

TECHNICAL MEMORANDUM

TO: Mr. Joshua Crabb, Highway Superintendent
Fairhaven Highway Department
5 Arsene Street
Fairhaven, Massachusetts 02719

DATE: September 21, 2025

FROM: Samuel W. Gregorio, PE, PTOE, RSP₁, Senior Project Manager
Gerson M. Ribeiro EIT, Project Engineer

PROJ NO.: T1680

RE: Sconticut Neck Road / Bonney Street / Edgewater Street – Fairhaven, Massachusetts
Traffic Operational & Safety Assessment

INTRODUCTION

TEC, Inc. (TEC) has been retained by the Town of Fairhaven (the “Town”) to provide an evaluation of the existing traffic control, traffic operations, and traffic safety characteristics at the intersection of Sconticut Neck Road / Bonney Street / Edgewater Street in Fairhaven, Massachusetts. The four-legged two-way stop-controlled (TWSC) intersection at the north end of the Sconticut Neck peninsula serving the residential side-streets and recreational traffic. The geometrics of the intersection of further complicated by the fifth leg to the intersection where Bonney Street and Edgewater Street, on the easterly side of Sconticut Neck Road, join the intersection as a single opening of pavement. The location has been identified as a location of concern in the community.

TEC has evaluated the traffic operations and safety characteristics of the study intersection under base year and future year conditions consistent with the *Transportation Impact Assessment (TIA) Guidelines* issued by the Massachusetts Department of Transportation (MassDOT)¹ and the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports. The future year examines traffic operations under a 10-year planning horizon (2035) for traffic volume projections, which includes an evaluation of the future year conditions with and without recommended improvements. The findings and recommendations for the improvements are based on the detailed traffic analyses included in this report.

EXISTING CONDITIONS

A field inventory of the existing conditions at the Sconticut Neck Road / Bonney Street / Edgewater Street intersection was conducted by TEC staff in March and April of 2025 to

¹ *Transportation Impact Assessment (TIA) Guidelines*; Massachusetts Department of Transportation; March 13, 2014.

obtain information related to intersection geometrics, operating characteristics, and safety characteristics. A description of the existing roadway and intersection geometry is provided below. A graphical depiction of the study area is provided in Figure 1.

Geometry

Sconticut Neck Road Corridor

Sconticut Neck Road is a north-south urban minor arterial roadway local roadway under the jurisdiction of the Town of Fairhaven. The roadway provides a local connection between Huttleston Avenue (US Route 6) to the north and the southerly coastline Sconticut Neck to the south. Sconticut Neck Road ranges between ± 23 -feet and ± 40 -feet in width. The corridor generally provides a single travel lane in each direction with auxiliary turn and channelized lanes provided at its intersection with US Route 6 and at the Leroy Wood Elementary School. The directional flow along Sconticut Neck Road is separated by a marked centerline except for a short segment approaching US Route 6 where a raised asphalt median is also present and south of Starboard Drive at the southerly end.

Sidewalks are not continuous along the entire length of Sconticut Neck Road. There are segments where sidewalks are present on one or both sides of the roadway, and other segments where no dedicated pedestrian facility exists. Bicycle accommodation is not provided along the corridor; however, the shoulders at some sections are greater than 5 feet wide and can support bicycle travel comfortably. Land uses along Sconticut Neck Road are generally residential in nature although a public boat ramp is located at the east end of Edgewater Street.

There is no MassDOT Special Speed Regulation along Sconticut Neck Road. A majority of the corridor is therefore subject to a 30 mile per hour (mph) statutory speed limit under Massachusetts General Law (MGL) Chapter 90, Section 17 (Ch90 §17) for thickly settled / business districts in absence of a Special Speed Regulation. The segment between #551 Sconticut Neck Road to the north and Nobska Road to the south is generally not thickly settled and therefore is subject to a 40-mph statutory speed limit under the same MGL Ch90 §17. Note that prior to this assessment, 25-mph and 35-mph posted speed limits were present along the corridor; however, a documented Special Speed Regulation did not support these speed zones. The speed limit signs have since been removed from the corridor by the Town.

Currently, Sconticut Neck Road is undergoing construction as part of the Leroy Wood Elementary School Safe Routes to School Project (MassDOT Project #609518). During TEC's visit it was noted that there was a new sidewalk, curb ramps, utility work, and pavement patches along Sconticut Neck Road in the vicinity.



1" = 200'

Sconticut Neck Road / Bonney Street / Edgewater Street - Fairhaven, Massachusetts

Traffic Operational & Safety Assessment



Figure 1

Study Location Map



TEC, Inc.
282 Merrimack Street, 2nd Floor
Lawrence, MA 01843
978-794-1792
www.TheEngineeringCorp.com

Intersection Description

Bonney Street and Edgewater Street intersect Sconticut Neck Road to form a five-legged, unsignalized intersection. Both the Bonney Street and Edgewater Street, local roads under the jurisdiction of the Town of Fairhaven, operate under stop-control while the Sconticut Neck Road northbound and southbound approaches are free-flowing. East of the intersection, Bonney Street and Edgewater Street are two separate approaches which results in the notation of a fifth leg; however, the acute angle of the approaches and narrow side-street opening results in the two approaches operating as a single side-street approach. At the easterly end of Edgewater Street is the Edgewater Street Boat Ramp. Although Bonney Street and Edgewater Street are noted to operate under stop control, no stop lines or stop signs are present. All five intersection approaches consist of single general-purpose travel lanes. Directional flow along Sconticut Neck Road is separated by a marked centerline. Directional flow along both the Bonney Street eastbound and Bonney Street / Edgewater Street westbound approach is unmarked.



Image 1: View east of the intersection from the Y-split of Bonney Street / Edgewater Street.

Asphalt sidewalks are provided along both sides of Sconticut Neck Road south of the intersection; however, these sidewalk segments are only the length of a few houses before terminating again. The sidewalk along the easterly side of Sconticut Neck Road is only 3 feet wide. No accessible pedestrian curb ramps or crosswalks are provided. There is no bicycle accommodation at the intersection.

Public Transportation

The Southeastern Regional Transit Authority (SRTA) provides bus service in the vicinity of the study intersection via Bus Route 211 – “Fairhaven.” The route crosses over Sconticut Neck Road approximately 4,700 feet north of the intersection between David Drown Boulevard and Stop & Shop. The bus route operates between the SRTA New Bedford Terminal and Stop & Shop with key stops at Market Basket New Bedford, Fairhaven High School, Southcoast Health in Fairhaven, Walmart Fairhaven, Fairhaven Commons, and Plaza Way in Fairhaven. The route operates outbound from the SRTA New Bedford Terminal on weekdays at 30-minute headways between 6:05 AM to 5:35 PM and inbound from Stop & Shop at 30-minute headways between 6:45 AM to 6:15 PM. On weekends, the route operates outbound from the SRTA New Bedford Terminal at 30-minute headways between 8:05 AM to 4:35 PM and inbound from Stop & Shop at 30-minute headways between 8:40 AM to 5:10 PM. Bus Route schedules and maps for Route 211 are provided within Attachment A.

TRAFFIC VOLUMES

Traffic volume data for this report was obtained from manual Turning Movement Counts (TMCs) and supplemented with Automatic Traffic Recorder (ATR) counts conducted at the study area intersection. The details of the data collection effort for this project are described below.

Turning Movement Counts

To establish existing traffic volume conditions at the study area intersection, manual TMCs were conducted on Wednesday, May 28, 2025, for a continuous 12-hour mid-week weekday period from 7:00 AM – 7:00 PM and on Saturday, May 31, 2025, during the Saturday midday (11:00 AM – 1:00 PM) peak period. Area schools were in regular session at the time of traffic counts. The weekday morning peak hour occurred between 8:00 AM and 9:00 AM and the evening peak hour occurred between 3:00 PM and 4:00 PM. The detailed TMC data sheets, partitioned into 15-minute intervals, are provided within Attachment B.

