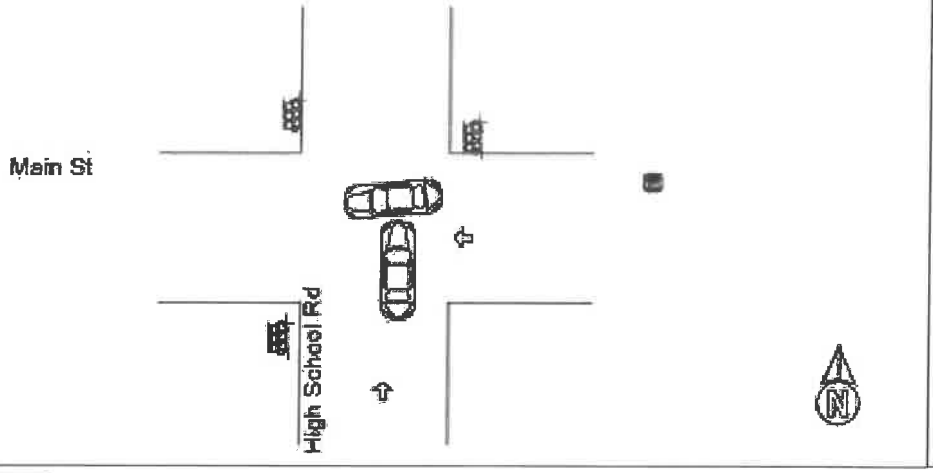
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

16-1012-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Op #1 stated that she had the green light and was traveling through intersection when she struck side of MV #2
Op #2 stated that he had the green light and was traveling through intersection when the driver side door of his MV was struck by Op #1
Witness #1 (Also RP) stated he was traveling in MV directly behind Op #2 and he definetly had green light. Witness #1 stated that Op #1 never stopped.
Both MV Towed from Scene. Op #1 handed Citation (warning) Fail Stop 89/9

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement
BEARSE, JOEY	**210 LONGVIEW DR, HYANNIS MA 02601**		

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

BRENDAN BURCHELL	**BMB/256**	**Barnstable PD**	**10/30/2016**
Police Officer Name (Please Print) Signature	ID/Badge#	Department Precinct/Barracks	Date

16-771-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
08/22/2016	22:15 24HR	Barnstable	2	0		State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14 Route# MAIN ST Direction Name of Roadway/Street
At
Route# HIGH SCHOOL Direction Name of Intersecting Roadway/Street
Also at intersection with
21 Route# Direction Name of Intersecting Roadway/Street

Route# Direction Address# Name of Roadway/Street
Feet N S E W of Mile Marker or Exit Number
11 3 Feet N S E W of Route# Intersecting Roadway/Street
Feet N S E W of Landmark

99 Please Select One of the Following: ☑ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

16-771-AC

License# 483739578 St NY DOB/Age 26 | Reg# FAV3112 Reg Type PC Reg State NY
Sex F Lic. Class 19 D 19 Lic. Restrictions 20 CDL Endorsement | Veh Year 2010 Veh Make SUBA Veh Config. 21 1 (12: 1)
Operator RIZZO, KATHRYN (Last First Middle) | Owner RIZZO, ROBERT (Last First Middle)
43 Address 47 CHRITOPHER RD | Address 47 CHRISTOPHER RD
City WESTCHESTER State NY Zip 10549 | City WESTCHESTER State NY Zip 10549
Insurance Company STATE FARM | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 7 27 27 27
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28
51 Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 99 25 25 | BAC Test Result: 30
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 Susp. Drug: 32 (13: 1) | Towed from scene? 2 33
61

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
LADA, BRIAN	22 SANDS ST, MT KISCO NY 10549	22	M	3	1	4	0	0	5	1	

72 Please Select One of the Following: ☑ Vehicle 2 | 4 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# 180824038 St NY DOB/Age 55 | Reg# HGU4061 Reg Type PAN Reg State MA
Sex M Lic. Class 19 D 19 Lic. Restrictions 20 CDL Endorsement | Veh Year 2016 Veh Make MERZ Veh Config. 21 1
Operator KAZAN, DAVID (Last First Middle) | Owner KAZAN, DAVID (Last First Middle)
Address 2883 JOYCE LN | Address 2883 JOYCE LN
City MERRICK State NY Zip 11566 | City MERRICK State NY Zip 11566 (14)
84 Insurance Company ALLSTATE | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 2 27 27 27
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28
Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 99 25 25 | BAC Test Result: 30
92 Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 Susp. Drug: 32 | Towed from scene? 2 33

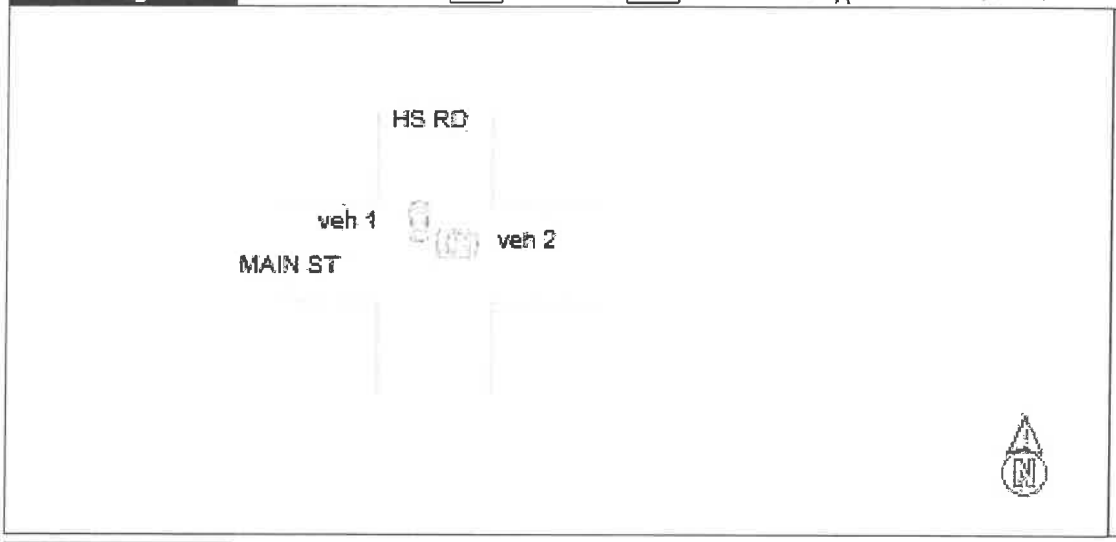
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	99	0	0	5	1	
KAZAN, RACHEL	22 JOYCE LN, MERRICK NY 11566	49	F	3	99	99	0	0	5	1	
[redacted]	[redacted]	[redacted]	F	4	99	99	0	0	5	1	
[redacted]	[redacted]	[redacted]	F	4	99	99	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

16-771-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Oper #1 and passenger of Veh #1 both stated they had a green light and tha oper #2 ran a red light
Oper #2 stated that Operator #1 ran a red light

Waited until day after accident to retreive any video from video surveillance at intersection. IT speacialist at BPD stated the camera had not worked for a least a year.

GIST: I am unable to determine who was at fault

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property
CAPE COD INN	**447 MAIN ST, HYANNIS MA 02601**		**Other**	**CHAIN LINK FENCE**

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

EDWARD CRONIN		**EC/255**	**Barnstable PD**		**8/22/2016**
Police Officer Name (Please Print)	Signature	ID/Badge#	Department	Precinct/Barracks	Date

Last Mod: 9/8/2016 9:38 AM

https://www.crashlogic.com

Town of Barnstable
Police Department

Matthew K. Sonnabend, Chief of Police
Sean E. Balcom, Deputy Chief of Police
Mark J. Cabral, Deputy Chief of Police

P.O. Box B
Hyannis, MA 02601

Main Number: 508-775-0387
Main Fax: 508-790-4167
Administration: 508-775-0920
Admin. Fax: 508-790-6317
www.barnstablepolice.com

Attached is your accident/incident report from the Barnstable Police Department.

The Massachusetts Public Records Law (M.G.L. Chapter 66 & Chapter 4, Section 7(26)) provides that every person has a right to access public information.

Portions of this report have been redacted due to exemptions within the Public Records Law. The portion (s) that have been redacted in the following report are exempt and fall under Exemption C which applies to records that are:

"personnel and medical files or information; also any other materials or data relating to a specifically named individual, the disclosure of which may constitute an unwarranted invasion of personal privacy"

If you have any questions on Public Records Law and its exemptions please refer to the following website. http://www.sec.state.ma.us

Town of Barnstable
Police Department

Matthew K. Sonnabend, Chief of Police
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The Massachusetts Public Records Law (M.G.L. Chapter 66 & Chapter 4, Section 7(26)) provides that every person has a right to access public information.

Portions of this report have been redacted due to exemptions within the Public Records Law. The portion (s) that have been redacted in the following report are exempt and fall under Exemption A which applies to records that are:

"Specifically or by necessary implication exempted from disclosure by statute"

If you have any questions on Public Records Law and its exemptions please refer to the following website. http://www.sec.state.ma.us

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
01/22/2012	1241 (24HR)	HYANNIS	1	1		Local Police ☒

AT INTERSECTION: | **LOCATION** | **NOT AT INTERSECTION:**

1 Route# 1 | Direction | Name of Roadway/Street: OCEAN ST
At
Route# | Direction | Name of Intersecting Roadway/Street: SOUTH ST
Also at Intersection with
2 Route# 1 | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address # | Name of Roadway/Street
Feet [N S E W] of — — — • — or Mile Marker / Exit Number
Feet [N S E W] of Route# | Intersecting Roadway/Street
Feet [N S E W] of Landmark

9: 2 | 10: 2 | 11: 99

3 Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-75-AC

License # S13975826 St MA DOB/Age [redacted] Reg # UNKNOWN Reg Type CO Reg State MA
Sex M Lic. Class 99 (18 18) Lic. Restrictions (19) CDL Endorsement Veh Year Veh Make Veh Config. (20)

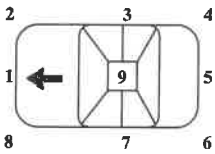
4 Operator (Last First Middle): SULLIVAN, RICHARD A
Address: 115 WALTON AVE
City HYANNIS State MA Zip 02601
Insurance Company

Owner (Last First Middle): TOWN OF BARNSTABLE
Address: MAIN ST
City HYANNIS State MA Zip 02601

5 Vehicle Travel Direction: [N S E W] Responding to Emergency? 2
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
6 Viol. 3: Ch/Sec/Sub 3 / Viol. 4: Ch/Sec/Sub /

Vehicle Action Prior to Crash (21): 1
Event Sequence (22): 3 22 22 22 22
Most Harmful Event (23): 3
Driver Contributing Code (24): 1 24 24
Underride/Override (25): 99
Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---	---	---	99	99	99	0	0	5	1	

13: 3

7 Please Select One of the Following: ☐ Vehicle 2 — #Occupants | ☒ Non-Motorist A | Type (14): 1 | Action (15): 2 | Location (16): 9 | Condition (17): 1 | ☐ Hit/Run | ☐ Moped

License # unknown St DOB/Age [redacted] Reg # Reg Type Reg State
Sex F Lic. Class (18 18) Lic. Restrictions (19) CDL Endorsement Veh Year Veh Make Veh Config. (20)

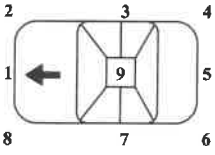
8 Operator (Last First Middle): SEITZ, LAUREN
Address: 425 E 81ST APT 3RE
City NEW YORK State NY Zip 10028
Insurance Company

Owner (Last First Middle)
Address
City State Zip

Vehicle Travel Direction: [N S E W] Responding to Emergency?
Citation # (If Issued)
Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /
Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Vehicle Action Prior to Crash (21):
Event Sequence (22):
Most Harmful Event (23):
Driver Contributing Code (24):
Underride/Override (25):
Towed

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---	---	---						3	97	Cape Cod Hospital

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian

Crash Diagram:

ie: → 1 → 2 →

NO DIAGRAM AVAILABLE

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

OPERATOR #1:Richard SULLIVAN MA DL s13975826.SULLIVAN could not be located for this report.Michael PERRY of the Barnstable DPW provided SULLIVAN'S information.PEDESTRIAN: Lauren SEITZ stated that she was walking on Ocean St. in Hyannis headed north towards the intersection with South St. SEITZ stated she walking on the sidewalk behind a Bob Kat removing snow from the side walk when she stepped off to walk around the machine.She stated that she stepped into the operator's blind spot and was too close to him and was hit in the head with the plow.She stated she was driven to the hospital by a friend. INJURIES:SEITZGIST: SEITZ was walking on Ocean St. when she was struck in the head by the plow end of a Bob Kat.I spoke with DWP Manager Michael Perry who stated that Rick SULLIVAN of 115 Walton Ave. was the operator of the Bob Kat.I was unable to contact SULLIVAN.More information is available at Barnstable Police Department-call 508-775-5466

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. CATARINA M PARACHE		268	Barnstable Police Department		02/04/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Entered: 02/04/2012 @ 1032 Entry ID: 268
Modified: 05/30/2012 @ 1222 Modified ID: 779
Approved: 03/15/2012 @ 1439 Approval ID: 115

BPD Form 06-24
MOTOR VEHICLE CRASH STATEMENT FORM

INVESTIGATION: On 01/22/2012 I was assigned to uniformed patrol in marked cruiser E221 assigned to the Hyannis sector. At approximately 1242 hrs., I was dispatched to Cape Cod Hospital for a report of a pedestrian hit by a Bob Kat with a plow. Upon I arrival, I spoke with a RN who stated that the victim had not requested to speak to the police but that she was required to inform us. The pedestrian, Lauren SEITZ was in the yellow unit and was receiving care for a [redacted]

STATEMENTS

OPERATOR #1: Richard SULLIVAN MA DL s13975826. SULLIVAN could not be located for this report. Michael PERRY of the Barnstable DPW provided SULLIVAN'S information.

PEDESTRIAN: Lauren SEITZ stated that she was walking on Ocean St. in Hyannis headed north towards the intersection with South St. SEITZ stated she walking on the sidewalk behind a Bob Kat removing snow from the side walk when she stepped off to walk around the machine. She stated that she stepped into the operator's blind spot and was too close to him and was hit in the head with the plow. She stated she was driven to the hospital by a friend.

WITNESS: None.

PHOTOS: None.

WRECKERS: None.

INJURIES: SEITZ received a [redacted]

GIST: SEITZ was walking on Ocean St. when she was struck in the head by the plow end of a Bob Kat. I spoke with DWP Manager Michael Perry who stated that Rick SULLIVAN of 115 Walton Ave. was the operator of the Bob Kat. I was unable to contact SULLIVAN.

CITATION:

779*

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
02/16/2012	2241 (24HR)	HYANNIS	2	3		Local Police ☒

AT INTERSECTION: < **LOCATION** > **NOT AT INTERSECTION:**

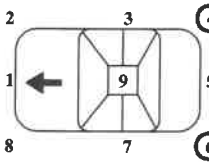
Route# ____ Direction ____ SOUTH ST — Name of Roadway/Street
At
Route# ____ Direction ____ OCEAN ST — Name of Intersecting Roadway/Street
Also at Intersection with
Route# ____ Direction ____ ____ — Name of Intersecting Roadway/Street

Route# ____ Direction ____ Address # ____ Name of Roadway/Street
____ Feet [N S E W] of — — — • — or ____ (Mile Marker / Exit Number)
____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street
____ Feet [N S E W] of ____ Landmark

Please Select One of the Following: ☒ Vehicle 1 — 1 #Occupants ☐ Hit/Run ☐ Moped — **12-153-AC**

License # S01439034 St MA DOB/Age [redacted]
Sex F Lic. Class D 18 18 Lic. Restrictions 19 CDL Endorsement
Operator GELINAS, ELIZABETH A (Last / First / Middle)
Address 3 FAITH LN
City FORESTDALE State MA Zip 02644
Insurance Company NGM
Vehicle Travel Direction: N S X W Responding to Emergency? 2
Citation # (If Issued) ____
Viol. 1: Ch/Sec/Sub ____ / Viol. 2: Ch/Sec/Sub ____ /
Viol. 3: Ch/Sec/Sub ____ / Viol. 4: Ch/Sec/Sub ____ /

Reg # CI 255R Reg Type PC Reg State MA
Veh Year 2002 Veh Make LEXUS Veh Config. 2 20
Owner GELINAS, ELIZABETH A (Last / First / Middle)
Address 3 FAITH LN
City FORESTDALE State MA Zip 02644
Vehicle Action Prior to Crash 99 21
Event Sequence 99 22 22 22 22
Most Harmful Event 99 23
Driver Contributing Code 99 24 24
Underride/Override 99 25 Towed 2

Damaged Area Code: (Circle Up to Three)


0 None
10 Undercarriage
(11) Totaled
97 Other
99 Unknown

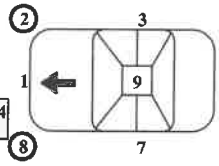
Please fill out for operator and all occupants involved

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator — See Above	---------	---	---	1	1	1	0	0	3	2	Cape Cod Hospital

Please Select One of the Following: ☒ Vehicle 2 — 2 #Occupants ☐ Non-Motorist A Type 14 Action 15 Location 16 Condition 17 ☐ Hit/Run ☐ Moped

License # S46826221 St MA DOB/Age [redacted]
Sex M Lic. Class D 18 18 Lic. Restrictions 19 CDL Endorsement
Operator GRAVINA, MATTHEW T (Last / First / Middle)
Address 7 FENWAY ST
City SOUTH YARMOUTH State MA Zip 02664
Insurance Company UNKNOWN
Vehicle Travel Direction: N S X W Responding to Emergency? 2
Citation # (If Issued) [redacted]
Viol. 1: Ch/Sec/Sub [redacted] Viol. 2: Ch/Sec/Sub [redacted]
Viol. 3: Ch/Sec/Sub ____ / Viol. 4: Ch/Sec/Sub ____ /

Reg # P30390 Reg Type PC Reg State MA
Veh Year 2011 Veh Make FORD Veh Config. 2 20
Owner WHEELS LTD (Last / First / Middle)
Address 666 GARLAND PL
City DES PLAINES State IL Zip 60016
Vehicle Action Prior to Crash 99 21
Event Sequence 99 22 99 22 22 22
Most Harmful Event 99 23
Driver Contributing Code 99 24 24
Underride/Override 99 25 Towed 2

Damaged Area Code: (Circle Up to Three)


0 None
10 Undercarriage
(11) Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle) / Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist — See Above	---------	---	---	0	1	1	0	0	3	2	Cape Cod Hospital
MEREDITH GRAVINA — 7 FENWAY SOUTH YARMOUTH, MA 02664	02/08/1981	F	3	0	1	1	0	0	3	2	Cape Cod Hospital

= Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram:

ie: → [1] → [2] →

NO CRASH DIAGRAM AVAILABLE

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

Gelinas statement:I was stopped at the red light on South St. I looked in my rear view mirror and I saw the truck was coming at me fast. He hit me and I don't remember anything else. Gravina statement:I was driving down South St.that car just came out of nowhere the wrong way and side swiped me.I then hit the wall.Investigation of MVA: Gelinas was stopped at the red light on South St just prior to Ocean St. facing E/B. Gravina was traveling E/B on South St. struck Gelinas from the rear, which threw Gelinas spinning thru the intersection. Gravina then ran over the steel post at Aselton Park, a traffic sign, and then struck the cement wall. Gravina had never used the brakes, b/c there was no skid marks. More information is available at Barnstable Police Department. Please call 508-775-5466.

851

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property
TOWN OF BARNSTABLE	MAIN ST HYANNIS MA 02601		3	MEMORIAL WALL,STREET SIGN,STEEL POSTS

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. DAVID J DOWNS		254	Barnstable Police Department		02/17/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDP1 11-24-00

Entered: 02/17/2012 @ 0306 Entry ID: 254
Modified: 12/03/2019 @ 1432 Modified ID: 851

Also Gravina stated that Gelina's side swiped him, the damage present was heavy front end damage to the vehicle of Gravina.Heavy rear damage to the vehicle of Gelinas.This would indicate a rear end crash.Officer Thompson took photo's.Davis Tow

[redacted]

On 02/16/2012, approximately 2241, this officer was dispatched to the intersection of South St. and Ocean St. for a report of a two car MVA with injuries. Upon arrival I observed a large amount of debris in the roadway. I also observed a serious motor vehicle accident involving two vehicles.

First I observed Ma Reg CI255R facing W/B on South St. (South St. is a public way in the Town of Barnstable and is maintained by Town DPW. South St. is also a one way street which the traffic flows E/B). This vehicle was operated by Elizabeth Gelinas. Gelinas was injured and unable to remove herself from said vehicle. I then observed Ma Co Reg P30390 which had a resting place off the roadway and against a cement wall. This vehicle was operated by Matthew Gravina.

I blocked the intersection with my cruiser, I exited and walked to MA Co Reg P30390. I encountered a male later identified as Matthew Gravina. Gravina identified himself of the operator of said vehicle, I observed Gravina to have his face, head, and hands covered[redacted] I was informed Rescue was en route, at this point due to the severe multiple injuries I requested two more rescue's to the scene. Also present in the passenger seat was a female identified as Meredith Gravina. Meredith Gravina was als[redacted]

While speaking with the operator Matthew Gravina about the accident, I immediately detected a strong odor of an acholic beverage eminating from the breath of Matthew Gravina while he spoke. I asked if he had consumed acholic beverages this evening. Matthew Gravina stated no. I then advised Matthew that I could clearly detect an odor of an acholic beverage eminating from him while he spoke. Matthew Gravina again stated no. I then asked about his blue wristband on his right wrist, to which he did not answer. Matthew Gravina was speaking with heavily slurred speech, and I observed his eyes to be [redacted] NOTE: The British Beer Company issued blue wristbands on this date. While I was speaking with Matthew his wife interrupted and said, "Matt don't lie to him, you were drinking. I am not going to lie for you, we were drinking."

Matthew became irate and irrational at this point. Hyannis Paramedic Andy Kleamenakis was attempting to treat the[redacted] of Matthew. Matthew was pulling off the fresh gauze, and yelling he is OK. Matthew was finally escorted to an awaiting Comm Rescue where he was treated and transported to CCH. While walking to said rescue, Matthew had to be held while walking. Working the Comm Rescue were Fire Fighters Bob O'Melia, Patrick Hill, and Tom Goodearl. Speaking with these Fire Fighters it was the professional opinion that Matthew Gravina was heavily intoxicated.

Gelinas statement: I was stopped at the red light on South St. I was going to work at the Hospital. I

looked in my rear view mirror and I saw the truck was coming at me fast. He hit me and I don't remember anything else. I think I blacked out, all I remember is the paramedic removing me from my car.

Matthew Gravina statement: I was driving down South St., that car just came out of nowhere the wrong way and side swiped me. I then hit the wall.

Upon investigation of the Motor Vehicle Accident. Gelinas was stopped at the red light on South St just prior to Ocean St. facing E/B. Gravina was traveling E/B on South St. struck Gelinas from the rear, which threw Gelinas spinning through the intersection. Gravina then ran over the steel post at Aselton Park, a traffic sign, and then struck the cement wall. Gravina hit this wall with such great force he knocked the wall completely off the foundation sending it over ten feet. It was determined that Gravina had never used the brakes, because there was no skid marks present. Also Gravina stated that Gelina's side swiped him, the damage present was heavy front end damage to the vehicle of Gravina. Heavy rear damage to the vehicle of Gelinas. This would indicate a rear end crash. Matthew Gravina and Meredith Gravina were not properly seat belted. Due to the impact both struck their heads on the truck windshield.

Officer Thompson took photo's. Davis Tow removed both MV.

Once at CCH, Matthew continued to be irrational, he was yelling and swearing at CCH ER personnel. ER Nurse Molly Hagopian was attempting to treat Matthew, but he was being uncooperative due to his high level of intoxication.

ER Doctor Peter Bosco, now attempted to treat Matthew, he also was uncooperative with Dr. Bosco. Dr. Bosco made several comments about the high level of intoxication of Matthew Gravina. Due to the high level of intoxication and the fact Gravina was completely uncooperative Dr. Bosco ordered a sedative.

