ROAD SAFETY AUDIT

Bridgewater Central Square & Bedford Street (Route 28/Route 18) at Grove Street Town of Bridgewater

November 2019

Prepared For: MassDOT



On Behalf Of: Town of Bridgewater



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Background

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The Federal Highway Administration (FHWA) defines a Road Safety Audit (RSA) as the formal safety examination of an existing or future road or intersection by an independent, multidisciplinary team. The purpose of an RSA is to identify potential safety issues and possible opportunities for safety improvements considering all roadway users. This RSA evaluates Central Square and the intersection of Bedford Street (Route 28/Route 18) at Grove Street in Bridgewater, MA.

A key objective of the RSA is to identify short-term, mid-term, and long-term safety improvements that can be implemented at the subject intersections and adjacent roadways and incorporated in potential improvements of these locations.

Project Data

A Road Safety Audit was conducted for the study area location on Wednesday, September 25, 2019. Central Square has been identified by MassDOT as a Highway Safety Improvement Program (HSIP)-eligible crash cluster for the years 2012-2014 and a HSIP Pedestrian Cluster for 2005-2014 and 2007-2016. Bedford Street (Route 28/Route 18) at Grove Street has been identified as a HSIP Cluster intersection for the years 2013-2015 and 2014-2016. This indicates that Central Square and Bedford Street (Route 28/Route 18) at Grove Street are within the top 5% of crash clusters within the Old Colony Planning Council (OCPC) region. The ranking is based on factors such as crash incidences and severity using the Equivalent Property Damage Only (EPDO) index.

The agenda for the RSA meeting held at the Bridgewater Town Hall Council Chambers (2nd Floor) located at 66 Central Square in Bridgewater, MA is provided in Appendix A of this report. As shown below in Table 1, the audit consisted of a multidisciplinary team with representatives from state, regional, and local agencies and organizations providing expertise in the engineering, planning, maintenance, and emergency response fields. Contact information for the RSA attendees is provided in Appendix B of this report.

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Table 1: Participating Audit Team Members

Audit Team Member	Agency/Affiliation
Michelle Deng	MassDOT Traffic Safety
Barbara Lachance	MassDOT District 5 Traffic
Jason Walters	MassDOT District 5 Projects
Chris Falcos	MassDOT Traffic Safety
Jon Freeman	MassDOT HQ
Michael Dutton	Bridgewater Town Manager
Captain Tom Schlatz	Bridgewater Police Department
Azu Etoniru	Bridgewater Engineering
Jennifer Burke	Bridgewater Community & Economic Development
Ray Guarino	Old Colony Planning Council
Jeff Bandini	McMahon Associates, Inc.
Natalie Raffol	McMahon Associates, Inc.

Within the email invitation sent on Monday, September 16, 2019 to each participant in the RSA, background material was provided. This information included collision diagrams and crash data summaries for the study area locations. During the RSA meeting, these materials were reviewed as a group prior to the field visit to the study area. During the RSA field visit, various safety issues were observed and identified. Following the field visit, the team discussed additional concerns and potential solutions for the existing safety issues.

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Project Location and Description

Study Area Roadways

There are several roadways that service the study area locations that are described below, and shown in Figure 1:

Study Area Locations/Intersections

Central Square Rotary

Central Square is a rotary located in the downtown Bridgewater and provides access to Route 18, Route 28, and Route 104. Central Square provides three general entrance/exit points to the north and south. Central Square connects to the signalized intersection of Main Street (Route 28)/Broad Street (Route 18)/Summer Street (Route 104) to the north, to South Street (Route 104) and Church Street to the southwest, and Bedford Street (Route 28/Route 18) and School Street to the southeast. It should be noted that the signalization for the approaches to the south of the rotary have recently been updated to be stop-control and at this point in time google street view reflects yield-control. The Bridgewater town common is located in the middle of the Central Square rotary, with angled parking on the east and west sides. Crosswalks are provided on each approach to the rotary and mid-block to access the town common. Within the vicinity of the study area, Central Square generally provides access to municipal, institutional and commercial uses. The Bridgewater Fire Department is located in the southeastern corner of the rotary and controls the emergency signalization located on the southern portion of the rotary.

Bedford Street (Route 28/Route 18) at Grove Street

The intersection of Bedford Street (Route 28/Route 18) at Grove Street is a four-legged, unsignalized intersection. Grove Street is a two-lane roadway providing one-way travel in the westbound direction with stop-control on its approach to the intersection. Bedford Street (Route 28/Route 18) provides two-way travel and operates freely with no control on both the northbound or southbound approaches to the intersection. The Bedford Street (Route 28/Route 18) approaches each provide one general purpose lane and the Grove Street westbound approach provides an exclusive left-turn lane and a shared through/right-turn lane. Crosswalks are provided on the northbound, eastbound and westbound approaches and pedestrian warning signage is provided on the northbound Bedford Street (Route 28/Route 18) approach. Sidewalks are provided on each of the approaches to the intersection and curb ramps are provided on each of the intersection corners.

Study Area Roadways

Main Street (Route 28)

Main Street (Route 28) runs in a northwest to southeast direction (designated as east-west for the purpose of this report) and is classified as an urban principal arterial under the Town of Bridgewater jurisdiction. Main Street (Route 28) is signalized with Broad Street (Route 18), Summer Street (Route 104) and Central Square. Main Street (Route 28) generally provides two-way travel with one lane in each direction and widens to provide a shared left/through turn lane and right-turn lane on the approach to the signalized intersection. Main Street (Route 28) generally provides access to commercial and residential land uses. Sidewalks are provided on each side of the roadway within the vicinity of the intersection.

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Summer Street (Route 104)

Summer Street (Route 104) runs in a northwest to southeast direction (designated as east-west for the purpose of this report) and is classified as an urban principal arterial under the Town of Bridgewater jurisdiction. Summer Street (Route 104) is signalized with Central Square, Main Street (Route 28), and Broad Street (Route 18). Summer Street (Route 104) generally provides two-way travel with one lane in each direction and widens to provide a left-turn lane and a shared through/right-turn lane on the westbound approach to the signalized intersection. Summer Street (Route 104) generally provides access to commercial and residential land uses as well as the Bridgewater State University campus to the east. Sidewalks are provided on each side of the roadway within the vicinity of the intersection.

Broad Street (Route 18)

Broad Street (Route 18) runs in a generally north-south direction and is classified as an urban principal arterial under the Town of Bridgewater jurisdiction. Broad Street (Route 18) is signalized with Summer Street (Route 104), Central Square, and Main Street (Route 28) to the north of Central Square. Broad Street (Route 18) generally provides two-way travel with one lane in each direction and provides parallel parking on each side of the roadway. Broad Street (Route 18) generally provides access to commercial land uses. Sidewalks are provided on each side of the roadway within the vicinity of the intersection.

Church Street

Church Street runs in a generally northwest to southeast direction (designated as east-west for the purpose of this report) and is classified as a local roadway under the Town of Bridgewater jurisdiction. Church Street is under stop-control on its approach to Central Square and connects to the southwest portion of the rotary. Church Street provides two-way travel with one lane in each direction and generally provides access to institutional and residential land uses. Sidewalks are provided on each side of the roadway within the vicinity of the intersection.

South Street (Route 104)

South Street (Route 104) runs in a north-south direction and is classified as an urban minor arterial under the Town of Bridgewater jurisdiction. The South Street (Route 104) approach onto Central Square from the southwest is under stop-control and the exit from Central Square onto South Street (Route 104) provides emergency signalization for the Bridgewater Fire Department located within the Central Square rotary. South Street (Route 104) provides two-way travel with one lane in each direction with parallel parking generally permitted on the northbound side of the roadway. South Street (Route 104) generally provides access to municipal and residential land uses. Sidewalks are provided on each side of the roadway within the vicinity of the intersection.

School Street

School Street runs in a general east-west direction and is classified as a local roadway under the Town of Bridgewater jurisdiction. School Street provides emergency signalization on its approach to Central Square. School Street provides two-way travel with one lane in each direction and parallel parking on each side of the roadway on the Central Square approach. School Street generally provides access to municipal and institutional land uses, including the Bridgewater State University campus located to the east. The Bridgewater Fire Department is located at the northeast corner of School Street and Central Square. Sidewalks are provided on each side of the roadway within the vicinity of the intersection.

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Bedford Street (Route 28/Route 18)

Bedford Street (Route 28/Route 18) runs in a general north-south direction and is classified as an urban principal arterial under MassDOT jurisdiction. The approach from Bedford Street (Route 28/Route 18) onto the southeast portion of Central Square is under stop-control and provides emergency signalization. Bedford Street (Route 28/Route 18) provides two-way travel with one lane in each direction and sidewalks on both sides of the roadway. Bedford Street (Route 28/Route 18) generally provides access to municipal, institutional, and residential land uses.

Grove Street

Grove Street runs in a general east-west direction and is classified as an urban collector to the west of Bedford Street (Route 28/Route 18) and as an urban minor arterial to the east of Bedford Street (Route 28/Route 18) under the Town of Bridgewater jurisdiction. Grove Street is a two lane, one-way roadway traveling westbound and provides sidewalks on each side of the roadway within the study area. Grove Street generally provides access to residential land uses.

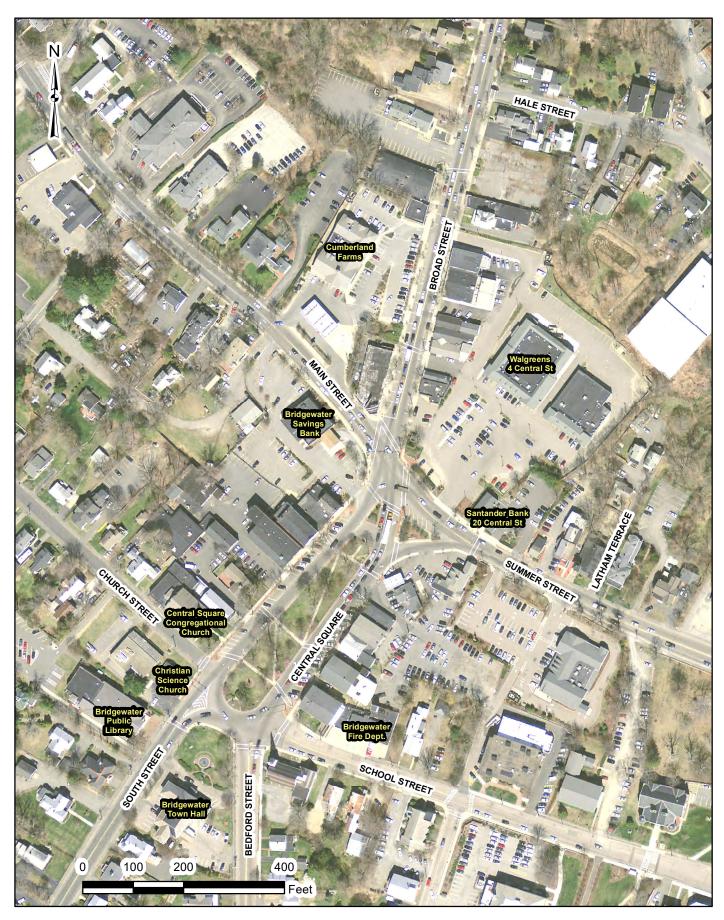




Figure 1 Road Safety Audit Central Square Bridgewater, Massachusetts





Figure 2 Road Safety Audit Bedford Street at Grove Street Bridgewater, Massachusetts

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Crash Data

Crash data for the study area was provided by the Bridgewater Police Department for a three-year time period from 2016-2018 for this RSA. The crash data provided a total of 139 crashes which occurred within the study area during the three-year period reviewed. Of these, 112 crashes occurred within vicinity of the Central Square Rotary and the remaining 27 crashes occurred at the Bedford Street (Route 28/Route 18) and Grove Street Intersection.

Central Square Rotary

Of the 112 reported crashes which occurred at the Central Square Rotary, 11 crashes (10%) were single vehicle collisions, 43 crashes (38%) were rear-end collisions, 39 crashes (35%) were angle collisions, 17 crashes (15%) were sideswipe collisions, and 1 crash (1%) was a head-on collision. A review of the crash data provided showed that four of the 11 reported single vehicle crashes involved pedestrians or bicyclist conflict. Of the crashes, 82 crashes resulted in property damage only and 30 crashes resulted in personal injury. No fatal crashes were reported within the vicinity of Central Square.

While there were no fatalities within this three-year period from 2016-2018, there was a fatality on November 10, 2014 at approximately 11:00 AM on Summer Street (Route 104) approximately 100 feet east of Broad Street (Route 18) within the vicinity of Central Square. The crash occurred when a vehicle leaving a Walgreens parking lot on Summer Street struck a pedestrian. The crash occurred during daylight on a clear day with dry roadway conditions. According to police report, the pedestrian was attempting to cross Summer Street (Route 104) and was in the roadway (not the crosswalk) at the time of the collision.

The highest time period for crash activity was shown to occur between 12:00 PM and 4:00 PM. The highest percentage of crashes was shown to occur on Tuesdays (21%) with crash percentages varying from 9% to 16% on the remaining days of the week. Based on the crash data, 36% of crashes at the rotary involved drivers between the ages of 20-29. At the audit meeting it was noted that this may be reflective of the location's proximity to Bridgewater State University.

Bedford Street (Route 28/Route 18) at Grove Street

Of the 27 reported crashes that occurred at the intersection of Bedford Street (Route 28/Route 18) at Grove Street, one crash (4%) involved a pedestrian, four crashes (15%) were rear-end collisions and the remaining 22 crashes (81%) were angle collisions. A total of 13 crashes resulted in property damage only and 14 crashes resulted in personal injury. While there were no fatalities within the three-year period studied from 2016-2018, there was a fatality on August 6, 2015 at approximately 4:00 PM at this intersection during daylight with dry roadway conditions. Vehicle 1 (a ten-wheel dump truck pulling a trailer) was traveling northbound on Bedford Street (Route 28/Route 18) when it attempted to turn left onto Grove Street. Vehicle 2 (a motorcycle) was traveling southbound on Bedford Street (Route 28/Route 18) when the vehicles collided in an angled collision.

Based on the reported data, there is an increase in crashes from 0% in August to 11% in September. The highest time period for crash activity occurs in the afternoon between 4:00 PM and 6:00 PM. The highest percentage of crashes occurs on Thursdays at 26% which is much higher than the remaining days of the week. Based on the crash data, the 20-29 age group has the highest involvement in crashes at 30%. Based on the time of day and the month of the crashes, audit members attributed many of these crashes are due to the students and visitors from the Bridgewater State University just east of the site.

A detailed crash diagram of each study area intersection is provided in Appendix C.