Automatic Traffic Recorder Counts

ATR counts were conducted for a continuous 48-hour mid-week period on Sconticut Neck Road north of Hacker Street from Wednesday, May 28, 2025 through Thursday, May 29, 2025 concurrent with the TMCs. The ATRs were obtained to gather additional daily traffic volume data, vehicle speeds, and vehicle classifications. A summary of the weekday ATR traffic data is presented in Table 1. A detailed summary of the ATR data, partitioned into one-hour and 15-minute intervals, is provided within Attachment C.

Table 1 – Existing Weekday Traffic Volume Summary

Location	Weekday	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	Traffic Volume ^(a)	Traffic Volume ^(b)	K Factor ^(c)	Directional Distribution ^(d)	Traffic Volume	K Factor	Directional Distribution
Sconticut Neck Road north of Rockland Street	6,461	435	6.7%	64.4% NB	524	8.1%	60.1% SB

^a Daily traffic expressed in vehicles per day.

^b Hourly traffic expressed in vehicles per hour.

^c Percent of daily traffic volumes which occur during the peak hour.

^d Percent of peak hour volume in the predominant direction of travel.

Sconticut Neck Road carries approximately 6,465 vehicles per day (vpd) on an average weekday north of Rockland Street. The weekday morning and weekday evening peak hours generally consist of 6.7% to 8.1% of the overall daily traffic volume. Directional distribution along the roadway is weighted heavily in the northbound direction during the weekday morning peak and southbound direction during the evening peak hours. This is consistent with commuter traffic travelling from/to Interstate 195 (I-195) and US Route 6. Speed data

collected as part of the ATR indicates that the average speed and 85th percentile speed along Sconticut Neck Road northbound direction is 30 mph and 35 mph, respectively. The average speed and 85th percentile speed along Sconticut Neck Road southbound direction is 33 mph and 37 mph, respectively. Overall, the average and 85th percentile speeds along Sconticut Neck Road, north of Rockland Street, are higher than the 30-mph statutory speed limit.

Seasonal Adjustment

In accordance with MassDOT standards, traffic volumes are typically adjusted to average month conditions. To account for seasonal adjustment, TEC utilized MassDOT's published weekday seasonal and axle correction factors as published in 2024 (most recent publication). The factors provide a month-to-month overview of traffic volumes statewide by roadway functional classification and land type (urban vs. rural). For both local and urban minor arterial roadways, factor group U4-U7, traffic volumes in the month of May were approximately 9.0 percent higher (0.91 factor) than average month conditions. Therefore, the May 2025 traffic volumes were unadjusted to reflect a conservative condition. The compiled seasonal adjustment data is provided in Attachment D. The 2025 Base Year seasonal adjusted morning and evening peak hour turning movements are depicted graphically in Figure 2.

Future Traffic Volumes

To determine traffic volumes under future year conditions, 2025 Base Year traffic volumes at the intersection of Sconticut Neck Road / Bonney Street / Edgewater Street were projected to the year 2035 to provide a 10-year planning horizon. Traffic volumes on the roadway network at that time would include existing traffic, new traffic due to general background traffic growth, and traffic related to specific developments by others, if applicable. Consideration of these factors resulted in the development of the 2035 Future Year Condition traffic volumes.

Background Growth

Traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an ambient growth rate for the area roadways and applies that percentage to all mainline and side street traffic volumes. The drawback to such a procedure is that some turning volumes may grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic. However, the drawback of this

procedure is that the potential growth in population and development external to the project area would not be accounted for in the traffic projections.

To provide a conservative analysis framework, both procedures were used.

General Ambient Growth

To project traffic to a future horizon year, TEC utilized MassDOT published year-by-year annual growth data between 2016 and 2019. The data indicates that, for both urban minor arterial and local road traffic volumes grew 1.7 percent between 2016 and 2017, 0.3 percent between 2017 and 2018, and decreased 0.4 percent between 2018 and 2019. This equates to an annual growth rate of approximately 0.53 percent per year on average between 2016 and 2019. To provide a consistent analysis scenario, a 1.0 percent per year compounded annual traffic growth rate was used to account for potential future traffic growth external to the study area and any presently unforeseen development. MassDOT historic growth rate data have been included in Attachment E.

Specific Developments by Others

TEC coordinated with the Town's Highway Superintendent to identify any nearby private / public development projects in the vicinity of the study area that either in the planning or were recently approved but not yet occupied. Currently, there are no development in the study area vicinity that would be expected to significantly change traffic volumes in the area and at the intersection.

2035 Future Year Traffic Volumes

The 2035 Future Year Condition traffic volumes were obtained by applying a 1.0 percent compounded annual growth rate to the 2025 Base Year Condition traffic volumes over the 10-year planning horizon period. The 2035 Future Year weekday morning and evening peak hour turning movements are depicted graphically in Figure 3.

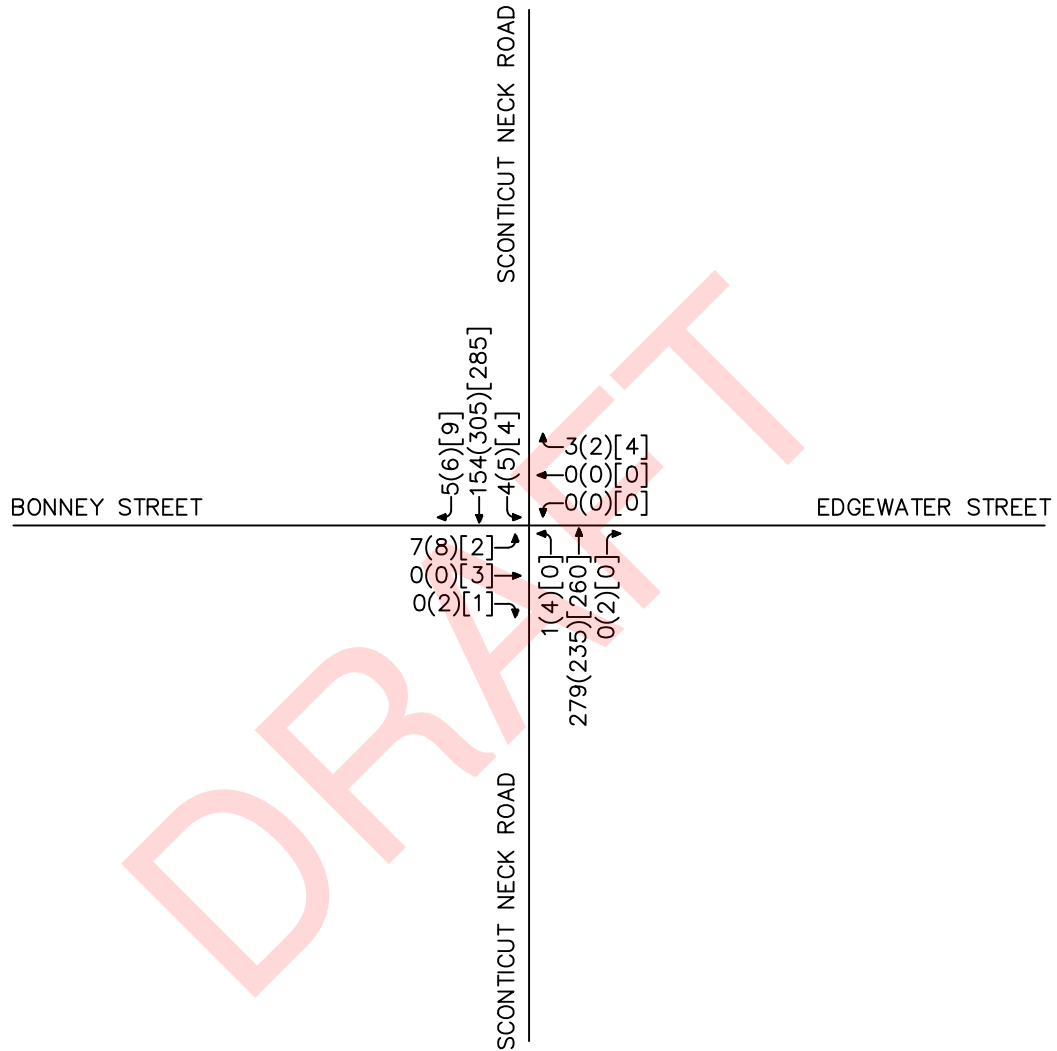
C:\Users\LOCAL_~1\Temp\AcPublish_16508\T1680_Traffic Networks.dwg 9/22/2025 9:40:32 AM