I spoke with Meredith Gravina at CCH. I asked her about the events of the evening. She stated they started at Red Face Jack's (a restaurant/bar in Yarmouth). Next we went to Sea Side Pub, and finished at the BBC. I asked if they consumed alcohol at these establishments, to which she stated yes. I asked how many drinks did she consume Meredith stated about five Vodka drinks and some Patron (Patron is a tequila). I asked what did Matthew consume she stated the same.

It was my opinion that Matthew Gravina was intoxicated. I was with Gravina for several hours and and was able to monitor his behavior. He continued to speak with slurred speech, and the information provided by Meredith Gravina who was with him stating he consumed approx. five Vodka drinks and Patron.

Due to this medication administered I informed Matthew Gravina he would be issued a [redacted]

PTL DAVID J DOWNS

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
03/18/2012	1530 (24HR)	HYANNIS	2	0		State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

1 1 — Route# — Direction — OLD COLONY RD — Name of Roadway/Street

At

— Route# — Direction — OCEAN ST — Name of Intersecting Roadway/Street

Also at Intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street

2 9 — Route# — Direction — Address # — Name of Roadway/Street

2 10 — ____ Feet [N S E W] of — — — • — or Mile Marker / Exit Number

____ Feet [N S E W] of Route# ____ Intersecting Roadway/Street

3 11 — ____ Feet [N S E W] of Landmark

3 — Please Select One of the Following: ☒ Vehicle 1 — 4 #Occupants — ☐ Hit/Run — ☐ Moped — **12-225-AC**

Vehicle 1

License # S08115707 St MA DOB/Age [redacted] — Reg # 315NB9 — Reg Type PC — Reg State MA

Sex M — Lic. Class D 18 18 — Lic. Restrictions 19 — CDL Endorsement — Veh Year 2004 — Veh Make GMC — Veh Config. 2 (20)

4 1 — Operator ALMONDES, AGESANDRO L (Last First Middle)

Address 71 CHRISTIE WAY

City MARLBOROUGH State MA Zip 01752

Insurance Company ARBELLA MUTUAL INS

5 2 — Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2

Citation # (If Issued) R2018321

6 1 — Viol. 1: Ch/Sec/Sub 89 /4A — Viol. 2: Ch/Sec/Sub ____ / ____

Viol. 3: Ch/Sec/Sub ____ / ____ — Viol. 4: Ch/Sec/Sub ____ / ____

Owner ALMONDES, MONICA R (Last First Middle) — 1 12

Address 71 CHRISTIE WAY

City MARLBOROUGH State MA Zip 01752

Vehicle Action Prior to Crash 4 (21)

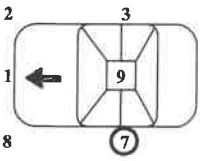
Event Sequence 1 (22) 22 22 22

Most Harmful Event 1 (23)

Driver Contributing Code 4 (24) 24

Underride/Override 1 (25) — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

1 13

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	4	99	0	0	5	1	
MONICA ALMONDES	71 CHRISTIE WAY MARLBOROUGH, MA 01752	[redacted]		3	99	4	99	0	0	5	1	
[redacted]	[redacted]	[redacted]	M	4	99	4	99	0	0	5	1	
CELSO MEDEIROS	71 CHRISTIE WAY MARLBOROUGH, MA 01752	[redacted]	M	6	99	4	99	0	0	5	1	

7 1 — Please Select One of the Following: ☒ Vehicle 2 — 3 #Occupants — ☐ Non-Motorist A — Type 14 — Action 15 — Location 16 — Condition 17 — ☐ Hit/Run — ☐ Moped

Vehicle 2

License # S73025103 St MA DOB/Age [redacted] — Reg # 146LY3 — Reg Type PC — Reg State MA

Sex F — Lic. Class D 18 18 — Lic. Restrictions 2 (19) — CDL Endorsement — Veh Year 2011 — Veh Make VOLVO — Veh Config. 1 (20)

8 4 — Operator LEPINIS, ASTA H (Last First Middle)

Address 43 LAFAYETTE ST

City QUINCY State MA Zip 02169

Insurance Company AMICA MUTUAL INS

Vehicle Travel Direction: ☒ S E W — Responding to Emergency? 2

Citation # (If Issued) ____

Viol. 1: Ch/Sec/Sub ____ / ____ — Viol. 2: Ch/Sec/Sub ____ / ____

Viol. 3: Ch/Sec/Sub ____ / ____ — Viol. 4: Ch/Sec/Sub ____ / ____

Owner ASCHER, GLORIA (Last First Middle)

Address 43 LAFAYETTE ST

City QUINCY State MA Zip 02169

Vehicle Action Prior to Crash 1 (21)

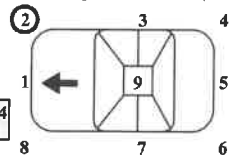
Event Sequence 1 (22) 22 22 22

Most Harmful Event 1 (23)

Driver Contributing Code 1 (24) 24

Underride/Override 1 (25) — Towed 2

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---	99	4	99	0	0	5	1	
GLORIA ASCHER	43 LAFAYETTE ST QUINCY, MA 02169	[redacted]		3	99	4	99	0	0	5	1	
LION KELMAN	10 KING'S BEACH RD LYNN, MA 01902	[redacted]	F	6	99	4	99	0	0	5	1	

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 = Pedestrian

Crash Diagram:

ie: → [1] → [2] →

NO DIAGRAM

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

GIST: MV#1 was traveling in the right lane, heading north on Old Colony Road, just after the intersection with South Street. MV#2 was traveling in the left lane, heading north on Old Colony Road, just after the intersection with South Street. MV#1 attempted to turn into the Hess Gas Station from the right lane. As MV#1 turned into the left lane, MV#1 struck MV#2 on its passenger side front end, causing moderate damage to MV#2. MV#1 sustained moderate damage to its driver's side door and rear door.

More information is available at Barnstable Police Department. Please call 508-775-5466.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. JUSTIN J WASKIEWICZ		270	Barnstable Police Department		03/23/2012
Police Officer Name (Please Print)	Signature	ID/Badge #	Department	Precinct/Barracks	Date

CDPI 11-24-00

NARRATIVE FOR PTL. JUSTIN J WASKIEWICZ

Ref: 12-225-AC

Entered: 03/22/2012 @ 1022 Entry ID: 270
Modified: 03/23/2012 @ 0927 Modified ID: 771
Approved: 03/22/2012 @ 1428 Approval ID: 185

CITATION #R2018321 WAS ISSUED (MAILED) TO AGESANDRO L. ALMONDES FOR:
1. LANE CHANGE, MADE UNSAFELY

STATEMENTS

OPERATOR #1: "I was on the right side of the road, wanted to take left into the gas station. I put on my blinker, I don't know what happened. I didn't see her."

OPERATOR #2: "I was driving after the light in the left hand lane. Suddenly the car crossed over from the right lane and hit me."

WITNESS: "The SUV was on the right hand side and turned into the left lane to get into the gas station, without looking. They do it all the time."

PHOTOS: None

WRECKERS: None

INJURIES: None

GIST: MV#1 was traveling in the right lane, heading north on Old Colony Road, just after the intersection with South Street. MV#2 was traveling in the left lane, heading north on Old Colony Road, just after the intersection with South Street. MV#1 attempted to turn into the Hess Gas Station from the right lane. As MV#1 turned into the left lane, MV#1 struck MV#2 on its passenger side front end, causing moderate damage to MV#2. MV#1 sustained moderate damage to its driver's side door and rear door.

CITATION: OPERATOR #1 was mailed, Massachusetts Uniform Citation (R2018321):
Chapter 89 Section 4A - Lane change, made unsafely

771

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

12-531-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
06/28/2012	13:17 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 1 — Route# | Direction | Name of Roadway/Street: SOUTH ST

At

Route# | Direction | Name of Intersecting Roadway/Street: OCEAN ST

Also at intersection with

2 1 — Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of | Mile Marker | or | Exit Number

3 11 — Feet N S E W of | Route# | Intersecting Roadway/Street

Feet N S E W of | Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-531-AC

License# S33248857 St MA DOB/Age 60 | Reg# CI80RS | Reg Type PAN | Reg State MA

Sex F | Lic. Class [19] [19] | Lic. Restrictions [20] | CDL Endorsement | Veh Year 2011 | Veh Make TOYT | Veh Config. [21] 1 — 1 12

Operator AZER, MARILENE A (Last First Middle) | Owner AZER, ANWAR A (Last First Middle)

4 3 — Address 25 MELBA LN | Address 25 MELBA LN

City STONEHAM State MA Zip 02180-1338 | City STONEHAM State MA Zip 02180-1338

Insurance Company METROPOLITAN INS | Vehicle Action Prior to Crash [22] 4 | Damaged Area Code: [27] 1

5 1 — Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence [23] 1 | Test Status: [28] | Type of Test: [29] | BAC Test Result: [30]

Citation # (if Issued) | Most Harmful Event [24] 1

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code [25] 4 | Susp. Alcohol: [31] | Susp. Drug: [32] — 1 13

6 1 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by [26] | Towed from scene? [33] 1

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 8 — Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type [15] | Action [16] | Location [17] | Condition [18] | ☐ Hit/Run | ☐ Moped

License# B13516351 St AZ DOB/Age 43 | Reg# 97NS36 | Reg Type PAN | Reg State MA

Sex M | Lic. Class [19] D | [19] | Lic. Restrictions [20] 1 | CDL Endorsement | Veh Year 2011 | Veh Make HOND | Veh Config. [21] 1

Operator DAMATO, CHRISTOPHER (Last First Middle) | Owner PISKURA, JOHN J III (Last First Middle)

Address 9132 WHITE FEATHER LN | Address 136 UNCLE WILLIES WAY

City PEORIA State IL Zip 85383 | City HYANNIS State MA Zip 02601-2536 — 14

8 1 — Insurance Company COMMERCE INS | Vehicle Action Prior to Crash [22] 1 | Damaged Area Code: [27] 6 [27] 7

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence [23] 1 | Test Status: [28] | Type of Test: [29] | BAC Test Result: [30]

Citation # (if Issued) | Most Harmful Event [24] 1

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code [25] 1 | Susp. Alcohol: [31] | Susp. Drug: [32]

9 2 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by [26] | Towed from scene? [33] 2

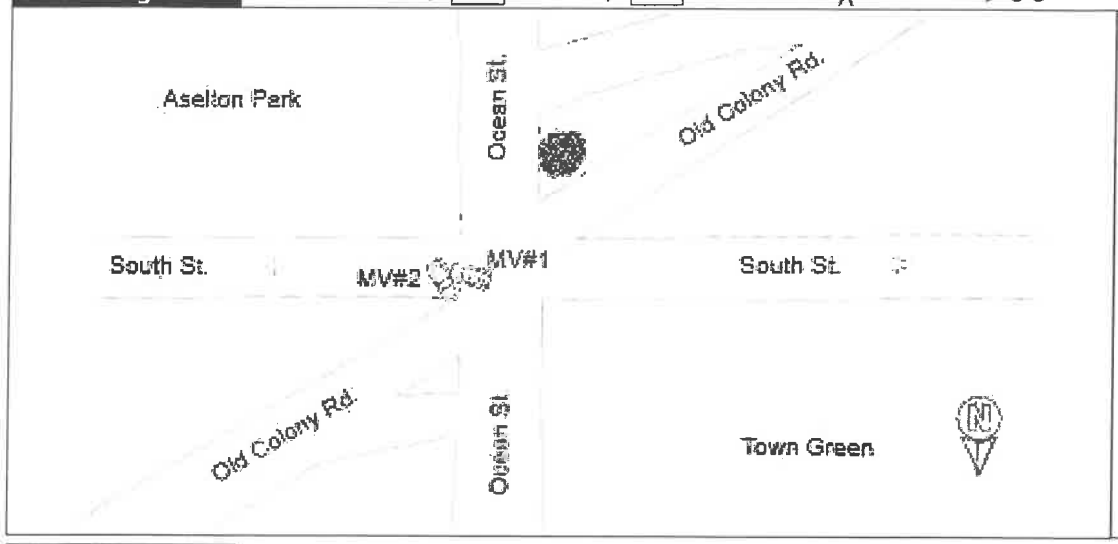
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-531-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

On 06/28/12, I was dispatched to the intersection of South St. and Ocean St. for a two car mva with no reported pi. Upon arrival both vehicles were in the intersection with MV#2 turned in the opposite direction to the one way traffic. No injuries were reported at the scene. OP#2 stated that he was driving straight through the intersection, when the other v hit him in the side and continued to drive, turning him around. OP#1 stated that she was turning left and that the other car did not have their blinker on. GIST: MV#1 was on the north side of South St. waiting to turn left. MV#2 was on the south side of South St. waiting to proceed straight through the intersection. As MV#2 began to drive straight, having the right of way, MV#1 turned left crashing into the side of MV#2 causing damage to the drivers side. Once MV#1 made contact with MV#2, it continued to drive, turning MV#2 180 degrees to face the wrong way in the road.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

JONATHAN PASS	JBP/221	Barnstable Police Department		7/3/2012
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

12-558-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
07/04/2012	22:35 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

15: 5
Route# | Direction | Name of Roadway/Street: SOUTH ST
At
Route# | Direction | Name of Intersecting Roadway/Street: OCEAN ST
Also at intersection with
21: 1
Route# | Direction | Name of Intersecting Roadway/Street:

Route# | Direction | Address# | Name of Roadway/Street:
Feet [N S E W] of ____ or ____
Mile Marker | Exit Number
11: 4
Feet [N S E W] of Route# | Intersecting Roadway/Street
Feet [N S E W] of Landmark

3: Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-558-AC

License# 12192331 St PA DOB/Age 68
Sex M Lic. Class 19 19 Lic. Restrictions 20 CDL Endorsement
Operator ROBERTS, JAMES (Last First Middle)
41: 1 Address 685 LIMEKILN RD DOYLESTOWN RD
City OUT OF TOWN State PA Zip 02632
Insurance Company CALIFORNIA CASUALITY
52: 2 Vehicle Travel Direction [N S E W] Responding to Emergency? 2
Citation # (if Issued)
Viol. 1 (Ch/Sec/Sub) Viol. 2 (Ch/Sec/Sub)
61: 1 Viol. 3: Ch/Sec/Sub Viol. 4 (Ch/Sec/Sub)

Reg# TOADRIP Reg Type PC Reg State PA
Veh Year 2004 Veh Make GMC Veh Config. 21: 97 (12: 1)
Owner ROBERTS, JAMES (Last First Middle)
Address 685 LIMEKILN RD DOYLESTOWN RD
City OUT OF TOWN State PA Zip 02632
Vehicle Action Prior to Crash 22: 1
Event Sequence 23: 1 23 23 23 23
Most Harmful Event 24: 1
Driver Contributing Code 25: 4 25
Driver Distracted by 26:
Damaged Area Code: 27: 1 27: 7 27: 27
Test Status: 28
Type of Test: 29
BAC Test Result: 30
Susp. Alcohol: 31 Susp. Drug: 32 (13: 1)
Towed from scene? 33: 1

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	2	99	0	0	5	1	

72: Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S93089970 St MA DOB/Age 19
Sex M Lic. Class 19 19 Lic. Restrictions 20 CDL Endorsement
Operator SARAPAS, BRIAN (Last First Middle)
Address 18 HORSESHOE DR PLAINVILLE M
City OUT OF TOWN State MA Zip 02632
84: 4 Insurance Company CITIZENS INS
Vehicle Travel Direction [N S E W] Responding to Emergency? 2
Citation # (if Issued)
Viol. 1 (Ch/Sec/Sub) Viol. 2 (Ch/Sec/Sub)
92: 2 Viol. 3: Ch/Sec/Sub Viol. 4 (Ch/Sec/Sub)

Reg# 773BC2 Reg Type PAN Reg State MA
Veh Year 2007 Veh Make HYUN Veh Config. 21: 1
Owner SARAPAS, ALAN (Last First Middle)
Address SAME
City SAME State MA Zip (14)
Vehicle Action Prior to Crash 22: 1
Event Sequence 23: 1 23 23 23 23
Most Harmful Event 24: 1
Driver Contributing Code 25: 1 25
Driver Distracted by 26:
Damaged Area Code: 27: 1 27: 2 27: 8 27
Test Status: 28
Type of Test: 29
BAC Test Result: 30
Susp. Alcohol: 31 Susp. Drug: 32
Towed from scene? 33: 1

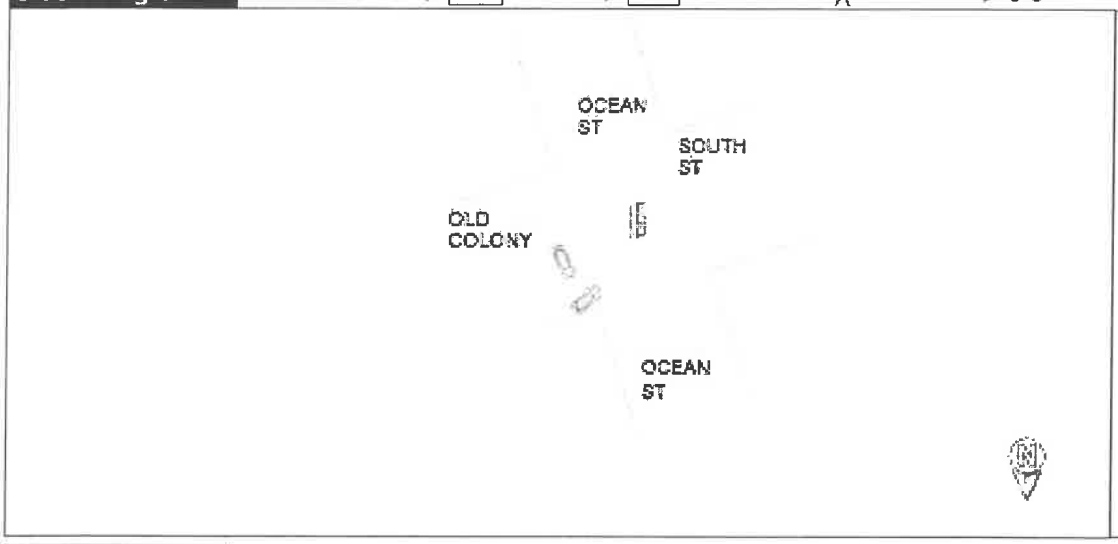
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	2	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-558-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OPER #1 EXITING 500 OLD COLONY FAILS TO YIELD RIGHT OF WAY AND STRIKES VEHICLE #2

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

PATRICK FALLON	PF/203	Barnstable Police Department	7/15/2012
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks Date

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

12-699-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
08/04/2012	23:27 (24H R)	Barnstable	2	1	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: 4
Route# | Direction: | Name of Roadway/Street: SOUTH ST
At
Route# | Direction: | Name of Intersecting Roadway/Street: OCEAN ST
Also at intersection with
21: Route# | Direction: | Name of Intersecting Roadway/Street:

Route# | Direction | Address# | Name of Roadway/Street
Feet [N S E W] of | Mile Marker | or | Exit Number
11: 2
Feet [N S E W] of Route# | Intersecting Roadway/Street
Feet [N S E W] of Landmark

3: Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-699-AC

License# **S49741594** St **MA** DOB/Age **30**
Sex **M** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL Endorsement
Operator **PINA, NATHAN A** (Last First Middle)
43: Address **398 MAIN ST5C**
City **HYANNIS** State **MA** Zip **02601**
Insurance Company **NO INSURANCE CO LISTED**
51: Vehicle Travel Direction [N S E W] Responding to Emergency? **2**
Citation # (if Issued)
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub)
61: Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)

Reg# **HPJ9443** Reg Type **PC** Reg State **PA**
Veh Year **2012** Veh Make **NISS** Veh Config. **1** (21) (12: 1)
Owner **LLC EAN HOLDINGS** (Last First Middle)
Address **6929 LAKEWOOD AVE**
City **TULSA** State **OK** Zip **74117**
Vehicle Action Prior to Crash **2** (22)
Event Sequence **1** (23) (23) (23) (23)
Most Harmful Event **1** (24)
Driver Contributing Code **1** (25) (25)
Driver Distracted by (26)
Damaged Area Code: (27) (27) (27)
Test Status: (28)
Type of Test: (29)
BAC Test Result: (30)
Susp. Alcohol: (31) Susp. Drug: (32) (13: 1)
Towed from scene? **2** (33)

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

78: Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type (15) | Action (16) | Location (17) | Condition (18) | ☐ Hit/Run | ☐ Moped

License# **S44783468** St **MA** DOB/Age **22**
Sex **F** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL Endorsement
Operator **TUNGULINA, IRINA V** (Last First Middle)
Address **67 SEA STF5**
City **HYANNIS** State **MA** Zip **02601**
84: Insurance Company **PREMIER INS**
Vehicle Travel Direction [N S E W] Responding to Emergency? **2**
Citation # (if Issued)
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub)
92: Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)

Reg# **528RS4** Reg Type **PAN** Reg State **MA**
Veh Year **1994** Veh Make **HOND** Veh Config. **1** (21)
Owner **TUNGULINA, IRINA V** (Last First Middle)
Address **67 SEA STF5**
City **HYANNIS** State **MA** Zip **02601** (14)
Vehicle Action Prior to Crash **2** (22)
Event Sequence **1** (23) (23) (23) (23)
Most Harmful Event **1** (24)
Driver Contributing Code **1** (25) (25)
Driver Distracted by (26)
Damaged Area Code: (27) (27) (27)
Test Status: (28)
Type of Test: (29)
BAC Test Result: (30)
Susp. Alcohol: (31) Susp. Drug: (32)
Towed from scene? **2** (33)

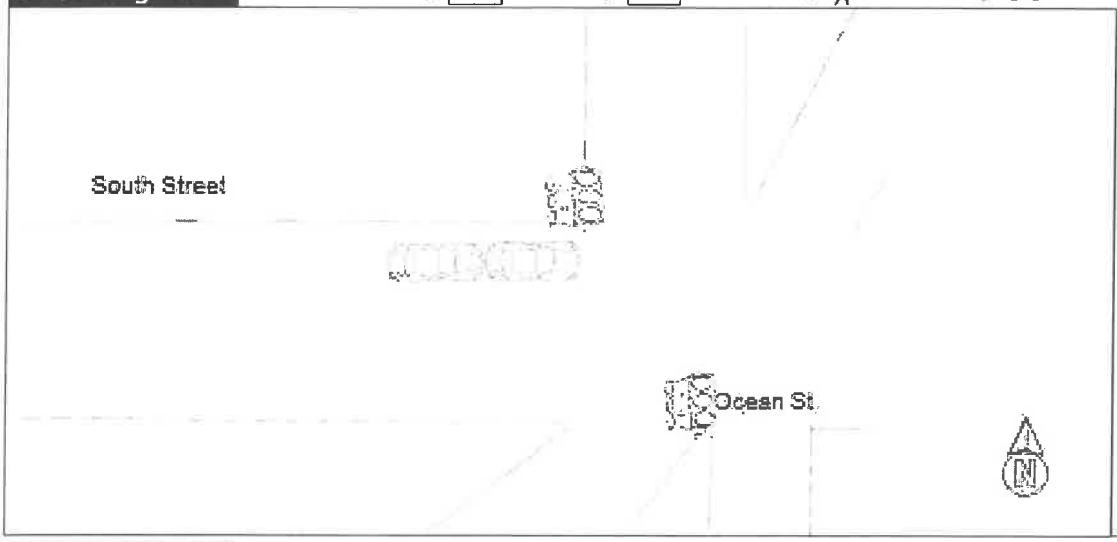
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	4	2	Cape Cod Hospital

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-699-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Operator # 1 - Nathan Pina - "I was stopped at the stop light and my soda rolled underneath my legs. I went to pick it up and rolled into the back of the car in front of me."
Operator # 2 - Irina Tungulina - "I was stopped at that stop light and the car behind me bumped me from behind."
Gist - Neither MVs had any damage. Motor Vehicle #1 slowly rolled into Motor Vehicle #2.
Operator #2 stated that she wanted to go to the hospital. Prior to rescue arriving Operator #2 took the pizzas out of her vehicle and ran across the street giving them to another delivery person.
771

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

DENNIS STAMPFL	DMS/269	Barnstable Police Department	8/5/2012
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks Date

12-822-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
09/03/2012	14:57 24H R	Barnstable	2	0	35 Lat. Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 1 — Route# | Direction | Name of Roadway/Street: OCEAN ST
At
Route# | Direction | Name of Intersecting Roadway/Street: SOUTH ST
Also at intersection with
2 1 — Route# | Direction | Name of Intersecting Roadway/Street:

Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | Mile Marker | or | Exit Number
3 11 — Feet N S E W of | Route# | Intersecting Roadway/Street
Feet N S E W of | Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-822-AC

License# S29477211 St MA DOB/Age 27 | Reg# 2892PM | Reg Type PAN | Reg State MA
Sex F | Lic. Class 19 D | 19 | Lic. Restrictions 20 2 | CDL | Endorsement | Veh Year 2006 | Veh Make HYUN | Veh Config. 21 1 (12: 1)
Operator BURNETT, KERRI L (Last First Middle) | Owner DOLBEC, JANE ANNE (Last First Middle)
4 3 — Address 195 FALMOUTH RD8C | Address 441 BUCK ISLAND RD
City MASHPEE | State MA | Zip 02649 | City WEST YARMOUTH | State MA | Zip 02673
Insurance Company PREMIER INS | Vehicle Action Prior to Crash 4 22 | Damaged Area Code: 1 27 2 27 27
5 1 — Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28
Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 4 25 25 | BAC Test Result: 30
6 1 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 (13: 1) | Towed from scene? 2 33

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 2 — Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# 218083035 St CT DOB/Age 24 | Reg# 251YMJ | Reg Type PC | Reg State CT
Sex F | Lic. Class 19 D | 19 | Lic. Restrictions 20 1 | CDL | Endorsement | Veh Year 2008 | Veh Make AUDI | Veh Config. 21 1
Operator COOK, HAYLEY A (Last First Middle) | Owner COOK, THOMAS D (Last First Middle)
Address 6 SACHEM RD | Address 6 SACHEM RD
City WESTON | State CT | Zip 06883 | City WESTON | State CT | Zip 06883 (14)
8 1 — Insurance Company GEICO INS | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 7 27 27 27
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28
Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1 25 25 | BAC Test Result: 30
9 2 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 | Towed from scene? 1 33

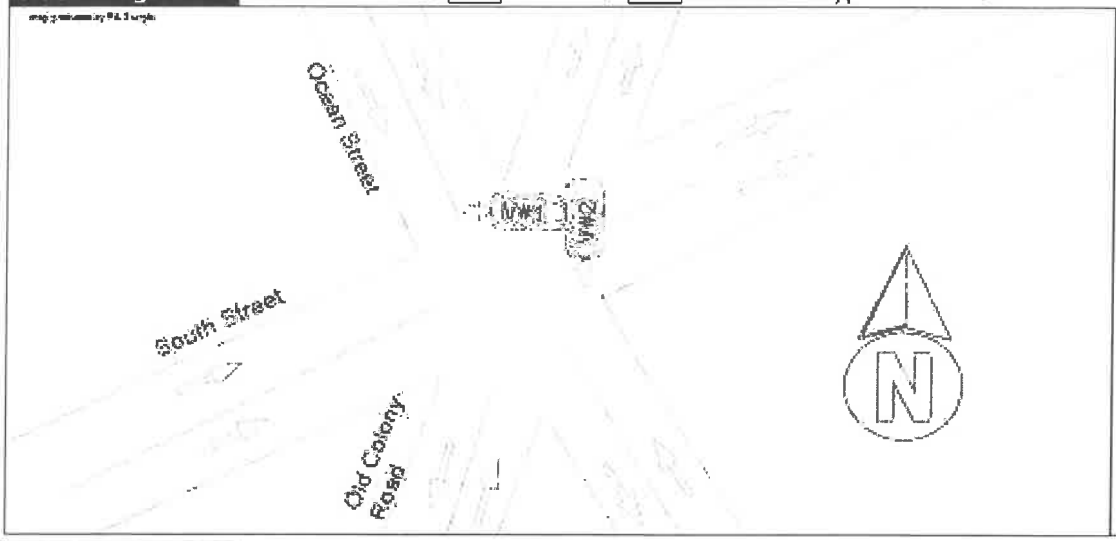
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	0	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-822-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Dispatched to the above intersection for a two car mva with no reported pi. Upon arrival both vehicles were moved to the Hess station parking lot located on Old Colony Rd. Neither party reported any injury while on the scene. V#2 was traveling North on Ocean St straight therough the intersection. V#1 was attempting to turn left onto South St from Ocean St. V#2 was struck in the drivers side of the vehicle while it was in the center of the intersection. V#1 failed to yield the right of way, and hit V#2 causing major damage.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

JONATHAN PASS	JBP/221	Barnstable Police Department		9/9/2012
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
02/16/2012	0252 (24HR)	HYANNIS	1	2	35	Lat. / Lon.

State Police ☐ Local Police ☒ MBTA Police ☐ Other:

AT INTERSECTION: | **< LOCATION >** | **NOT AT INTERSECTION:**

Route# / Direction: SOUTH ST — Name of Roadway/Street

At

Route# / Direction: OLD COLONY RD — Name of Intersecting Roadway/Street

Also at Intersection with

Route# / Direction — Name of Intersecting Roadway/Street

Route# / Direction / Address # — Name of Roadway/Street

Feet N S E W of — Mile Marker — or Exit Number

Feet N S E W of Route# Intersecting Roadway/Street

Feet N S E W of Landmark

Please Select One of the Following: ☒ Vehicle 1 — 2 #Occupants ☐ Hit/Run ☐ Moped

12-147-AC

License # 033602335 St MA DOB/Age [redacted]

Sex M Lic. Class 99 Lic. Restrictions 1 CDL Endorsement

Operator GONSALVES, DERECK J (Last First Middle)

Address 4 SUMMERSIDE LN APT 3

City HYANNIS State MA Zip 02601

Insurance Company NGM INSURANCE COMP

Vehicle Travel Direction: N S ☒ W Responding to Emergency? 2

Citation # (If Issue [redacted]

Viol. 1: Ch/Sec/Su [redacted] Viol. 2: Ch/Sec/Sub [redacted]

Viol. 3: Ch/Sec/Sub [redacted] Viol. 4: Ch/Sec/Sub /

Reg # 7270MM Reg Type PC Reg State MA

Veh Year 1998 Veh Make DODGE Veh Config. 8

Owner GALVIN, DEBORAH (Last First Middle)

Address 9 SUMMERSIDE LN

City HYANNIS State MA Zip 02601

Vehicle Action Prior to Crash 99

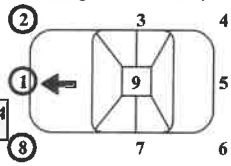
Event Sequence 22 22 22 22

Most Harmful Event 22

Driver Contributing Code 10 24

Underride/Override 1 Towed 1

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator	See Above	---------	---	---	99	1	99	0	0	2	2	Cape Cod Hospital
RAOULCHELLE EDWARDS	4 SUMMERSIDE LN HYANNIS, MA 02601	[redacted]	F	3	99	1	99	0	0	4	2	Cape Cod Hospital

Please Select One of the Following: ☐ Vehicle 2 #Occupants ☐ Non-Motorist A Type Action Location Condition ☐ Hit/Run ☐ Moped

License # St DOB/Age

Sex Lic. Class Lic. Restrictions CDL Endorsement

Operator (Last First Middle)

Address

City State Zip

Insurance Company

Vehicle Travel Direction: N S E W Responding to Emergency?

Citation # (If Issued)

Viol. 1: Ch/Sec/Sub / Viol. 2: Ch/Sec/Sub /

Viol. 3: Ch/Sec/Sub / Viol. 4: Ch/Sec/Sub /

Reg # Reg Type Reg State

Veh Year Veh Make Veh Config.

Owner (Last First Middle)

Address

City State Zip

Vehicle Action Prior to Crash

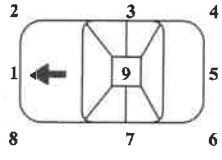
Event Sequence

Most Harmful Event

Driver Contributing Code

Underride/Override Towed

Damaged Area Code: (Circle Up to Three)



0 None
10 Undercarriage
11 Totaled
97 Other
99 Unknown

Please fill out for operator/non-motorist and all occupants involved

Name (Last First Middle)	Address	DOB/Age	Sex	26 Seat Pos.	27 Safety System	28 Airbag Status	29 Airbag Switch	30 Eject Code	31 Trap Code	32 Injury Status	33 Transp. Code	Medical Facility
Operator/Non-Motorist	See Above	---------	---	---								

→ = Direction [1] = Vehicle 1 [2] = Vehicle 2 ☺ = Pedestrian

Crash Diagram:

ie: → [1] → [2] → ☺

NO DIAGRAM

If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

PHOTOS: Ptl. Corbett responded to scene for photos.WRECKERS: Davis Towing.
INJURIES: Both GONSALVES and EDWARDS.
GIST: MV #1, MA Reg 7270MM, a red Dodge Ram pickup was travelling east on South Street when, for an unknown reason, the MV left the roadway and struck a utility pole in the area of Old Colony. Heavy front end damage to the pickup and may be totaled. Minor damage to utility pole reported to NStar. [redacted]

[redacted]

More information is available at Barnstable Police Department. Please call 508-775-5466.

Witnesses:

Name (Last,First,Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last,First,Middle)	Address	Phone #	34-Type	Description of Damaged Property
NSTAR ELECTRIC	WILLOW ST YARMOUTH MA			UTILITY POLE

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Carrier Issuing Authority Code [35]

Address _____ City _____ St _____ Zip _____

US DOT #: _____ State Number _____ Issuing State _____ ICC #: _____ Interstate [36]

Cargo Body Type Code [37] Gross Vehicle Weight [38]

Trailer Reg #: _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [39]

Hazmat Information:

Placard [40] Material 1 digit # [41] Material Name _____ Material 4 digit # _____ Release code [42]

PTL. DANIELLE S ST. PETER	274	Barnstable Police Department	02/16/2012
Police Officer Name (Please Print)	ID/Badge #	Department	Date

Signature — Precinct/Barracks

CDP1 11-24-00

Ref: 12-147-AC

Entered: 02/16/2012 @ 0755 Entry ID: 274
Modified: 06/04/2012 @ 1154 Modified ID: 744
Approved: 02/17/2012 @ 0642 Approval ID: 187

[redacted]

STATEMENTS

OPERATOR #1: Dereck GONSALVES (DOB [redacted]) unconscious at scene and unable to provide statement.

WITNESS: Passenger Raoulchelle EDWARDS [redacted] was disoriented and confused at scene. EDWARDS unable to provide statements as to how or why crash occurred.

PHOTOS: Ptl. Corbett responded to scene for photos.

WRECKERS: Davis Towing responded to scene to tow MV.

INJURIES: Both GONSALVES and EDWARDS transported to CCH for treatment of injuries resulting from crash.

GIST: MV #1, MA Reg 7270MM, a red Dodge Ram pickup was travelling east on South Street when, for an unknown reason, the MV left the roadway and struck a utility pole in the area of Old Colony. Heavy front end damage to the pickup and may be totaled. Minor damage to utility pole reported to NStar.

[redacted]

771*

12-425-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	State Police / Local Police / MBTA Police / Other
06/01/2012	14:01 24H R	Barnstable	2	0	Lat. / Lon.	Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 (1): Route# — Direction: — SOUTH ST (Name of Roadway/Street)
At
OLD COLONY RD (Route# — Direction: — Name of Intersecting Roadway/Street)
Also at intersection with
2 (1): Route# — Direction: — Name of Intersecting Roadway/Street

Route# — Direction — Address# — Name of Roadway/Street
Feet N S E W of — or
Mile Marker — Exit Number
3 (11): Feet N S E W of — Route# — Intersecting Roadway/Street
Feet N S E W of — Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

12-425-AC

License# S92749461 — St MA — DOB/Age 71 — Reg# 151GZ5 — Reg Type PAN — Reg State MA (12: 1)
Sex F — Lic. Class 19: D — 19: — Lic. Restrictions 20: — CDL — Endorsement — Veh Year 2004 — Veh Make HYUN — Veh Config. 21: 2
Operator DUFFY, BARBARA J (Last First Middle) — Owner DUFFY, BARBARA J (Last First Middle)
4 (3): Address 54 HAWES AVE — Address 54 HAWES AVE
City HYANNIS — State MA — Zip 02601 — City HYANNIS — State MA — Zip 02601
Insurance Company COMMERCE — Vehicle Action Prior to Crash 22: 1 — Damaged Area Code: 27: 1, 27: 2, 27: 8
5 (1): Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1, 23, 23, 23 — Test Status: 28
Citation # (if Issued) — Most Harmful Event 24: 1 — Type of Test: 29
Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: 99, 25 — BAC Test Result: 30
Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32 (13: 1)
6 (1): Towed from scene? 33: 1

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 (8) — Please Select One of the Following: ☑ Vehicle 2 — 2 #Occupants — ☐ Non-Motorist — Type 15 — Action 16 — Location 17 — Condition 18 — ☐ Hit/Run — ☐ Moped

License# 19410017 — St PA — DOB/Age 50 — Reg# GVF1913 — Reg Type PC — Reg State PA
Sex M — Lic. Class 19: D — 19: — Lic. Restrictions 20: 1 — CDL — Endorsement — Veh Year 2011 — Veh Make FORD — Veh Config. 21: 1
Operator BAUSE, RICHARD (Last First Middle) — Owner BAUSE, RICHARD (Last First Middle)
Address 700 PENNSYLVANIA AVE — Address 700 PENNSYLVANIA AVE
City DOWNINGTOWN — State PA — Zip 19335 — City DOWNINGTOWN — State PA — Zip 19335 (14)
8 (1): Insurance Company NATIONWIDE — Vehicle Action Prior to Crash 22: 4 — Damaged Area Code: 27: 2, 27: 3, 27: 4
Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1, 23, 23, 23 — Test Status: 28
Citation # (if Issued) — Most Harmful Event 24: 1 — Type of Test: 29
Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: 99, 25 — BAC Test Result: 30
9 (2): Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32
Towed from scene? 33: 1

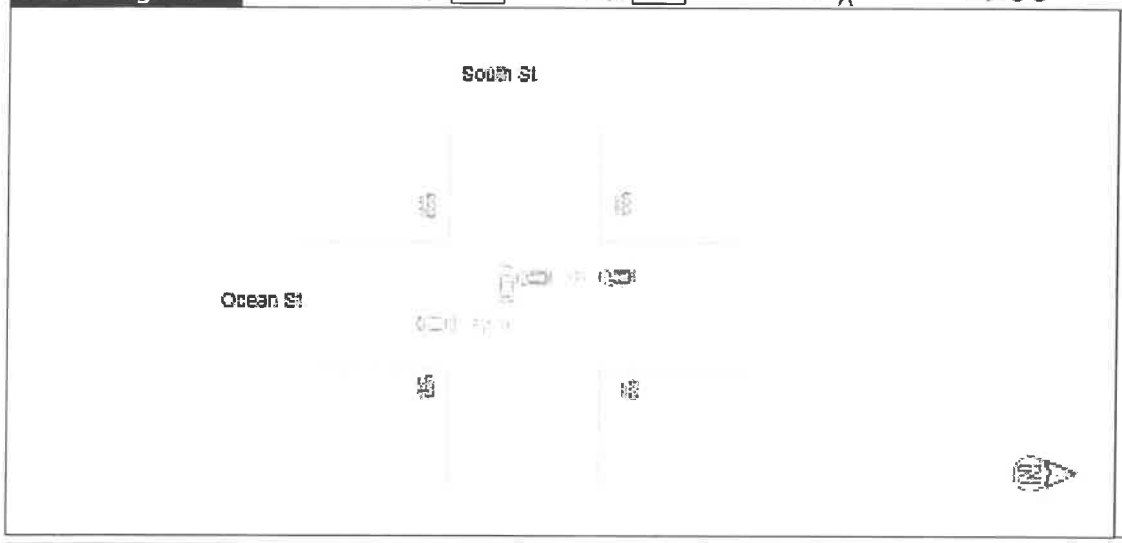
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
BAUSE, CONNOR	700 PENNSYLVANIA AVE, DOWNINGTOWN PA 19335	18	M	3	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-425-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP #1: Duffy stated that she was travelling north on Ocean St. and was stopped at the lights at South St. She explained that when the light turned green she proceeded into the intersection, going straight and was struck by Vehicle #2. OP #2: Bause stated that he was travelling south on Ocean St. and was stopped at the lights at South St. behind one other car. He explained that when the light turned green he followed the car in front of him turning left onto South St. He stated that the believed the traffic going straight accross from him was still stopped. He stated that he was struck by Vehicle #1 on the passenger side without him ever seeing the vehicle. WRECKERS: Capeway Towing - both vehicles. INJURIES: None. GIST: Vehicle #1 travelling north on Ocean St. struck Vehicle #2 turning left onto South St.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

STEVEN BARRETTE	**SB/246**	**Barnstable Police Department**		**6/2/2012**
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

Last Mod: 6/7/2012 9:48 PM

https://www.crashlogic.com

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

12-1110-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
11/30/2012	09:15 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 (1) Route# | Direction | Name of Roadway/Street: SOUTH ST

At

Route# | Direction | Name of Intersecting Roadway/Street: OLD COLONY RD

Also at intersection with

2 (1) Route# | Direction | Name of Intersecting Roadway/Street: OCEAN ST

Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of ____ or ____ (Mile Marker / Exit Number)

Feet N S E W of Route# ____ Intersecting Roadway/Street (11: 2)

Feet N S E W of ____ Landmark

3 Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-1110-AC

License# S34500517 St MA DOB/Age 36 | Reg# K84336 Reg Type CON Reg State MA (12: 1)

Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 2004 Veh Make CHEV Veh Config. 21: 2

Operator MCDONOUGH, CHRISTOPHER M (Last First Middle) | Owner COMMONWEALTH ELECTRIC COMPANY (Last First Middle)

4 (3) Address 22 WHITFORD | Address 1165 MASS AVE

City MARSHFIELD State MA Zip 02050 | City DORCHESTER State MA Zip 02122

Insurance Company SELF INSURED (NSTAR) | Vehicle Action Prior to Crash 22: 2 | Damaged Area Code: 27: 5 27 27 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 23: 1 23 23 23 23 | Test Status: 28

5 (1) Citation # (if Issued) | Most Harmful Event 24: 1 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 25: 1 25 | BAC Test Result: 30

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 (13: 1)

6 (1) Towed from scene? 33: 2

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 (2) Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S05061210 St MA DOB/Age 55 | Reg# 12GR78 Reg Type PAN Reg State MA

Sex F | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 2003 Veh Make TOYT Veh Config. 21: 2

Operator FLANDERS, CLAIRE (Last First Middle) | Owner FLANDERS, CLAIRE (Last First Middle)

Address 11 WEDGEMERE RD | Address 11 WEDGEMERE RD

City WEST YARMOUTH State MA Zip 02673 | City WEST YARMOUTH State MA Zip 02673 (14)

8 (4) Insurance Company COMMERCE | Vehicle Action Prior to Crash 22: 2 | Damaged Area Code: 27: 1 27 27 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 23: 1 23 23 23 23 | Test Status: 28

Citation # (if Issued) | Most Harmful Event 24: 1 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 25: 20 19 25 | BAC Test Result: 30

9 (2) Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32

Towed from scene? 33: 2

Please fill out for operator and all occupants

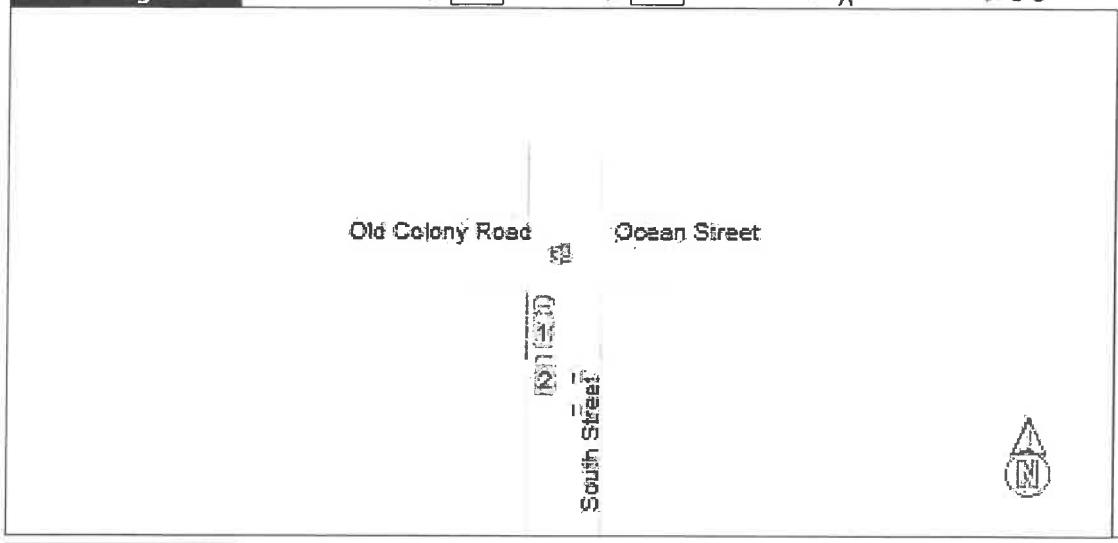
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-1110-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

On Friday 11/30/2012 while assigned to a Sector One Hyannis Patrol I was dispatched to an MVA at the intersection of South Street and Ocean Street. Upon my arrival Sgt. D. Myett was off with two M/V's and advised that there was no injury. The damage seem to be minor in nature. I then spoke with the two operators. OP#1: Mr. Chris McDonough stated- I was stopped at the traffic light with a red light waiting for it to turn green when all of a sudden I was just struck from behind. OP#2: Ms.Claire Flanders states I was driving down South Street when a bottle of lotion that I had just purchased fell from the arm rest onto the floor by my feet and I did not want it to obstruct the gas or brake pedals so I bent down to pick it up and when I did that I ran into teh back end of the other car. I did not realize I was that close to the other car, Im glad I was not traveling fast. There were no injuries, No wreckers, No photos. Report filed.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

BRIAN MORRISON	**BDM/205**	**Barnstable Police Department**		**12/2/2012**
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

12-811-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
08/30/2012	09:27 24H R	Barnstable	2	0	35 Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 (1) Route# | Direction | Name of Roadway/Street

At

Route# | Direction | Name of Intersecting Roadway/Street

Also at intersection with

2 (1) Route# | Direction | Name of Intersecting Roadway/Street

184 | SOUTH ST — Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of — Mile Marker | or — Exit Number

3 (11) Feet N S E W of — Route# | Intersecting Roadway/Street

Feet N S E W of — Landmark

3 Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

12-811-AC

License# B622-115-41-966-0 | St FL | DOB/Age 70

Sex F | Lic. Class D | Lic. Restrictions 1 | CDL Endorsement

Operator BURZYCKI, CAROL JEAN (Last First Middle)

4 (3) Address 28808 YELLOW FIN TRL

City BONITA SPRINGS | State FL | Zip 34135-0000

Insurance Company Allstate

5 (1) Vehicle Travel Direction N S E W | Responding to Emergency? 2

Citation # (if Issued)

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub)

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)

Reg# K091GW | Reg Type PC | Reg State FL

Veh Year 2007 | Veh Make VOLK | Veh Config. 1 (12: 1)

Owner BURZYCKI, CAROL JEAN (Last First Middle)

Address 28808 YELLOW FIN TRL

City BONITA SPRINGS | State FL | Zip 34135-0000

Vehicle Action Prior to Crash 4

Event Sequence 1

Most Harmful Event 1

Driver Contributing Code 99

Driver Distracted by

Damaged Area Code: 1 2 8

Test Status:

Type of Test:

BAC Test Result:

Susp. Alcohol: | Susp. Drug: 1 (13)

Towed from scene? 1

6 (1) Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 (2) Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type | Action | Location | Condition | ☐ Hit/Run | ☐ Moped

License# 015482163 | St MA | DOB/Age 56

Sex F | Lic. Class D | Lic. Restrictions 1 | CDL Endorsement

Operator NOYES, TERRI L (Last First Middle)

Address 56 DAISY HILL RD

City HYANNIS | State MA | Zip 02601

8 (1) Insurance Company SAFETY

Vehicle Travel Direction N S E W | Responding to Emergency? 2

Citation # (if Issued)

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub)

9 (2) Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)

Reg# 292PV3 | Reg Type PAS | Reg State MA

Veh Year 2012 | Veh Make CHRY | Veh Config. 1 (21: 1)

Owner EAN HOLDINGS (Last First Middle)

Address 600 CORPORATE DR

City ST LOUIS | State MO | Zip 63105 (14)

Vehicle Action Prior to Crash 1

Event Sequence 1

Most Harmful Event 1

Driver Contributing Code 99

Driver Distracted by

Damaged Area Code: 6 7

Test Status:

Type of Test:

BAC Test Result:

Susp. Alcohol: | Susp. Drug:

Towed from scene? 1

Please fill out for operator and all occupants

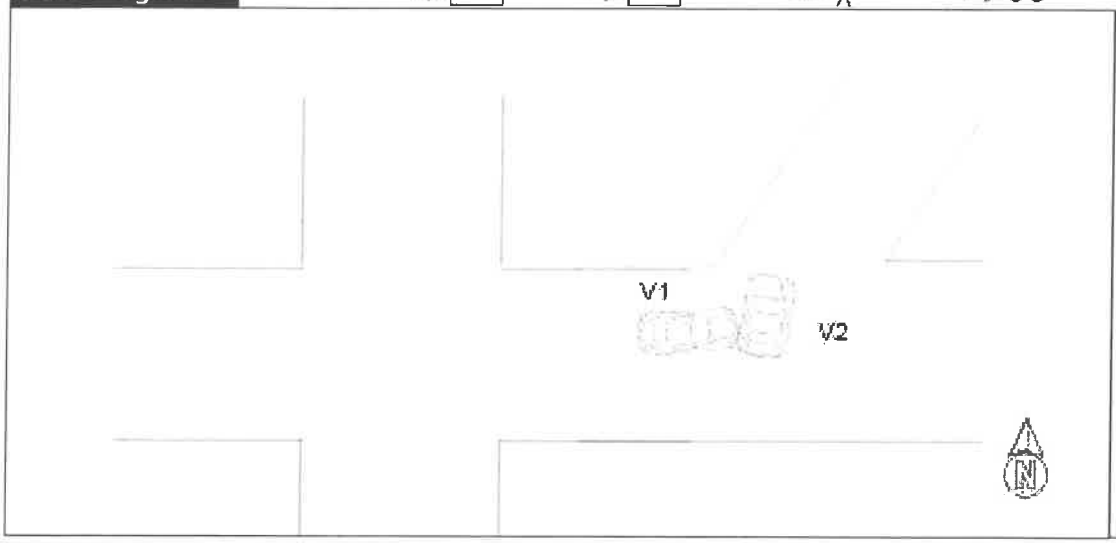
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

12-811-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

V1 (FL K091GW)was turning left onto South St from Ocean St in Hyannis. V2 (MA 292PV3) was travelling northbound on Ocean St. bearing right onto Old Colony Rd. Both operators had green lights. V2 was in the intersection and was struck in the left rear tire area by V1, damaging the area surrounding the tire. V1 sustained damage to its front end. Davis towing removed both vehicles from the scene.