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Audit Observations and Potential Safety Enhancements

During the RSA meeting prior to the field visit, a brief introduction of the RSA process and a summary of crash information was presented to the audit participants. Following this brief presentation, the members of the audit team were asked to discuss the existing issues that may affect safety within the study area. The audit team then visited the study area as a group, at which time observations of various safety concerns and deficiencies were identified and documented. Provided below is a list of the safety concerns and the potential enhancements identified during the RSA.

Central Square North

Safety Issue #1: Signage and Signalization

During the field visit, audit team members noted signage clutter and visibility issues within the entirety of Central Square. The guide signs within the northern section of Central Square for Routes 18, 28 and 104 were angled in a way which made visibility difficult. Additionally, the guide signage for Broad Street southbound was angled incorrectly and was noted to possibly be extraneous due to other available signage. The signalized intersection of Main Street (Route 28)/Central Square/Summer Street (Route 104)/Broad Street (Route 18) was also noted as leading to confusion and visibility issues for drivers. It was noted that the intersection does not provide the most up-to-date signalization equipment including backplates with



Image 1: Guide Signage for Routes 18, 28, and 104

retroflective borders and visors. Sun glare and the angle of the signal heads was also noted to obstruct and impede the visibility for drivers.

Audit team members observed vehicle congestion during off-peak hours which was attributed to the signal operations and travel related to Bridgewater State University students and faculty who travel through the intersection during the early afternoon. The Town Engineer indicated that the signals are currently pretimed and adjusted seasonally for the northern Central Square intersection. The signals are currently affected by the railroad crossing located to the north on Broad Street (Route 18) and east on Summer Street (Route 104). It was also noted that the signals are currently being analyzed in the 2014 Bridgewater Downtown Community Development Master plan which was published.

The signalized intersection creates confusion and conflict between the Summer Street (Route 104) left-turn and Main Street (Route 28) right-turn, as both movements operate simultaneously. Additionally, only one overhead signal head is available for both lanes of traffic on Summer Street (Route 104), so there is confusion over which signal is for each movement. The confusion is increased by the lack of visibility and low placement of the overhead signal head for the left-turn movement, as vehicles may not be able to observe the signal. The non-standard geometry of the intersection also increases the lack of visibility of the signal for drivers since it is not in their normal field of view.

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Enhancements:

- Review the existing signage provided at the signalized intersection for removal or replacement, and consider implementing advanced warning signage, lane guidance signage and street signage at the intersection.
- Evaluate the existing guide signage provided at the signalized intersection for angle adjustment or removal.
- Consider trimming vegetation throughout Central Square to increase driver visibility.
- Evaluate the feasibility of relocating the signal heads, as needed, to optimize their visibility.
- Evaluate the structural capacity of the existing signal equipment to retrofit it with backplates with retroflective borders.
- Evaluate the feasibility of coordinating the existing signalized intersection with the nearby railroad crossings on Broad Street (Route 18) and Summer Street (Route 104) to reduce delay and queue lengths. While coordination would not reduce conflict, it may lead to less driver frustration which can promote reckless driving.

Safety Issue #2: Pedestrian and Bicycle Accommodations

Based on the crash data provided, four crashes within the vicinity of the signalized intersection involved pedestrians or bicycles, and an additional four crashes involved vehicles waiting for crossing pedestrians. While there were no fatalities between 2016-2018 within the vicinity of the intersection, a fatality occurred on November 10, 2014 on Summer Street (Route 104) approximately 100 feet east of Broad Street (Route 18) and occurred between a vehicle exiting the Walgreens parking lot on Summer Street and a pedestrian attempting to cross Summer Street (Route 104). The pedestrian was noted to be in the roadway but not in a crosswalk at the time of the collision. It was noted that there is angled parking located in the intersection on Summer Street across from the Walgreens where the pedestrian fatality occurred. Audit team members familiar with the area also noted that vehicular access to the commercial land uses (Cumberland Farms, Bridgewater Savings Bank, Better Bean Coffee, etc) from the Bridgewater State University was significant and created a challenging environment for pedestrians.

The roadway approaches were noted to provide numerous mid-block crossing locations for pedestrians. Of the crashes at the intersection, four were rear-ended collisions involving vehicles stopping abruptly for pedestrians to cross the roadway which was attributed to limited visibility. Audit team members noted that Broad Street (Route 18) showed two rear-end collisions involving vehicles waiting for pedestrians at the mid-block crossing.

The pedestrian signalization equipment accessibility, push buttons and curb ramps were also noted to be non-compliant with Americans with Disabilities Act (ADA) standards. The signalized intersection provides concurrent pedestrian phasing which increases potential conflict between turning vehicles and pedestrians (for example, vehicles turning left onto Summer Street (Route 104) would conflict with concurrent pedestrian phasing on the approach). The pedestrian crossing locations currently provide signage at the intersection warning pedestrians to "Watch for Turning Vehicles" which is not an MUTCD standard sign. The pedestrian crossing on the Main Street (Route 28) approach was observed to be relatively wide and due to the existing



Image 2: "Watch for Turning Vehicles" Signage

pre-timed signalization pedestrians were observed to wait for a significant amount of time to cross. The Main Street (Route 28) and Broad Street (Route 18) pedestrian crossings were also noted to inconsistently allow pedestrians to cross concurrently or call only one of the crossings.

Enhancements:

- Evaluate the number of pedestrians cutting through the on-street angled parking to cross the signalized intersection to determine visibility issues and potential conflict points between pedestrians and vehicles.
- Consider removing the five parking spaces on the Summer Street approach within the signalized intersection to increase driver visibility of pedestrians and limit parking maneuvers within the intersection.
- Evaluate the consolidation/formalization of pedestrian crossings at the signalized intersection and the mid-block crossings within Central Square.
- Evaluate updating the existing pedestrian facilities within the study area to be ADA-compliant and Manual on Uniform Traffic Control Devices (MUTCD)-compliant.
- Consider exclusive pedestrian phasing or Leading Pedestrian Intervals (LPIs) at the signalized intersection to reduce conflict between pedestrians and left-turning vehicles or increase pedestrian visibility for drivers.
- Consider installing "No Turn on Red" signage at the signalized intersection to reduce conflict between pedestrians and turning vehicles.
- Consider replacing the current signage at the crossings for pedestrians to notify vehicles to yield for pedestrians unless exclusive pedestrian phasing and "No Turn on Red" signage is implemented.

Safety Issue #3: Roadway Geometry and Sight Line Visibility

Since Central Square is located within a downtown area, many curb cuts accessing commercial uses are provided to the north of Central Square on the approaches to the intersection of Main Street (Route 28)/Central Square/Summer Street (Route 104)/Broad Street (Route 18). The proximity of these curb cuts to the intersection was noted to result in significant queueing and conflict with entering and exiting vehicles. Specifically, the Bridgewater Savings Bank was noted by audit team members to be a concern due to the number of angle, courtesy crashes, and rear-end collisions on Main Street (Route 28). Courtesy crashes occur on multi-lane roadways when drivers entering or exiting commercial driveways are waved on contrary to the rules of the road by the driver in the near lane. The stopped vehicle in the near lane blocks

sight lines between the entering/exiting driver and the driver in the farther lane, resulting in a crash between the entering/exiting driver and the driver in the farther lane. The existing access to the D'Angelos driveway due to the right-turn arrow striping for exiting vehicles and the wide cross-section of the driveway was noted to provide potential confusion to drivers.

The geometry at this signalized intersection creates poor sight lines and visibility issues. Specifically, the northbound Central Square approach aligns with curbing on the northeast corner of the intersection instead of the Broad Street (Route 18) northbound receiving lane. The current signalization allows the eastbound Main Street (Route 28) right-turn to operate concurrently with the westbound Summer Street (Route 104) permitted left-turning movement. Due to the wide cross-section of the Central Square southbound receiving lanes, the two movements were observed to create potential conflict where right-turning vehicles are turning right on red from Main



Image 3: Central Square Approach Right-Turn Lanes

Street (Route 28) eastbound and cutting-off left-turning vehicles during the protected portion of the phase. It was also noted that the Main Street (Route 28) right-turn operates concurrently with the southbound Broad Street (Route 18) movement and the building on the southwest corner of the intersection restricts sight distance between eastbound Main Street (Route 28) right-turning vehicles and vehicles on Broad Street (Route 18) traveling through the intersection. The northbound Central Square approach was noted to provide both a right-turn lane and a channelized right-turn for access to Summer Street eastbound towards Bridgewater State University. It was unclear whether the history of geometric changes to the intersection resulted in both lanes to provide access to the five angled parking spaces and Walgreen's on Summer Street (Route 104) via the right turn lane and improved access to Bridgewater State University to the east via the channelized right-turn lane. The through pavement markings are for the signalized intersection through movement and the right-turn pavement markings are utilized for both the right-turn lane and channelized right-turn movements at the signalized intersection. The Central Square northern U-turn also currently does not provide control at its intersection with the southbound portion of Central Square.

Additionally, the capacity of Broad Street (Route 18) southbound toward Central Square had significant queueing (extending as far back as the railroad crossing) and was noted to result in driver frustration. It was noted that left-turning protected phase traveling northbound from Central Square is a cause of the southbound queueing on Broad Street (Route 18).

Within the northern portion of Central Square, inconsistencies with signage and signalization were noted to create driver confusion. The Central Square signage was observed by audit team members to be confusing since both stop-control and signalized control is provided within the rotary. Additionally, vehicles within the rotary must circle to access businesses from Route 18, to find parking, or to access Route 104. Due to the Bridgewater State University, many of the drivers accessing this area may be unfamiliar with the inconsistent signage and signalization. The unexpected conditions of the northern portion of Central Square may lead to drivers becoming distracted or not paying attention to certain conditions which may lead to crashes.

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Enhancements:

- Evaluate potential turn restrictions, consolidate the existing curb cuts, provide wayfinding signage, or provide "Do Not Block the Box" signage and pavement markings for the commercial uses within the vicinity of the signalized intersection to potentially reduce conflict with entering and exiting vehicles to surrounding sites.
- Consider converting the eastbound Main Street (Route 28) approach to provide a left-turn only and a shared through/right-turn lane and evaluate signal phasing.
- Consider prohibiting right turn on red for the eastbound Main Street (Route 28) approach to limit conflict with Summer Street (Route 104) westbound left-turning vehicles and Broad Street (Route 18) southbound through vehicles.
- Evaluate the need for the Central Square northbound right-turn lane at the intersection, using only the channelized right turn and the opportunity to consolidate the northbound approach.
- Consider the addition of traffic control and signage for the Central Square northbound U-turn movement.

Central Square South

Safety Issue #1: Signage and Signalization

As noted by audit team members during the site visit, many of the signs within Central Square are non-compliant, outdated, and are not visible to drivers. It was noted that many of the signs are close to the ground, do not provide MUTCD-compliant height (at least 7') required, and are hazardous for pedestrians. Guide signage within Central Square was noted to be blocked by trees and there is a lack of guide signage visible to drivers from School Street. It was also noted that Central Square contains a large amount of sign clutter or confusing guide signage. Vehicles were observed to weave between lanes within Central Square to access angled parking within Central Square or the correct lane assignment. Audit team members stated that



Image 4: Central Square Pedestrian Crossing Providing Non-Compliant Signage

drivers familiar with the area know there is parking behind the businesses, a Town-owned parking lot to the east, library parking and angled parking within Central Square. Visitors and those unfamiliar with the area are likely unaware of off-street parking locations as the area lacks wayfinding signage.

The South Street (Route 104) approach was mentioned as providing two stop-controlled locations on its approach to Central Square including one to the south for the emergency signalization and one to the north for the approach to Central Square. The stop-control to the south on South Street (Route 104) for the emergency signalization provides a "Stop Here on Red" sign which is not visible due to existing vegetation and the pedestrian crossing warning signage directly in front of the sign. Additionally, there is not enough advanced warning for drivers. The South Street (Route 104) and Bedford Street (Route 28/Route 18) approaches were previously under 'yield' control, but were recently converted to 'stop' control. Many vehicles may still treat these approaches as 'yield' control due to the appearance and circulation characteristics of a rotary, and the existing rotary signage.

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Central Square currently provides both stop-control and emergency signalization for the Bridgewater Fire Station on the roadway approaches, which creates driver confusion.

Enhancements:

- Evaluate the existing Central Square and approach signage for relocation, removal, and replacement.
- Evaluate the existing guide signage for relocation or removal and consider implementing guide signage for available municipal parking lots proximate to Central Square.
- Consider removing the rotary signage and replace with one-way and chevron signage and implementing geometric improvements at the approach corners to Central Square to reduce time vehicles are in conflict with other movements.
- Consider performing a signal warrant and roundabout analysis for the southern section of Central Square for the implementation of a signal or roundabout.
- Evaluate South Street to update the pavement markings, double "STOP" sign, and roadway geometry.
- Consider realigning the geometry for the Bedford Street (Route 28/Route 18) approach to provide deflection to slow drivers entering Central Square.

Safety Issue #2: Pedestrian and Bicycle Accommodations

The study area is located within a town center area serving a large number of municipal and commercial land uses as well as the town common located within Central Square. Central Square currently provides six mid-block crossings within the rotary for pedestrian access across the rotary and to the town common. Audit team members noted that the existing and old town halls, the library, memorial building, and DPW offices are located within the vicinity of Central Square and there are pedestrian desire lines specifically to the memorial building and old town hall. The parking lots that provide access to these uses are located behind the old town hall and library and were stated to have a high pedestrian volume. Additionally, the outdoor performance space located within the town common is used frequently in the summer and generates a large amount of pedestrian activity on the surrounding roadways.

Due to the complex nature of Central Square and the various conflict points, it was noted that drivers entering and exiting the rotary were watching each other and not watching for pedestrians. Specifically, it was noted that vehicles traveling southbound within Central Square towards Bedford Street (Route 28/Route 18) and School Street frequently look towards South Street for merging vehicles, and South Street vehicles attempting to merge into Central Square are not watching for pedestrians. The rotary and approaches also provide poor sight line conditions for drivers to observe pedestrians. Specifically, the rotary provides two lanes of travel, which may not allow drivers to observe pedestrians due to blocked sight lines. The angled parking spaces were noted to be narrow for vehicles and were provided adjacent to pedestrian crossings in Central Square which obscures a pedestrian's ability to observe drivers. Additionally, there is only one flashing beacon located at one mid-block crossing, located northbound within Central Square closest to the School Street approach. This was noted to have been implemented in February 2018 as part of the Complete Streets effort. The remaining crosswalks only provide warning signage for the pedestrian crossings.

Central Square currently provides curb extensions which do not align with the mid-block crosswalks and it was noted that some crosswalks lack pedestrian ramps at their terminus and instead align with driveways. A number of the mid-block pedestrian crossings are also angled which limits visibility for drivers and provides longer than necessary pedestrian crossing distances. The angled parking within Central Square was also noted to be located too close to pedestrian crossings which obscures driver sight lines of crossing pedestrians.