Not to Scale

Sconticut Neck Road / Bonney Street / Edgewater Street - Fairhaven, Massachusetts

Traffic Operational & Safety Assessment



XXX(XXX)[XXX] = WEEKDAY MORNING PEAK HOUR(WEEKDAY EVENING PEAK HOUR)[SATURDAY MIDDAY]



TEC, Inc.
282 Merrimack Street, 2nd Floor
Lawrence, MA 01843
978-794-1792
www.TheEngineeringCorp.com

Figure 2

2025 Base Year Conditions
Weekday Morning, Weekday Evening,
and Saturday Midday
Peak Hour Traffic Volumes

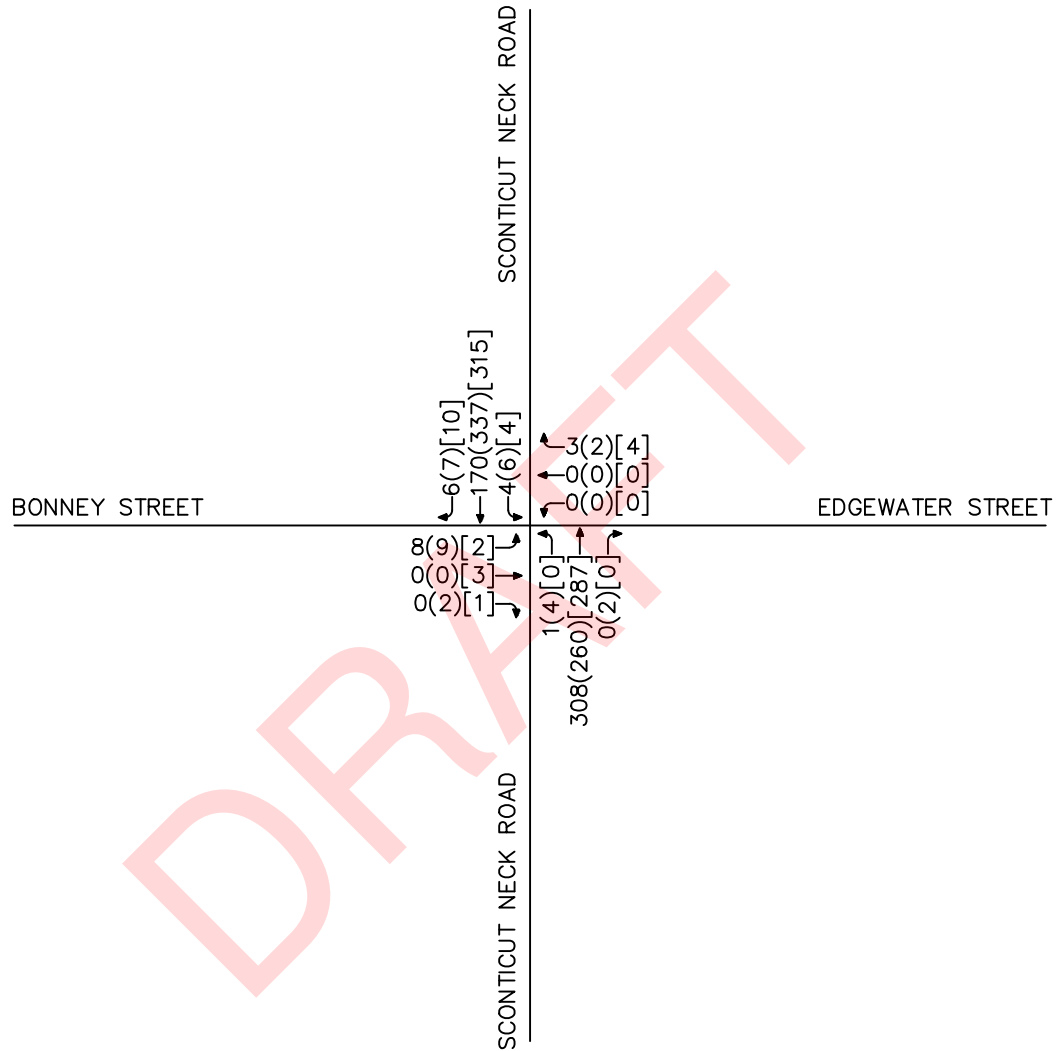
C:\Users\LOCAL_~1\Temp\AcPublish_16508\T1680_Traffic Networks.dwg 9/22/2025 9:41:19 AM



Not to Scale

Sconticut Neck Road / Bonney Street / Edgewater Street - Fairhaven, Massachusetts

Traffic Operational & Safety Assessment



XXX(XXX)[XXX] = WEEKDAY MORNING PEAK HOUR(WEEKDAY EVENING PEAK HOUR)[SATURDAY MIDDAY]



TEC, Inc.
282 Merrimack Street, 2nd Floor
Lawrence, MA 01843
978-794-1792
www.TheEngineeringCorp.com

Figure 3

**2035 Future Year Conditions
Weekday Morning, Weekday Evening,
and Saturday Midday
Peak Hour Traffic Volumes**

SAFETY EVALUATION

Crash History Analysis

Crash reports for the study area were compiled and analyzed for the most recent consecutive seven-year period (2018-2024) on file identified from MassDOT's Interactive Mapping Portal for Analysis and Crash Tracking (IMPACT) system. A summary of the vehicle crash data and intersection crash rate is provided in Table 2. A compilation of the detailed crash data is provided in Attachment F.

Crash Rates

In addition to examining the number of crashes in the study area, an intersection crash rate was calculated to compare the occurrence of crashes to the volume of traffic passing through the study area intersection. The crash rate per million entering vehicles (MEV) for intersections was calculated using the weekday evening peak hour volumes from the TMCs and K-factor (relation of peak-hour traffic to daily traffic) in Table 1. The crash rate at the intersections was compared to the statewide and district-wide averages published by MassDOT in June 2018 for intersections and June 2023 for roadway segments to determine the significance of the crash occurrence. The statewide and District 5 average for unsignalized intersections is 0.57 crashes per MEV. Crash rate calculations can be found in Attachment F.

The crash history at the study area intersection was also compared against Equivalent Property Damage Only (EPDO) rates within the Southeast Regional Planning and Economic Development District (SRPEDD) boundaries. EPDO ranks crashes based on the crash severity for the current 2019-2021 HSIP year of crash data. Within this current methodology, any type of injury crash (including fatal, incapacitating / suspected serious, non-incapacitating / suspected minor, and possible) has a weight of twenty-one (21) compared to property damage only crashes. The current SRPEDD threshold for HSIP-eligibility is ≥ 129 , as reported by MassDOT's Traffic and Safety Engineering Section. The intersection was found to have an EPDO of only 21, which is lower than the SRPEDD HSIP-eligibility threshold of 129. Note that the EPDO would be expected to increase upon the release of the 2020-2022 HSIP year of crash data; however, not to the extent of the expected HSIP-eligibility threshold.

Crash Data Summary

The intersection of Sconticut Neck Road / Bonney Street / Edgewater Street experienced a total of seven (7) crashes, or an average of one (1) crash per year, over the seven-year period. The intersection has a crash rate of 0.30 per MEV, well below the statewide and districtwide averages for unsignalized intersections. Almost half (3 or 7) of the crashes were angled

crashes with two (2) single vehicle crashes, and two (2) rear-end crashes. Three (3) crashes resulted in non-fatal injuries, and three (3) crashes involved three (3) vehicles. One (1) crash did note excessive speed as a contributing factor while three (3) crashes are noted to occur during dark sky.