Witnesses:

Name (Last. First. Middle)	Address	Phone #	Statement
DAVIS, PAUL	**145 BAY SHORE RD, HYANNIS MA 02601**		

Property Damage:

Owner (Last. First. Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

CHRISTOPHER ROSS	**CRR/271**	**Barnstable Police Department**		**8/30/2012**
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

13-442-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
06/03/2013	21:25 24H R	Barnstable	2	1	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: SOUTH ST
Route# | Direction | Name of Roadway/Street
At
OCEAN ST
Route# | Direction | Name of Intersecting Roadway/Street
Also at intersection with
22: Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | Mile Marker | or | Exit Number
11 3: Feet N S E W of Route# | Intersecting Roadway/Street
Feet N S E W of | Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

13-442-AC

License# S27227067 St MA DOB/Age 25 | Reg# E4140V | Reg Type PC | Reg State TN
Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 2012 | Veh Make CHEV | Veh Config. 21: 1 (12: 1)
Operator RUSS, ANTHONY A (Last First Middle) | Owner HERTZ VEHICLES LLC (Last First Middle)
4 — Address 398 WEST MAIN ST2C | Address 2187 ALCOA HWY
City HYANNIS | State MA | Zip 02601 | City ALCOA | State TN | Zip 37701
Insurance Company UNKNOWN | Vehicle Action Prior to Crash 4: 22 | Damaged Area Code: 2 27, 3 27, 27
5 — 1: Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23, 23, 23, 23 | Test Status: 28
Citation # (if Issued) R3583762 | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) 89/9 | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 4 25, 25 | BAC Test Result: 30
Viol. 3: Ch/Sec/Sub | Viol. 4 (Cl/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 | Towed from scene? 1 33 (13: 1)
6 — 1

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	
SYLVIA, ROXANNE M	17 WASHINGTON AVE EXT, HYANNIS MA 02601	44	F	3	99	4	0	0	5	1	

7 8 — Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S11526248 St MA DOB/Age 31 | Reg# 326RD8 | Reg Type PAN | Reg State MA
Sex F | Lic. Class 19: D | 19: | Lic. Restrictions 20: 2 | CDL Endorsement | Veh Year 2008 | Veh Make BMW | Veh Config. 21: 1
Operator PESSINI, COURTNEY E (Last First Middle) | Owner PESSINI, COURTNEY E (Last First Middle)
Address 1 YELVERTON LN | Address 1 YELVERTON LN
City W YARMOUTH | State MA | Zip 02673-5639 | City W YARMOUTH | State MA | Zip 02673-5639 (14)
8 — 4: Insurance Company MASS HOMELAND | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 7 27, 8 27, 27
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23, 23, 23, 23 | Test Status: 28
Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1 25, 25 | BAC Test Result: 30
9 — 2: Viol. 3: Ch/Sec/Sub | Viol. 4 (Cl/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 | Towed from scene? 1 33

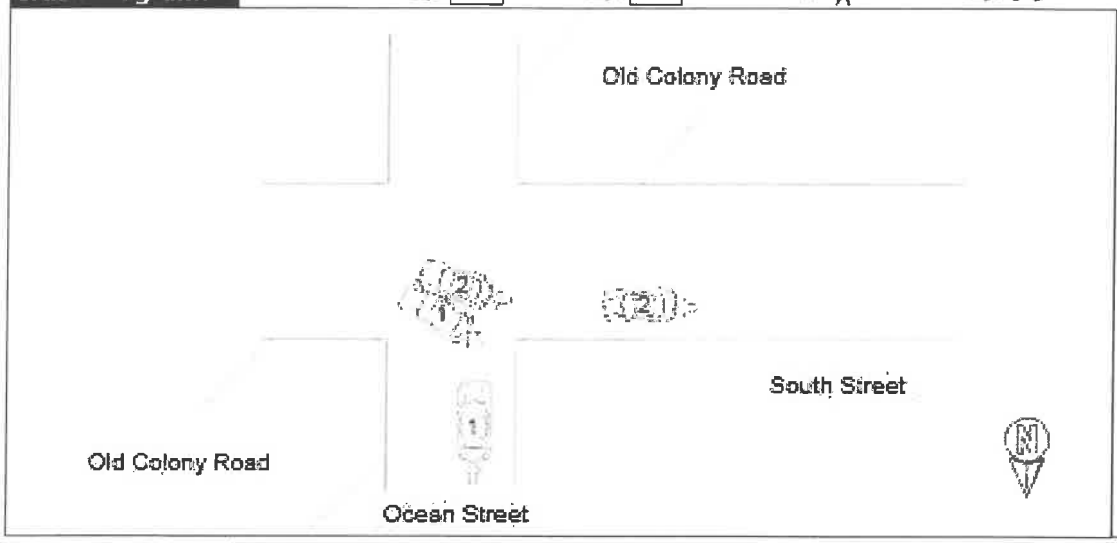
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	99	0	2	4	2	Cape Cod Hospital

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

13-442-AC

Crash Diagram:

ie: → 1 → 2



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

On 06/03/13 at approx 2125 hrs I was dispatched to the intersection of South St and Ocean St for a motor vehicle accident with injury. Upon arrival I observed V1 TN Reg E4140V at rest against V2 MA Reg 326RD8, both facing east/southeast. Oper 2 was [redacted] and was trapped in her vehicle by V1's position against her door. Oper 1 stated he was not injured but his passenger's [redacted], but gave the following statement regarding the accident. Oper 1 reported he was traveling south on Ocean St and stopped at the blinking red light at South St. Oper 1 stated he started into the intersection, turning left, and collided with V2. Oper 2 stated she was traveling east on South St with a blinking yellow light. While passing through the intersection she was struck by V1. V2 had the right of way due to a blinking yellow vs blinking red lt.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

GRETCHEN ALLEN	GJA/226	Barnstable Police Department		6/4/2013
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

13-452-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
06/05/2013	15:29 24H R	Barnstable	1	1	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 1 Route# | Direction | Name of Roadway/Street
At
Route# | Direction | Name of Intersecting Roadway/Street
Also at intersection with
2 1 Route# | Direction | Name of Intersecting Roadway/Street

184 SOUTH ST
Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | or
Mile Marker | Exit Number
11 1 Feet N S E W of OCEAN ST
Route# | Intersecting Roadway/Street
Feet N S E W of ASELTON PARK CROSS WALK
Landmark

3 Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

13-452-AC

License# S26435733 St MA DOB/Age 71
Sex M Lic. Class 19 D | 19 | Lic. Restrictions 20 1 | CDL | Endorsement
Operator SEGERSTEN, ROBERT H
Last | First | Middle
4 1 Address 64 FOLSOM AVE
City HYANNIS State MA Zip 02601
Insurance Company NORFOLK DEDHAM
5 Vehicle Travel Direction N S E W | Responding to Emergency? 2
Citation # (if Issued) R0560957
Viol. 1 (Ch/Sec/Sub) 89/11 | Viol. 2 (Ch/Sec/Sub)
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)
6 1

Reg# RT92GZ | Reg Type PAN | Reg State MA
Veh Year 2013 | Veh Make INFI | Veh Config. 21 1 (12: 1)
Owner SEGERSTEN, ROBERT H
Last | First | Middle
Address 64 FOLSOM AVE
City HYANNIS State MA Zip 02601
Vehicle Action Prior to Crash 1 22
Event Sequence 3 23 | 23 | 23 | 23
Most Harmful Event 3 24
Driver Contributing Code 19 25 | 25
Driver Distracted by 26
Damaged Area Code: 27 | 27 | 27
Test Status: 28
Type of Test: 29
BAC Test Result: 30
Susp. Alcohol: 31 | Susp. Drug: 32 (13: 3)
Towed from scene? 2 33

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

7 1 Please Select One of the Following: ☐ Vehicle | #Occupants | ☑ Non-Motorist A | Type 15 1 | Action 16 2 | Location 17 1 | Condition 18 1 | ☐ Hit/Run | ☐ Moped

License# St DOB/Age 20
Sex F Lic. Class 19 | 19 | Lic. Restrictions 20 | CDL | Endorsement
Operator MURPHY, ORLA
Last | First | Middle
Address 102 CENTER ST
City HYANNIS State MA Zip 02601
8 1 Insurance Company
Vehicle Travel Direction N S E W | Responding to Emergency?
Citation # (if Issued)
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub)
9 2 Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)

Reg# | Reg Type | Reg State
Veh Year | Veh Make | Veh Config. 21
Owner
Last | First | Middle
Address
City State Zip (14)
Vehicle Action Prior to Crash 22
Event Sequence 23 | 23 | 23 | 23
Most Harmful Event 24
Driver Contributing Code 25 | 25
Driver Distracted by 26
Damaged Area Code: 27 | 27 | 27
Test Status: 28
Type of Test: 29
BAC Test Result: 30
Susp. Alcohol: 31 | Susp. Drug: 32
Towed from scene? 33

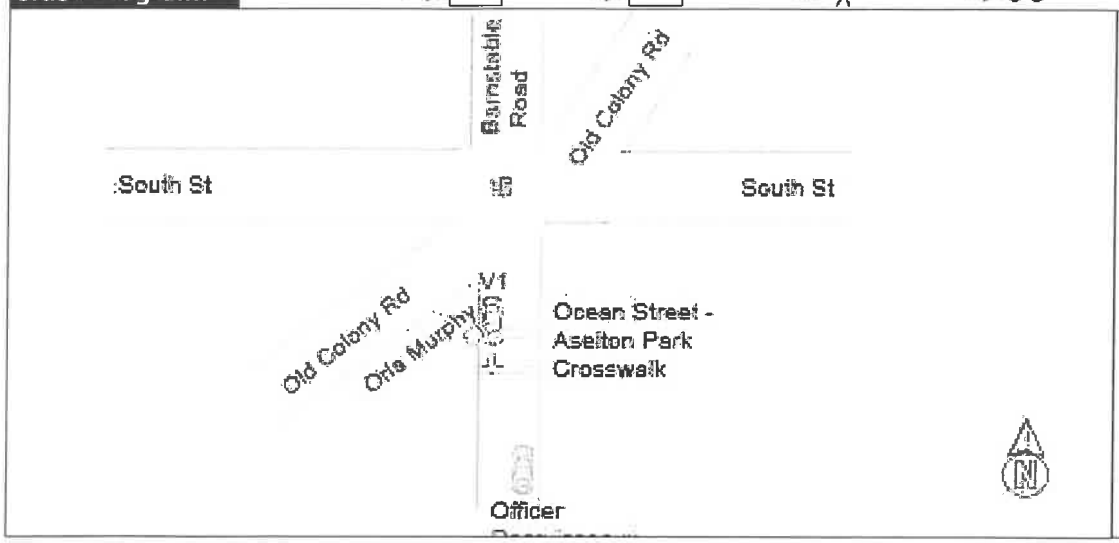
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Non-Motorist	*See Above*	-	-	1					4	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

13-452-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Vehicle #1 was travelling South on Ocean Street. I stopped my patrol vehicle at the cross walk for 4 perdestrians that were waiting to cross the street at the clearly marked cross walk going into Aselton Park. The perdestrians proceeded into the roadway. I observed Vehicle #1 not slowing down as it appraoched from South Street so I honked my horn. Vehicle #1 did not stop and side swipped Orla Murphy as she was in the cross walk. Murphy suffered minor injuries to her left elbow and hand. She refused medical attention. Citation R0560957 was issued to the operator of vehicle #1, Robert Segersten, for a cross walk violation.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

EUGENE DESRUISSEAUX	EMD/248	Barnstable Police Department	6/6/2013
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks Date

Last Mod: 6/10/2013 6:41 AM

https://www.crashlogic.com

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

13-788-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
08/23/2013	13:35 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 (1): Route# — Direction — Name of Roadway/Street: OLD COLONY RD
At
Route# — Direction — Name of Intersecting Roadway/Street: SOUTH ST
Also at intersection with
2 (1): Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address# — Name of Roadway/Street
Feet N S E W of — or
Mile Marker — Exit Number
3 (11): Feet N S E W of — Route# — Intersecting Roadway/Street
Feet N S E W of — Landmark

3: Please Select One of the Following: ☑ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

13-788-AC

License# S65801543 St MA DOB/Age 71 — Reg# 368EB7 — Reg Type PAN — Reg State MA
Sex M — Lic. Class 19: D — 19: — Lic. Restrictions 20: 1 — CDL — Endorsement — Veh Year 2010 — Veh Make TOYT — Veh Config. 21: 1 (12)
Operator OCONNOR, JAMES (Last First Middle) — Owner OCONNOR, JAMES (Last First Middle)
4 (3): Address 17 FALLON CT — Address 17 FALLON CT
City QUINCY — State MA — Zip 02169 — City QUINCY — State MA — Zip 02169
Insurance Company LIBERTY MUTUAL — Vehicle Action Prior to Crash 22: 4 — Damaged Area Code: 27: 2, 27: 3, 27:
5 (1): Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1, 23, 23, 23, 23 — Test Status: 28
Citation # (if Issued) — Most Harmful Event 24: 1 — Type of Test: 29
Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: 6, 25, 25 — BAC Test Result: 30
Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32 — Towed from scene? 33: 1 (13: 1)
6 (1)

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 (2): Please Select One of the Following: ☑ Vehicle 2 — 4 #Occupants — ☐ Non-Motorist — Type 15 — Action 16 — Location 17 — Condition 18 — ☐ Hit/Run — ☐ Moped

License# S27965090 St MA DOB/Age 49 — Reg# BDA6789 — Reg Type PAN — Reg State MA
Sex F — Lic. Class 19: D — 19: — Lic. Restrictions 20: 1 — CDL — Endorsement — Veh Year 2008 — Veh Make TOYT — Veh Config. 21:
Operator FRAZZINI, JAMI (Last First Middle) — Owner FRAZZINI, JAMI (Last First Middle)
Address 33 COTTAGE WAY — Address 33 COTTAGE WAY
City WEST YARMOUTH — State MA — Zip 02673 — City WEST YARMOUTH — State MA — Zip 02673 (14)
8 (4): Insurance Company PEAK PROPERTY AND CASULTY — Vehicle Action Prior to Crash 22: 1 — Damaged Area Code: 27: 3, 27: 4, 27:
Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1, 23, 23, 23, 23 — Test Status: 28
Citation # (if Issued) — Most Harmful Event 24: 1 — Type of Test: 29
Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: 1, 25, 25 — BAC Test Result: 30
Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32
9 (2) — Towed from scene? 33: 1

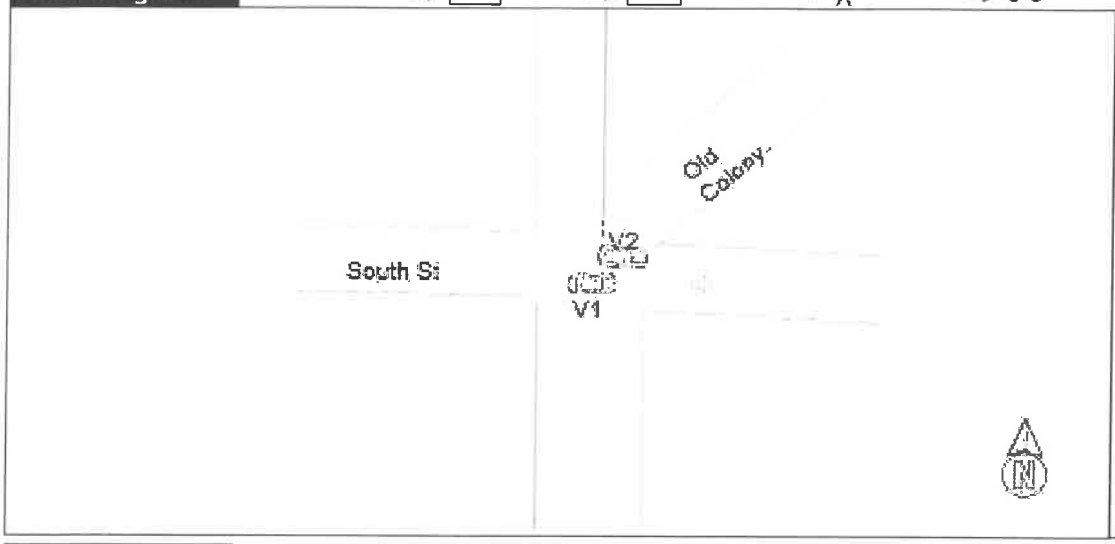
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	
[redacted]	[redacted]	7	M	99	99	4	0	0	5	1	
[redacted]	[redacted]	10	M	99	99	4	0	0	5	1	
WHITE, ALJAMEER J	25 THORNWALD, SOUTH DENNIS MA 02660	31	M	99	99	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

13-788-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

V1 WAS TRAVELLING EAST ON SOUTH ST IN THE RIGHT LANE (ONE WAU ST WITH 2 LANES). V2 WAS TRAVELLING ON SOUTH ST IN THE LEFT LANE. V1 TURNED LEFT ONTO OLD COLONY RD FROM THE RIGHT LAVE HITTING V2 IN THE LEFT LANE. V1 IS AT FAULT.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

EUGENE DESRUISSEAUX	EMD/248	Barnstable Police Department		8/23/2013
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

13-193-AC

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
03/07/2013	11:23 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 1)

1 (1): Route# — Direction: — Name of Roadway/Street: SOUTH ST

At

Route# — Direction: — Name of Intersecting Roadway/Street: OLD COLONY RD

Also at intersection with

2 (3): Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address# — Name of Roadway/Street

Feet N S E W of — or

Mile Marker — Exit Number

Feet N S E W of — Route# — Intersecting Roadway/Street (11: 3)

Feet N S E W of — Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 — 4 #Occupants — ☐ Hit/Run — ☐ Moped

13-193-AC

License# 083368900 — St MA — DOB/Age 67 — Reg# CCR128 — Reg Type ATN — Reg State MA

Sex M — Lic. Class 19: C — 19: — Lic. Restrictions 20: 10 — CDL Endorsement — Veh Year 2009 — Veh Make FORD — Veh Config. 21: 5 (12: 1)

Operator DANIELS, RONALD E (Last First Middle) — Owner CAPE COD REGIONAL TRANSPORTATION AUTHORITY (Last First Middle)

4 (3): Address 8 BENNETT AVE — Address 40 AMERICAN WAY

City WEST YARMOUTH — State MA — Zip 02673 — City DENNIS — State MA — Zip 02638

Insurance Company TRAVELERS INS CO — Vehicle Action Prior to Crash 1 22 — Damaged Area Code: 2 27 27 27

5 (1): Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 1 23 23 23 23 — Test Status: 28

Citation # (if Issued) NONE — Most Harmful Event 1 24 — Type of Test: 29

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 1 25 25 — BAC Test Result: 30

Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32 (13: 1)

6 (2): Towed from scene? 2 33

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	
CAPOLLA, ROCHELLE	1018 ALEWIFE CIR, SOUTH YARMOUTH MA 02664		F	99	99	5	0	0	5	1	
EASTMAN, KAREN	109 MAIN ST, HYANNIS MA 02601	70	F	99	99	5	0	0	5	1	
VIGNEAU, PRUDENCE	9 NOBBY LN, WEST YARMOUTH MA 02673		F	99	99	5	0	0	5	1	

7 (2): Please Select One of the Following: ☑ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist — Type 15 — Action 16 — Location 17 — Condition 18 — ☐ Hit/Run — ☐ Moped

License# 08CRJ50091 — St NH — DOB/Age 62 — Reg# 223306 — Reg Type PC — Reg State NH

Sex M — Lic. Class 19: 99 — 19: — Lic. Restrictions 20: 1 — CDL Endorsement — Veh Year 2005 — Veh Make FORD — Veh Config. 21: 1

Operator CARR, JOSEPH F (Last First Middle) — Owner CARR, JOSEPH F (Last First Middle)

Address 11Q LANSING CIR — Address 11Q LANSING CIR

City SALEM — State NH — Zip 03079 — City SALEM — State NH — Zip 03079 (14)

8 (4): Insurance Company ALLMERICA FINANCIAL BENEF — Vehicle Action Prior to Crash 4 22 — Damaged Area Code: 7 27 27 27

Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 1 23 23 23 23 — Test Status: 28

Citation # (if Issued) R2876126 — Most Harmful Event 1 24 — Type of Test: 29

Viol. 1 (Ch/Sec/Sub) 89/4A — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 9 25 6 25 — BAC Test Result: 30

Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32

9 (2): Towed from scene? 2 33

Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

13-193-AC

Crash Diagram:

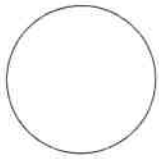
ie: → 1 → 2 → →

No diagram. MV's were moved prior to my arrival.



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way



North

Crash Narrative:

MVA occurred on South Street at Old Colony Rd. South Street is a two lane, one-way road. MV #1 (bus) was east on South St. MV #2 (Carr) Ford Ranger PU truck was east on South St., in right lane and made a left turn across the front of MV #1, attempting to make an illegal left turn up Old Colony Rd. (He made a left turn from the right lane). MV #1 crashed into the driver side of MV #2.
MV #1 operator, Carr, was cited for the illegal turn. Mr. Carr admitted he was lost and made a last second turn.