Image 5: Pedestrian Crossing Adjacent to Angled Parking

Enhancements:

- Evaluate the pedestrian crossings within Central Square to align the curb extensions for increased visibility and safety for pedestrians to see drivers.
- Consider realigning pedestrian crossings to promote shorter crossing distances and increase driver visibility for pedestrians.
- Consider consolidating the pedestrian crossing locations within Central Square and on its approaches for driver visibility.
- Consider parallel parking or reverse angle parking to improve driver visibility of pedestrians within Central Square on each side to allow for better control over the pavement width available to vehicle travel and curb extensions for pedestrian crossings.
- Consider widening the existing parking spaces within Central Square to improve overall maneuverability and reduce the risk of sideswipe crashes.
- Consider removing the parking close to pedestrian crossing locations to improve driver visibility of pedestrians.
- Consider removing the flashing beacon at the one pedestrian crossing with Central Square and replacing with Rectangular Rapid Flashing Beacons (RRFB) at each mid-block crossing location for driver consistency and visibility.

Safety Issue #3: Roadway Geometry and Sight Line Visibility

Due to the complex nature of Central Square and the number of drivers unfamiliar with the area due to the presence of Bridgewater State University, drivers utilizing Central Square have multiple focus points. Based on the crash data provided, 39 crashes were rear-end collisions which can be partly attributed to the variety of driver focus points. Due to the roadway geometry within Central Square, it was also observed that drivers weave within the rotary to access the correct lane and search for available parking.

Audit team members familiar with the parking usage in the town center noted that the prevalence of short-term parking (1 hour or 2 hour) is likely due to Bridgewater State University students and those using the Bridgewater Commuter Rail. As the university is largely a commuting college, students frequently park in the town center, taking parking away from businesses and other short-term uses. It was also noted that the University has their own parking garage which provides an adequate amount of parking, but it is farther from campus and students must pay to park. The Walgreens parking lot was noted by audit team members as an area Bridgewater State University students and commuter rail riders frequently use for parking.

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The geometry of Central Square generally allows wide lane cross-sections without sufficient directional lane markings or delineating roadway lanes. It was mentioned that the wide cross-sections encourage drivers to drive with excessive speed around the rotary. Additionally, during the site visit it was noted that the granite bollards and fencing on the southern portion of the rotary was damaged and likely attributed to insufficient truck turning radii. Audit team members noted a high number of trucks utilize Central Square to access businesses within the area and Routes 18, 24, 28 and 104.

Audit team members noted that 36% of crashes within Central Square involved drivers between the ages of 20-29 likely attributable to the nearby Bridgewater State University campus. The campus attracts drivers unfamiliar with the complex geometry and nature of the area, as well as younger drivers.

Enhancements:

- Consider reconfiguring the town common to close one side to vehicular travel, creating a pedestrian plaza, and permit two-way vehicle travel on the other side to reduce pedestrian conflict points and properly channelize vehicle traffic flow.
- Evaluate the location of the Bridgewater Fire Station for relocation and removal of the emergency signalization within Central Square to limit driver confusion.
- Evaluate the existing parking within the vicinity of Central Square and consult the parking study completed as part of the 2014 Bridgewater Downtown Community Development Master plan by The Cecil Group and Nelson\Nygaard. Consider restriping Central Square to provide narrowed cross-section widths and delineate lane assignment.
- Consider modifying the Central Square geometry and radii to decrease vehicle operating speed but ensure truck turning radii are sufficient. However, if reduced radii are considered then the possibility of permitting southbound left-turns from Broad Street (Route 18) onto Summer Street should be evaluated since it would allow trucks to remain outside of Central Square.
- Consider implementing a driver safety awareness campaign or providing literature to Bridgewater State University students to potentially aid in reducing collisions involving the visiting and/or young driver population.

Bedford Street (Route 28/Route 18) at Grove Street

Safety Issue #1: Speed, Signage, and Drainage

Observations:

During the field visit, audit team members noted that many drivers were not following the reduced speed limit on Bedford Street (Route 28/Route 18) northbound of 35 miles per hour from 50 miles per hour approaching Central Square. The composition of the study area and roadway characteristics along Route 18 south of Central Square promotes higher vehicle travel speed, which needs to be reduced when entering the town center area. It was noted that the only signage indicating the decrease in speed to 35 miles per hour is a sign near Cottage Street, south of the observed area. Speeding was also noted to be an issue for vehicles from Central Square traveling southbound on Bedford Street (Route 28/Route 18).

It was also noted that the pavement markings for the shoulder lanes on Bedford Street (Route 28/Route 18) are faded, which effectively widens the travel lanes and may give an illusion of a higher speed limit. Therefore, it was noted that visitors and students from Bridgewater State University and other drivers

unfamiliar to the area drive faster than the 35 miles per hour posted speed limit and do not expect vehicles or pedestrians from Grove Street crossing Bedford Street (Route 28/Route 18). It was also noted that heavy vehicle congestion from Central Square queues on the Bedford Street (Route 28/Route 18) northbound approach may contribute to rear-end crashes involving drivers not expecting to need to slow or stop. According to the crash data, 81% of the crashes were a result of vehicles attempting to cross or turn onto Bedford Street (Route 28/Route 18) from Grove Street. Vehicles traveling at a high speed on Bedford Street (Route 28/Route 18) not expecting crossing traffic from Grove Street may be a contributing factor to the high crash rate.

During the audit, it was discussed that there was a higher than normal proportion (37%) of crashes on wet pavement. After a discussion with the audit team, it was concluded that drainage is not a major issue, and the cause of the high number of crashes may be due to high vehicle speeds and/or driver expectation rather than the pavement conditions. However, wet pavement may exacerbate the issue since vehicles are not able to stop as quickly.

During the field visit, it was noted that the signage at the intersection was insufficient and limited. The Bedford Street (Route 28/Route 18) and Grove Street wayfinding sign was missing from the intersection, making it difficult for drivers approaching from Grove Street to be aware of the presence and directionality of Route 18/Route 28. Of the 27 crashes, six were documented to be due to drivers failing to stop at the stop sign for the Grove Street westbound approach.

Enhancements:

- Consider installing speed feedback signage on Bedford Street (Route 28/Route 18) in each direction to further alert drivers of the posted speed limit of 35 miles per hour.
- Consider providing advanced warning signage for reduced speed along Bedford Street (Route 28/Route 18).
- Consider re-striping the shoulders along Bedford Street (Route 28/Route 18) to define roadway limits.
- Consider physical traffic calming methods for Bedford Street (Route 28/Route 18), such as narrower lanes and bicycle lanes to reduce the cross-section of the roadway.
- Consider implementing high friction pavement to reduce the potential for collisions during wet roadway conditions.
- Review the existing signage provided at the intersection for replacement, and consider implementing advanced warning signage, lane guidance signage and street signage at the intersection.
- Consider implementing warning signage for entering a heavy pedestrian area to reduce possible pedestrian conflict.
- Evaluate the potential for installing signalization or flashing yellow beacon for Bedford Street (Route 28/Route 18) and a flashing red beacon for Grove Street.

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Safety Issue #2: Sight Line Visibility

Observations:

During the RSA, the audit team observed that the twolane westbound approach on Grove Street and the vegetation on the southeast corner of the intersection may cause driver visibility issues. The height of vegetation on the southeast corner was observed to be approximately driver's eye height, and a row of hedges ends just after the stop line on Grove Street. It was noted by the team during the audit that left-turning vehicles on the Grove Street approach may block a drivers' visibility to travel through the intersection. Crash number 34 specifically noted that the crash was



Image 6: Grove Street Westbound Approach Lanes

indirectly caused by the driver on Grove Street having limited vision of Bedford Street (Route 28/Route 18) due to a left-turning vehicle on the Grove Street approach. Audit team members knowledgeable of the area mentioned that drivers from the Bridgewater State University campus use Grove Street to access Route 18 to the south or Route 104. It was also noted that there are a number of construction projects taking place around Bridgewater diverting commercial traffic to residential areas to avoid vehicle queueing around Central Square.

Bedford Street (Route 28/Route 18) was also noted to incur significant queueing from vehicles traveling northbound entering Central Square with vehicles blocking the intersection. Vehicles blocking the intersection would increase the potential for angled collisions or courtesy crashes when a vehicle on Bedford Street (Route 28/Route 18) allows a vehicle on Grove Street to enter traffic and is struck by a vehicle in the opposite direction.

Enhancements:

- Consider reducing the Grove Street approach from a left-turn lane and shared through/right-turn lane to one multi-purpose lane or to a left/through lane and right-turn lane to reduce potential sight line issues relating to vehicles in the adjacent lane on the approach.
- Consider modifying the one-way direction on Grove Street to the east of the intersection from westbound to eastbound, and re-routing westbound traffic from Grove Street to Maple Avenue. The modification would re-route the Bedford Street (Route 28/Route 18) crossing movements, potentially reducing angled collisions and sight line visibility issues. The intersection of Bedford Street (Route 28/Route 18) at Maple Avenue should also be evaluated with the proposed re-routing to determine if a signal warrant is met. The re-routing of traffic onto Maple Avenue would require a review of the sight lines at the intersection with Bedford Street (Route 28/Route 18).
- Consider clearing the vegetation on southeastern corner to improve sight line visibility to observe drivers on the Bedford Street (Route 28/Route 18) approach.
- Consider implementing 'Do Not Block the Box' pavement markings and signage at the intersection to reduce vehicle queueing through the intersection from Bedford Street (Route 28/Route 18).

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Safety Issue #3: Pedestrian and Bicycle Accommodations

Observations:

During the field visit, the audit team observed that the three crosswalks at the intersection of Bedford Street and Grove Street did not meet the current standard ADA requirements. Specifically, the crosswalk on the Bedford Street (Route 28/Route 18) northbound approach to the intersection is located to the north of the ramps. The crosswalks are also the standard style providing two solid white lines, which may not easily be observed by oncoming traffic. Furthermore, the two lanes on the Grove Street westbound approach may create sight line visibility issues to observe pedestrians in the crosswalk on the northbound approach. The intersection reported one crash (crash number 133) which included a pedestrian claiming that pedestrians crossing on the Bedford Street (Route 28/Route 18) northbound approach are in a blind spot for vehicles on Grove Street.

Enhancements:

- Consider implementing ladder style crosswalk pavement markings on the Bedford Street (Route 28/Route 18) approach crosswalks to improve pedestrian visibility.
- Consider re-aligning the crosswalk on Bedford Street (Route 28/Route 18) northbound approach with the pedestrian ramps.
- Consider pedestrian bump outs at the intersection which would provide traffic calming for Bedford Street (Route 28/Route 18) to decrease vehicle travel speeds and provide a shorter pedestrian crossing distance.

Recommendations

After the site visit, audit participants returned to discuss the safety issues and consider various improvements. The audit participants were encouraged to consider both short and long-term improvements for each of the existing safety issues. Each improvement considered has been categorized as short-term, mid-term, or long-term based on the definitions shown below in Table 2. Additionally, a cost category has been assigned to each improvement based on the parameters set forth in Table 2.

Table 2: Estimated Time Frame and Costs Breakdown

Time	Frame	Costs		
Short-Term	<1 Year	Low	<\$10,000	
Mid-Term	1-3 Years	Medium	\$10,001-\$50,000	
Long-Term	>3 Years	High	>\$50,000	

Summary of Road Safety Audit

A summary of the potential recommendations discussed by the RSA audit team are summarized in Table 3. The recommendations are summarized based on the potential safety payoff, time frame, approximate cost, and potential responsible agency. The safety payoff is a subjective judgement of the potential effectiveness of the safety recommendations listed below.

Table 3: Potential Safety Enhancement Summary

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
	Centra	l Square North			
Signage and Signalization	Review the existing signage provided at the signalized intersection for removal or replacement, and consider implementing advanced warning signage, lane guidance signage and street signage at the intersection.	Medium	Short-Term	Low	Town of Bridgewater
Signage and Signalization	Evaluate the existing guide signage provided at the signalized intersection for angle adjustment or removal.	Low	Short-Term	Low	Town of Bridgewater
Signage and Signalization	Consider trimming vegetation throughout Central Square to increase driver visibility.	Medium	Short-Term	Low	Town of Bridgewater
Signage and Signalization	Evaluate the feasibility of relocating the signal heads, as needed, to optimize their visibility.	Medium	Mid-Term	Medium	Town of Bridgewater
Signage and Signalization	Evaluate the structural capacity of the existing signal equipment to retrofit it with backplates with retroflective borders.	Medium	Mid-Term	Medium	Town of Bridgewater
Signage and Signalization	Evaluate the feasibility of coordinating the existing signalized intersection with the nearby railroad crossings on Broad Street (Route 18) and Summer Street (Route 104) to reduce delay and queue lengths. While coordination would not reduce conflict, it may lead to less driver frustration which can promote reckless driving.	Medium	Mid-Term	Low	Town of Bridgewater

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Pedestrian and Bicycle Accommodations	Evaluate the number of pedestrians cutting through the onstreet angled parking to cross the signalized intersection to determine visibility issues and potential conflict points between pedestrians and vehicles.	High	Short-Term	Low	Town of Bridgewater
Pedestrian and Bicycle Accommodations	Consider removing the five parking spaces on the Summer Street approach within the signalized intersection to increase driver visibility of pedestrians and limit parking maneuvers within the intersection.	High	Short-Term	Low	Town of Bridgewater
Pedestrian and Bicycle Accommodations	Evaluate the consolidation/formalization of pedestrian crossings at the signalized intersection and the mid-block crossings within Central Square.	Medium	Short-Term	Low	Town of Bridgewater
Pedestrian and Bicycle Accommodations	Evaluate updating the existing pedestrian facilities within the study area to be ADA-compliant and Manual on Uniform Traffic Control Devices (MUTCD)-compliant.	Medium	Mid-Term	Medium	Town of Bridgewater
Pedestrian and Bicycle Accommodations	Consider exclusive pedestrian phasing or Leading Pedestrian Intervals (LPIs) at the signalized intersection to reduce conflict between pedestrians and left-turning vehicles or increase pedestrian visibility for drivers.	High	Short-Term	Low	Town of Bridgewater