Table 2 – Crash Data Summary

Parameter		Sconticut Neck Road / Bonney Street / Edgewater Street
Year	2018	2
	2019	0
	2020	1
	2021	0
	2022	1
	2023	1
	2024	2
	TOTAL	7
Average Annual Crashes ^(a)		1.00
MassDOT Crash Rate ^(a)		0.30
EPDO ^(b)		21
Manner of Collision	Angle	3
	Rear-end	1
	Sideswipe	1
	Single Vehicle	2
	TOTAL	7
Road Surface Conditions	Dry	5
	Wet	2
	Snow / Ice	0
	TOTAL	7
Injury Status (Crash Severity)	Prop Damage	3
	Non-Fatal Injury	3
	Fatal Injury	0
	Not Reported	1
	TOTAL	7
Day of Week	Monday-Friday	6
	Saturday-Sunday	1
	TOTAL	7
Time of Day	6:00AM-9:00AM	1
	9:00AM-12:00PM	2
	12:00PM-3:00PM	1
	3:00PM-6:00PM	0
	6:00PM-9:00PM	2
	9:00PM-6:00AM	1
	TOTAL	7

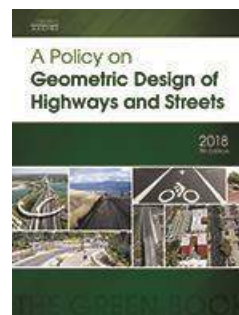
^a Rate based on completed crash years (2018-2021)

^b Rate based on HSIP-eligible years (2019-2021)

Sight Distance Evaluation

TEC visited the site and measured the available sight lines at the Sconticut Neck Road / Bonney Street / Edgewater Street intersection in April 2025. The available sight lines were compared to minimum requirements established by the American Association of State Highway and Transportation Officials (AASHTO)².

Sight distance represents the length of roadway that is visible to a driver traveling within the roadway. Two types of sight distance are typically evaluated for driveways and intersections: stopping sight distance (SSD) and intersection sight distance (ISD). SSD is the minimum distance required for a driver traveling along a roadway to perceive an object in the roadway and stop safely in advance of the object when traveling on a wet pavement surface. SSD is measured from an eye height of 3.5 feet to an object height of 2 feet above the ground, which is equivalent to a driver viewing the taillight of a vehicle ahead. SSD is measured along the centerline of the travel lane approaching a driveway or intersection.



**Current AASHTO
'Green Book' (2018)**

ISD represents the length of the roadway visible to a driver waiting to exit a driveway or minor street. Minimum ISD requirements are based on the distance required for a driver to exit a minor street onto a major street without requiring an approaching vehicle to reduce its speed from the design speed to less than 70 percent of the design speed. ISD is measured from an eye height of 3.5 feet to an object height of 3.5 feet and is measured from a distance 15 feet beyond the edge of the travel-way of the major roadway to represent a driver waiting to exit a driveway or minor roadway.

SSD is typically considered the critical sight distance, as it represents the minimum distance required for safe stopping, while ISD represents an acceptable speed reduction for approaching vehicles. The ISD, however, must be at least equal to the minimum required SSD in order to prevent a driver from entering the roadway when an approaching vehicle is too close to safely stop. The guidance provided by AASHTO states:

“If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. However, in some cases, this may require a major-road vehicle to stop or slow to accommodate the maneuver by a minor-road vehicle. To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road.”

² A Policy on Geometric Design of Highways and Streets (the “Green Book”); American Association of State Highway and Transportation Officials; Washington DC; 2018

Sight distances as reported utilize the 85th percentile speed as collected in May 2025 to account for the roadway operating speed. In addition, the roadway grades entering the intersection from each approach were approximated based on the online MassMapper database³. Tables 3 and 4 provide a summary of the available SSD and ISD at the intersection of Sconticut Neck Road / Bonney Street / Edgewater Street, respectively.

Table 3 – Existing Stopping Sight Distance Measurements

Approach / Direction	Operating Speed ^(a)	AASHTO Recommended Minimum	Measured Stopping Sight Distance
Sconticut Neck Road / Bonney Street / Edgewater Street:			
<i>Sconticut Neck Road Northbound</i>	35 MPH	245 FT	>500 FT
<i>Sconticut Neck Road Southbound</i>	37 MPH	275 FT	>500 FT

^a Operating speeds calculated as 85th percentile speed from ATR counts in May 2025.

Table 4 – Existing Intersection Sight Distance Measurements

Approach / Direction	Operating Speed ^(a)	AASHTO Desired Minimum	AASHTO Recommended Minimum	Measured Intersection Sight Distance
Sconticut Neck Road at Bonney Street [West]				
<i>Bonney Street looking North [looking left]</i>	37 MPH	410 FT	275 FT	480 FT
<i>Bonney Street looking South [looking right]</i>	35 MPH	390 FT	245 FT	310 FT
Sconticut Neck Road at Bonney Street [East]				
<i>Bonney Street looking North [looking right]</i>	37 MPH	410 FT	275 FT	>500 FT
<i>Bonney Street looking South [looking left]</i>	35 MPH	390 FT	245 FT	480 FT

^a Operating speeds calculated as 85th percentile speed from ATR counts in May 2025.

As shown in Table 3, the SSD along Sconticut Neck Road at the study area intersection exceeds AASHTO minimum recommendations for safe operations. Similarly, Table 4 indicates the ISD at the study area intersection exceeds AASHTO recommended and desired minimum requirements. Much of the sight line compliance on these approaches are based upon the existing shoulder lines along Sconticut Neck Road which is the basis of the edge of travel way. From edge of pavement, these sight lines are more restricted for where a vehicle may typical stop before “inching” forward closer to that shoulder line. From Bonney Street eastbound looking south, the location of the residential dwelling (216 Sconticut Neck Road) may impede sight lines on the initial approach to the intersection, as well as the



Image 2: ISD sight line looking north from Bonney Street / Edgewater Street westbound.

³ <https://maps.massgis.digital.mass.gov/MassMapper/MassMapper.html>

large hedge grove on the intersection's northeast corner for sight lines along Bonney Street / Edgewater Street westbound looking north. Note the sight line for this hedge grove may be further restricted than measured based on levels of seasonal vegetation growth.

General Safety Observations

TEC's field observations noted several general concerns about existing conditions at the study intersection, which may negatively impact safety. Several of these concerns require additional evaluation and design work to further develop and determine the feasibility of the safety enhancements. More specific safety challenges located at the study area intersection are described below:

- *Bonney Street / Edgewater Street Y-Approach* – Both Bonney Street and Edgewater Street enter the intersection from the east as two separate approaches which narrow into a single side-street approach, albeit slightly wider than other side-streets along the corridor. East of the intersection, there is no clear identification as to which of the roadways has the Right-of-Way; however, this condition is not regularly experienced due to the extremely low volume on each of the roadways.
- *Missing / Out-of-Place Traffic Signage* – Both the Sconticut Neck Road northbound and southbound approaches do not have an advance offset intersection warning sign (W2-1). In addition, both the Bonney Street eastbound and Bonney Street / Edgewater Street westbound approaches do not have advanced stop ahead (W3-1) warning sign. There is also no stop sign (R1-1) along either the Bonney Street eastbound or Bonney Street / Edgewater Street westbound approaches.
- *Pavement Markings* – There are no stop lines present on either the Bonney Street eastbound or Bonney Street / Edgewater Street westbound approaches.
- *Lack of Pedestrian and Bicycle Accommodations* - Asphalt sidewalks are provided along both sides of Sconticut Neck Road south of the intersection; however, these sidewalk segments are only the length of a few houses before terminating again. The sidewalk along the easterly side of Sconticut Neck Road is only 3 feet wide. No accessible pedestrian curb ramps or crosswalks are provided. There is no bicycle accommodation at the intersection.



Image 3: Downstream terminus of sidewalk along Sconticut Neck Road.