778

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

KEVIN DONOVAN	KJD/165	Barnstable Police Department	3/8/2013
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks Date

13-435-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
06/02/2013	20:01 24H R	Barnstable	2	1		State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 3 Route# | Direction | Name of Roadway/Street: SOUTH ST

At

Route# | Direction | Name of Intersecting Roadway/Street: OLD COLONY RD

Also at intersection with

2 2 Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of Mile Marker | or Exit Number

11 3 Feet N S E W of Route# | Intersecting Roadway/Street

Feet N S E W of Landmark

3 Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

13-435-AC

License# S59731524 St MA DOB/Age 66 | Reg# 87YY51 Reg Type PAN Reg State MA

Sex M Lic. Class 19 D 19 Lic. Restrictions 20 99 CDL Endorsement | Veh Year 2003 Veh Make FORD Veh Config. 21 2 (12: 1)

Operator HERLIHY, D MICHAEL (Last First Middle) | Owner HERLIHY, D MICHAEL (Last First Middle)

4 4 Address 56 SAINT GEORGE ST | Address 56 SAINT GEORGE ST

City DUXBURY State MA Zip 02332-0000 | City DUXBURY State MA Zip 02332-0000

Insurance Company UNITED SERVICES | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 2 27 3 27 27

5 1 Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28

Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 4 25 19 25 | BAC Test Result: 30

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 Susp. Drug: 32 (13: 1)

6 1 Towed from scene? 1 33

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

7 8 Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# 703851752 St NY DOB/Age 36 | Reg# VVK32S Reg Type PC Reg State NJ

Sex M Lic. Class 19 D 19 Lic. Restrictions 20 99 CDL Endorsement | Veh Year 2007 Veh Make BMW Veh Config. 21 1

Operator GOTO, SIDNEY H (Last First Middle) | Owner KURTZ-GOTO, SANDRIA (Last First Middle)

Address 212 THE PROMENADE | Address 212 THE PROMENADE

City EDGEWATER State NJ Zip 07020 | City EDGEWATER State NJ Zip 07020-2101 (14)

8 4 Insurance Company CHUBB | Vehicle Action Prior to Crash 1 22 | Damaged Area Code: 1 27 7 27 8 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23 23 23 23 | Test Status: 28

Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1 25 25 | BAC Test Result: 30

9 2 Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 Susp. Drug: 32

Towed from scene? 1 33

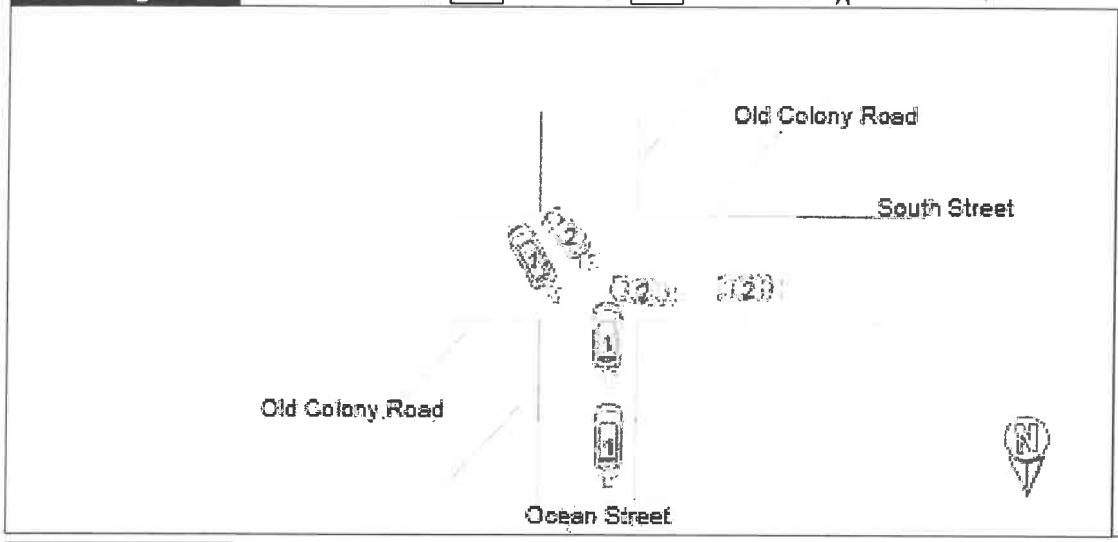
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	1	0	0	3	2	Cape Cod Hospital

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

13-435-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

Crash Narrative:

On 06/02/13 at approx 2001 hrs I was dispatched to the intersection of South St at Ocean St for a motor vehicle accident. Upon arrival both vehicles were at rest in the south side of the intersection facing southeast. V1 MA Reg 87YY51 sustained right front and right side damage. V2 NJ Reg VVK32S sustained left side and extensive front end damage. Op 1 reported no injuries; Op 2 reported a left hand injury. Op 1 stated he was traveling southbound on Ocean St and believed he stopped at the flashing red light, but wasn't certain. "I didn't see him (V2)." Op 2 stated he was traveling eastbound on South St through the intersection with Ocean St with a flashing yellow light. He was suddenly struck by V1. V1 failed to yield the right of way to V2, causing the collision.

Op 2 was transported to CCH by HYFD for broken left hand.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

GRETCHEN ALLEN	GJA/226	Barnstable Police Department		6/3/2013
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

14-561-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
06/25/2014	21:07 24H R	Barnstable	2	0		State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: OCEAN ST — Route# — Direction — Name of Roadway/Street

At

SOUTH ST — Route# — Direction — Name of Intersecting Roadway/Street

Also at intersection with

21: Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address# — Name of Roadway/Street

Feet N S E W of — Mile Marker — or — Exit Number

11: 3

Feet N S E W of — Route# — Intersecting Roadway/Street

Feet N S E W of — Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

14-561-AC

License# S95298840 St MA DOB/Age 19 — Reg# 4CBB10 — Reg Type PAN — Reg State MA (12: 1)

Sex F — Lic. Class 19: D — 19: — Lic. Restrictions 20: 1 — CDL — Endorsement — Veh Year 2001 — Veh Make TOYT — Veh Config. 21: 1

Operator HORTON, ASHLEY A (Last First Middle) — Owner HORTON, ASHLEY A (Last First Middle)

43: Address 14 RAINBOW LN — Address 14 RAINBOW LN

City MASHPEE — State MA — Zip 02649-3601 — City MASHPEE — State MA — Zip 02649-3601

Insurance Company —

51: Vehicle Travel Direction N S E W — Responding to Emergency? 2

Citation # (if Issued) —

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) —

Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) —

Vehicle Action Prior to Crash 1 22 — Event Sequence 1 23 — Most Harmful Event 1 24 — Driver Contributing Code 1 25 25 — Driver Distracted by 26

Damaged Area Code: 7 27 27 27 — Test Status: 28 — Type of Test: 29 — BAC Test Result: 30 — Susp. Alcohol: 31 — Susp. Drug: 32 — Towed from scene? 1 33 (13: 1)

61:

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

72: Please Select One of the Following: ☑ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist — Type 15 — Action 16 — Location 17 — Condition 18 — ☐ Hit/Run — ☐ Moped

License# S10051521 St MA DOB/Age 37 — Reg# 3531LY — Reg Type PAN — Reg State MA

Sex M — Lic. Class 19: D — 19: — Lic. Restrictions 20: 1 — CDL — Endorsement — Veh Year 2008 — Veh Make SAA — Veh Config. 21: 1

Operator GUGLIELMO, JOSEPH (Last First Middle) — Owner GUGLIELMO, JOSEPH (Last First Middle)

Address 28 ELM ST — Address 28 ELM ST

City MARBLEHEAD — State MA — Zip 01945-3404 — City MARBLEHEAD — State MA — Zip 01945-3404 (14)

81: Insurance Company commerce insurance

Vehicle Travel Direction N S E W — Responding to Emergency? 2

Citation # (if Issued) —

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) —

92: Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) —

Vehicle Action Prior to Crash 4 22 — Event Sequence 1 23 — Most Harmful Event 1 24 — Driver Contributing Code 4 25 25 — Driver Distracted by 26

Damaged Area Code: 2 27 27 27 — Test Status: 28 — Type of Test: 29 — BAC Test Result: 30 — Susp. Alcohol: 31 — Susp. Drug: 32 — Towed from scene? 2 33

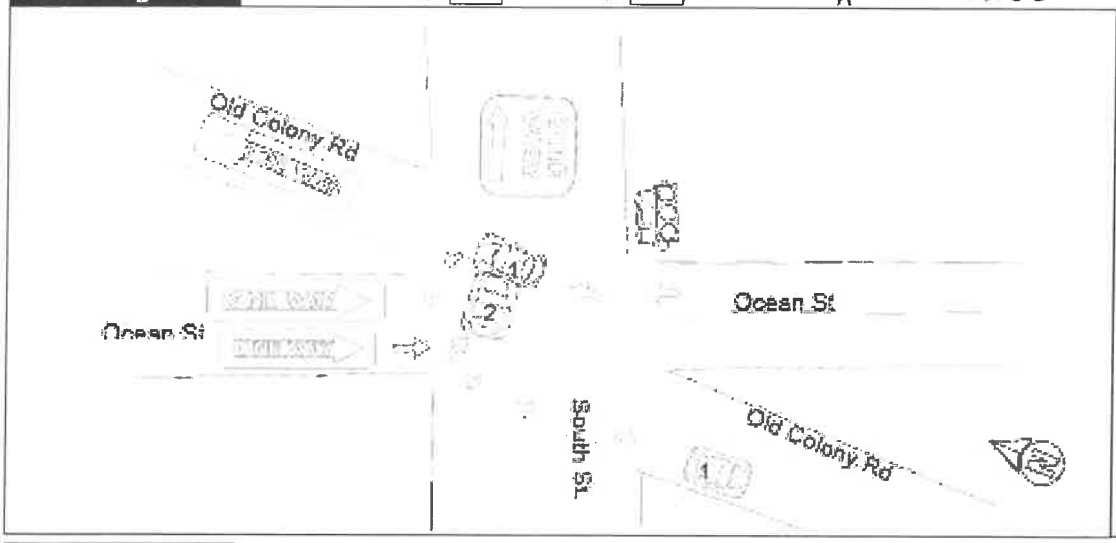
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

14-561-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

Crash Narrative:

Veh#1 was traveling North on Ocean St. and was proceeding through the intersection toward Old Colony Rd.
Veh#2 was traveling south on Ocean St and was attempting to make a lefthand turn onto South St.
Veh#2 struck Veh#1 causing Veh#1 to lose control and spin 180 degrees around and striking a road sign that pierced through the floor boards.
Veh#1 Came to rest on Old Colony in the opposite direction then the Op intended.
Both Operators refused Medical and Veh#1 was towed from the scene by Capeway Towing.
Op#1 Stated, "I was driving and he hit the side of me causing me to spin"
Op#2 Stated, " I think she ran a red light cause she ran right into me."
Witness Stated, " Op#1 was driving straight and wasn't paying attention"

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement
STANEK, THOMAS ADAM	**30 SUNNYWOOD DR, CENTERVILLE MA 02632**		

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property
TOWN OF BARNSTABLE	**SOUTH ST, HYANNIS MA 02601**		**Other**	**STREET SIGN**

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

TRAVIS BROWN	**TMB/289 Barnstable PD**		**6/26/2014**
Police Officer Name (Please Print) Signature	ID/Badge# Department	Precinct/Barracks	Date

14-77-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
01/24/2014	00:57 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

15: Route# — Direction — SOUTH ST — Name of Roadway/Street
At
OLD COLONY RD — Route# — Direction — Name of Intersecting Roadway/Street
Also at intersection with
21: OCEAN ST — Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address# — Name of Roadway/Street
Feet N S E W of — Mile Marker — or — Exit Number
Feet N S E W of — Route# — Intersecting Roadway/Street (11: 3)
Feet N S E W of — Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 — 2 #Occupants — ☑ Hit/Run — ☐ Moped

14-77-AC

License# S11926727 — St MA — DOB/Age 26 — Reg# 434SK9 — Reg Type PAS — Reg State MA (12: 1)
Sex F — Lic. Class 19: D — 19: — Lic. Restrictions 20: 1 — CDL — Endorsement — Veh Year 2006 — Veh Make CHEV — Veh Config. 21: 1
Operator GOCEVSKA, ALEKSANDRA (Last First Middle) — Owner SHOPOVA, GERGANA (Last First Middle)
43: Address 15 NAUTICAL LN — Address 15 NAUTICAL LN
City SOUTH YARMOUTH — State MA — Zip 02664 — City SOUTH YARMOUTH — State MA — Zip 02664
Insurance Company COMMERCE INS. — Vehicle Action Prior to Crash 22: 1 — Damaged Area Code: 27: 1, 27: 2, 27: 8 (13: 1)
Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1 — Test Status: 28
51: Citation # (if Issued) [redacted] — Most Harmful Event 24: 1 — Type of Test: 29
Viol. 1 (Ch/Sec/Sub) [redacted] — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: 19 — BAC Test Result: 30
Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32
62: Towed from scene? 33: 2

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
SHOPOVA, GERGANA G	15 NAUTICAL LN, S YARMOUTH MA 02664-1616	25	F	3	1	4	0	0	5	1	

78: Please Select One of the Following: ☑ Vehicle 2 — 1 #Occupants — ☐ Non-Motorist — Type 15 — Action 16 — Location 17 — Condition 18 — ☐ Hit/Run — ☐ Moped

License# S36564770 — St MA — DOB/Age 26 — Reg# AL824 — Reg Type CON — Reg State MA
Sex M — Lic. Class 19: A — 19: — Lic. Restrictions 20: 1 — CDL H — Endorsement — Veh Year 2005 — Veh Make OTHE — Veh Config. 21: 7
Operator CENTEIO, ANTHONY M (Last First Middle) — Owner DIG IT CONSTRUCTION (Last First Middle)
Address 31 CHATHAM RD — Address 1 REBECCA LN
City HARWICH — State MA — Zip 02645 — City HARWICH — State MA — Zip 02645 (14)
81: Insurance Company SELECTIVE INS — Vehicle Action Prior to Crash 22: 1 — Damaged Area Code: 6 27, 7 27, 27
Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 23: 1 — Test Status: 28
Citation # (if Issued) — Most Harmful Event 24: 1 — Type of Test: 29
Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: 1 — BAC Test Result: 30
92: Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32
Towed from scene? 33: 2

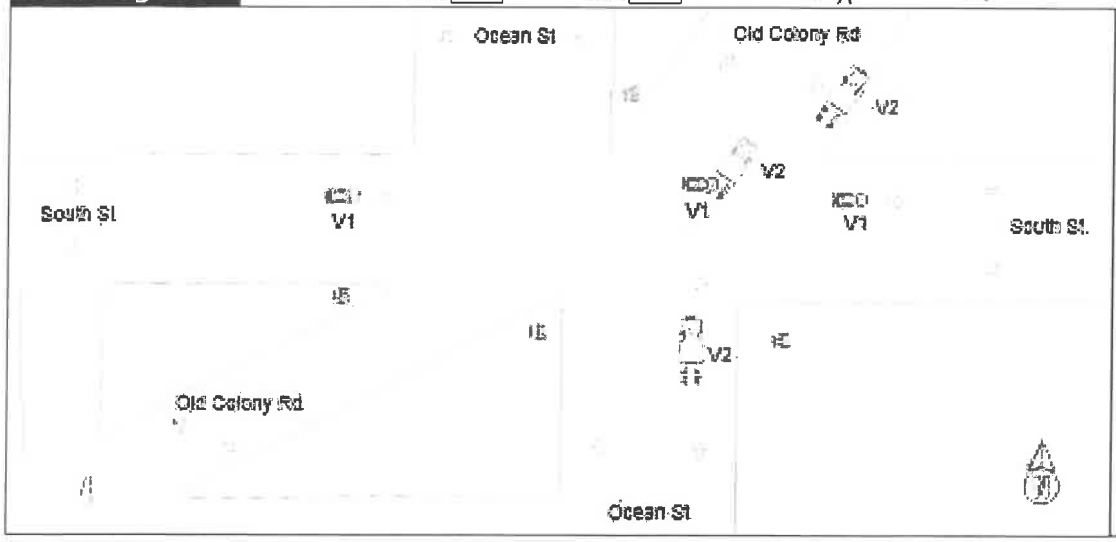
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

14-77-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

V1 operated by Gocevska was heading East on South St. towards the intersection with Ocean St.and Old Colony Rd. V2 Operated by Centeio was heading North on Ocean St. and was crossing the intersection on to Old Colony Rd. V1 hit the left rear tires of V2 causing damage to both MV. V1 operated by Gocevska then left the scene of the accident leaving behind the front bumper with the license plate attached. A RMV check came back to Gergana Shopova of 15 Nautical Ln in South Yarmouth. MV was found at that address by YPD. Statements were taken by this officer and a [redacted] Both operators claimed that they had a green light, unable to determine who had the right of way. [redacted]

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

NELSON SOUVE	NJS/227	Barnstable Police Department	1/24/2014
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks Date

14-100-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
01/30/2014	09:17 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 (1) Route# | Direction | Name of Roadway/Street: SOUTH ST

At

Route# | Direction | Name of Intersecting Roadway/Street: OLD COLONY RD

Also at intersection with

2 (1) Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of | Mile Marker | or | Exit Number

3 (11) Feet N S E W of Route# | Intersecting Roadway/Street

Feet N S E W of | Landmark

3 Please Select One of the Following: ☑ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

14-100-AC

License# S72475551 | St MA | DOB/Age 57 | Reg# IC76MW | Reg Type PAN | Reg State MA

Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 2008 | Veh Make SUBA | Veh Config. 21: 1 (12: 1)

Operator PIRRI, ANGELO R (Last First Middle) | Owner PIRRI, ANGELO R (Last First Middle)

4 (3) Address 201 GREAT BAY ST | Address 201 GREAT BAY ST

City TEATICKET | State MA | Zip 02536-7373 | City TEATICKET | State MA | Zip 02536-7373

Insurance Company LM GENERAL | Vehicle Action Prior to Crash 4: 22 | Damaged Area Code: 7: 27 | 27 | 27

5 (1) Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1: 23 | 23 | 23 | 23 | Test Status: 28

Citation # (if Issued) R3259054 | Most Harmful Event 1: 24 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) 720/-906 | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 3: 25 | 25 | BAC Test Result: 30

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 (13: 1)

6 (1) Towed from scene? 2: 33

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
[redacted]	[redacted]	17	F	3	1	4	0	0	5	1	

7 (8) Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S13968814 | St MA | DOB/Age 19 | Reg# 134LS0 | Reg Type PAN | Reg State MA

Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 2004 | Veh Make GMC | Veh Config. 21: 2

Operator CAVALCANTI, JOAO H (Last First Middle) | Owner ROSE, ELIANA LUIZ (Last First Middle)

Address 17 WOLLEY RD | Address 17 WOLLEY RD

City HYANNIS | State MA | Zip 02601 | City HYANNIS | State MA | Zip 02601-4617 (14)

8 (4) Insurance Company SAFETY INSURANCE | Vehicle Action Prior to Crash 1: 22 | Damaged Area Code: 1: 27 | 2: 27 | 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1: 23 | 23 | 23 | 23 | Test Status: 28

Citation # (if Issued) | Most Harmful Event 1: 24 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1: 25 | 25 | BAC Test Result: 30

9 (2) Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32

Towed from scene? 2: 33

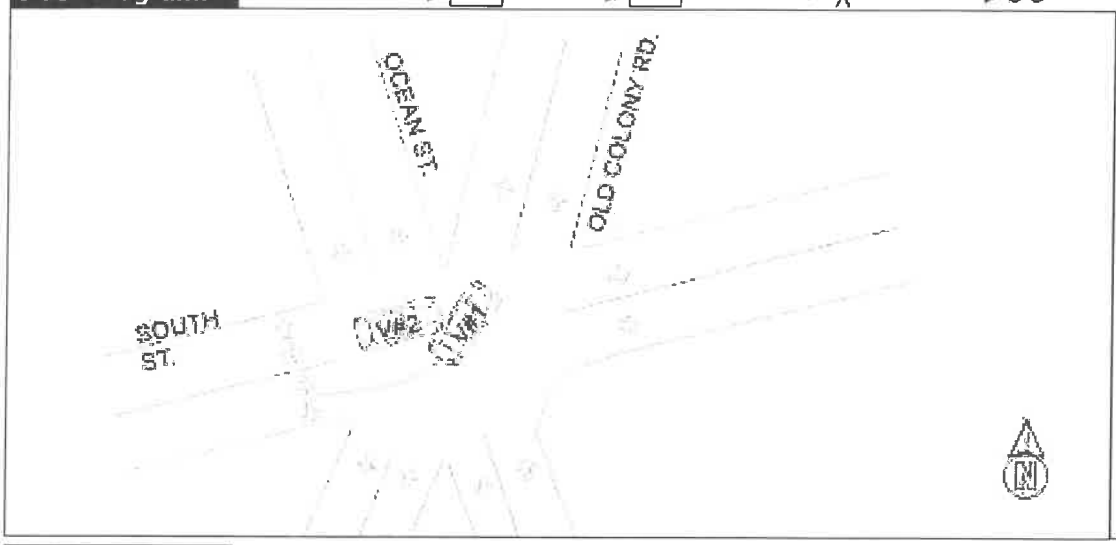
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

14-100-AC

Crash Diagram:

ie: → 1 → 2



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Dispatched to intersection of traffic collision. Upon arrival, I verified occupants of both vehicles were uninjured. V#1 had heavy driver side damage consisting primarily of dented rear door. Drivers door no longer opened properly. V#2 had moderate front end damage consisting primarily of broken plastic front bumper and head lamp assembly. OP#1 stated he was traveling Easterly in the right lane of South St. when he attempted to turn left onto Old Colony Rd. OP#1 stated when he turned left, he was struck by V#2, however, he did not know where V#2 came from. OP#2 stated he was traveling Easterly on South St. when Eastbound V#1 suddenly turned left in front of him from the right lane resulting in the collision. OP#1 stated he was unfamiliar with the area and did not see the road markings indicating his lane only permitted straight and right turn travel. OP#1 cited for 720 CMR 9.06 - Failure to use care turning.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

JASON STURGIS	JES/236	Barnstable Police Department		1/30/2014
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

14-681-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
07/26/2014	01:39 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1/4 Route# | Direction | Name of Roadway/Street: SOUTH ST

At

Route# | Direction | Name of Intersecting Roadway/Street: OLD COLONY RD

Also at intersection with

2/1 Route# | Direction | Name of Intersecting Roadway/Street: OCEAN ST

Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of ____ or ____ (Mile Marker / Exit Number)

11/4 Feet N S E W of ____ Route# ____ Intersecting Roadway/Street

Feet N S E W of ____ Landmark

3 Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

14-681-AC

License# S50343890 St MA DOB/Age 54 | Reg# 169B | Reg Type DLN | Reg State MA

Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 2013 | Veh Make FORD | Veh Config. 21: 1 (12: 1)

Operator ZAMBELIS, THEODORE H (Last First Middle) | Owner CAPE AND ISLANDS mitsubishi (Last First Middle)

4/3 Address 118 CROWELL RD | Address 760 MAIN ST RTE 28

City WEST YARMOUTH State MA Zip 02673 | City SOUTH YARMOUTH State MA Zip 02664

Insurance Company UNKNOWN | Vehicle Action Prior to Crash 22: 1 | Damaged Area Code: 27: 1, 27: 2, 27:

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 23: 1 | Test Status: 28:

5/1 Citation # (if Issued) | Most Harmful Event 24: 1 | Type of Test: 29:

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 25: 1 | BAC Test Result: 30:

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26: | Susp. Alcohol: 31: | Susp. Drug: 32: (13: 1)

6/1 Towed from scene? 33: 2

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7/8 Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15: | Action 16: | Location 17: | Condition 18: | ☐ Hit/Run | ☐ Moped

License# S90326951 St MA DOB/Age 27 | Reg# 556SC1 | Reg Type PAN | Reg State MA

Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 2000 | Veh Make BMW | Veh Config. 21: 1

Operator AUGUSTIN, JAMESON (Last First Middle) | Owner AUGUSTIN, JAMESON (Last First Middle)

Address 14 LAKE DR | Address 14 LAKE DR

City CHATHAM State MA Zip 02633 | City CHATHAM State MA Zip 02633 (14)

8/4 Insurance Company SAFETY | Vehicle Action Prior to Crash 22: 4 | Damaged Area Code: 27: 6, 27:, 27:

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 23: 1 | Test Status: 28:

Citation # (if Issued) | Most Harmful Event 24: 1 | Type of Test: 29:

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 25: 19, 25: 6 | BAC Test Result: 30:

9/2 Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26: | Susp. Alcohol: 31: | Susp. Drug: 32:

Towed from scene? 33: 2

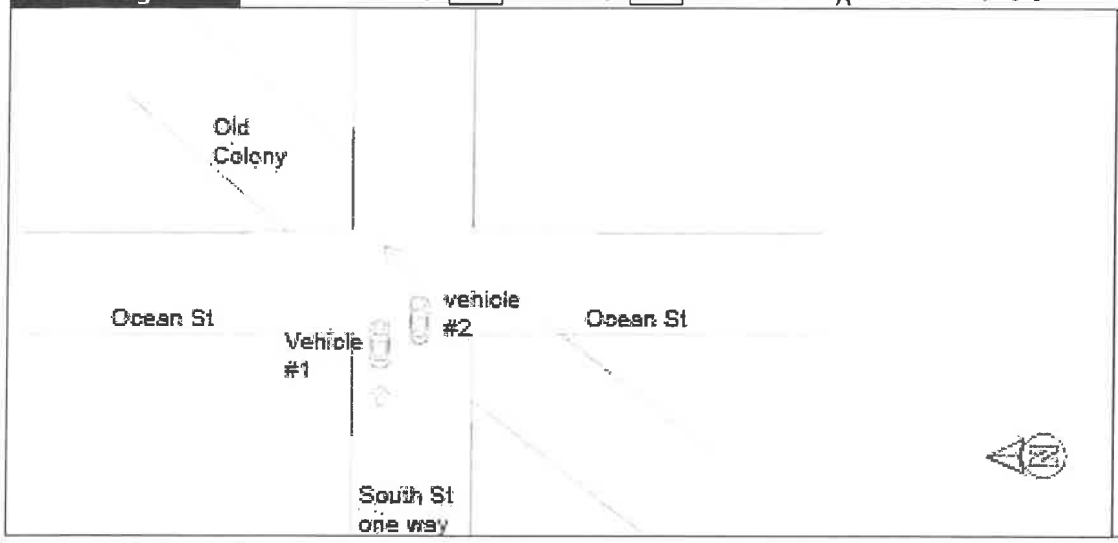
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

14-681-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Vehicle #1 was traveling straight ahead in the left hand lane of South St a one way road. Vehicle #2, while in the right hand lane of South St attempted to turn left onto Old Colony Rd and struck vehicle #1.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

STEVEN MAHER | **SJM/193 Barnstable PD** | **7/26/2014**

Police Officer Name (Please Print) Signature | ID/Badge# Department | Precinct/Barracks | Date

14-858-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
09/08/2014	20:01 24H R	Barnstable	2	1	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: SOUTH ST — Route# / Direction / Name of Roadway/Street

At

OLD COLONY RD — Route# / Direction / Name of Intersecting Roadway/Street

Also at intersection with

21: Route# / Direction / Name of Intersecting Roadway/Street

Route# / Direction / Address# / Name of Roadway/Street

Feet N S E W of ____ or ____ (Mile Marker / Exit Number)

11: 5 — Feet N S E W of ____ Route# Intersecting Roadway/Street

Feet N S E W of ____ Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

14-858-AC

License# 22652613 St VT DOB/Age 20 | Reg# FPD403 Reg Type PC Reg State VT

Sex F | Lic. Class 19: D | 19: | Lic. Restrictions 20: | CDL Endorsement | Veh Year 2010 Veh Make SUBA | Veh Config. 21: 1 (12: 1)

Operator ROPER, MARGARET (Last First Middle) | Owner ROPER, MARGARET (Last First Middle)

4 3 — Address 729 ANDOVER RD | Address 729 ANDOVER RD

City CHESTER State VT Zip 05143 | City CHESTER State VT Zip 05143

Insurance Company PROGRESSIVE INSURANCE | Vehicle Action Prior to Crash 1: 22 | Damaged Area Code: 7 27, 8 27, 27

5 1 — Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23, 23, 23, 23 | Test Status: 28

Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 1 25, 25 | BAC Test Result: 30

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 | Towed from scene? 2 33 (13: 1)

6 1 — Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	4	1	
ALLARD, CHRIS	3470 ST GEORGE ST, WILLISTON VT 05495	23	M	6	1	4	0	0	5	1	

7 2 — Please Select One of the Following: ☑ Vehicle 2 | 3 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S77462918 St MA DOB/Age 66 | Reg# 51RN28 Reg Type PAN Reg State MA

Sex F | Lic. Class 19: D | 19: | Lic. Restrictions 20: | CDL Endorsement | Veh Year 2007 Veh Make HOND | Veh Config. 21: 1

Operator RICH, MICHELLE M (Last First Middle) | Owner RICH, ROBERT ALAN (Last First Middle)

Address 122 ROCK HARBOR RD | Address 122 ROCK HARBOR RD

City ORLEANS State MA Zip 02653 | City ORLEANS State MA Zip 02653-0000 (14)

8 1 — Insurance Company STATE FARM INSURANCE. | Vehicle Action Prior to Crash 4: 22 | Damaged Area Code: 2 27, 27, 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1 23, 23, 23, 23 | Test Status: 28

Citation # (if Issued) | Most Harmful Event 1 24 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 4 25, 25 | BAC Test Result: 30

9 2 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 | Towed from scene? 1 33

Please fill out for operator and all occupants

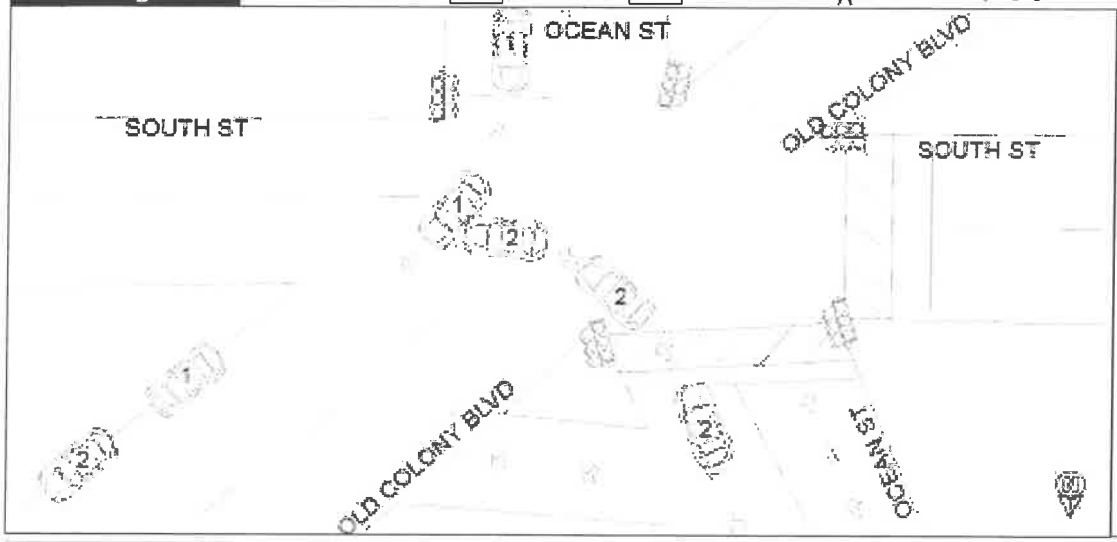
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
LAFRENIERE, J ALFRED	57 BUCK ISLAND RD, SOUTH YARMOUTH MA 02664	95	M	3	1	4	0	0	5	1	
KASSIER, MARYANN	2123 CARLETON RD, BERKLEY CA 94704	59	F	6	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

14-858-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP1 STATED THAT SHE WAS STOPPED AT THE RED LIGHT AT OCEAN ST AND SOUTH ST FACING NORTH. SHE STATED THAT WHEN HER LIGHT TURNED GREEN SHE PROCEEDED STRAIGHT THROUGH THE INTERSECTION TO OLD COLONY BLVD AND WAS SIDE SWIPED IN THE DRIVER'S SIDE FRONT DOOR BY V2.
OP2 STATED SHE WAS STOPPED AT THE RED LIGHT AT THE INTERSECTION OF OCEAN ST AND SOUTH ST FACING SOUTH. SHE STATED THAT SHE WAS GOING TO TAKE A LEFT TURN DOWN SOUTH ST. SHE STATED THAT WHEN HER LIGHT TURNED GREEN SHE PROCEEDED INTO THE INTERSECTION AND TURNED LEFT CRASHING INTO V1 WITH THE FRONT PASSENGER SIDE OF HER VEHICLE.
OP1 WAS EVALUATED BY HYANNIS FD AND DECLINED TRANSPORT TO CCH. BOTH VEHICLES WERE ABLE TO DRIVE UNDER THEIR OWN POWER. IT IS MY OPINION THAT OP2 WAS AT FAULT AND DID NOT YIELD THE RIGHT OF WAY TO V1.
795

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

CHRISTOPHER BOTSFORD		**CAB/275 Barnstable PD**		**9/8/2014**
Police Officer Name (Please Print)	Signature	ID/Badge# Department	Precinct/Barracks	Date

14-977-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
10/10/2014	19:16 24H R	Barnstable	2	0		State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

14: Route# OLD COLONY RD — Direction — Name of Roadway/Street

At

Route# SOUTH ST — Direction — Name of Intersecting Roadway/Street

Also at intersection with

21: Route# — Direction — Name of Intersecting Roadway/Street

Route# — Direction — Address# — Name of Roadway/Street

Feet N S E W of — or

Mile Marker — Exit Number

11: 3

Feet N S E W of — Route# — Intersecting Roadway/Street

Feet N S E W of — Landmark

3: Please Select One of the Following: ☑ Vehicle 1 — 1 #Occupants — ☐ Hit/Run — ☐ Moped

14-977-AC

License# 3310587 — St RI — DOB/Age 24 — Reg# 457481 — Reg Type PC — Reg State RI

Sex M — Lic. Class 19: D — 19: — Lic. Restrictions 20: 1 — CDL — Endorsement — Veh Year 2013 — Veh Make FORD — Veh Config. 21: 1 (12: 1)

Operator ZHU, CHUANXIN (Last First Middle) — Owner ZHU, CHUANXIN (Last First Middle)

43: Address 2900 KINGSTOWN RD — Address 2900 KINGSTOWN RD

City KINGSTON — State RI — Zip 02881 — City KINGSTON — State RI — Zip 02881

Insurance Company GEICO INS — Vehicle Action Prior to Crash 4 22 — Damaged Area Code: 1 27 27 27

Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 1 23 23 23 23 — Test Status: 28

51: Citation # (if Issued) — Most Harmful Event 1 24 — Type of Test: 29

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 4 25 25 — BAC Test Result: 30

Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32 (13: 1)

61: Towed from scene? 1 33

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

72: Please Select One of the Following: ☑ Vehicle 2 — 2 #Occupants — ☐ Non-Motorist — Type 15 — Action 16 — Location 17 — Condition 18 — ☐ Hit/Run — ☐ Moped

License# S59006097 — St MA — DOB/Age 28 — Reg# 121KM2 — Reg Type PAN — Reg State MA

Sex F — Lic. Class 19: D — 19: — Lic. Restrictions 20: 1 — CDL — Endorsement — Veh Year 2006 — Veh Make HOND — Veh Config. 21: 1

Operator CLARK, HAILEY D (Last First Middle) — Owner CLARK, HAILEY D

Address 381 WILLIMANTIC DR — Address 381 WILLIMANTIC DR

City MARSTONS MILLS — State MA — Zip 02648 — City MARSTONS MILLS — State MA — Zip 02648 (14)

81: Insurance Company AMICA INS — Vehicle Action Prior to Crash 1 22 — Damaged Area Code: 8 27 27 27

Vehicle Travel Direction N S E W — Responding to Emergency? 2 — Event Sequence 1 23 23 23 23 — Test Status: 28

Citation # (if Issued) — Most Harmful Event 1 24 — Type of Test: 29

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 1 25 25 — BAC Test Result: 30

92: Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26 — Susp. Alcohol: 31 — Susp. Drug: 32

Towed from scene? 2 33

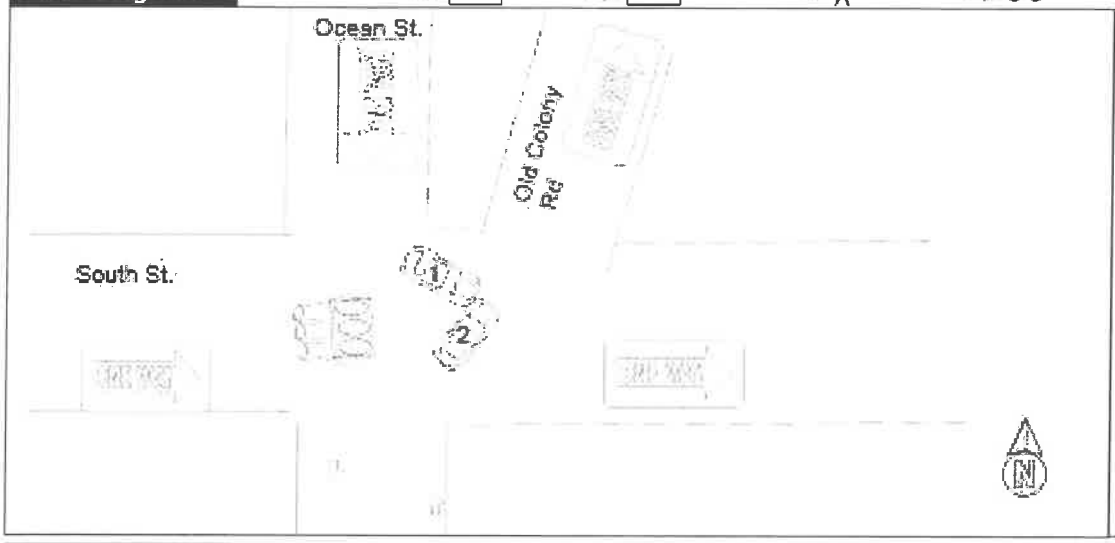
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	
GRACE, ANTHONY	583 OSTERVILLE W BARNSTABLE RD, MARSTONS MILLS MA 02648	20	M	3	99	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

ie: → 1 → 2 → →

14-977-AC

Crash Diagram:



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Both vehicles were on Ocean street on opposite sides of the traffic signal. They both had a green light. Vehicle 2 had the right of way since she was traveling straight across. Vehicle 1 turned on to South street with out yielding to oncoming traffic. Vehicle 1 crashed into vehicle 2.
The operator of vehicle 1 stated that he thought that the other side of the road had a red light so he proceeded to turn. He was wrong because they both had green light and what he saw was the red light for the South street traffic.
Vehicle 1 is at fault for the accident

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

MAXWELL MORROW | **MSM/288** | **Barnstable PD** | **10/10/2014**

Police Officer Name (Please Print) Signature | ID/Badge# Department | Precinct/Barracks | Date

Last Mod: 10/14/2014 9:59 AM

https://www.crashlogic.com

15-779-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
08/10/2015	13:37 24H R	Barnstable	2	0		Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 / 1 — Route# | Direction | Name of Roadway/Street: **SOUTH ST**

At

Route# | Direction | Name of Intersecting Roadway/Street: **OLD COLONY RD**

Also at intersection with

2 / 1 — Route# | Direction | Name of Intersecting Roadway/Street:

Route# | Direction | Address# | Name of Roadway/Street:

Feet N S E W of ____ Mile Marker ____ or ____ Exit Number

11: 2 — Feet N S E W of ____ Route# ____ Intersecting Roadway/Street

Feet N S E W of ____ Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

15-779-AC

License# **S92158880** St **MA** DOB/Age **22** | Reg# **1YR570** Reg Type **PAN** Reg State **MA**

Sex **M** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL ____ Endorsement | Veh Year **2004** Veh Make **NISS** Veh Config. **1** (21) — 12: 1

Operator **SCHOFIELD, ALFRED J** (Last / First / Middle) | Owner **SCHOFIELD, ALFRED P** (Last / First / Middle)

4 / 3 — Address **131 KETTLEHOLE RD** | Address **131 KETTLEHOLE RD**

City **WEST BARNSTABLE** State **MA** Zip **02668** | City **W BARNSTABLE** State **MA** Zip **02668-1209**

Insurance Company **Safety Insurance** | Vehicle Action Prior to Crash **2** (22) | Damaged Area Code: **4** (27) **5** (27) **6** (27)

5 / 1 — Vehicle Travel Direction N S E W | Responding to Emergency? **2** | Event Sequence **1** (23) (23) (23) (23) | Test Status: (28)

Citation # (if Issued) | Most Harmful Event **1** (24) | Type of Test: (29)

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code **1** (25) (25) | BAC Test Result: (30)

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32) — 13: 1

6 / 1 — Towed from scene? **2** (33)

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

7 / 2 — Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type (15) | Action (16) | Location (17) | Condition (18) | ☐ Hit/Run | ☐ Moped

License# **S61281460** St **MA** DOB/Age **48** | Reg# **3HG264** Reg Type **PAN** Reg State **MA**

Sex **M** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL ____ Endorsement | Veh Year **2009** Veh Make **MITS** Veh Config. **1** (21)

Operator **NELSON, JAMES A** (Last / First / Middle) | Owner **NELSON, DEBRA A** (Last / First / Middle)

Address **24 MATES WAY** | Address **24 MATES WAY**

City **BREWSTER** State **MA** Zip **02631** | City **BREWSTER** State **MA** Zip **02631-0000** — 14

8 / 4 — Insurance Company **Commerce Insurance** | Vehicle Action Prior to Crash **2** (22) | Damaged Area Code: **1** (27) **2** (27) **8** (27)

Vehicle Travel Direction N S E W | Responding to Emergency? **2** | Event Sequence **1** (23) (23) (23) (23) | Test Status: (28)

Citation # (if Issued) | Most Harmful Event **1** (24) | Type of Test: (29)

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code **5** (25) **20** (25) | BAC Test Result: (30)

9 / 2 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32)

Towed from scene? **2** (33)

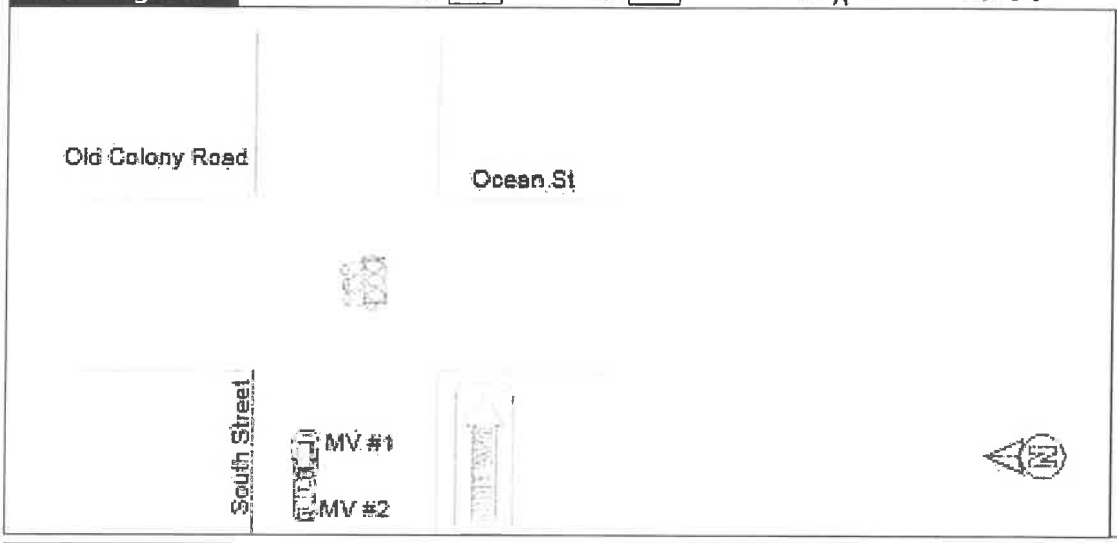
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-779-AC

Crash Diagram:

ie: → 1 → 2



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

Crash Narrative:

MV #1 was heading east on South Street approaching the Old Colony Road intersection and was stopped in heavy traffic at the signal light. MV #2 was behind MV #1. OP #2 said he became distracted and looked down for a quick second. When OP #2 looked back up, MV #1 was stopped in traffic. MV #2 struck the back-end of MV #1,causing the accident. MV #1 sustained damage to the rear bumper and possibly to the exhaust pipe. MV #2 sustained heavy front-end damage.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

JENNIFER ELLIS | **JPE/220 Barnstable PD** | **8/11/2015**

Police Officer Name (Please Print) Signature | ID/Badge# Department Precinct/Barracks | Date

Last Mod: 8/17/2015 3:25 PM

https://www.crashlogic.com

15-699-AC

Commonwealth of Massachusetts

Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
07/22/2015	12:00 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 (1) Route# | Direction | Name of Roadway/Street: SOUTH ST

At

Route# | Direction | Name of Intersecting Roadway/Street: OLD COLONY RD

Also at intersection with

2 (1) Route# | Direction | Name of Intersecting Roadway/Street:

Route# | Direction | Address# | Name of Roadway/Street:

Feet N S E W of ____ or ____ (Mile Marker / Exit Number)

11: Feet N S E W of ____ Route# ____ Intersecting Roadway/Street

Feet N S E W of ____ Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

15-699-AC

License# S96188921 St MA DOB/Age 50 | Reg# 6961LK | Reg Type PAN | Reg State MA (12: 1)

Sex M | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL Endorsement | Veh Year 2011 | Veh Make CHEV | Veh Config. 21: 1

Operator SIVES, MICHAEL J (Last First Middle) | Owner SIVES, MICHAEL J (Last First Middle)

4 (1) Address 110 CRANBERRY LN | Address 110 CRANBERRY LN

City BARNSTABLE | State MA | Zip 02630 | City BARNSTABLE | State MA | Zip 02630

Insurance Company LIBERTY MUTUAL | Vehicle Action Prior to Crash 22: 1 | Damaged Area Code: 27: 2 | 27: 3 | 27: 4

5 — Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 23: 1 | 23 | 23 | 23 | Test Status: 28

Citation # (if Issued) | Most Harmful Event 24: 1 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 25: 1 | 25 | BAC Test Result: 30

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32 (13: 1)

6 (1) Towed from scene? 33: 1

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 (1) Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S75410788 St MA DOB/Age 45 | Reg# 2EL813 | Reg Type PAN | Reg State MA

Sex F | Lic. Class 19 | 19 | Lic. Restrictions 20 | CDL Endorsement | Veh Year 2015 | Veh Make CHEV | Veh Config. 21: 1

Operator MINGO, LISA (Last First Middle) | Owner EAN HOLDINGS LLC (Last First Middle)

Address 660 THACHER ST #1402 | Address 6929 LAKEWOOD AVE ST100

City ATTLEBORO | State MA | Zip 02703 | City TULSA | State OK | Zip 74117-0000 (14)

8 (4) Insurance Company SAFE CO | Vehicle Action Prior to Crash 22: 5 | Damaged Area Code: 27 | 27 | 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 23: 1 | 23 | 23 | 23 | Test Status: 28

Citation # (if Issued) | Most Harmful Event 24: 1 | Type of Test: 29

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code 25: 19 | 25 | BAC Test Result: 30

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by 26 | Susp. Alcohol: 31 | Susp. Drug: 32

9 (2) Towed from scene? 33: 2

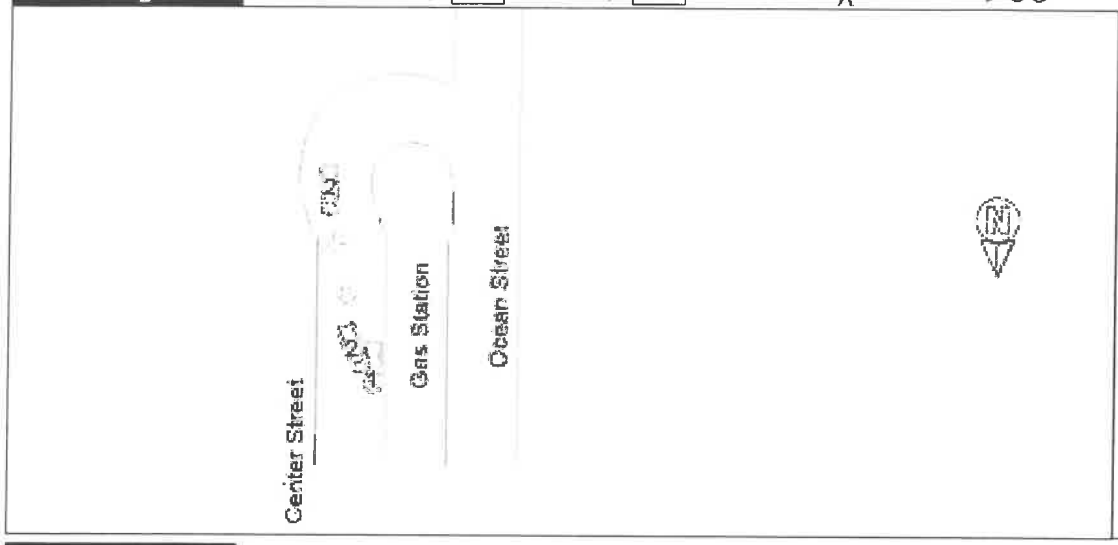
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-699-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Both vehicles were traveling north on Center St. Vehicle 1 was in the inside travel lane. Vehicle 2 had just entered Center St and was attempting to make a left turn into the gas station parking lot from the outside travel lane. Center street in two lane one way traffic at this section of the road. Operator 2 stated that she made a quick turn to enter the gas station and did not see vehicle 1. Operator 2 did not yield the right of way to vehicle 1 which was traveling in a proper travel lane.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