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Pedestrian and Bicycle Accommodations	Consider installing "No Turn on Red" signage at the signalized intersection to reduce conflict between pedestrians and turning vehicles.	Medium	Short-Term	Low	Town of Bridgewater
Pedestrian and Bicycle Accommodations	Consider replacing the current signage at the crossings for pedestrians to notify vehicles to yield for pedestrians unless exclusive pedestrian phasing and "No Turn on Red" signage is implemented.	Low	Short-Term	Low	Town of Bridgewater
Roadway Geometry and Sight Line Visibility	Evaluate potential turn restrictions, consolidate the existing curb cuts, provide wayfinding signage, or provide "Do Not Block the Box" signage and pavement markings for the commercial uses within the vicinity of the signalized intersection to potentially reduce conflict with entering and exiting vehicles to surrounding sites.	High	Mid-Term	Medium	Town of Bridgewater
Roadway Geometry and Sight Line Visibility	Consider converting the eastbound Main Street (Route 28) approach to provide a left-turn only and a shared through/right-turn lane and evaluate signal phasing.	High	Mid-Term	Medium	Town of Bridgewater
Roadway Geometry and Sight Line Visibility	Consider prohibiting right turn on red for the eastbound Main Street (Route 28) approach to limit conflict with Summer Street (Route 104) westbound left-turning vehicles and Broad Street (Route 18) southbound through vehicles.	Medium	Short-Term	Low	Town of Bridgewater

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Roadway Geometry and Sight Line Visibility	Evaluate the need for the Central Square northbound right-turn lane at the intersection, using only the channelized right turn and the opportunity to consolidate the northbound approach.	High	Mid-Term	Medium	Town of Bridgewater
Roadway Geometry and Sight Line Visibility	Consider the addition of traffic control and signage for the Central Square northbound U-turn movement.	Medium	Short-Term	Low	Town of Bridgewater
	Centra	Square South			
Signage and Signalization	Evaluate the existing Central Square and approach signage for relocation, removal, and replacement.	Low	Short-Term	Low	Town of Bridgewater/ MassDOT
Signage and Signalization	Evaluate the existing guide signage for relocation or removal and consider implementing guide signage for available municipal parking lots proximate to Central Square.	Low	Short-Term	Low	Town of Bridgewater/ MassDOT
Signage and Signalization	Consider removing the rotary signage and replace with one-way and chevron signage and implementing geometric improvements at the approach corners to Central Square to reduce time vehicles are in conflict with other movements.	Low	Short-Term	Low	Town of Bridgewater/ MassDOT
Signage and Signalization	Consider performing a signal warrant and roundabout analysis for the southern section of Central Square for the implementation of a signal or roundabout.	High	Long-Term	High	Town of Bridgewater/ MassDOT

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Signage and Signalization	Evaluate South Street to update the pavement markings, double "STOP" sign, and roadway geometry.	Medium	Mid-Term	Medium	Town of Bridgewater/ MassDOT
Signage and Signalization	Consider realigning the geometry for the Bedford Street (Route 28/Route 18) approach to provide deflection to slow drivers entering Central Square.	Medium	Long-Term	High	Town of Bridgewater/ MassDOT
Pedestrian and Bicycle Accommodations	Evaluate the pedestrian crossings within Central Square to align the curb extensions for increased visibility and safety for pedestrians to see drivers.	High	Mid-Term	Medium	Town of Bridgewater/ MassDOT
Pedestrian and Bicycle Accommodations	Consider realigning pedestrian crossings to promote shorter crossing distances and increase driver visibility for pedestrians.	Medium	Short-Term	Low	Town of Bridgewater/ MassDOT
Pedestrian and Bicycle Accommodations	Consider consolidating the pedestrian crossing locations within Central Square and on its approaches for driver visibility.	Medium	Mid-Term	Low	Town of Bridgewater/ MassDOT
Pedestrian and Bicycle Accommodations	Consider parallel parking or reverse angle parking to improve driver visibility of pedestrians within Central Square on each side to allow for better control over the pavement width available to vehicle travel and curb extensions for pedestrian crossings.	High	Mid-Term	Medium	Town of Bridgewater

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Pedestrian and Bicycle Accommodations	Consider widening the existing parking spaces within Central Square to improve overall maneuverability and reduce the risk of sideswipe crashes.	High	Mid-Term	Low	Town of Bridgewater
Pedestrian and Bicycle Accommodations	Consider removing the flashing beacon at the one pedestrian crossing with Central Square and replacing with Rectangular Rapid Flashing Beacons (RRFB) at each mid-block crossing location for driver consistency and visibility.	Medium	Mid-Term	Medium	Town of Bridgewater/ MassDOT
Roadway Geometry and Sight Line Visibility	Consider reconfiguring the town common to close one side to vehicular travel, creating a pedestrian plaza, and permit twoway vehicle travel on the other side to reduce pedestrian conflict points and properly channelize vehicle traffic flow.	High	Long-Term	High	Town of Bridgewater/ MassDOT
Roadway Geometry and Sight Line Visibility	Evaluate the location of the Bridgewater Fire Station for relocation and removal of the emergency signalization within Central Square to limit driver confusion.	Medium	Long-Term	High	Town of Bridgewater

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Roadway Geometry and Sight Line Visibility	Evaluate the existing parking within the vicinity of Central Square and consult the parking study completed as part of the 2014 Bridgewater Downtown Community Development Master plan by The Cecil Group and Nelson\Nygaard. Consider restriping Central Square to provide narrowed cross-section widths and delineate lane assignment.	Medium	Mid-Term	Medium	Town of Bridgewater/ MassDOT
Roadway Geometry and Sight Line Visibility	Consider modifying the Central Square geometry and radii to decrease vehicle operating speed but ensure truck turning radii are sufficient. However, if reduced radii are considered then the possibility of permitting southbound left-turns from Broad Street (Route 18) onto Summer Street should be evaluated since it would allow trucks to remain outside of Central Square.	High	Long-Term	High	Town of Bridgewater/ MassDOT
Roadway Geometry and Sight Line Visibility	Consider implementing a driver safety awareness campaign or providing literature to Bridgewater State University students to potentially aid in reducing collisions involving the visiting and/or young driver population.	Medium	Mid-Term	Low	Town of Bridgewater/ MassDOT
	Bedford Street (Route	28/Route 18) at 0	Grove Street		

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Speed, Signage, and Drainage	Consider installing speed feedback signage on Bedford Street (Route 28/Route 18) in each direction to further alert drivers of the posted speed limit of 35 miles per hour.	Medium	Short-Term	Low	MassDOT
Speed, Signage, and Drainage	Consider providing advanced warning signage for reduced speed along Bedford Street (Route 28/Route 18).	Medium	Short-Term	Low	MassDOT
Speed, Signage, and Drainage	Consider re-striping the shoulders along Bedford Street (Route 28/Route 18) to define roadway limits.	Medium	Short-Term	Low	MassDOT
Speed, Signage, and Drainage	Consider physical traffic calming methods for Bedford Street (Route 28/Route 18), such as narrower lanes and bicycle lanes to reduce the cross-section of the roadway.	High	Long-Term	High	MassDOT
Speed, Signage, and Drainage	Consider implementing high friction pavement to reduce the potential for collisions during wet roadway conditions.	Medium	Mid-Term	Medium	MassDOT
Speed, Signage, and Drainage	Review the existing signage provided at the intersection for replacement, and consider implementing advanced warning signage, lane guidance signage and street signage at the intersection.	Medium	Short-Term	Low	Town of Bridgewater/ MassDOT
Speed, Signage, and Drainage	Consider implementing warning signage for entering a heavy pedestrian area to reduce possible pedestrian conflict.	High	Short-Term	Low	MassDOT

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Speed, Signage, and Drainage	Evaluate the potential for installing signalization or flashing yellow beacon for Bedford Street (Route 28/Route 18) and a flashing red beacon for Grove Street.	Medium	Mid-Term	Medium	Town of Bridgewater/ MassDOT
Sight Line Visibility	Consider reducing the Grove Street approach from a left-turn lane and shared through/right-turn lane to one multi-purpose lane to reduce potential sight line issues relating to vehicles in the adjacent lane on the approach.	High	Mid-Term	Medium	Town of Bridgewater/ MassDOT
Sight Line Visibility	Consider modifying the one-way direction on Grove Street to the east of the intersection from westbound to eastbound, and rerouting westbound traffic from Grove Street to Maple Avenue. The modification would re-route the Bedford Street (Route 28/Route 18) crossing movements, potentially reducing angled collisions and sight line visibility issues. The intersection of Bedford Street (Route 28/Route 18) at Maple Avenue should also be evaluated with the proposed rerouting to determine if a signal warrant is met. The re-routing of traffic onto Maple Avenue would require a review of the sight lines at the intersection with Bedford Street (Route 28/Route 18).	High	Long-Term	High	Town of Bridgewater/ MassDOT

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Sight Line Visibility	Consider clearing the vegetation on southeastern corner to improve sight line visibility to observe drivers on the Bedford Street (Route 28/Route 18) approach.	High	Short-Term	Low	Town of Bridgewater/ MassDOT
Sight Line Visibility	Consider implementing 'Do Not Block the Box' pavement markings and signage at the intersection to reduce vehicle queueing through the intersection from Bedford Street (Route 28/Route 18).	Low	Short-Term	Low	Town of Bridgewater/ MassDOT
Pedestrian and Bicycle Accommodations	Consider implementing ladder style crosswalk pavement markings on the Bedford Street (Route 28/Route 18) approach crosswalks to improve pedestrian visibility.	Medium	Short-Term	Low	Town of Bridgewater/ MassDOT
Pedestrian and Bicycle Accommodations	Consider re-aligning the crosswalk on Bedford Street (Route 28/Route 18) northbound approach with the pedestrian ramps.	Medium	Short-Term	Low	Town of Bridgewater/ MassDOT
Pedestrian and Bicycle Accommodations	Consider pedestrian bump outs at the intersection which would provide traffic calming for Bedford Street (Route 28/Route 18) to decrease vehicle travel speeds and provide a shorter pedestrian crossing distance.	High	Long-Term	High	Town of Bridgewater/ MassDOT

Road Safety Audit - Bridgewater Central Square & Bedford Street at Grove Street, Bridgewater, MA
Prepared by McMahon Associates, Inc.
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Appendix A. RSA Meeting Agenda



Road Safety Audit – Bridgewater, MA Bridgewater Town Common (2 Locations)

Meeting Location: Bridgewater Town Hall Council Chambers (2nd Floor) 66 Central Square, Bridgewater, MA Wednesday, September 25, 2019 9:30 AM – 1:00 PM

Type of meeting:	High Crash Location – Road Safety Audit		
Attendees:	Invited Participants to Comprise a Multidisciplinary Team		
Please bring:	Thoughts and Enthusiasm!!		
9:30 AM	Welcome and Introductions		
9:45 AM	Discussion of Safety Issues		
	 Crash history, traffic volumes, speed regulations – provided in advance 		
	Existing Geometries and Conditions		
10:15 AM	Site Visit		
	 Walk through Bridgewater Town Common RSA study area 		
	As a group, identify areas for improvement		
11:45 PM	Discussion of Potential Improvements		
	Discuss observations and finalize safety issue findings		
	Discuss potential improvements and finalize recommendations		
1:00 PM	Adjourn for the Day – but the RSA has not ended		

<u>Instructions for Participants:</u>

- Before attending the RSA on Wednesday, September 25th, participants are encouraged to drive through the study area and complete/consider elements on the RSA Prompt List with a focus on safety.
- All participants will be actively involved in the process throughout. Participants
 are encouraged to come with thoughts and ideas, but are reminded that the
 synergy that develops and respect for others' opinions are key elements to the
 success of the overall RSA process.
- After the RSA meeting, participants will be asked to comment and respond to the document materials to assure it is reflective of the RSA completed by the multidisciplinary team.

Road Safety Audit – Bridgewater Prepared by McMahon Associates, I DRAFT FINAL		dford Street at Grove	Street, Bridgewater, I	MA
		-		
Appendix B.	RSA Au	dit Team	Contact	List

Participating Audit Team Members

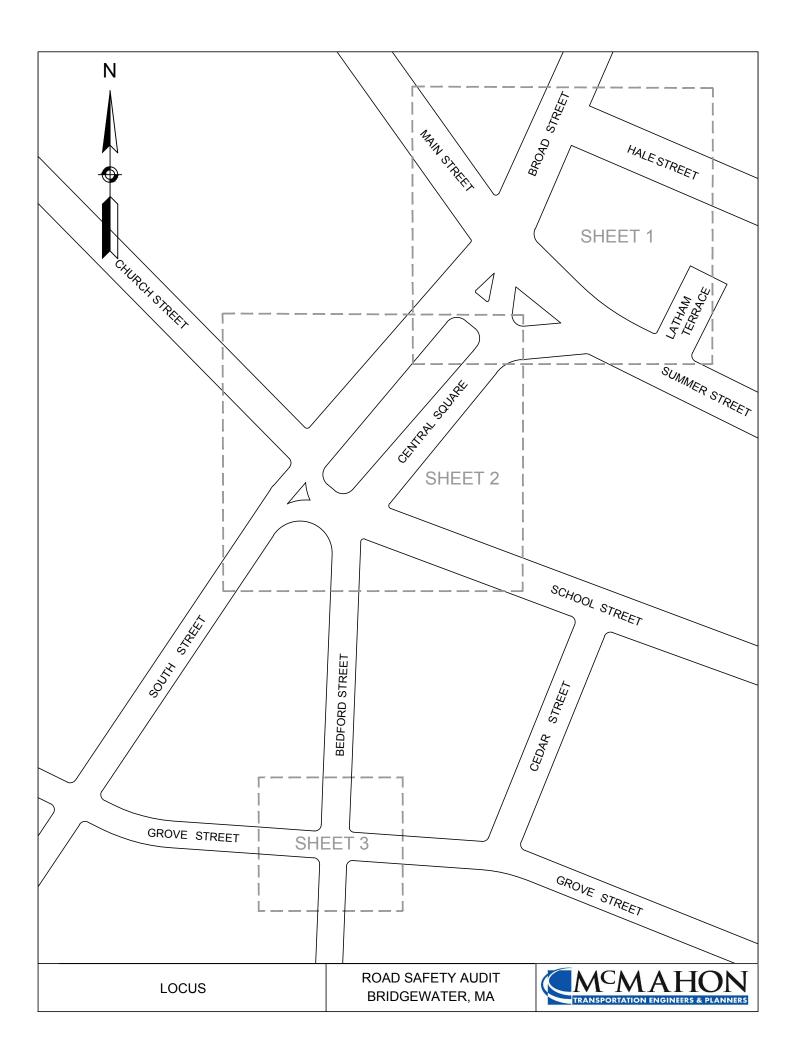
Date: September 25, 2019 Location: Bridgewater Town Hall