- *Sight Distance* - Much of the sight line compliance on these approaches are based upon the existing shoulder lines along Scenticut Neck Road which is the basis of the edge of travel way. From edge of pavement, these sight lines are more restricted for where a vehicle may typical stop before “inching” forward closer to that shoulder line. From Bonney Street eastbound looking south, the location of the residential dwelling (216 Scenticut Neck Road) may impede sight lines on the initial approach to the intersection, as well as the large hedge grove on the intersection’s northeast corner for sight lines along Bonney Street / Edgewater Street westbound looking north. Note the sight line for this hedge grove may be further restricted than measured based on levels of seasonal vegetation growth.
- *Pavement Condition* – The pavement in the vicinity of the intersection is in a fair to below-average condition with areas of noticeable cracking and crack sealing. It appears ‘alligator’ cracking is visible along the Edgewater Street approach which may indicate significant subsurface deterioration of the pavement structure.
- *Edgewater Street Pavement Edge Definition* – In addition to below average pavement conditions, the roadway edge along Edgewater Street appears to meander with significant damage to the roadways edge. Field observations showed on-street parked vehicles along Edgewater Street that also encroached off the pavement surface.
- *Stormwater Collection* - Sand and debris build-up at the edge indicates that the pavement surface along Edgewater Street and Bonney Street, east of the intersection, is experiencing poor stormwater drainage which may be a result of pavement grading deterioration leading to poos flow along the gutter line / edge of pavement.
- *Lateral Offset of Street Trees* - A public shade tree on the intersection’s northwest corner is approximately 8-inches off the back of depressed (limited curb reveal) vertical granite curbing. Although the tree does not directly block sight lines, its proximity to the edge of Scenticut Neck Road results in a



Image 4: Meandering edge of pavement along Edgewater Street.



Image 5: Public shade tree at roadway edge along Scenticut Neck Road.

significant roadside hazard where there is virtually no protection from a lane departure vehicle.

- *Vehicle Speeds* – The speed data collected in May 2025 indicates that the average and 85th percentile speeds along Sconticut Neck Road, north of Rockland Street, is slightly over the 30-mph statutory speed limit. There are no statutory speed limit traffic signs for “thickly settled” area in the vicinity of the intersection or along the corridor. The nature of the roadway tangent and width invites higher travel speeds. The historic 25 mph / 35 mph regulatory speed limit signs, removed out the outset of this project with the absence of a MassDOT Special Speed Regulation, would be expected to be ignored by motorists due to the roadway geometrics.
- *Dark Sky Crashes* – There were three (3) reported dark sky crashes over the seven-year study period. A single street light luminaire is present connected to the utility pole location on the intersection’s northeast corner. There is no streetlight along Bonney Street west of the intersection near the intersection, nor along Bonney Street / Edgewater Street east of the intersection near the intersection.

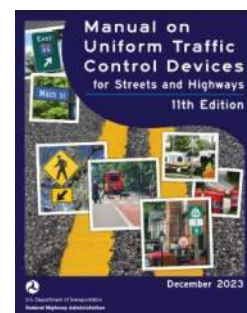
TRAFFIC CONTROL WARRANTS

The study examines several warranting conditions for both traffic control and other elements to potential design recommendations. The following section summarizes these analyses.

All-Way Stop Warrant Analysis

All-way stop-control is a useful safety measure at unsignalized intersections if certain traffic conditions exist. Installation of all-way stop-control (AWSC) is based upon Section 2B.12 through to Section 2B.17 of the *Manual on Uniform Traffic Control Devices (MUTCD)*, which outlines the guidance and options, not standards. Only those applicable warrants are highlighted.

- Section 2B.13 – Warrant A: Crash Experience:
 - “For a four-leg intersection, there are five or more reported crashes in a 12-month period or six or more reported crashes in a 36-month period that were of a type susceptible to correction by the installation of all-way stop control.”



Current *MUTCD*
 Edition (2023)

CONDITION NOT MET – There was only one reported angled crash in the in a 12-month period and two reported angled crashes in the 36-month period (2018 to 2020).

- Section 2B.14 – Warrant B: Sight Distance:

- *“All-way stop control may be installed at an intersection where an engineering study indicates that sight distance on the minor-road approaches controlled by a stop sign is not adequate for a vehicle to turn onto or cross the major (uncontrolled) road.”*

CONDITION NOT MET – The ISD and SSD exceed AASHTO minimum recommendations.

- Section 2B.16 – Warrant D: 8-Hour Volume:

- *“All-way stop control may be installed at an intersection where an engineering study indicates: (A). The combined motor vehicle, bicycle, and pedestrian volume entering the intersection from the major street approaches is at least 300 units per hour for each of any 8 hours of a typical day; and (B). The combined motor vehicle, bicycle, and pedestrian volume entering the intersection from the minor street approaches is at least 200 units per hour for each of any of the same 8 hours.”*

CONDITION NOT MET – The 2025 Base Year seasonally adjusted volumes do not meet the threshold outlined in the warrant.

Based on the analysis evaluated for the intersection, an AWSC condition at the intersection is not found to be warranted. AWSC analysis worksheets are provided in Attachment G.

Rectangular Rapid Flashing Beacon Candidate Analysis

Utilizing the Federal Highway Administration (FHWA) publication’s *Field Guide for Selecting Countermeasures at Uncontrolled Pedestrian Crossing Locations*, updated on July 2018, Table 1 (shown in Exhibit 1 on the following page) recommended countermeasures for a location with an Average Annual Daily Traffic (AADT) less than 9,000 vpd, a speed limit of 30 mph (statutory), and a two-lane cross-section indicates that a Rectangular Rapid Flashing Beacon (RRFB) is not a candidate countermeasure for any proposed crosswalk across Sconticut Neck Road. Other potential countermeasures for the crosswalk may include high-visibility crosswalk markings, a raised crosswalk, curb extensions, in-street pedestrian crossing signs, or a pedestrian refuge island.

Table 1. Application of pedestrian crash countermeasures by roadway feature.

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	① 2 4 5 6 7 9	① 5 6 7 9	① 5 6 7 9	① 4 5 6 7 9	① 5 6 7 9	① 5 6 7 9	① 4 5 6 7 9	① 5 6 7 9	① 5 6 9
3 lanes with raised median (1 lane in each direction)	① 2 3 4 5 7 9	① 3 5 7 9	① 3 5 7 9	① 3 4 5 7 9	① 3 5 7 9	① 3 5 7 9	① 3 4 5 7 9	① 3 5 7 9	① 3 5 9
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	① 2 3 4 5 6 7 9	① 3 5 6 7 9	① 3 5 6 7 9	① 3 4 5 6 7 9	① 3 5 6 7 9	① 3 5 6 7 9	① 3 4 5 6 7 9	① 3 5 6 7 9	① 3 5 6 9
4+ lanes with raised median (2 or more lanes in each direction)	① 3 5 7 8 9	① 3 5 7 8 9	① 3 5 8 9	① 3 5 7 8 9	① 3 5 7 8 9	① 3 5 8 9	① 3 5 7 8 9	① 3 5 8 9	① 3 5 8 9
4+ lanes w/o raised median (2 or more lanes in each direction)	① 3 5 6 7 8 9	① 3 5 6 7 8 9	① 3 5 6 8 9	① 3 5 6 7 8 9	① 3 5 6 7 8 9	① 3 5 6 8 9	① 3 5 6 7 8 9	① 3 5 6 8 9	① 3 5 6 8 9

Given the set of conditions in a cell,

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.*

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

- 1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
- 2 Raised crosswalk
- 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
- 4 In-Street Pedestrian Crossing sign
- 5 Curb extension
- 6 Pedestrian refuge island
- 7 Rectangular Rapid-Flashing Beacon (RRFB)**
- 8 Road Diet
- 9 Pedestrian Hybrid Beacon (PHB)**

*Refer to Chapter 4, 'Using Table 1 and Table 2 to Select Countermeasures,' for more information about using multiple countermeasures.