CHRISTOPHER KELSEY — Police Officer Name (Please Print) Signature

CCK/212 Barnstable PD — ID/Badge# Department Precinct/Barracks

8/7/2015 — Date

Last Mod: 8/17/2015 3:21 PM

https://www.crashlogic.com

15-503-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	Police
06/07/2015	11:09 24H R	Barnstable	2	1		State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 (1) Route# | Direction | Name of Roadway/Street

At

Route# | Direction | Name of Intersecting Roadway/Street

Also at intersection with

2 (1) Route# | Direction | Name of Intersecting Roadway/Street

184 SOUTH ST
Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of | Mile Marker | or | Exit Number

Feet N S E W of | Route# | Intersecting Roadway/Street (11: 2)

Feet N S E W of | Landmark

3 Please Select One of the Following: ☑ Vehicle 1 | 4 #Occupants | ☐ Hit/Run | ☐ Moped

15-503-AC

License# S36054635 St MA DOB/Age 51 | Reg# 958RV9 | Reg Type PAN | Reg State MA

Sex F | Lic. Class 19: D | 19: | Lic. Restrictions 20: 1 | CDL | Endorsement | Veh Year 2013 | Veh Make HOND | Veh Config. 21: 1 (12: 1)

Operator MCGINNIS, COLLEEN M (Last First Middle) | Owner MCGINNIS, COLLEEN M (Last First Middle)

4 (3) Address 15 CIRCUIT EAST RD | Address 15 CIRCUIT EAST RD

City W YARMOUTH State MA Zip 02673-3724 | City W YARMOUTH State MA Zip 02673-3724

Insurance Company PROGRESSIVE DIRECT | Vehicle Action Prior to Crash 2: 22 | Damaged Area Code: 1: 27 | Test Status: 28 | Type of Test: 29 | BAC Test Result: 30

5 (1) Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1: 23 | Most Harmful Event 1: 24

Citation # (if Issued) R6145265 | Driver Contributing Code 19: 25

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Distracted by: 26 | Susp. Alcohol: 31 | Susp. Drug: 32 (13: 1)

6 (1) Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Towed from scene? 2: 33

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
[redacted]		14	M	3	1	4	0	0	5	1	
[redacted]		5	M	11	1	4	0	0	5	1	
[redacted]		3	M	11	4	4	0	0	5	1	

7 (1) Please Select One of the Following: ☑ Vehicle 2 | 2 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# S67727380 St MA DOB/Age 53 | Reg# FCH5117 | Reg Type PC | Reg State PA

Sex F | Lic. Class 19: D | 19: M | Lic. Restrictions 20: 1 | CDL | Endorsement | Veh Year 2010 | Veh Make FORD | Veh Config. 21: 1

Operator BRANCO, DOLERES M (Last First Middle) | Owner BRANCO, ALICE F (Last First Middle)

Address 25 LOWER FARMS RD | Address 1514 CLAUSER ST

City NORTHFIELD State MA Zip 01360 | City HELLERTOWN State PA Zip 18055 (14)

8 (4) Insurance Company ALL STATE | Vehicle Action Prior to Crash 2: 22 | Damaged Area Code: 4: 27 5: 27 6: 27 | Test Status: 28 | Type of Test: 29 | BAC Test Result: 30

Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence 1: 23 | Most Harmful Event 1: 24

Citation # (if Issued) | Driver Contributing Code 1: 25

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Distracted by: 26 | Susp. Alcohol: 31 | Susp. Drug: 32

9 (2) Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Towed from scene? 2: 33

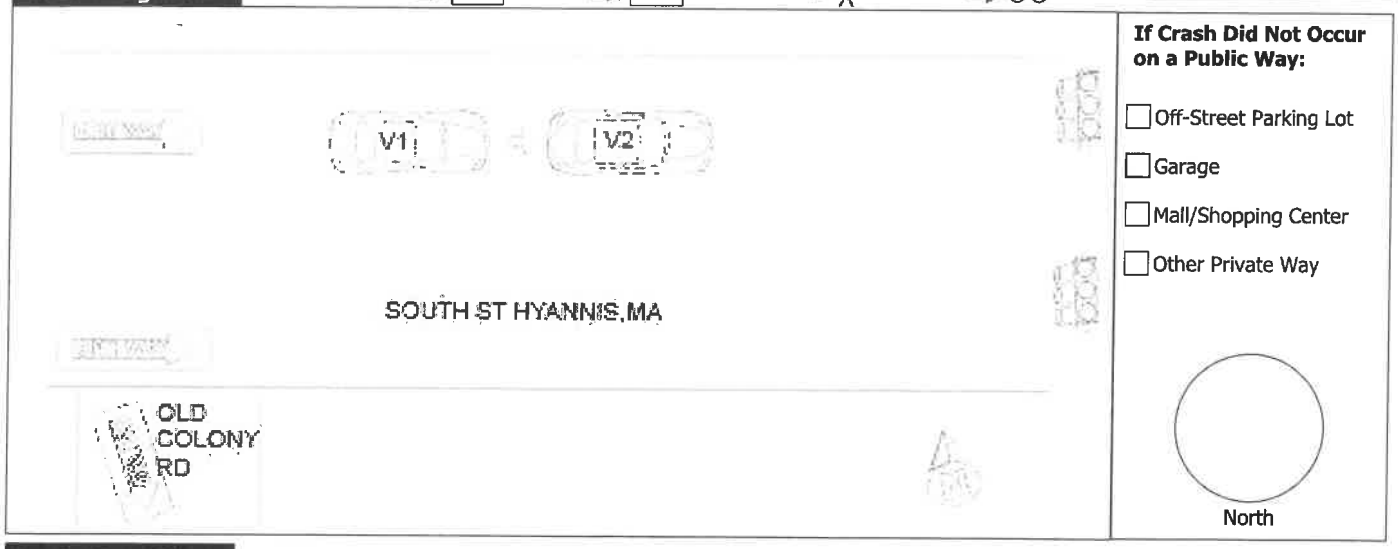
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
RIMBY, KATHLEEN M	25 LOWER FARMS RD, NORTHFIELD MA 01360	50	F	3	1	4	0	0	3	2	Cape Cod Hospital

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-503-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

Crash Narrative:

RESPONDED TO A REPORTED MVA WITH PI ON SOUTH STREET NEAR OLD COLONY ROAD, HYANNIS. ARRIVED TO FIND MV1 BEHIND MV2 IN THE LEFT HAND LANE OF A TWO LANE, NON-DIVIDED, ONE WAY ROAD, HEADED EAST. OP2 STATED HER AND HER WIFE WERE SITTING AT THE TRAFFIC LIGHT WHEN THEY WERE HIT FROM BEHIND. FRONT SEAT PASSENGER COMPLAINED OF [redacted] TRANSPORTED TO CCH VIA HYANNIS FD.
OP1 STATED SHE WAS STOPPED, AND STARTED TO GO WHEN V2 WAS STILL STOPPED AT LIGHT. SHE HAD THREE YOUNG CHILDREN IN THE CAR, ALL RESTRAINED, NO REPORTED INJURIES.
MINOR DAMAGE TO BOTH VEHICLES, WE MOVED INTO A NEARBY PARKING LOT TO COMPLETE PAPER EXCHANGE. PAPERS EXCHANGED, PROVIDED ACCIDENT NUMBER AND PARTIES DROVE AWAY.
795

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

BRIAN JONES	**BMJ/290 Barnstable PD**		**6/7/2015**
Police Officer Name (Please Print) Signature	ID/Badge# Department	Precinct/Barracks	Date

Last Mod: 6/15/2015 10:48 AM

https://www.crashlogic.com

15-931-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
09/23/2015	08:13 24H R	Barnstable	2	0		Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10)

1 Route# | Direction | Name of Roadway/Street
At
Route# | Direction | Name of Intersecting Roadway/Street
Also at intersection with
2 Route# | Direction | Name of Intersecting Roadway/Street

184 SOUTH ST
Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | Mile Marker | or | Exit Number
11 Feet N S E W of Route# | Intersecting Roadway/Street
Feet N S E W of | Landmark

3 Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

15-931-AC

License# S86176142 St MA DOB/Age 32 | Reg# P40910 | Reg Type CON | Reg State MA
Sex M | Lic. Class [19] [19] | Lic. Restrictions [20] | CDL Endorsement | Veh Year 2012 | Veh Make TOYT | Veh Config. [21] 2 (12)
Operator SMITH, BRANDON L (Last First Middle) | Owner FOWLER & SONS TERMITE (Last First Middle)
4 Address 48 KNOTT AVE | Address 358 MAIN ST
City SANDWICH | State MA | Zip 02563 | City HYANNIS | State MA | Zip
Insurance Company PHILADELPHIA INDEM | Vehicle Action Prior to Crash [22] 4 | Damaged Area Code: [27] 2 [27] [27]
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence [23] 1 [23] [23] [23] | Test Status: [28]
5 Citation # (if Issued) | Most Harmful Event [24] 1 | Type of Test: [29]
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code [25] 1 [25] | BAC Test Result: [30]
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by [26] | Susp. Alcohol: [31] | Susp. Drug: [32] (13)
6 Towed from scene? [33]

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type [15] | Action [16] | Location [17] | Condition [18] | ☐ Hit/Run | ☐ Moped

License# S70415550 St MA DOB/Age 33 | Reg# 926XV5 | Reg Type PAN | Reg State MA
Sex M | Lic. Class [19] [19] | Lic. Restrictions [20] | CDL Endorsement | Veh Year 2008 | Veh Make NISS | Veh Config. [21]
Operator WILSON, LASFORD (Last First Middle) | Owner WILSON, LASFORD (Last First Middle)
Address 800 BEARSE'S WAY3WB | Address 800 BEARSE'S WAY3WB
City HYANNIS | State MA | Zip 02601 | City HYANNIS | State MA | Zip 02601 (14)
8 Insurance Company LM GENERAL | Vehicle Action Prior to Crash [22] 4 | Damaged Area Code: [27] 7 [27] 8 [27] [27]
Vehicle Travel Direction N S E W | Responding to Emergency? 2 | Event Sequence [23] 1 [23] [23] [23] [23] | Test Status: [28]
Citation # (if Issued) | Most Harmful Event [24] 1 | Type of Test: [29]
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code [25] 9 [25] | BAC Test Result: [30]
9 Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by [26] | Susp. Alcohol: [31] | Susp. Drug: [32]
Towed from scene? [33]

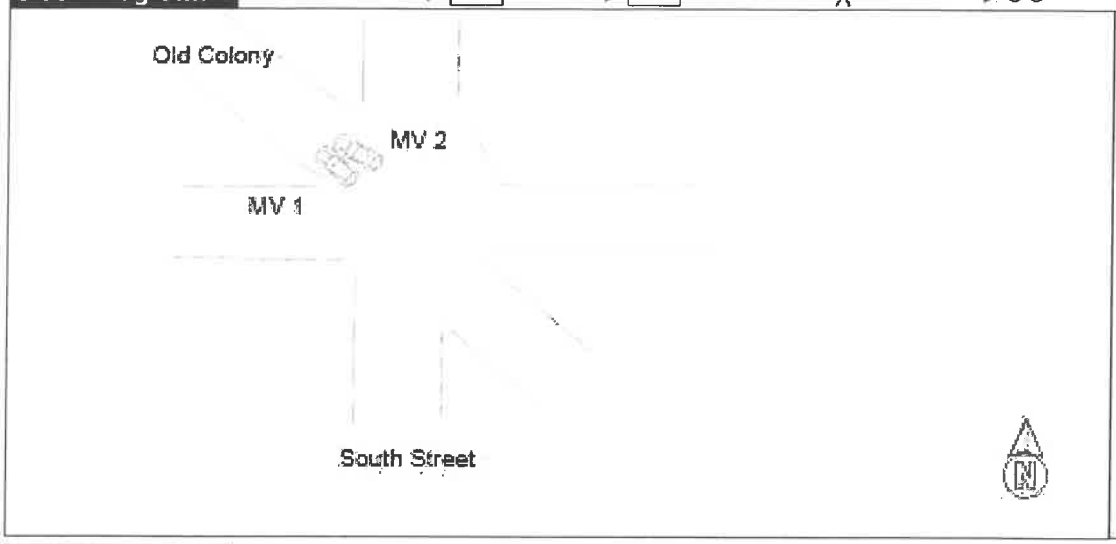
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	3	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-931-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Responded to the intersection of South St and Old Colony for a minoe MVA No injuries
Statement Op # 1 "I was turning left from South Street he cut the turn to sharp and ran into me".
Statement Op # 2 " I made the turn from the right lane on South Street and ran into him."
Gist MV # 2 made an improper left turn from the right lane on South Street onto Old Colony and collided with MV # 1
Based on the statements and my investigation Oper # 2 was at fault do to an improper turn.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

ANDREW MCKENNA **AM/186** **Barnstable PD** **9/23/2015**

Police Officer Name (Please Print) Signature ID/Badge# Department Precinct/Barracks Date

15-967-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
10/02/2015	21:45 24H R	Barnstable	2	1	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 (1)
Route# | Direction | Name of Roadway/Street
At
Route# | Direction | Name of Intersecting Roadway/Street
Also at intersection with
2 (2)
Route# | Direction | Name of Intersecting Roadway/Street

184 | SOUTH ST
Route# | Direction | Address# | Name of Roadway/Street
Feet N S E W of | or
Mile Marker | Exit Number
4 (11)
Feet N S E W of | Route# | Intersecting Roadway/Street
Feet N S E W of | Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

15-967-AC

License# **S97673652** St **MA** DOB/Age **35**
Sex **M** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL Endorsement
Operator **BODAMER, BENTON BROOKS** (Last / First / Middle)
4 (1) Address **84 OLD KINGS HWY**
City **YARMOUTHPORT** State **MA** Zip **02675-1710**
Insurance Company **ALLSTATE INSURANCE**
5 — Vehicle Travel Direction N S E W | Responding to Emergency? **2**
Citation # (if Issued)
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub)
Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)

Reg# **189VS6** Reg Type **PAN** Reg State **MA**
Veh Year **2013** Veh Make **MERZ** Veh Config. **1** (21) (12: 1)
Owner **BODAMER, BENTON BROOKS** (Last / First / Middle)
Address **84 OLD KINGS HWY**
City **YARMOUTHPORT** State **MA** Zip **02675-1710**
Vehicle Action Prior to Crash **1** (22)
Event Sequence **1** (23) (23) (23) (23)
Most Harmful Event **1** (24)
Driver Contributing Code **1** (25) (25)
Driver Distracted by (26)
Damaged Area Code: **2** (27) **3** (27) (27)
Test Status: (28)
Type of Test: (29)
BAC Test Result: (30)
Susp. Alcohol: (31) Susp. Drug: (32) (13: 1)
Towed from scene? **2** (33)

6 (2) Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
BODAMER, JESSICA B	84 OLD KINGS HWY, YARMOUTHPORT MA 02675	36	F	3	1	4	0	0	4	1	

7 (1) — Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type (15) | Action (16) | Location (17) | Condition (18) | ☐ Hit/Run | ☐ Moped

License# **S86101281** St **MA** DOB/Age **23**
Sex **M** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL Endorsement
Operator **PARAJULI, SUMAN** (Last / First / Middle)
Address **15 THEATER COLONY RD**
City **S YARMOUTH** State **MA** Zip **02664-4483**
8 (4) Insurance Company **PLYMOUTH ROCK ASSU**
Vehicle Travel Direction N S E W | Responding to Emergency? **2**
Citation # (if Issued)
Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub)
9 (2) Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)

Reg# **1JH684** Reg Type **PAN** Reg State **MA**
Veh Year **2014** Veh Make **TOYT** Veh Config. **1** (21)
Owner **PARAJULI, SUMAN** (Last / First / Middle)
Address **15 THEATER COLONY RD**
City **S YARMOUTH** State **MA** Zip **02664-4483**
Vehicle Action Prior to Crash **4** (22)
Event Sequence **1** (23) (23) (23) (23)
Most Harmful Event **1** (24)
Driver Contributing Code **19** (25) **97** (25)
Driver Distracted by (26)
Damaged Area Code: **7** (27) **8** (27) (27)
Test Status: (28)
Type of Test: (29)
BAC Test Result: (30)
Susp. Alcohol: (31) Susp. Drug: (32)
Towed from scene? **2** (33)
(14)

Please fill out for operator and all occupants

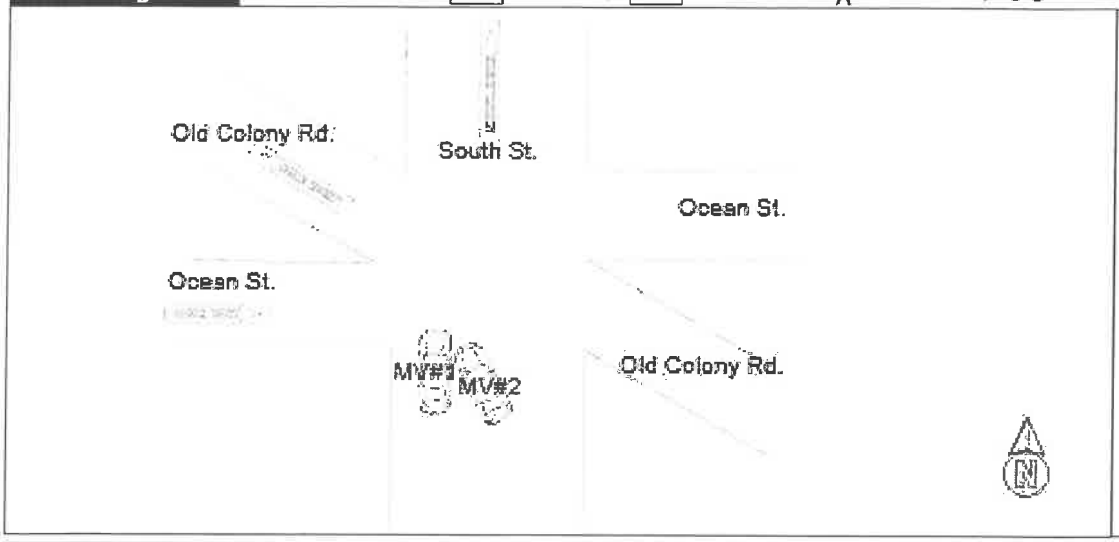
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-967-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP of MV#1 stated that he was driving straight and then MV#2 hit him on the left side of the car.
OP of MV#2 stated that he was trying to make a left hand turn onto old Colony but did not see MV#1 in the lane.
Passenger of MV#1 reported s[redacted]. Hyannis rescue evaluated and she refused transportation to the Hospital.
795

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

ARMANDO FELICIANO **AF/247** **Barnstable PD** **10/4/2015**

Police Officer Name (Please Print) Signature ID/Badge# Department Precinct/Barracks Date

Last Mod: 10/30/2015 8:27 AM

https://www.crashlogic.com

15-109-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
02/06/2015	11:01 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** — 10: 2

1 1 — Route# — Direction — Name of Roadway/Street: **OCEAN ST**

At

Route# — Direction — Name of Intersecting Roadway/Street: **SOUTH ST**

Also at intersection with

2 1 — Route# — Direction — Name of Intersecting Roadway/Street: **OLD COLONY RD**

Route# — Direction — Address# — Name of Roadway/Street

Feet N S E W of — Mile Marker — or — Exit Number

11: 2

Feet N S E W of — Route# — Intersecting Roadway/Street

Feet N S E W of — Landmark

3 — Please Select One of the Following: ☑ Vehicle 1 — 2 #Occupants — ☐ Hit/Run — ☐ Moped

15-109-AC

License# **158502077** St **CT** DOB/Age **22** — Reg# **29ER80** Reg Type **PAN** Reg State **MA**

Sex **F** Lic. Class 19: **D** 19: — Lic. Restrictions 20: **1** CDL — Endorsement — Veh Year **2005** Veh Make **FORD** Veh Config. 21: **2** — 12: 1

Operator **GALLOWAY, ASHLEY A** (Last First Middle) — Owner **LEPORE, FREDERICK J** (Last First Middle)

4 3 — Address **39 CLIFDON DR** — Address **420 NOTTINGHAM DR**

City **SIMSBURY** State **CT** Zip **06070** — City **CENTERVILLE** State **MA** Zip **02632**

Insurance Company **METROPOLITAN PROP** — Vehicle Action Prior to Crash 22: **2** — Damaged Area Code: 27: **4** 27: **5** 27: **6**

5 1 — Vehicle Travel Direction N S E W — Responding to Emergency? **2** — Event Sequence 23: **1** 23: 23: 23: 23: — Test Status: 28: — Type of Test: 29: — BAC Test Result: 30:

Citation # (if Issued) — Most Harmful Event 24: **1**

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: **1** 25: — Susp. Alcohol: 31: — Susp. Drug: 32: — 13: 1

Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26: — Towed from scene? 33: **2**

6 1 — Please fill out for operator and all occupants

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	
LEPORE, MICHAEL R	84 NOTTINGHAM DR, CENTERVILLE MA 02632	**25**	**M**	3	1	4	0	0	5	1	

7 2 — Please Select One of the Following: ☑ Vehicle 2 — **1** #Occupants — ☐ Non-Motorist — Type 15: — Action 16: — Location 17: — Condition 18: — ☐ Hit/Run — ☐ Moped

License# **S19117416** St **MA** DOB/Age **65** — Reg# **1KL695** Reg Type **PAN** Reg State **MA**

Sex **F** Lic. Class 19: **D** 19: — Lic. Restrictions 20: **1** CDL — Endorsement — Veh Year **2001** Veh Make **BUIC** Veh Config. 21: **1**

Operator **BROGAN, MARSHA J** (Last First Middle) — Owner **BROGAN, MARSHA J** (Last First Middle)

Address **101 STRAWBERRY HILL RD** — Address **101 STRAWBERRY HILL RD**

City **CENTERVILLE** State **MA** Zip **02632-3749** — City **CENTERVILLE** State **MA** Zip **02632-3749** — 14

8 3 — Insurance Company **GOVERNMENT EMPLOYEE** — Vehicle Action Prior to Crash 22: **2** — Damaged Area Code: 27: **1** 27: **2** 27: **8**

Vehicle Travel Direction N S E W — Responding to Emergency? **2** — Event Sequence 23: **1** 23: 23: 23: 23: — Test Status: 28: — Type of Test: 29: — BAC Test Result: 30:

Citation # (if Issued) — Most Harmful Event 24: **1**

Viol. 1 (Ch/Sec/Sub) — Viol. 2 (Ch/Sec/Sub) — Driver Contributing Code 25: **5** 25: — Susp. Alcohol: 31: — Susp. Drug: 32:

9 2 — Viol. 3: Ch/Sec/Sub — Viol. 4 (Ch/Sec/Sub) — Driver Distracted by 26: — Towed from scene? 33: **2**