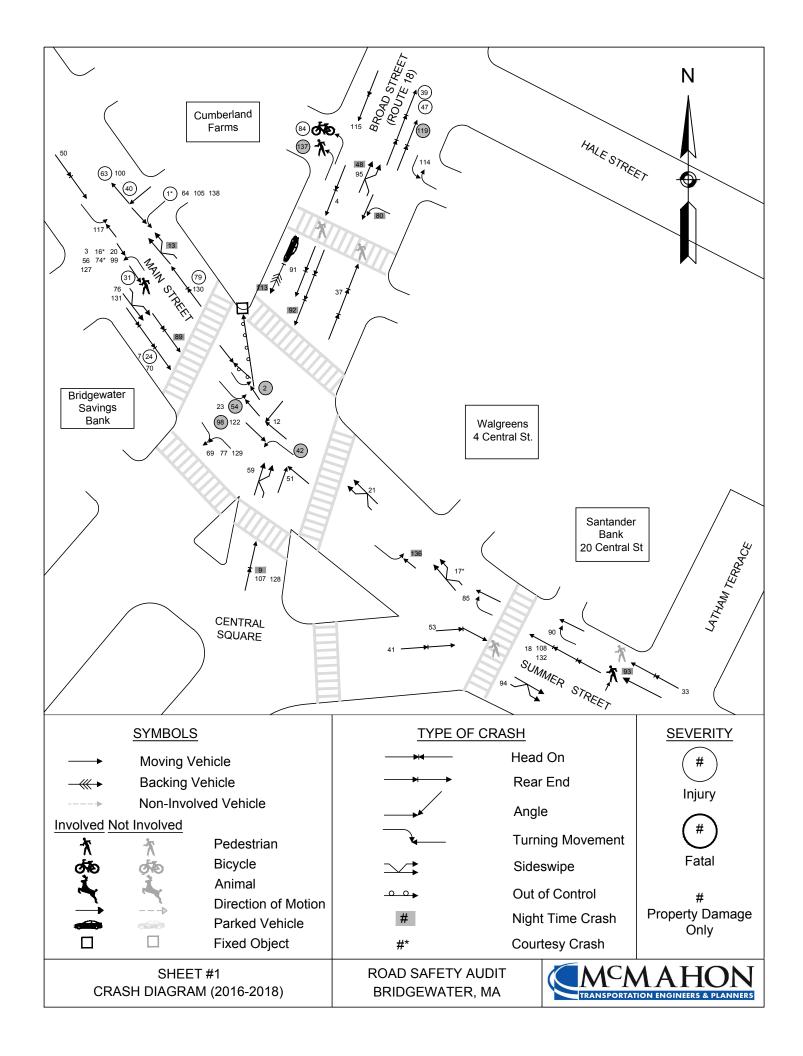
66 Central Square Bridgewater, MA

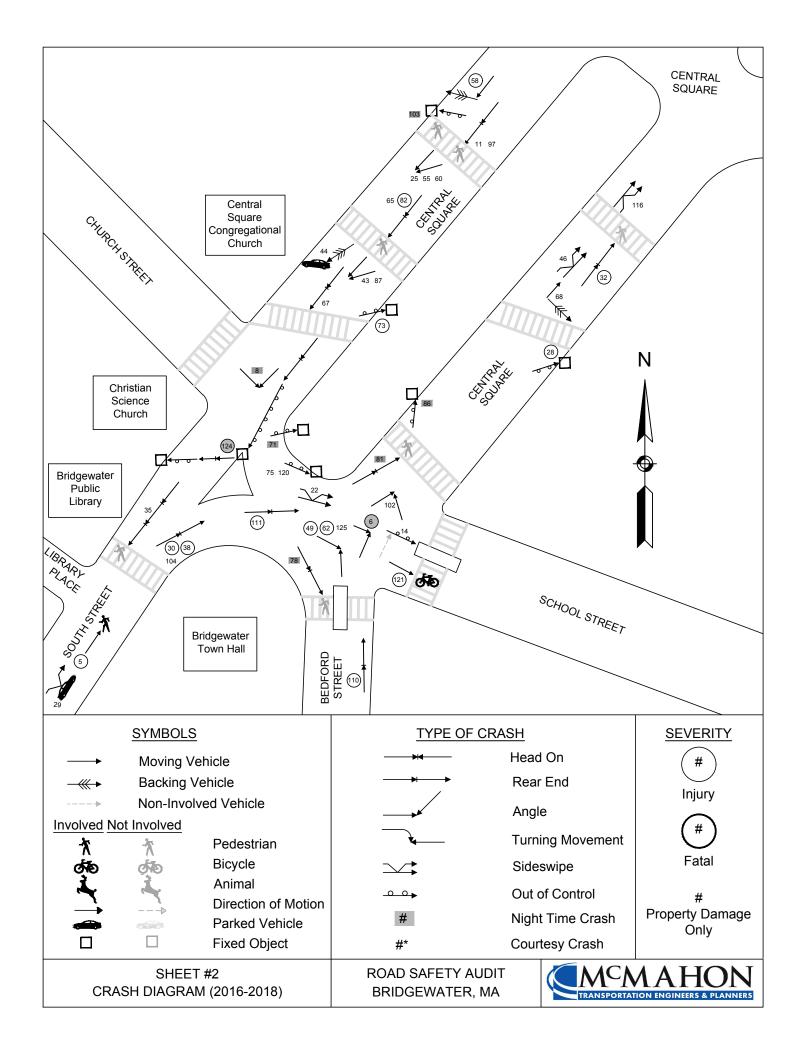
Audit Team Members	Agency/Affiliation	Email Address	Phone Number
Michelle Deng	MassDOT Traffic Safety	michelle.deng@state.ma.us	857-368-9637
Barbara Lachance	MassDOT District 5 Traffic	barbara.lachance@dot.state.ma.us	508-884-4260
Jason Walters	MassDOT District 5 Projects	jason.walters@dot.state.ma.us	508-884-4370
Chris Falcos	MassDOT Traffic Safety	christopher.falcos@ dot.state.ma.us	857-368-9639
Jon Freeman	MassDOT HQ	jonathan.e.freeman@ dot.state.ma.us	857-368-9340
Michael Dutton	Bridgewater Town Manager	mdutton@bridgewaterma.org	508-697-0919
Tom Schlatz	Bridgewater Police Department	tschlatz@bridgewaterma.org	508-245-7958
Azu Etoniru	Bridgewater Engineering	aetoniru@bridgewaterma.org	508-697-0906
Jennifer Burke	Bridgewater Community & Economic Development	jburke@bridgewaterma.org	508-697-0950
Ray Guarino	Old Colony Planning Council	rguarino@ocpcrpa.org	508-583-1833
Jeff Bandini	McMahon Associates, Inc.	jbandini@mcmahonassociates.com	508-967-3049
Natalie Raffol	McMahon Associates, Inc.	nraffol@mcmahonassociates.com	617-556-0020

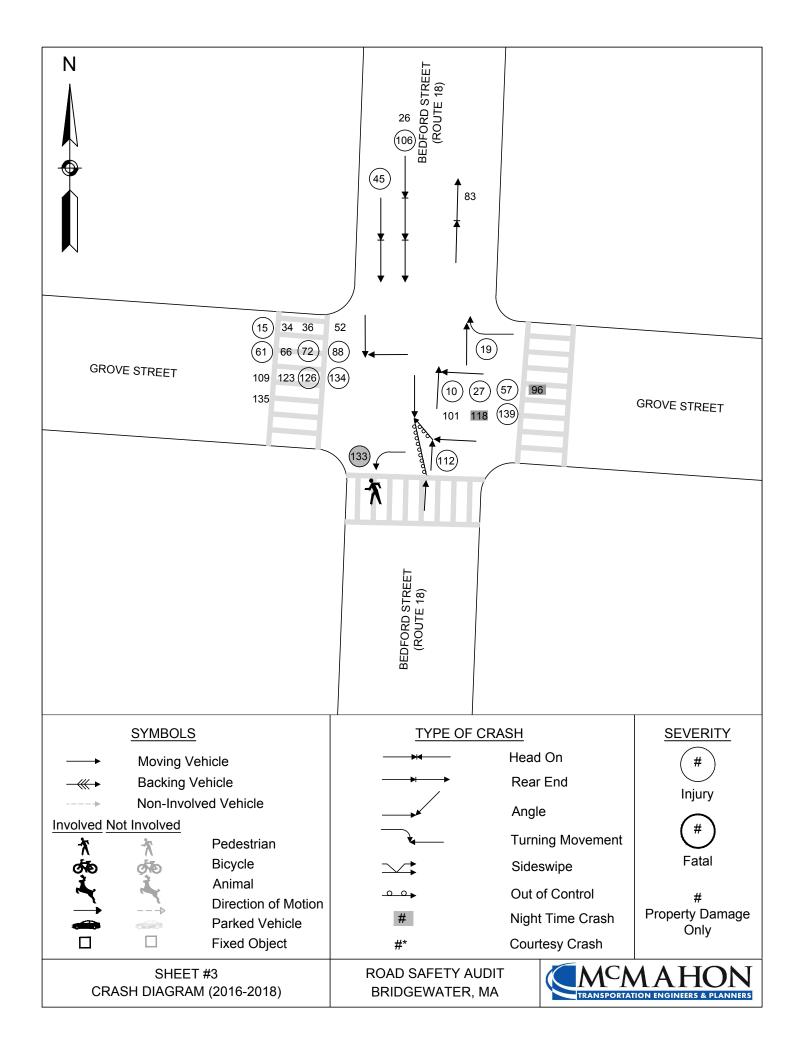
Road Safety Audit – Bridgewater Central Square & Bedford Street at Grove Street, Bridgewater, MA Prepared by McMahon Associates, Inc. DRAFT FINAL

Appendix C. Detailed Crash Data









	Crash														
Sheet Page	Diagram	Crash Date	Crash Day	Crash Time	Injury Status	Manner of Collision	Ambient Light	Weather Condition	Road Surface	Driver Contributing Codes	Driver Ages		!S	Comments	
· ugc	Ref #	mm/dd/yyyy	Day	hh:mm		Type	Туре	Туре	Туре	Туре	D1	D2	D3	DA	Comments
1	1*	1/4/2016	Monday	2:07 PM	Non-fatal injury - Non- incapacitating	Angle	Daylight	Cloudy/Snow	Wet	D1:(Failed to yield right of way) D2:(No improper driving)	44		<i>D</i> 3	<i>D</i> 4	V1 was attempting to exit the Cumberland Farms parking lot onto EB Main St. V2 was traveling EB on Main St. in the designated right turn lane. V3 was stopped on EB Main St. in the through lane and motioned V1 to proceed. V1 proceeded and upon entering the designated right turn lane, collided with V2. A passenger in V1 was transported to the hospital due to an injury.
1	2	1/18/2016	Monday	9:12 PM	Non-fatal injury - Non- incapacitating	Angle	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way) D3:(No improper driving)	29	21	20		V1 was traveling WB on Summer St. V2 was traveling EB on Main St. followed by V3. All three vehicles were stopped at the light. Upon the light turning green for both directions, V2 began to make a left turn and struck V1 which was attempting to continue straight. From this first collision, V2 rebounded backwards, striking V3, and V1 rebounded striking the building at 1 Main St. (Just Desserts). All vehicles were towed. D2 was transported to hospital and D3 was injured.
1	3	1/20/2016	Wednesday	11:39 AM	No injury	Angle	Daylight	Cloudy	Dry	D1:(No improper driving) D2:(No improper driving)	42	20			V1 was traveling WB on Main St. V2 was traveling EB on Main St. As V1 was turning left into the Bridgewater Savings Bank driveway, V2 struck the rear of V1.
1	4	1/31/2016	Sunday	12:41 PM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Inattention),(No improper driving)	59	46			V1 was traveling SB on Broad St. and stopped for a pedestrian in the crosswalk. V2 failed to stop in time and rear-ended V1.
2	5	2/1/2016	Monday	8:24 PM	Non-fatal injury - Non- incapacitating	Unknown	Daylight	Clear	Dry	D1:(Unknown)	79				V1 was traveling NB on South St towards Central Square and struck a pedestrian (age 21) who ran into the roadway.
2	6	2/2/2016	Tuesday	5:56 PM	Non-fatal injury - Non- incapacitating	Angle	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	69	23			V1 was traveling through the rotary by School St. V2 was traveling NB on Bedford St. and did not yield at the rotary entrace. V2 struck V1 which was forced into the traffic island and took down a street sign.
1	7	2/17/2016	Wednesday	8:25 AM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(No improper driving) D3:(Followed too closely),(Distracted)	18	67	55		V1 was heading EB on Main St. and was stopped at the red light at Broad St./Central Square. V2 was slowing and stopped behind V1. V3 failed to stop in time and rear-ended V2 which caused V2 to rear-end V3.
2	8	2/17/2016	Wednesday	5:59 PM	No injury	Angle	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	26	69			V1 was traveling SB through the rotary onto South St. V2 was traveling EB on Church St. and entered the rotary, failing to yield, and struck V1. V1 was towed from the scene.
1	9	2/19/2016	Friday	6:39 PM	No injury	Rear-end	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Followed too closely),(Inattention)	53	24			V1 was traveling NB through the rotary and was stopped at the stop light. V2 was also traveling NB through the rotary but did not stop, rear ending V1.
2	11	2/27/2016	Saturday	1:14 PM	No injury	Rear-end	Daylight	Unknown	Dry	D1:(Followed too closely) D2:(No improper driving)	19	33			V1 and V2 were traveling SB on the rotary. V2 stopped for a pedestrian in a crosswalk, V1 did not stop in time and rear ended V2.
1	12	3/5/2016	Saturday	9:19 AM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Disregarded traffic signs, signals, road markings),(Inattention)	82	26			V1 was traveling SB on Broad St. through the intersection with Main St./ Summer St. V2 failed to stop at the red light on WB Summer St. and struck V1. Both vehicles were towed.
1	13	3/5/2016	Saturday	8:11 PM	No injury	Sideswipe, same direction	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Made an improper turn)	43	23			Hit and Run. V1 was traveling WB on Main St. V2 was traveling in front of V1 and attempted to turn right into a Do Not Enter driveway for the Cumberland Farms parking lot and suddenly jerked left to reenter the roadway and struck V1. V1 and V2 pulled intot the Cumberland Farms parking lot after the crash. D2 fled the scene.
2	14	3/18/2016	Friday	3:36 PM	No injury	Single vehicle crash	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	19	53			V1 was traveling through the Central Square Rotary and was intending to exit onto School Street. V2 was traveling NB on Bedford St. and entered the roatary, failing to yield to V1. V1 swerved to avoid a collision with V2 and drove over a small median with a street sign.
1	16*	3/31/2016	Thursday	3:28 PM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	42	62			V1 was traveling EB on Main St. in the right only lane approaching the intersection with Broad St. V2 was traveling WB on Main St. attempting to turn left into the Bridgewater Savings Bank driveway and was waved to proceed by V3 which was in the left/through lane on EB Main St.
1	17*	4/2/2016	Saturday	1:13 PM	No injury	Sideswipe, same direction	Daylight	Rain	Wet	D1:(No improper driving) D2:(Failed to yield right of way)	46	71			V1 was traveling WB on Summer St. stopped in the left turn lane at the signal with Central Square. V2 was attempting to pull out of the Walgreens parking lot. Traffic had stopped to allow V2 to enter onto Summer St. V2 attempted to enter the left turn lane on Summer St. and collided with V1 which was inching forward in traffic.
1	18	4/7/2016	Thursday	11:18 AM	No injury	Rear-end	Daylight	Cloudy/Rain	Wet	D1:(Followed too closely) D2:(No improper driving) D3:(No improper driving)	54	54	65		V2 and V3 were traveling WB on Summer St and stopped for traffic. V1 turned left onto WB Summer St. from the CVS parking lot and did not stop and rear ended V2. V2 was then pushed ino V3.
1	20	4/14/2016	Thursday	12:05 PM	No injury	Angle	Daylight	Clear	Dry	D1:(Failed to yield right of way) D2:(No improper driving)	46	75			V1 was traveling WB on Main Street. V2 was traveling EB on Main Street. V1 attempted a left turn into the Bridgewater Savings Bank driveway and struck V2.