**It should be noted that the PHB and RRFB are not both installed at the same crossing location.

This table was developed using information from: Zegeer, C.V., J.R. Stewart, H.H. Huang, P.A. Lagerwey, J. Feaganes, and B.J. Campbell. (2005). Safety effects of marked versus unmarked crosswalks at uncontrolled locations: Final report and recommended guidelines. FHWA, No. FHWA-HRT-04-100, Washington, D.C.; FHWA. Manual on Uniform Traffic Control Devices, 2009 Edition. (revised 2012). Chapter 4F, Pedestrian Hybrid Beacons. FHWA, Washington, D.C.; FHWA. Crash Modification Factors (CMF) Clearinghouse. <http://www.cmfclearinghouse.org/>; FHWA. Pedestrian Safety Guide and Countermeasure Selection System (PEDSAFE). <http://www.pedbikeinfo.org/PEDSAFE/>; Zegeer, C. V., Srinivasan, B., Lan, D., Carter, S., Smith, C., Sundstrom, V.J., Thirk, J., Zegeer, C. Lyon, E., Ferguson, and R. Van Houten. (2017). NCHRP Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments. Transportation Research Board, Washington, D.C.; Thomas, Thirk, and Zegeer. (2016). NCHRP Synthesis 498: Application of Pedestrian Crossing Treatments for Streets and Highways. Transportation Research Board, Washington, D.C.; and personal interviews with selected pedestrian safety practitioners.

Exhibit 1: Applicability of Pedestrian Crash Countermeasures

The listing of potential countermeasures is subject to change upon any change in speed limit documented through a MassDOT Special Speed Regulation. Scotcut Neck Road has historical posted speeds along the corridor which have been recently removed based on guidance where no MassDOT Special Speed Regulation is documented. 85th percentile speeds along the corridor, which are not the variable in this Table 1 could result in a 35-mph speed limit for this location in which an RRFB and Pedestrian Hybrid Beacon (PHB) are introduced as candidate countermeasures.

It should be noted that an RRFB is present at the pedestrian crossing across Scotcut Neck Road just north of Orchard Street. Although this location is more than 200-feet away from

this intersection location, the proximity of the pedestrian warning devices may contribute to a sense of low compliance as there is generally minimal pedestrian traffic in the area.

Signal Warrant Analysis

A traffic signal warrant analysis was conducted for the intersection of Sconticut Neck Road / Bonney Street / Edgewater Street using the May 2025 TMCs. The *MUTCD* contains eight warrants for evaluating justifications for the installation of a traffic signal. Two (2) vehicular volume warrants were evaluated to determine whether installation of a traffic signal is justified for the study intersection. These warrants include:

- Warrant 1: Eight-Hour Vehicular Volume
- Warrant 2: Four-Hour Vehicular Volume

Warrant Results

Based on the 2025 existing volumes, the intersection of Sconticut Neck Road / Bonney Street / Edgewater Street does not meet the *MUTCD* warranting criteria for both Warrants 1 and 2. The signal warrant analysis worksheets are provided in Attachment H.

TRAFFIC IMPACT ANALYSIS

To assess the quality of future traffic flow with each alternative, roadway capacity and vehicle queue analyses were conducted under 2025 Base Year Conditions and 2035 Future Year Conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

Levels of Service

A primary result of capacity analysis is the assignment of level-of-service to traffic facilities under various traffic-flow conditions.⁴ The concept of level-of-service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

⁴ The capacity analysis methodology is based on the concepts and procedures presented in the *Highway Capacity Manual* 6th Edition; Transportation Research Board; Washington, DC; 2017

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with level of service (LOS) A representing the best operating conditions and LOS F representing the worst. Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

Queue Length Analysis

Vehicle queue analyses are a direct measurement of an intersection's ability to process vehicles under various traffic control and volume scenarios and lane use arrangements. The 95th percentile queues for unsignalized intersections and both the 50th (average) and 95th percentile vehicle queues for signalized intersections are typically the reporting condition for each intersection, which are based on the number of vehicles that experience a delay of six seconds or more at an intersection and is a function of the traffic signal timing; vehicle arrival patterns during the analysis period; and the saturation flow rate. The 50th percentile or average vehicle queue is the average number of vehicles that are projected to be delayed by six seconds or more at the intersection under study during the analysis period. The 95th percentile vehicle queue is the vehicle queue length that will be exceeded only 5% of the time, or approximately three minutes out of 60 minutes during the peak one hour of the day. During the remaining 57 minutes, the vehicle queue length will be less than the 95th percentile queue length.

Parameters for Traffic Impact Analysis

Unsignalized Intersections

The levels of service of two-way stop-controlled unsignalized intersections are determined by application of a procedure described in the *HCM 6th Edition*. Level of service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and stop signs. Control delay includes the effects of initial deceleration delay approaching a stop sign, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. Definitions for level of service at unsignalized intersections are also given in the *HCM 6th Edition*. Table 5 summarizes the relationship between level of service and average control delay for unsignalized intersections.

Table 5 – Level of Service Criteria for Unsignalized Intersections ^(a)

Level of Service ($v/c \leq 1.0$)	Level of Service ($v/c > 1.0$)	Average Control Delay (sec/veh)	Description
A	F	≤ 10.0	LOS A represents a condition with little or no control delay to minor street traffic.
B	F	10.1 to 15.0	LOS B represents a condition with short control delays to minor street traffic.
C	F	15.1 to 25.0	LOS C represents a condition with average control delays to minor street traffic.
D	F	25.1 to 35.0	LOS D represents a condition with long control delays to minor street traffic.
E	F	35.1 to 50.0	LOS E represents operating conditions at or near capacity level, with very long control delays to minor street traffic.
F	F	> 50.0	LOS F represents a condition where minor street demand volume exceeds capacity of an approach lane, with excessive control delays resulting.

^a Source: *Highway Capacity Manual 7th Edition*; Transportation Research Board; Washington D.C.; 2022

Signalized Intersections

LOS for signalized intersections is calculated using the operational analysis methodology of the *HCM 6th Edition*. This method assesses the effects of signal type, timing, phasing, progression; vehicle mix; and geometrics on delay. LOS designations are based on the criterion of control or signal delay per vehicle. Control or signal delay can be related to driver discomfort, frustration, and fuel consumption, and includes initial deceleration delay approaching the traffic signal, queue move-up time, stopped delay and final acceleration delay. Table 6 summarizes the relationship between LOS and control delay. The tabulated control delay criterion may be applied in assigning LOS designations to individual lane groups, to individual intersection approaches, or to entire intersections.

Table 6 – Level of Service Criteria for Signalized Intersections ^(a)

Level of Service (v/c ≤ 1.0)	Level of Service (v/c > 1.0)	Average Control Delay (sec/veh)	Description
A	F	≤10.0	LOS A describes operations with very low control delay; most vehicles do not stop at all.
B	F	10.1 to 20.0	LOS B describes operations with relatively low control delay. However, more vehicles stop than LOS A.
C	F	20.1 to 35.0	LOS C describes operations with higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	F	35.1 to 55.0	LOS D describes operations with control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop and individual cycle failures are noticeable, whereby motorists are not able to get through the signal on one cycle.
E	F	55.1 to 80.0	LOS E describes operations with high control delay values. Individual cycle failures are frequent occurrences.
F	F	>80.0	LOS F describes operations with high control delay values that often occur with over-saturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

^a Source: *Highway Capacity Manual 7th Edition*; Transportation Research Board; Washington D.C.; 2022

Intersection Capacity and Queue Analysis Results

For the capacity and queue analysis scenarios, the evaluation assesses traffic operations with the open curb cut for Bonney Street and Edgewater Street east of the intersection as a single approach. Under the current 2025 Base Year and 2035 Future Year conditions, the movements at the intersection of Sconticut Neck Road / Bonney Street / Edgewater Street operate at acceptable levels of service (LOS B or better) during the weekday morning, weekday evening, and Saturday midday peak hours. The volume-to-capacity ratios (v/c) are well below 1.00, indicating that the intersection has adequate capacity to accommodate the current and projected traffic demand. Vehicle queues at the intersection are evaluated to not extend more than one (1) vehicle along all approaches.

TEC evaluated the introduction of an AWSC condition at the intersection although TEC did note that an AWSC condition is not warranted at the study location. Upon the introduction of the condition, the intersection would be expected to experience little to no change in operations. Although the delay per vehicle along the Sconticut Neck Road northbound and southbound will increase, the approaches are still expected to operate at LOS B with vehicle queues not exceeding three (3) vehicles.