Please fill out for operator and all occupants

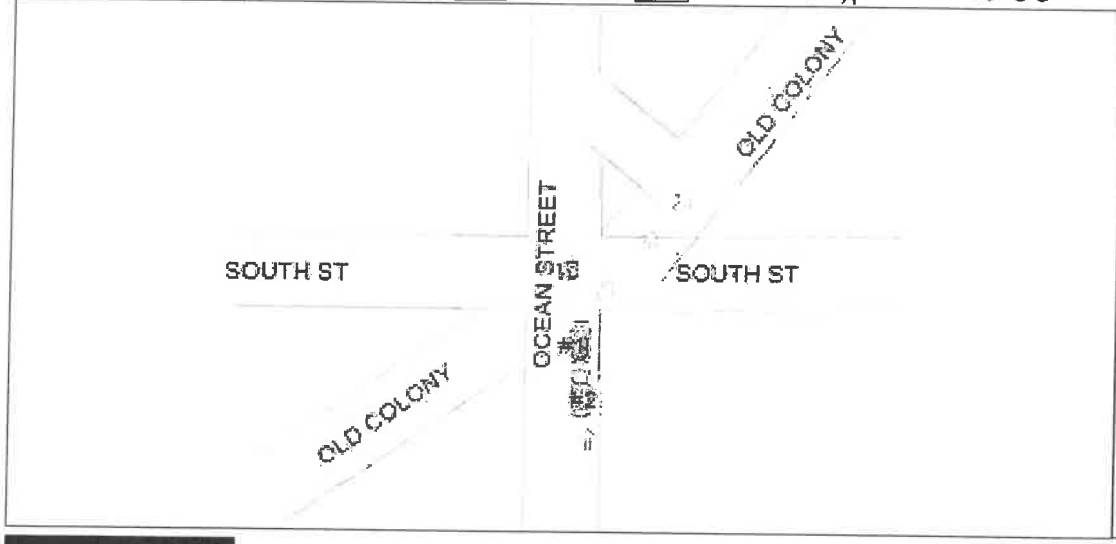
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

15-109-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OP#1: Ms. Ashley Galloway stated- We were driving on Ocean Street, toward South St. and Old Colony Road. Upon approaching the intersection with South and Ocean Streets, the traffic light turned red. I applied my brakes and started slowing down coming to a stop at the intersection. We were just stopped when all of a sudden the car behind us just kept coming and did not stop and rear-ended us. The lady got out, we spoke and I told her I was pulling over and calling the police, and when we turned into the Hess Gas station, she just kept going. OP#2: Ms. Marsha Brogan Stated: (Did Not wait for police.)(Not comment as of yet.) Gist: M/V#1 while stopped at the traffic light at intersection of Ocean and South Street, was rear-ended by M/V#2. There were no reported injuries, no wreckers needed no citations at this time. 795

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State _____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

BRIAN MORRISON	**BDM/205**	**Barnstable PD**	**2/11/2015**
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks Date

16-600-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	
07/13/2016	19:08 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** — 10: 2

1 / 1 — Route# | Direction | Name of Roadway/Street: SOUTH ST

At

Route# | Direction | Name of Intersecting Roadway/Street: OCEAN ST

Also at intersection with

2 / 1 — Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street

Feet N S E W of Mile Marker | or Exit Number

11: 99

Feet N S E W of Route# | Intersecting Roadway/Street

Feet N S E W of Landmark

3 / 97 — Please Select One of the Following: ☑ Vehicle 1 | 2 #Occupants | ☐ Hit/Run | ☐ Moped

16-600-AC

License# S48879813 | St MA | DOB/Age 42 | Reg# 1T6394 | Reg Type MCN | Reg State MA

Sex M | Lic. Class 19: D | 19: M | Lic. Restrictions 20: 99 | CDL | Endorsement | Veh Year 2004 | Veh Make HD | Veh Config. 21: 3 — 12: 1

Operator LALICATA, JAMES V (Last First Middle) | Owner LALICATA, JAMES V (Last First Middle)

4 / 3 — Address 67 SEA STM1 | City HYANNIS | State MA | Zip 02601

Address 67 SEA STM1 | City HYANNIS | State MA | Zip 02601

Insurance Company PROGRESIVE CASUALTY

Vehicle Action Prior to Crash 1: 22

Damaged Area Code: 1: 27 | 27 | 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2

Event Sequence 51: 23 | 23 | 23 | 23

Test Status: 28

5 / 1 — Citation # (if Issued)

Most Harmful Event 51: 24

Type of Test: 29

BAC Test Result: 30

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub)

Driver Contributing Code 1: 25 | 25

Susp. Alcohol: 31 | Susp. Drug: 32 — 13: 42

6 / 1 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)

Driver Distracted by 26

Towed from scene? 1: 33

Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	5	5	3	0	5	1	
TAMASH, ALAINA	67 SEA STM1, HYANNIS MA 02601	22	F	4	5	5	3	0	5	1	

7 / 2 — Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type 15 | Action 16 | Location 17 | Condition 18 | ☐ Hit/Run | ☐ Moped

License# X12897326 | St MA | DOB/Age 37 | Reg# 29EN94 | Reg Type PAN | Reg State MA

Sex M | Lic. Class 19: 99 | 19 | Lic. Restrictions 20: 99 | CDL | Endorsement | Veh Year 2004 | Veh Make FORD | Veh Config. 21: 2

Operator VASQUEZ, CARLOS S (Last First Middle) | Owner VASQUEZ, CARLOS S (Last First Middle)

Address 322 YARMOUTH RD | City HYANNIS | State MA | Zip 02601

Address 322 YARMOUTH RD | City HYANNIS | State MA | Zip 02601 — 14

8 / 2 — Insurance Company ARBELLA MUTUAL

Vehicle Action Prior to Crash 4: 22

Damaged Area Code: 27 | 27 | 27

Vehicle Travel Direction N S E W | Responding to Emergency? 2

Event Sequence 51: 23 | 23 | 23 | 23

Test Status: 28

Citation # (if Issued) [redacted]

Most Harmful Event 51: 24

Type of Test: 29

BAC Test Result: 30

Viol. 1 (Ch/Sec/Sub) [redacted] | Viol. 2 (Ch/Sec/Sub) [redacted]

Driver Contributing Code 19: 25 | 6: 25

Susp. Alcohol: 31 | Susp. Drug: 32

9 / 2 — Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub)

Driver Distracted by 26

Towed from scene? 2: 33

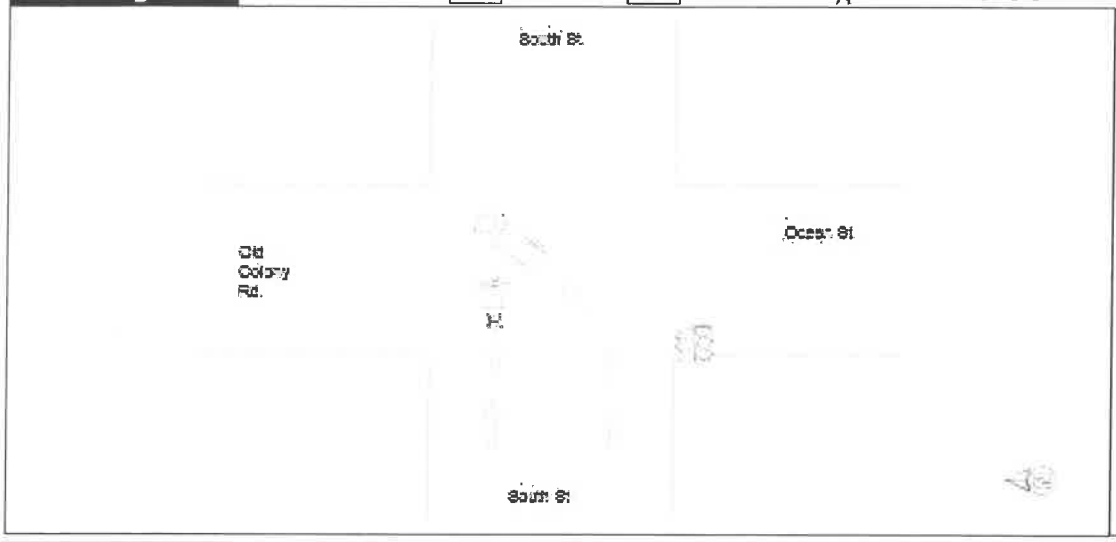
Please fill out for operator and all occupants — Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	5	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

16-600-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

Motorcycle operator: "The light turned green and we started to go straight, all of a sudden he just took a left and cut us off, I had to lay the bike down so he didnt hit me."
Truck Operator: "I dont speak good english"
Gist:Both vehicles are stopped at the red light at the corner of South St. and Old Colony Rd. When the light turns green the motorcycle proceeds straight ahead and the truck leaves the far lane and attempts to make a left turn onto Old Colony and turns right in front of the motorcycle. Motorcycle operator has to lay the bike down to avoid being hit by the truck. Truck and motorcycle did not actually colide. Motorcycle sustained minor damage to the handlebars. [redacted]

Witnesses:

Name (Last. First. Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last. First. Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

JEFFREY JACKSON	JJ/216	Barnstable PD		7/14/2016
Police Officer Name (Please Print) Signature	ID/Badge#	Department	Precinct/Barracks	Date

16-591-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit	Police
07/12/2016	17:41 24H R	Barnstable	2	0	Lat. / Lon.	State Police ☐ Local Police ☑ MBTA Police ☐ Other

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10: 2)

1 (1) Route# | Direction: | Name of Roadway/Street: **OCEAN ST**

At

Route# | Direction: | Name of Intersecting Roadway/Street: **SOUTH ST**

Also at intersection with

2 (1) Route# | Direction: | Name of Intersecting Roadway/Street:

Route# | Direction: | Address# | Name of Roadway/Street:

Feet N S E W of Mile Marker: | or Exit Number:

4 (11) Feet N S E W of Route# | Intersecting Roadway/Street:

Feet N S E W of Landmark:

3 (2) Please Select One of the Following: ☑ Vehicle 1 | 1 #Occupants | ☐ Hit/Run | ☐ Moped

16-591-AC

License# **S61434172** St **MA** DOB/Age **56** | Reg# **2KL739** Reg Type **PAN** Reg State **MA**

Sex **F** Lic. Class [19] **D** [19] Lic. Restrictions [20] **1** CDL Endorsement | Veh Year **2013** Veh Make **HYUN** Veh Config. [21] **1** (12: 1)

Operator **HORAN, JUNE A** (Last / First / Middle) | Owner **HORAN, JUNE A** (Last / First / Middle)

4 (1) Address **124 SEAGATE LN** | Address **124 SEAGATE LN**

City **HYANNIS** State **MA** Zip **02532-3017** | City **HYANNIS** State **MA** Zip **02532-3017**

Insurance Company **govt employee ins** | Vehicle Action Prior to Crash [22] **1** | Damaged Area Code: [27] **6** [27] **7** [27] **8**

5 (2) Vehicle Travel Direction N S E W | Responding to Emergency? **2** | Event Sequence [23] **1** [23] [23] [23] | Test Status: [28]

Citation # (if Issued): | Most Harmful Event [24] **1** | Type of Test: [29]

Viol. 1 (Ch/Sec/Sub): | Viol. 2 (Ch/Sec/Sub): | Driver Contributing Code [25] **1** [25] | BAC Test Result: [30]

Viol. 3: Ch/Sec/Sub: | Viol. 4 (Ch/Sec/Sub): | Driver Distracted by [26] | Susp. Alcohol: [31] Susp. Drug: [32] (13: 1)

6 (1) Towed from scene? [33] **2**

Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	4	0	0	5	1	

7 (1) Please Select One of the Following: ☑ Vehicle 2 | 1 #Occupants | ☐ Non-Motorist | Type [15] | Action [16] | Location [17] | Condition [18] | ☐ Hit/Run | ☐ Moped

License# **S22877237** St **MA** DOB/Age **35** | Reg# **IC35EC** Reg Type **PAN** Reg State **MA**

Sex **M** Lic. Class [19] **D** [19] Lic. Restrictions [20] **1** CDL Endorsement | Veh Year **2008** Veh Make **FORD** Veh Config. [21] **1**

Operator **BREHAUT, MICHAEL P** (Last / First / Middle) | Owner **LENTELL, W PATRICK** (Last / First / Middle)

Address **33 BROOKSHIRE RD** | Address **336 MAIN ST**

City **HYANNIS** State **MA** Zip **02601-3021** | City **COTUIT** State **MA** Zip **02635-3122** (14)

8 (4) Insurance Company **commerce** | Vehicle Action Prior to Crash [22] **6** | Damaged Area Code: [27] [27] [27]

Vehicle Travel Direction N S E W | Responding to Emergency? **2** | Event Sequence [23] **1** [23] [23] [23] | Test Status: [28]

Citation # (if Issued): | Most Harmful Event [24] **1** | Type of Test: [29]

Viol. 1 (Ch/Sec/Sub): | Viol. 2 (Ch/Sec/Sub): | Driver Contributing Code [25] **19** [25] | BAC Test Result: [30]

9 (2) Viol. 3: Ch/Sec/Sub: | Viol. 4 (Ch/Sec/Sub): | Driver Distracted by [26] | Susp. Alcohol: [31] Susp. Drug: [32]

Towed from scene? [33] **2**

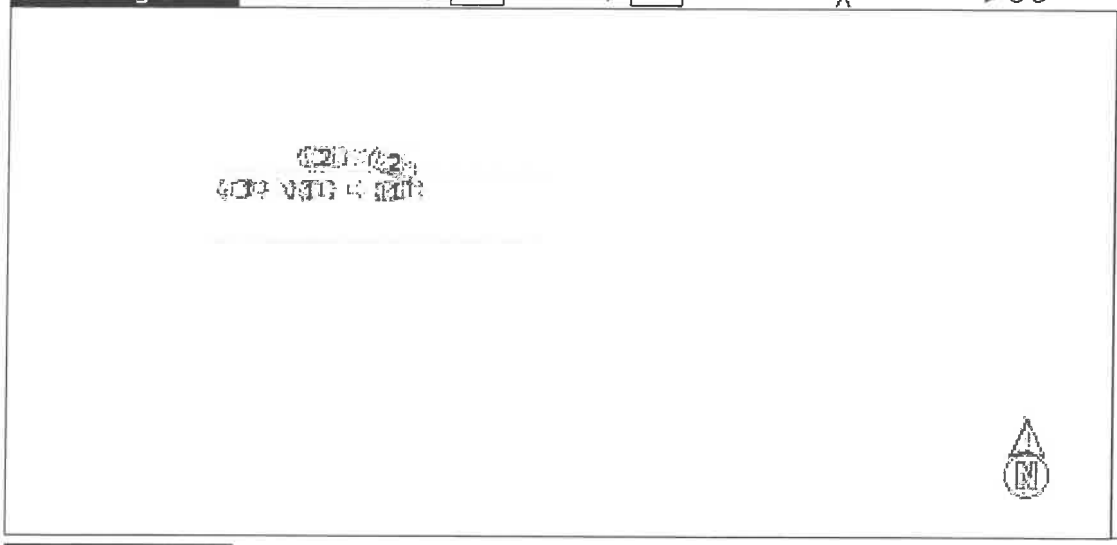
Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	99	4	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

16-591-AC

Crash Diagram:

ie: 1 → 2 → → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

On July 12, 2016, I was dispatched to 50 Ocean Street for a report of a two car MVA. Upon my arrival vehicle 1 was the only vehicle on scene. She advised me that vehicle two left her with his information but had to get back to work.
Operator of vehicle 1 said that she was traveling on South Street approaching the set of lights at Ocean Street. She advised me that vehicle 2 was parked off the roadway to her left and appeared to be placing signs out for an event. She said that vehicle 2 then started to pull into her lane of travel and crashed into the driver side of her vehicle.
I attempted to locate the other vehicle and operator with negative results. The information that the operator of vehicle one provided to vehicle two was relayed to me and added to this report.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

CORBIN FRIES	CJF/287 Barnstable PD		7/17/2016
Police Officer Name (Please Print) Signature	ID/Badge# Department	Precinct/Barracks	Date

16-502-AC

Commonwealth of Massachusetts
Motor Vehicle Crash Police Report

Date of Crash	Time of Crash	City/Town	Number Vehicles	Number Injured	Speed Limit / Lat. / Lon.	State Police / Local Police / MBTA Police / Other
06/24/2016	13:01 24H R	Barnstable	2	0		Local Police ✓

AT INTERSECTION | **< LOCATION >** | **NOT AT INTERSECTION** (10) **2**

(1) **1** Route# | Direction | Name of Roadway/Street: **SOUTH ST**

At

Route# | Direction | Name of Intersecting Roadway/Street: **OLD COLONY RD**

Also at intersection with

(2) **2** Route# | Direction | Name of Intersecting Roadway/Street

Route# | Direction | Address# | Name of Roadway/Street

Feet [N S E W] of Mile Marker | or Exit Number

(11) **3** Feet [N S E W] of Route# | Intersecting Roadway/Street

Feet [N S E W] of Landmark

(3) Please Select One of the Following: ✓ Vehicle 1 | **1** #Occupants | ☐ Hit/Run | ☐ Moped

16-502-AC

License# **S24775287** St **MA** DOB/Age **47** | Reg# **8281SR** Reg Type **PAN** Reg State **MA**

Sex **F** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL Endorsement | Veh Year **2004** Veh Make **PONT** Veh Config. **1** (21) (12) **1**

Operator **VACHER, LESLIE** (Last First Middle) | Owner **VACHER, LESLIE** (Last First Middle)

(4) **3** Address **58 STERLING RD** | Address **58 STERLING RD**

City **HYANNIS** State **MA** Zip **02601** | City **HYANNIS** State **MA** Zip **02601**

Insurance Company **PLYMOUTH ROCK ASSU** | Vehicle Action Prior to Crash **4** (22) | Damaged Area Code: **7** (27) (27) (27)

Vehicle Travel Direction [N S E W] | Responding to Emergency? **2** | Event Sequence **1** (23) (23) (23) (23) | Test Status: (28)

(5) **1** Citation # (if Issued) | Most Harmful Event **1** (24) | Type of Test: (29)

Viol. 1 (Ch/Sec/Sub) | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code **9** (25) (25) | BAC Test Result: (30)

Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32) (13) **1**

(6) **1** Towed from scene? **1** (33)

Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	2	0	0	5	1	

(7) (8) Please Select One of the Following: ✓ Vehicle 2 | **1** #Occupants | ☐ Non-Motorist | Type (15) | Action (16) | Location (17) | Condition (18) | ☐ Hit/Run | ☐ Moped

License# **S98476756** St **MA** DOB/Age **65** | Reg# **RW476V** Reg Type **PAN** Reg State **MA**

Sex **F** Lic. Class **D** (19) (19) Lic. Restrictions **1** (20) CDL Endorsement | Veh Year **2014** Veh Make **VOLV** Veh Config. **1** (21)

Operator **DILK, MARSHA L** (Last First Middle) | Owner **DILK, MARSHA L** (Last First Middle)

Address **59 FIFTH AVE** | Address **59 FIFTH AVE**

City **W HYANNISPORT** State **MA** Zip **02672-0223** | City **W HYANNISPORT** State **MA** Zip **02672-0223** (14)

(8) **4** Insurance Company **COMMERCE INSURANCE** | Vehicle Action Prior to Crash **4** (22) | Damaged Area Code: **7** (27) (27) (27)

Vehicle Travel Direction [N S E W] | Responding to Emergency? **2** | Event Sequence **1** (23) (23) (23) (23) | Test Status: (28)

Citation # (if Issued) **R7606748** | Most Harmful Event **1** (24) | Type of Test: (29)

Viol. 1 (Ch/Sec/Sub) **89/4A** | Viol. 2 (Ch/Sec/Sub) | Driver Contributing Code **9** (25) (25) | BAC Test Result: (30)

(9) **2** Viol. 3: Ch/Sec/Sub | Viol. 4 (Ch/Sec/Sub) | Driver Distracted by (26) | Susp. Alcohol: (31) Susp. Drug: (32)

Towed from scene? **1** (33)

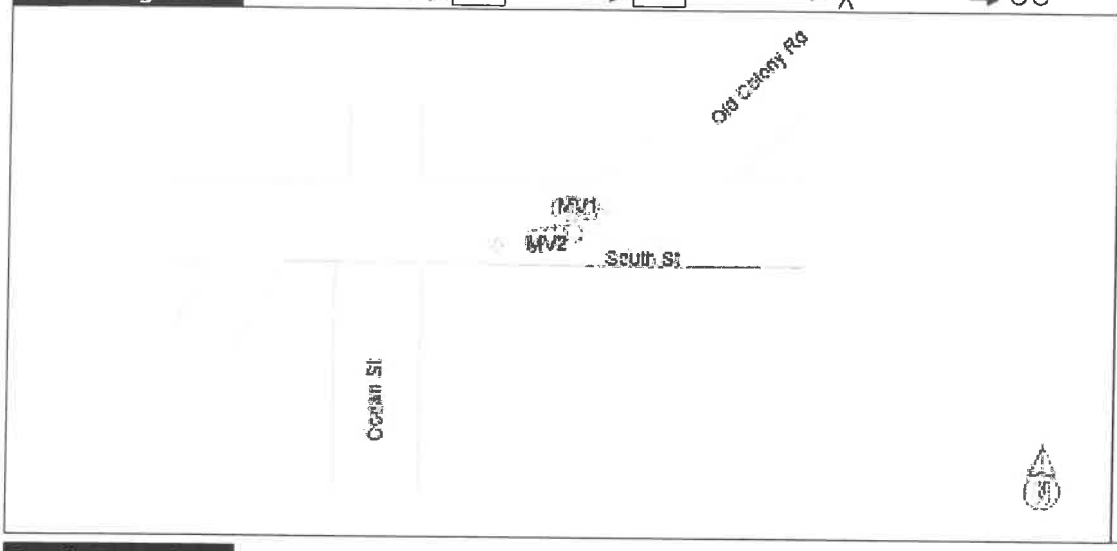
Please fill out for operator and all occupants: Name (Last First Middle)	Address	DOB/Age	Sex	34 Seat Pos.	35 Safety System	36 Airbag Status	37 Eject Code	38 Trap Code	39 Injury Status	40 Transp. Code	Medical Facility
Operator	*See Above*	-	-	1	1	2	0	0	5	1	

= Direction | 1 = Vehicle 1 | 2 = Vehicle 2 | = Pedestrian | = Bicycle

16-502-AC

Crash Diagram:

ie: → 1 → 2 → →



If Crash Did Not Occur on a Public Way:

- ☐ Off-Street Parking Lot
- ☐ Garage
- ☐ Mall/Shopping Center
- ☐ Other Private Way

North

Crash Narrative:

OPER #1: I was driving straight and she just turned into me from the other lane. OPER #2: I don't really remember, I was driving and made a left turn to go down the road and she hit me. MV #1 was in the left lane driving east on South St. MV #2 was in the right lane on South St. driving east. MV #2 turned left to try and go down Old Colony Rd. from the right hand lane of South St. MV #2 left side of car struck the right side of MV #1. MV #2 made an unsafe lane change attempting to make a left turn from the right lane. Warning citation issued to OPER #2(Dilk). No injuries, MV #2 towed due to side airbag deployment.

Witnesses:

Name (Last, First, Middle)	Address	Phone #	Statement

Property Damage:

Owner (Last, First, Middle)	Address	Phone #	41-Type	Description of Damaged Property

Truck and Bus Information:

Registration # _____ (From Vehicle Section)

Carrier Name _____ Bus Use [42]

Address _____ City _____ State ____ Zip _____

USDOT # _____ State Number _____ Issuing State _____ MC/MX/IC# _____

Interstate [43] Cargo Body Type Code [44] GVWR\GCWR [45]

Trailer Reg# _____ Reg Type _____ Reg State _____ Reg Year _____ Trailer Length [46]

Hazmat Information:

Placard [47] Material 1 digit# [48] Material Name _____ Material 4 digit# _____ Release code [49]

MATTHEW LOUNSBURY | **MJL/218 Barnstable PD** | **6/24/2016**

Police Officer Name (Please Print) Signature | ID/Badge# Department | Precinct/Barracks | Date

Last Mod: 6/30/2016 1:02 PM

https://www.crashlogic.com

Town of Barnstable
Police Department

Matthew K. Sonnabend, Chief of Police
Sean E. Balcom, Deputy Chief of Police
Mark J. Cabral, Deputy Chief of Police

P.O. Box B
Hyannis, MA 02601

Main Number: 508-775-0387
Main Fax: 508-790-4167
Administration: 508-775-0920
Admin. Fax: 508-790-6317
www.barnstablepolice.com

Attached is your accident/incident report from the Barnstable Police Department.

The Massachusetts Public Records Law (M.G.L. Chapter 66 & Chapter 4, Section 7(26)) provides that every person has a right to access public information.

Portions of this report have been redacted due to exemptions within the Public Records Law. The portion (s) that have been redacted in the following report are exempt and fall under Exemption C which applies to records that are:

"personnel and medical files or information; also any other materials or data relating to a specifically named individual, the disclosure of which may constitute an unwarranted invasion of personal privacy"

If you have any questions on Public Records Law and its exemptions please refer to the following website. http://www.sec.state.ma.us

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"Specifically or by necessary implication exempted from disclosure by statute"

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