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Sheet Page	Crash Diagram Ref #	Crash Date	Crash Day	Crash Time	Injury Status	Manner of Collision	Ambient Light	Weather Condition	Road Surface	Driver Contributing Codes	Driver Ages		r Ages	Comments
	#	mm/dd/yyyy	Day	hh:mm		Туре	Туре	Туре	Туре	Туре	D1	D2	D3	D4
1	21	4/16/2016	Saturday	12:17 PM	No injury	Sideswipe, same direction	Daylight	Clear	Dry	D1:(Failed to yield right of way) D2:(No improper driving)	75	55		V2 was traveling WB on Summer Street in the through/right lane. V1 was traveling WB on Summer St. in the left lane. V1 attempted to switch to the right lane and sideswiped V2.
2	22	4/26/2016	Tuesday	7:34 PM	No injury	Sideswipe, same direction	Dusk	Cloudy/Clear	Dry	D1:(Over-correcting/over-steering) D2:(No improper driving)	58	52		V1 and V2 were both traveling in the Central Square rotary. V1 was traveling in the interior lane and V2 was traveling in the exterior lane. V1 attempted to exit onto Bedford St. SB from the interior lane, sideswiping V2. V2 was intending to exit onto School St. via the exterior lane.
1	23	5/1/2016	Sunday	5:52 PM	No injury	Angle	Daylight	Clear	Wet	D1:(Failed to yield right of way) D2:(No improper driving)	89	47		V1 was traveling EB on Main St. V2 was traveling WB on Summer St. V1 attempted a left turn left onto Broad St. V2 was unable to stop in time, striking V1. Both vehicles had a green light.
1	24	5/3/2016	Tuesday	10:16 AM	Non-fatal injury - Non- incapacitating	Rear-end	Daylight	Rain/Cloudy	Wet	D1:(Followed too closely) D2:(No improper driving) D3:(No improper driving)	34	25	49	V1, V2, and V3 were traveling EB on Main Street. V2 and V3 proceeded to stop at the traffic lights while V1 did not stop. V1 struck V3. V3 was forced into V2. D1 appeared to experience a medical episode as V1 continued to accelerate after the crash. D1 was transported to the hospital.
2	25	5/3/2016	Tuesday	2:08 PM	No injury	Angle	Daylight	Rain	Wet	D1:(No improper driving) D2:(Failure to keep in proper lane or running off road)	34	23		V1 was traveling SB on Central Square. V2 was also traveling SB on Central Square behind V1. V1 attempted to take a right into a parking space while V2 attempted to pass V1 on the right, colliding with V1.
2	28	5/31/2016	Tuesday	3:15 PM	Non-fatal injury - Non- incapacitating	Single vehicle crash	Daylight	Clear	Dry	D1:(Other improper action)	77			V1 was traveling NB through Central Square and attempted to turn right into a parking space. V1 pressed the accelerator instead of the brake and proceeded over the curb and into a utility pole and a handicpap parking sign before coming to rest against the building which suffered structural damage and broken windows. D1 transported to the hospital.
2	29	6/16/2016	Thursday	11:32 AM	No injury	Sideswipe, same direction	Daylight	Clear/Cloudy	Dry	D1:(Swerving or avoiding due to wind, slippery surface, vehicle, object, non-motorist in roadway, etc) D2:()	21			V1 was traveling NB on South St. towards Central Square. V2 was parked on the east side of South St facing north. V1 pulled to the right side of the road to let a police car through and struck a parked car.
2	30	6/23/2016	Thursday	11:25 AM	Non-fatal injury - Non- incapacitating	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Inattention),(Distracted)	66	17		V1 and V2 were both traveling NB on South St. V1 slowed down for traffic and V2 did not stop, rear ending V1. D1 was transported to the hospital.
1	31	6/26/2016	Sunday	2:42 PM	Non-fatal injury - Incapacitating	Single vehicle crash	Daylight	Clear	Dry	D1:(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner)	31			Description based on diagram (no narrative available). V1 was traveling EB on Main St. and struck a pedestrian (age 56) crossing at the Cumberland Farms driveway.
2	32	6/30/2016	Thursday	3:16 PM	Non-fatal injury - Possible	Rear-end	Daylight	Clear	Dry	D1:(Followed too closely) D2:(No improper driving)	46	53		V1 and V2 were traveling NB on Central Square. V2 stopped for a pedestrian in the crosswalk and V1 did not stop in time, rear ending V2.
1	33	7/4/2016	Monday	11:26 AM	No injury	Rear-end	Daylight	Clear	Dry	D1:(Followed too closely) D2:(No improper driving)	18	51		V2 was traveling WB on Summer Street and stopped to allow pedestrians to cross the street and V1 did not stop and rear ended V2.
2	35	7/20/2016	Wednesday	11:26 AM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(No improper driving) D3:(Followed too closely)	22	23	26	V1, V2, and V3 were traveling SB on the Central Square Rotary onto South St. V1 and V2 stopped for a pedestrian in the crosswalk. V3 did not stop, rear-ending V2. V2 was pushed into V1.
1	37	7/22/2016	Friday	8:04 AM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Followed too closely) D3:(Followed too closely)	50	26	19	V1, V2, and V3 were traveling NB on Broad St. V1 stops for a person in crosswalk at 25 Broad Street. V3 does not stop, striking V2, who then strikes V1. V3 towed from scene.
2	38	8/2/2016	Tuesday	8:18 AM	Non-fatal injury - Possible	Rear-end	Daylight	Cloudy	Dry	D1:(No improper driving) D2:(Followed too closely)	60	42		V1 was traveling NB on South St yielding to traffic in the Central Square rotary. V2 did not stop and rear ended V1.
1	39	8/2/2016	Tuesday	2:28 PM	Non-fatal injury - Non- incapacitating	Rear-end	Daylight	Rain/Cloudy	Wet	D1:(No improper driving) D2:(No improper driving) D3:(Followed too closely)	73	25	21	V1, V2, and V3 were traveling NB on Broad St. V1 and V2 slowed down for traffic. V3 did not slow down, striking V2 in the rear end. V2 then collided with V1. D1 complained of neck pain, but was not medically transported.
1	40	8/2/2016	Tuesday	2:32 PM	Non-fatal injury - Possible	Angle	Daylight	Cloudy	Wet	D1:(No improper driving) D2:(Failed to yield right of way)	22	22		V1 was traveling WB on Main Street. V2 attempted to enter WB Main St. from the Cumberland Farms parking lot and struck V1. V2 towed from scene.
1	41	8/6/2016	Saturday	12:51 PM	No injury	Rear-end	Daylight	Clear	Dry	D1:(Distracted) D2:(No improper driving)	18	59		V1 and V2 were traveling NB on Central Square turning right onto Summer St. EB yielding to traffic. V1 failed to stop and rear ended V2.
1	42	8/23/2016	Tuesday	9:26 PM	Non-fatal injury - Non- incapacitating	Head-on	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	20	25		V1 was traveling EB on Main St. V2 was traveling WB on Summer St. V2 attempted to make a left turn onto Central Square SB and struck V1. Both vehicles were towed from the scene.
2	43	9/9/2016	Friday	12:55 PM	No injury	Angle	Daylight	Clear	Dry	D1:(Unknown) D2:(Failure to keep in proper lane or running off road)	51	62		V1 and V2 were traveling SB on the Central Square Rotary. V1 was in the far right lane traveling straight. V2 was on the left lane and attempted to cross over the right lane into a parking spot and struck V1.
2	44	9/22/2016	Thursday	12:41 PM	No injury	Sideswipe, same direction	Daylight	Clear	Dry	D1:(Inattention) D2:()	22			V1 was backing out of a parking space in Central Square and struck an adjacent parked car.
2	46	10/3/2016	Monday	5:26 PM	No injury	Sideswipe, same direction	Daylight	Clear	Dry	D1:(Unknown) D2:(Failed to yield right of way)	68	20		V1 was traveling NB on Central Square in the right lane. V2 was also traveling NB on Central Square in the left lane and attempted to cross the right lane into a parking space and struck V1.

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Sheet	Crash						Ambient	Weather	Road					
Page	Diagram Ref #	Crash Date	Crash Day	Crash Time	Injury Status	Manner of Collision	Light	Condition	Surface	Driver Contributing Codes	D	Driver Ages		S Comments
	#	mm/dd/yyyy	Day	hh:mm		Туре	Туре	Туре	Туре	Туре	D1	D2	D3	D4
1	47	10/24/2016	Monday	2:43 PM	Non-fatal injury - Possible	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(No improper driving) D3:(Followed too closely),(Unknown)	35	52	16	V1, V2, and V3 were traveling NB on Broad Street. V1 and V2 were stopped in traffic. V3 did not stop, striking V2. V2 pushed into V1. D1 transported to hospital.
1	48	10/28/2016	Friday	11:23 PM	No injury	Sideswipe, same direction	Dark - lighted roadway	Clear	Dry	D1:(Inattention),(Failed to yield right of way) D2:(No improper driving)	23	31		V1 was parked on NB Broad St. and attempted to turn left into the NB lane of travel. V2 was traveling NB on Broad Street and was struck by V1. V2 towed from scene.
2	49	10/31/2016	Monday	1:58 PM	Non-fatal injury - Possible	Angle	Daylight	Clear	Dry	D1:(Failed to yield right of way) D2:(No improper driving)	81	29		V2 was traveling through the Central Square rotary and was attempting to enter EB School St. V1 was traveling NB on Bedford St and struck V2. V1 claims they yielded but did not see V2. D2 transported to hospital. Both vehicles were towed from the scene.
1	50	11/4/2016	Friday	2:59 PM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Followed too closely),(No improper driving)	17	66		V1 was traveling EB on Main Street and came to a stop at the traffic light with Broad St. V2 was also traveling EB on Main St. but did not come to a stop and rear ended V1. D2 transported to hospital. V2 towed from scene.
1	51	11/6/2016	Sunday	6:17 AM	No injury	Angle	Daylight	Rain	Wet	D1:(No improper driving) D2:(Inattention),(Other improper action)	23	18		V1 was traveling NB on Central Square. V2 was traveling WB on Summer St. V2 failed to stop at the traffic signal and struck V1 on the right side as it was traveling NB through the intersection.
1	53	11/28/2016	Monday	11:08 AM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Inattention),(Followed too closely)	39	30		V1 was traveling EB on Summer St. and was stopped at a crosswalk letting a pedestrian cross. V2 was entering EB Summer St from the Central Square rotary in front of Chessman Pizza and was looking left while entering Summer St to check for oncoming traffic and rear ended V1.
1	54	12/4/2016	Sunday	7:13 PM	Non-fatal injury - Possible	Angle	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way),(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner)	51	57		V1 was traveling WB on Summer St. through the intersection with Central Square/Broad St. V2 was traveling EB on Main St. and attemped a left turn onto Broad St. and struck V1.
2	55	1/13/2017	Friday	10:05 AM	No injury	Sideswipe, same direction	Daylight	Clear	Dry	D1:(Failed to yield right of way) D2:(No improper driving)	53	20		V1 was traveling SB on Central Square on the left side of the lane. V2 was traveling SB on Central Square on the right side of the lane. V1 attempted to turn into a parking spot and struck V2.
1	56	1/26/2017	Thursday	4:01 PM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	53	58		V1 was traveling EB on Main St. stopped in traffic. V2 was traveling WB on Main St. and attemped a left turn into the Bridgewater Savings Bank parking lot, striking V1.
2	58	2/2/2017	Thursday	2:54 PM	Non-fatal injury - Non- incapacitating	Angle	Daylight	Clear	Dry	D1:(Other improper action) D2:(No improper driving)	35	68		V1 was parked in Central Square and was attempting to back out of its parking spot. V2 was traveling SB through the rotary. V1 struck V2 as V1 was reversing. V2 was towed from the scene.
1	59	2/7/2017	Tuesday	3:35 PM	No injury	Sideswipe, same direction	Daylight	Rain	Wet	D1:(Unknown) D2:(Unknown)	54	58		V1 and V2 were traveling NB through the Central Square rotary. Both vehicles stopped at the light with Summer/Main St. V1 was in the through lane attempting to travel NB onto Broad St. V2 was in the left turn lane, attempting to turn left onto WB Main St. V1 and V2 sideswiped.
2	60	2/8/2017	Wednesday	12:29 PM	No injury	Angle	Daylight	Clear	Wet	D1:(Other improper action) D2:(No improper driving)	19	58		V1 and V2 were traveling SB through the Central Square Rotary. V2 attempted to make a right turn into the Masonic Temple parking area. V1 attempted to pass V2 on the right and struck V2.
2	62	3/15/2017	Wednesday	12:22 PM	Non-fatal injury - Possible	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way),(Disregarded traffic signs, signals, road markings)	21	54		V1 was traveling through the Central Square Rotary attempting to exit onto EB School St. V2 (motorcycle) attempted to enter the rotary from NB Bedford St. and did not yield and struck V1.
1	63	3/23/2017	Thursday	9:22 AM	Non-fatal injury - Possible	Rear-end	Daylight	Clear	Dry	D1:(Followed too closely) D2:(No improper driving)	22	50		V1 and V2 were traveling EB on Main St. approaching the intersection with Central Square. V2 slowed for traffic. V1 then rear ended V2. D2 complained of head pain, but was not transported to hospital.
1	64	4/12/2017	Wednesday	12:09 PM	No injury	Angle	Daylight	Clear	Dry	D1:(Failed to yield right of way) D2:(No improper driving)	18	19		V2 was traveling WB on Main St. V1 was attempting to turn onto EB on Main St. from the Cumberland Farms drivewayand struck V2.
2	65	4/21/2017	Friday	3:04 PM	No injury	Rear-end	Daylight	Rain	Wet	D1:(No improper driving) D2:(Inattention),(Other improper action)	24	22		V1 and V2 were traveling SB through the Central Square Rotary. V1 stopped for a pedestrian in the crosswalk. V2 did not stop in time, rear ending V1. V2 was towed from the scene.
2	67	5/17/2017	Wednesday	1:25 PM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Followed too closely)	65	22		V1 and V2 were traveling SB through the Central Square Rotary. A reported third vehicle stopped suddenly at the crosswalk, but no pedestrian was observed to be there at the time of the crash. V1 stopped suddenly. V2 did not react in time and rear ended V1.
2	68	5/20/2017	Saturday	1:03 PM	No injury	Rear-end	Daylight	Cloudy	Dry	D1:(No improper driving) D2:(Other improper action)	37	42		V1 was traveling NB on Central Square and was stopped in traffic. V2 was reversing from a parking space amd struck V1.
1	69	6/13/2017	Tuesday	8:08 AM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	60	27		V1 was traveling EB on Main St. and turned right onto SB Central Square. V2 was traveling WB on Summer St. and turned left onto SB Central Square and struck V1. Both vehicles had a green light.