TEC evaluated the introduction of traffic signal control at the intersection although TEC did note that signal control is not warranted at the study location. Upon introduction of the condition, the operational analysis shows that traffic signal control does not significantly improve overall operations at the intersection where each approach operates at LOS B or better with v/c well below 1.00 indicating that the intersection has adequate capacity to

accommodate the current traffic demand. Compared to the No-Build Condition, the traffic signal does not provide a substantial operational benefit for the overall financial cost of traffic signal infrastructure.

The results of the intersection capacity analysis are summarized in Table 7. The capacity analysis worksheets are provided in Attachment I.

RECOMMENDATIONS

TEC has identified a series of improvements that can be considered for implementation by the Town of Fairhaven. Each improvement considered has been categorized as short-term, mid-term, or long-term. Some enhancements are defined to mitigate multiple safety and operational issues.

Short-Term Improvements

The following short-term improvements, generally considered to be implementable within one (1) calendar year, are described below. The recommended short-term improvements would immediately enhance traffic operations and safety for all users, including pedestrians and bicyclists, at the intersection of Sconticut Neck Road / Bonney Avenue / Edgewater Road with a high benefit-to-cost ratio. Many of the short-term improvements should be undertaken by the town as part of their general maintenance as soon as resources are available from the town's highway maintenance budget and/or Chapter 90 funding. These improvements, which are generally lower cost in nature, are necessary to minimize conflicts between through traffic, turning traffic, pedestrian/bicycle traffic, and to provide improved traffic safety by lengthening sight lines and providing new, consistent, and reasonable traffic signs and pavement markings.

- Install stop-line and stop sign (R1-1) to the Bonney Street eastbound approach. Install stop-line and stop sign (R1-1) to the Bonney Street / Edgewater Street westbound approach.
- Provide a secondary stop-line and stop sign (R1-1) to the Edgewater Street westbound approach to Bonney Street in order to establish the Right-of-Way at the Y-intersection point.
- Install an advanced stop control (W3-1) warning sign on the Bonney Street eastbound, Bonney Street westbound, and Edgewater Street westbound approaches.
- Install an advance four-way intersection (W2-1) warning sign on both the Sconticut Neck Road northbound and southbound approaches.



MUTCD W3-1 Sign

Table 7 – Alternatives Capacity and Queue Analysis Summary

Intersection / Lane Group	2025 Base Year Condition				2035 Future Year Condition				2035 Future Year Condition (AWSC)				2035 Future Year Condition (Traffic Signal)			
	V/C ^a	Delay ^b	LOS ^c	Queue ^d	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
Scotcut Neck Road / Bonney Street & Edgewater Street																
<i>Weekday AM Peak Period</i>																
Bonney Street EB	0.03	13.1	B	<25	0.02	13.1	B	<25	0.01	8.3	A	<25	0.19	17.8	B	<25/<25
Bonney Street WB	0.01	10.2	B	<25	0.01	10.1	B	<25	0.00	7.5	A	<25	0.00	17.0	B	<25/<25
Scotcut Neck Road NB	0.00	7.6	A	<25	0.00	7.6	A	<25	0.38	9.6	A	45	0.26	1.7	A	<25/50
Scotcut Neck Road SB	0.00	7.9	A	<25	0.00	7.9	A	<25	0.23	8.5	A	<25	0.16	1.6	A	<25/29
Overall Intersection	-	-	-	-	-	-	-	-	-	-	-	-	0.25	2.0	A	-
<i>Weekday PM Peak Period</i>																
Bonney Street EB	0.03	14.1	B	<25	0.03	14.7	B	<25	0.02	8.7	A	<25	0.01	17.1	B	<25/<25
Bonney Street WB	0.01	9.6	A	<25	0.00	9.8	A	<25	0.00	7.8	A	<25	0.00	17.1	B	<25/<25
Scotcut Neck Road NB	0.00	8.0	A	<25	0.00	8.0	A	<25	0.35	9.6	A	40	0.22	1.7	A	<25/42
Scotcut Neck Road SB	0.00	7.8	A	<25	0.01	7.8	A	<25	0.44	10.5	B	55	0.29	1.8	A	<25/57
Overall Intersection	-	-	-	-	-	-	-	-	-	-	-	-	0.28	2.0	A	-
<i>Saturday Midday Peak Period</i>																
Bonney Street EB	0.02	13.5	B	<25	0.02	14.2	B	<25	0.01	8.3	A	<25	0.13	17.5	B	<25/<25
Bonney Street WB	0.01	9.8	A	<25	0.01	9.9	A	<25	0.01	7.7	A	<25	0.00	17.0	B	<25/<25
Scotcut Neck Road NB	0.00	0.0	A	<25	0.00	0.0	A	<25	0.37	9.7	A	40	0.23	1.7	A	<25/45
Scotcut Neck Road SB	0.00	7.8	A	<25	0.00	7.9	A	<25	0.41	10.1	B	50	0.26	1.7	A	<25/52
Overall Intersection	-	-	-	-	-	-	-	-	-	-	-	-	0.26	1.9	A	-

^a Volume-to-capacity ratio,

^b Delay expressed in seconds per vehicle (average)

^c Level of service,

^d 50th/95th Percentile Queue [95th Percentile Queue only for unsignalized intersections]

- Remove all remaining speed limit signs along Sconticut Neck Road north and south of the intersection as the speed along Sconticut Neck Road is statutory and not regulatory by a MassDOT Special Speed Regulation.
- Consider the replacement of all stop signs and advance intersection and stop warning signs with LED enhanced signage to extend the visibility and importance of the downstream traffic condition.
- Remove and replace all faded signs at the intersection.
- Work with the 211 Sconticut Neck Road property to maintain the corner hedge grove and reduce encroachment into the sight line.
- Given the sidewalk terminus on the south side of the intersection construct a new pedestrian crossing across both the Bonney Street westbound and Bonney Street / Edgewater Street westbound approaches at the intersection including Americans with Disabilities Act (ADA) / Architectural Access Board (AAB) / Public Right-of-Way Accessibility Guidelines (PROWAG) compliant pedestrian curb ramps at each end of the crossing and a pedestrian sidewalk landing area on the northerly side of the intersection. Install high-visibility crosswalk markings across each approach between accessible ramps.
- Consider the introduction of dedicated bicycle lanes along the Sconticut Neck Road corridor in both directions as supported by the expanded pavement width. This improvement should be considered beyond the intersection influence area.
- Provide “Motorist Give 4-FT to Pass Bicycle” (MA-R4-19) in the proximity of the study intersection to reinforce the legitimacy of the bicycle traffic near the intersection and along both the Sconticut Neck Road northbound and southbound approaches. As part of the recently approved safe passing law, MassDOT will be making 40,000 of these signs available for free to communities to install. It appears that several of these signs are in place along the several Town of Fairhaven corridors.
- Increase speed enforcement in the vicinity of the intersection along Sconticut Neck Road where higher speeds are observed.
- Install dynamic speed radar feedback signs along the Sconticut Neck Road corridor in both directions. The signs should be placed at a proper interval from other signage along the corridor or proposed in the countermeasures above. Consider these as part of advanced pedestrian crossing signage location.



MassDOT MA-R4-19
Sign

- Complete a complete pavement resurfacing of the various intersection approaches. This improvement should be considered beyond the intersection influence area.
- Install additional overhead street luminaires along all five (5) intersection approaches to enhance the limited ambient light in the area. These can be either utility pole or exclusive post mounted streetlights. Note that utility poles are separated by significant distances near the intersection. At a minimum, a new street luminaire should be installed on the first utility pole on each of the Bonney Street / Edgewater Street approaches.

A conceptual plan of these short-term and mid-term safety and maintenance improvements within the study area is depicted in Attachment J.