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	Crash						I		l <u>.</u> .					
Sheet Page	Diagram	Crash Date	Crash Day	Crash Time	Injury Status	Manner of Collision	Ambient Light	Weather Condition	Road Surface	Driver Contributing Codes	Driver Ages		Ages	Comments
	Ref #	mm/dd/yyyy	Day	hh:mm		Туре	Туре	Туре	Туре	Туре	D1	D2	D3 I	
1	70	6/16/2017	Friday	9:33 AM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(No improper driving) D3:(Operating defective equipment)	45	75	92	V1 and V2 were traveling on EB Main St. stopped at the intersection with Central Square/Broad St. V3 did not stop (claimed it was due to disfunctional brakes) and rear ended V2. V2 was then pushed into V1. V3 was towed from the scene.
2	71	7/2/2017	Sunday	11:17 PM	No injury	Single vehicle crash	Dark - lighted roadway	Clear	Dry	D1:(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner),(Swerving or avoiding due to wind, slippery surface, vehicle, object, non-motorist in roadway, etc)	18			V1 was traveling NB on South St. at exessive speeds and failed to negotiate the right turn onto the Central Square Rotary, driving over the curb and continuing to drive on the Central Square common in an attempt to evade the police officer.
2	73	8/2/2017	Wednesday	10:46 AM	Non-fatal injury - Possible	Single vehicle crash	Daylight	Clear	Dry	D1:(Wrong side or wrong way)	81			V1 was traveling NB on South St. Instead of turning right onto the Central Square Rotary, V1 continued traveling NB on the wrong side of the rotary. V1 then veered right off Central Square onto the Common to avoid striking a SB vehicle. V1 burst through the iron fencing and continued traveling on the Common before striking a tree. D1 transported to the hospital.
1	74*	8/8/2017	Tuesday	10:57 AM	No injury	Angle	Daylight	Cloudy	Dry	D1:(No improper driving) D2:(Visibility obstructed)	54	16		V1 was traveling EB on Main St. in the right only lane. V2 was traveling WB on Main St. and attempted a left turn into the Bridgewater Savings Bank driveway and struck V1. V2 claimed that a vehicle in the left/through EB travel lane stopped and waved to allow them to cross.
2	75	8/15/2017	Tuesday	1:15 PM	No injury	Single vehicle crash	Daylight	Clear	Dry	D1:(Failure to keep in proper lane or running off road)	44			V1, a tractor trailer unit, was traveling SB on the Central Square Rotary. V1 failed to negotiate the turn around the rotary and drove over the inner curb, striking fencing, posts, and the walkway.
1	76	8/19/2017	Saturday	2:36 PM	No injury	Sideswipe, same direction	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	27	66		V1 was traveling EB on Main St. in the far right lane. V2 was also traveling EB on Main St. in the left/through lane. V2 switched lanes before the signal and collided with V1.
1	77	8/29/2017	Tuesday	6:31 AM	No injury	Sideswipe, same direction	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	24	66		V1 was traveling WB on Summer St. and attempted a left turn onto SB Central Square. V2 was traveling EB on Main St. and attempted a right turn onto SB Central Square and then struck V1.
2	78	8/29/2017	Tuesday	7:53 PM	No injury	Rear-end	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Followed too closely)	42	24		V1 was traveling through the Central Square rotary and stopped for a pedestrian in the crosswalk as it was entering SB Bedford St. V2 was following V1 too closely and struck V1.
1	79	9/8/2017	Friday	12:42 PM	Non-fatal injury - Non- incapacitating	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Followed too closely)	46	24		V1 was traveling WB on Main St. V2 was following V1 too closely and struck V1. V2 was towed from the scene.
1	80	9/9/2017	Saturday	9:02 PM	No injury	Angle	Dark - lighted roadway	Clear/Cloudy	Dry	D1:(Other improper action) D2:(No improper driving)	39	18		V1 attempted a left turn onto SB Broad St. from the Broad St. Pub parking lot. However, there is no driveway here; so, V1 drove over the curb at the back of the sidewalk and the sidewalk to enter the roadway and make this illegal left turn. V2 was traveling SB on Broad St. and was struck by V1. D1 was arrested and V1 was towed from the scene.
2	81	9/13/2017	Wednesday	9:45 PM	No injury	Rear-end	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Followed too closely)	18	18		V1 was traveling EB on Central Square. V2 was also traveling EB on Central Square. V1 stopped for a pedestrian in the crosswalk. V2 did not stop and rear ended V1.
2	82	9/15/2017	Friday	9:45 AM	Non-fatal injury - Non- incapacitating	Rear-end	Daylight	Cloudy	Dry	D1:(No improper driving) D2:(No improper driving)	70	23		V1 was traveling SB on Central Square and stopped for a pedestrian in a crosswalk. V2 was also traveling SB on Central Square and did not stop, rear ending V1. D2 transported to the hospital.
1	84	9/27/2017	Wednesday	3:15 PM	Non-fatal injury - Non- incapacitating	Single vehicle crash	Daylight	Clear	Dry	D1:(Disregarded traffic signs, signals, road markings)	25			V1 was traveling NB on Broad St. and made an illegal left turn into the Cumberland Farms parking lot. A cyclist (age 13) was travelling NB on Broad St. sidewallk without a helmet (both illegal actions). V1 stopped in the crosswalk and the bicyclist crashed into V1.
1	85	10/4/2017	Wednesday	6:23 AM	No injury	Angle	Dawn	Clear	Dry	D1:(No improper driving) D2:(Unknown)	29	37		V1 and V2 were traveling WB on Summer St. V2 (large truck) gets in the left lane to make a wide right turn into a parking lot. V1 continues traveling straight in right lane. V2 strikes V1 as it executes wide right turn.
2	86	10/4/2017	Wednesday	9:52 PM	No injury	Single vehicle crash	Dark - lighted roadway	Clear/Snow	Dry	D1:(Physical impairment),(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner)	27			V1 was traveling NB on Bedford St and struck the median barrier while attempting to enter the rotary. V1 continued onto NB Central Square and entered the Bridgewater Common, striking the curb, the iron fencing, granite columns and uprooting a tree, and then re- entered the roadway.
2	87	10/23/2017	Monday	10:53 AM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Made an improper turn),(Failed to yield right of way)	26	27		V1 was traveling SB on Central Square and was traveling in the right lane. V2 was also traveling SB on Central Square and was in the left lane. V2 attempted to make a right turn into a parking space, crossing into the right lane and striking V1.
1	89	10/28/2017	Saturday	3:34 AM	No injury	Rear-end	Dark - lighted roadway	Clear/Cloudy	Dry	D1:(Unknown) D2:(Unknown)	22	24		Description based on diagram (no narrative available). V1 and V2 were traveling EB on Main Street. V2 slows because of traffic signal. V1 does not stop and rear ends V1.

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Sheet	Crash						Ambient	Weather	Road		Driver Ages				
Page	Diagram Ref #	Crash Date	Crash Day	Crash Time	Injury Status	Manner of Collision	Light	Condition	Surface	Driver Contributing Codes	Driver Ages			Comments	
	#	mm/dd/yyyy	Day	hh:mm		Туре	Туре	Туре	Туре	Туре	D1	D2	D3	D4	
1	90	10/31/2017	Tuesday	3:45 PM	No injury	Angle	Daylight	Clear	Dry	D1:(Unknown) D2:(Unknown)	19	19			V1 and V2 were traveling WB on Summer St. in a single lane stretch right before the designated turn lane begins for the intersection with Central Sq./Broad St. V1 was positioned in the left of the lane and V2 was positioned in the right of the lane. V1 attempted to turn right into the Bank parking lot at which point V1 and V2 collided.
1	91	11/2/2017	Thursday	1:54 PM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Followed too closely)	35	24			V1 and V2 were traveling SB on Broad St. V1 stopped due to traffic at the intersection with Central Square. V2 did not stop and rear ended V1 (claiming lack of visibility due to solar glare).
1	92	11/6/2017	Monday	4:44 PM	No injury	Rear-end	Dark - lighted roadway	Clear	Wet	D1:(No improper driving) D2:(Followed too closely) D3:(No improper driving)	26	46	33		V1, V2, and V3 were traveling SB on Broad St. V1 and V3 were stopped in traffic at the signal. V2 did not stop and rear ended V1. V1 was then pushed into V3.
1	93	11/17/2017	Friday	4:36 PM	No injury	Angle	Dark - lighted roadway	Clear	Dry	D1:(No improper driving)	50	1			V1 was traveling WB on Summer St. A pedestrian (age 73) tried to run across Summer St. and was struck by V1. It should be noted that the pedestrian was not crossing in a crosswalk and was wearing dark clothes. The pedestrian was transported to a hospital.
1	94	11/28/2017	Tuesday	4:18 PM	No injury	Sideswipe, same direction	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	22	39			V1 was traveling EB on Summer St and attempted to make a left turn to the Sovereign Bank parking lot. V1 then noticed a Do Not Enter sign and re-entered the lane of travel. V2 was also traveling EB on Summer St. and attempted to pass V1 on the right (despite only one lane of travel in this location) and struck V1. V2 was towed from the scene.
1	95	1/9/2018	Tuesday	11:36 AM	No injury	Sideswipe, same direction	Daylight	Clear	Wet	D1:(Other improper action) D2:(No improper driving)	25	29			V2 was traveling NB on Broad St. V1 was parked in front of 51 Broad St. and attempted to enter the NB travel lane and struck V2.
2	97	2/14/2018	Wednesday	8:36 AM	No injury	Rear-end	Daylight	Cloudy	Dry	D1:(Followed too closely) D2:(No improper driving)	33	23			V1 and V2 were traveling SB on the Central Square Rotary. V2 stopped to allow a pedestrian through the crosswalk. V1 did not stop, rear ending V2. V1 was towed from the scene.
1	98	2/25/2018	Sunday	11:56 PM	Non-fatal injury - Possible	Angle	Dark - lighted roadway	Clear	Wet	D1:(No improper driving) D2:(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner),(Failure to keep in proper lane or running off road)	30	42			V1 was traveling WB on Summer St. V2 was traveling EB on Main St. and attempted to make a left turn on to Broad St. V2 struck V1. Both vehicles were towed from the scene. D1 transported to hospital. D2 was arrested for driving under the influence.
1	99	3/9/2018	Friday	12:49 PM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	67	17			V1 was traveling EB on Main St. V2 was traveling WB on Main St. V2 attempted a left turn into the Bridgewater Savings Bank parking lot and struck V1.
1	100	3/23/2018	Friday	6:53 AM	No injury	Rear-end	Daylight	Clear	Ice	D1:(Followed too closely) D2:(No improper driving)	25	17			V1 and V2 were traveling EB on Main St. V2 slowed down due to traffic. V1 did not stop, rear ending V2. V1 was towed from the scene.
2	102	4/3/2018	Tuesday	9:34 AM	No injury	Angle	Daylight	Clear	Dry	D1:(Failed to yield right of way) D2:(No improper driving)	23	25			Hit and Run. V1 was traveling WB on School St. into the Central Square Rotary. V2 was in the Central Square Rotary stopped in traffic. V1 attempted to squeeze into the rotary between V2 and another vehicle, colliding with V2 in the process. V1 did not stop for the crash and continued to travel. D2 obtained the license of V1 and reported the incident.
2	103	4/11/2018	Wednesday	10:42 PM	No injury	Single vehicle crash	Dark - lighted roadway	Clear	Dry	D1:(Swerving or avoiding due to wind, slippery surface, vehicle, object, non-motorist in roadway, etc),(Inattention)	66				V1 was traveling SB on Broad St. and entered the Central Square Rotary. Two pedestrians were in the crosswalk, and V1 swerved to avoid them, striking a curb.
2	104	4/23/2018	Monday	12:53 PM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Other improper action)	50	22			V1 and V2 were traveling NB on South St. V1 slowed for traffic in the Central Square Rotary. V2 did not stop in time, rear ending V1.
1	105	4/24/2018	Tuesday	9:08 AM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	22	37			V1 was traveling EB on Main St. V2 was exiting the Cumberland Farms parking lot and attempted to make a left turn onto EB Main St. and struck V1. Both vehicles were towed from the scene.
1	107	5/1/2018	Tuesday	2:58 PM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Inattention)	53	39			V1 was traveling NB on Central Square, stopped in the left turn lane at the signal with Summer St./Main St. V2 was stopped behind V1. The NB through signal turned green while the NB left signal remained red. V2 thought both signals were green and rear ended V1.
1	108	5/2/2018	Wednesday	7:32 PM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(No improper driving) D3:(Followed too closely)	25	67	30		V1, V2, and V3 were traveling WB on Summer St. V1 and V2 were stopped for traffic. V3 did not stop and rear ended V2. V2 was then pushed ino V1.
2	110	6/7/2018	Thursday	2:18 PM	Non-fatal injury - Possible	Rear-end	Daylight	Clear	Dry	D1:(Followed too closely) D2:(No improper driving)	19	49			V1 and V2 were traveling NB on Bedford St. V2 was stopped in traffic approaching the Central Square Rotary. V1 did not stop, rear ending V2.
2	111	6/15/2018	Friday	11:35 AM	Non-fatal injury - Non- incapacitating	Rear-end	Daylight	Cloudy	Dry	D1:(No improper driving) D2:(Followed too closely)	32	33			V1 was traveling NB through the Central Square Rotary and stopped for traffic. V2 was also traveling NB through Central Square but did not stop in time, rear ending V1. D1 transported to the hospital.

^{*}Courtesy Crash - A term used to describe a crash that occurs subsequent to a non-involved mainline driver who gives the right of way, contrary to the rules of the road, to another driver.