Mid-Term Improvements

The following mid-term improvements, generally considered to be implementable between one (1) and two (2) calendar years, are described below. These improvements will require a more detailed design prior to implementation; but otherwise, they could be quickly implemented upon available funding through the Town Meeting for such capital improvements. Many of the improvement opportunities identified under the mid-term are beyond the budgetary constraints of Chapter 90 funding; however, the above noted short-term improvements can be implemented as part of a mid-term capital improvement project should the town wish to consolidate improvements into a single project.

- Evaluate stormwater collection conditions in the vicinity of the intersection on each approach. Reconstruct pavement at gutter line and roadway edge to reestablish stormwater flow patterns to nearby catch basins.
- Reset vertical curbing and/or along Sconticut Neck Road back to a standard 6-inch reveal to provide definition to the corridor and provide vertical separation between vehicle traffic and pedestrian traffic (where accommodated). This reestablished curb reveal would additionally add protection for roadside hazards such as the public shade tree on the intersection's northwest corner. The tree would still be within a close lateral offset of the edge of roadway.
- (Re)construct sidewalks along Sconticut Neck Road and consider new sidewalk connections along one side of Bonney Street and Edgewater Street. Note that existing sidewalks south of the intersection are less than 5 feet wide and should be widened to provide PROWAG compliance and further comfortable accommodation for pedestrians.

- Construct a new pedestrian crossing across Sconticut Neck Road at the intersection including ADA / AAB / PROWAG compliant pedestrian curb ramps at each end of the crossing and a pedestrian sidewalk landing area connecting to a location where sidewalk does not currently exist. Install high-visibility crosswalk markings, pedestrian crossing warning signs (W11-2) with ‘arrow’ plaques (W16-7p), and advanced pedestrian crossing warning signs (W11-2) with “AHEAD” plaques (W16-9p) along both the Sconticut Neck Road approaches. Consider LED enhanced signage to extend the visibility and importance of the traffic condition.



MUTCD W11-2 Sign
w/ W16-9p Plaque

- The Town should further consider the installation of a raised crosswalk for this location as a traffic calming device. If installed, it would be more practical to place this raised crosswalk on the south side of the intersection in order to not result in excess noise pollution for vehicles turning in/out from the north to/from the Edgewater Street Boat Ramp.
- Reconstruct the terminus of the Bonney Street / Edgewater Street westbound approach to relocate the merge condition location further east and establish a separate Bonney Street / Edgewater Street intersection with appropriate traffic signs, pavement markings, and Right-of-Way conditions. The angle of the Y-intersection likely prevents a full 90-degree approach condition without land acquisition at 43 Bonney Street. TEC would recommend that Edgewater Street become the future intersection approach as it will provide ease of access for large vehicles to the Edgewater Street Boat Ramp without unnecessary turning maneuvers between Bonney Street and Edgewater Street for vehicles towing boats and watercraft.

A conceptual plan of these short-term and mid-term safety and maintenance improvements within the study area is depicted in Attachment J.

Long-Term Recommendations

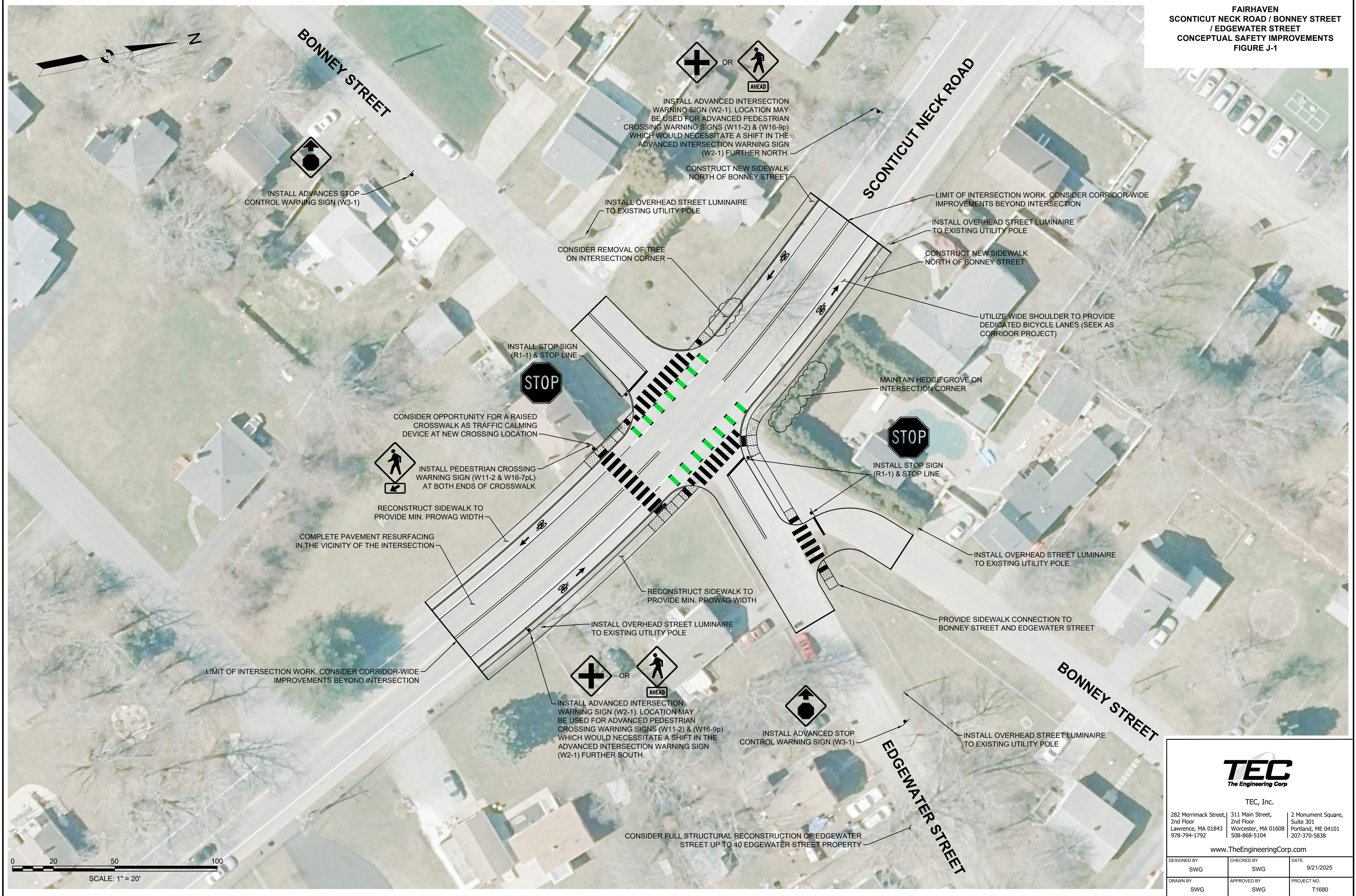
The following long-term improvements, generally considered to be implementable beyond three (3) calendar years, are described below. These improvements typically require significant detail in both evaluation and design prior to implementation. These improvements sometimes require a level of funding that may require outside sources, such as application to the state Transportation Improvement Program (TIP) project or other grant opportunities, to supplement Town funding sources.

- Consider the full structural reconstruction of Edgewater Street between Sconticut Neck Road and, at least, 10 Edgewater Street. Further pavement

reconstruction east of this location towards the boat ramp should also be considered based on use and need. Reconstruction of the roadway should straighten the roadway edge line and consideration should be given to curbing in order to lessen the chance of on-street parking encroachment off of the roadway surface.

DRAFT

FAIRHAVEN
SCONTICUT NECK ROAD / BONNEY STREET
/ EDGEWATER STREET
CONCEPTUAL SAFETY IMPROVEMENTS
FIGURE J-1



TEC
The Engineering Corp

TEC, Inc.

282 Merrimack Street,
2nd Floor
Lawrence, MA 01843
978-794-1792

311 Main Street,
2nd Floor
Worcester, MA 01608
508-868-5104

2 Monument Square,
Suite 301
Portland, ME 04101
207-370-5838

www.TheEngineeringCorp.com

DESIGNED BY SWG	CHECKED BY SWG	DATE 9/21/2025
DRAWN BY SWG	APPROVED BY SWG	PROJECT NO. T1680