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	Crash													
Sheet Page	Diagram Ref #	Crash Date	Crash Day	Crash Time	Injury Status	Manner of Collision	Ambient Light	Weather Condition	Road Surface	Driver Contributing Codes		Orive	Ages	Comments
	#	mm/dd/yyyy	Day	hh:mm		Туре	Туре	Туре	Туре	Туре	D1	D2	D3 I	04
1	113	6/23/2018	Saturday	8:56 PM	No injury	Angle	Dark - lighted roadway	Clear	Dry	D1:(No improper driving)D2:(Other improper action)		23		V1 was parked in front of 16 Broad St. facing SB. V2 was attempting to turn around and backed into V1.
1	114	7/9/2018	Monday	5:19 PM	No injury	Sideswipe, opposite direction	Daylight	Clear/Cloudy	Dry	D1:(Other improper action) D2:(Other improper action)	66	21		V1 was traveling SB on Broad St. and attempted to make a left turn into the Walgreens access road. V2 was exiting the Walgreens access road and was making a right turn onto NB Broad St. V1 and V2 collided during these turning movements.
1	115	7/12/2018	Thursday	10:24 AM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Followed too closely)	66	20		V1 was traveling SB on Broad St. and was stopped in traffic. V2 was also traveling SB on Broad St. and did not stop, rear ending V1.
2	116	7/22/2018	Sunday	4:53 PM	No injury	Sideswipe, same direction	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failure to keep in proper lane or running off road)	49	67		Both V1 and V2 were traveling NB through the Central Square Rotary. V1 was traveling in the left lane and V2 was traveling in the right lane. V2 then attempted to switch from the right lane into the left lane, striking V1.
1	117	7/26/2018	Thursday	2:08 PM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	23	21		V1 was traveling WB on Main St. V2 was traveling EB on Main St. and attempted a left turn into the Cumberland Farms parking lot before colliding with V1. Both vehicles were towed from the scene.
1	119	8/8/2018	Wednesday	12:39 AM	Non-fatal injury - Possible	Rear-end	Dark - lighted roadway	Clear	Dry	D1:(Other improper action)	22			V1 was traveling NB on Broad St. V2 was also traveling NB on Broad St. D1 and D2 got into a verbal argument and V2 stopped suddenly to "break check" V1. V1 then rear ended V2. D1 self transported to hospital. V2 was not at scene.
2	120	9/7/2018	Friday	1:03 PM	No injury	Single vehicle crash	Daylight	Clear	Dry	D1:(Inattention)	42			V1, a tractor trailer, was traveling in the Central Square Rotary and attempted to negotiate the turn, but the rear tires struck the guardrail and walkway.
2	121	9/8/2018	Saturday	9:20 AM	Non-fatal injury - Possible	Angle	Daylight	Cloudy	Dry	D1:(Other improper action),(Failed to yield right of way)	20	29		V1 was traveling NB on South Street and entered the Central Square Rotary. V1 exited the rotary onto EB School Street and struck a bicyclist in the crosswalk. Bicyclist was transported to the hospital.
1	122	9/9/2018	Sunday	6:56 AM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	26	22		V1 was traveling WB on Summer St. V2 was traveling EB on Main St. and attempted to make a left turn onto Broad St and struck V1. Both vehicles were towed from the scene.
2	124	9/11/2018	Tuesday	8:21 PM	Non-fatal injury - Incapacitating	Rear-end	Dark - lighted roadway	Clear	Dry	D1:(History heart/epilepsy/fainting) D2:(No improper driving) D3:(No improper driving)	44	21	28	V1 was traveling SB in the Central Square Rotary. V2 was also traveling SB in the Central Square Rotary. V1 rear ended V2. V2 then stopped, V1 passed on the right and struck a traffic island. V1 then bounced off the traffic island and continued traveling SB onto South Street and rear-ended V3 and then struck a utility pole on the right side of the road.
2	125	9/20/2018	Thursday	9:18 AM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	36	21		V1 was traveling EB through the Central Square Rotary, intending to exit onto EB School St. V2 was traveling NB on Bedford St., entered the rotary, and struck V1.
1	127	9/27/2018	Thursday	4:56 PM	No injury	Angle	Daylight	Clear	Dry	D1:(Failed to yield right of way) D2:(No improper driving)	25	25		V1 was traveling WB on Main St. V2 was traveling EB on Main St. V1 attempted to make a left turn into the Bridgewater Savings Bank parking lot before being struck by V1. Heavy traffic on Main St. EB caused sight issues for both vehicles.
1	128	9/28/2018	Friday	12:48 PM	No injury	Rear-end	Daylight	Rain	Wet	D1:(No improper driving) D2:(Followed too closely)	57	24		V1 was traveling NB on Central Square and was stopped in traffic at the Main/Summer St. signal. V2 was also traveling NB on Central Square but did not stop in time, rear ending V1.
1	129	10/6/2018	Saturday	4:59 PM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	22	58		V1 was traveling WB on Summer St. and attempted a left turn onto SB Central Square. V2 was traveling EB on Main St. and attempted a right turn onto SB Central Square. Both vehicles collided.
1	130	10/10/2018	Wednesday	7:24 AM	No injury	Rear-end	Daylight	Clear	Dry	D1:(Followed too closely) D2:(No improper driving)	21	22		V2 was traveling EB on Main St. V1 was following V2 too closely and rear ended V2.
1	131	10/22/2018	Monday	6:35 PM	No injury	Sideswipe, same direction	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Failure to keep in proper lane or running off road)	34	63		V1 was traveling EB on Main St. in the left/through lane. V2 was traveling EB on Main St. in the right lane. V2 attempted to move into the left lane and struck V1.
1	132	11/2/2018	Friday	8:17 AM	No injury	Rear-end	Daylight	Cloudy/Rain	Wet	D1:(No improper driving) D2:(No improper driving) D3:(Followed too closely)	36	26	39	V1, V2, and V3 were traveling EB on Summer St. V1 and V2 slowed with traffic. V3 failed to stop and struck V2. V2 was pushed into V1. V2 was towed from scene.
1	136	11/26/2018	Monday	5:04 PM	No injury	Angle	Dark - lighted roadway	Rain	Wet	D1:(No improper driving) D2:(Failed to yield right of way)	18	52		V1 was traveling WB on Summer St. V2 was traveling EB on Summer St. and attempted to make a left turn into the Walgreens parking lot. And struck V1. V1 was towed from scene.
1	137	12/9/2018	Sunday	9:58 PM	Non-fatal injury - Possible	Single vehicle crash	Dark - lighted roadway	Clear	Dry	D1:(Failed to yield right of way)	87			V1 was traveling SB on Broad St. and turned right into the Cumberland Farms parking lot. Pedestrian 1 (age 32) was crossing the parking lot and was struck by V1. The pedestrian was transported to the hospital.
1	138	12/11/2018	Tuesday	3:16 PM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	71	22		V1 was traveling EB on Main St. V2 was exiting the Cumberland Farms parking lot and attempted to make a left turn onto EB Main St. and struck V1.

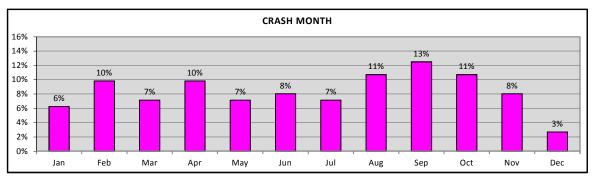
Summaries based on crash reports obtained from the Bridgewater Police Department.

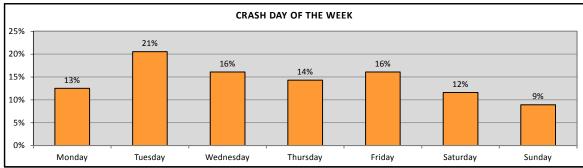
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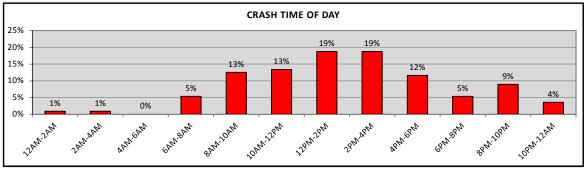
^{*}Courtesy Crash - A term used to describe a crash that occurs subsequent to a non-involved mainline driver who gives the right of way, contrary to the rules of the road, to another driver.

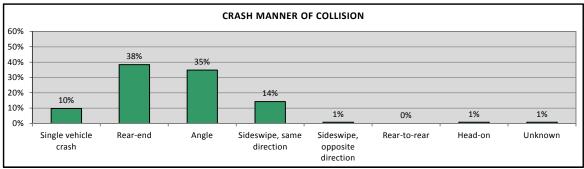
Crash Data Summary Charts Central Square

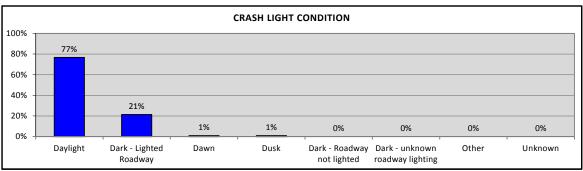
Bridgewater, MA







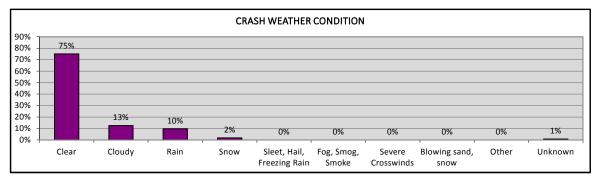


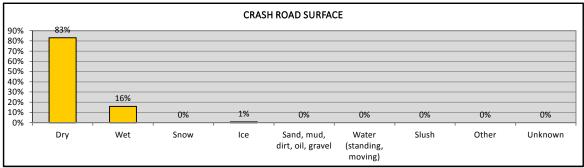


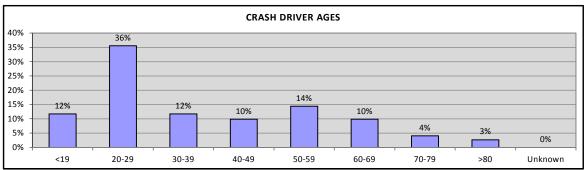


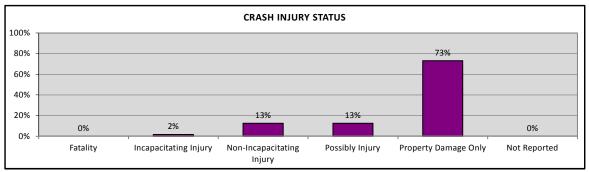
Crash Data Summary Charts Central Square

Bridgewater, MA











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2016-2018 Crash Data Summary Table Bedford Street at Grove Street Bridgewater, MA

	Crash														4	
Sheet Page	Diagram Ref #	Crash Date	Crash Day	Crash Time	Injury Status	Manner of Collision	Ambient Light	Weather Condition	Road Surface	Driver Contributing Codes		Driver Ages		es	Comments	
	#	mm/dd/yyyy	Day	hh:mm		Туре	Туре	Туре	Туре	Туре	D1	D2	D3	D4		
3	10	2/26/2016	Friday	2:32 PM	Non-fatal injury - Non- incapacitating	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Disregarded traffic signs, signals, road markings),(Failed to yield right of way)	27	73			V1 was traveling NB on Bedford St. V2 was traveling WB on Grove St. V2 failed to obey the stop sign on Grove St. V1 was not able to stop in time and struck V2 on its left rear side. Both vehicles were towed. D1 was transported to the hospital.	
3	15	3/28/2016	Monday	5:27 PM	Non-fatal injury - Possible	Angle	Daylight	Rain	Wet	D1:(No improper driving) D2:(Inattention)	52	49			V1 was traveling SB on Bedford St. V2 was traveling WB on Grove St. V2 failed to yield to V1 after stopping at the stop sign and struck V1. D2 claimed he stopped and did not see V1 until the collision occurred.	
3	19	4/7/2016	Thursday	4:42 PM	No injury	Angle	Daylight	Rain	Wet	D1:(No improper driving) D2:(Failed to yield right of way)	69	58			V1 was traveling NB on Bedford St. V2 was traveling WB on Grove St. V2 struck V1 on the rear side as it was turning right onto Bedford Street from Grove street. D2 claimed that the gas pedal was mistakenly pressed instead of the brake pedal.	
3	26	5/6/2016	Friday	3:31 PM	No injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(No improper driving) D3:(Inattention)	18	18	21		V1, V2, and V3 were traveling SB on Bedford Street. V3 drove into the back of V2. V2 was then forced into V1. V3 towed from scene.	
3	27	5/11/2016	Wednesday	11:52 AM	Non-fatal injury - Non- incapacitating	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Disregarded traffic signs, signals, road markings),(Inattention)	81	. 21			V1 was traveling NB on Bedford St. V2 was traveling WB on Grove St and failed to stop at the stop sign at the intersection. V2 drove into the passenger side of V1. D1 transported to the hospital.	
3	34	7/14/2016	Thursday	2:19 PM	No injury	Angle	Daylight	Rain	Wet	D1:(Failed to yield right of way) D2:(No improper driving)	16	58			V2 was traveling SB on Bedford St. V1 was traveling WB on Grove St and failed to stop at the stop sign, entered the intersection, and collided with V2. V2 was towed from the scene.	
3	36	7/21/2016	Thursday	10:48 AM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	52	70			V1 was traveling SB on Bedford St. V2 was traveling WB on Grove St. V2 stopped at stop sign, then proceeded to enter the intersection and struck V1.	
3	45	10/3/2016	Monday	5:08 PM	Non-fatal injury - Possible	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Distracted)	27	35			V1 and V2 were traveling SB on Bedford St. V1 was stopped in traffic. D2 was distracted by GPS unit and did not stop and struck the rear end of V1. D1 transported to hospital. V1 towed from scene.	
3	52	11/8/2016	Tuesday	4:10 PM	No injury	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	42	54			V1 was traveling SB on Bedford St. V2 was traveling WB on Grove St and attempted to cross over Bedford St. V2 view was blocked by traffic traveling NB on Bedford St and was struck by V1.	
3	57	2/1/2017	Wednesday	4:20 PM	Non-fatal injury - Non- incapacitating	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	50	29			V1 was traveling NB on Bedford St. V2 was traveling WB on Grove St. stopped at the stop sign. V2 proceeded to enter the intersection and struck V1.	
3	61	2/24/2017	Friday	12:05 PM	Non-fatal injury - Possible	Angle	Daylight	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	47	22			V1 was traveling SB on Bedford St. V2 was traveling WB on Grove St. V2 attempted to cross Bedford St. and was struck by V1. V1 and V2 towed from scene. D1 transported to hospital.	
3	66	4/27/2017	Thursday	4:44 PM	No injury	Angle	Daylight	Clear/Cloudy	Dry	D1:(No improper driving) D2:(Failed to yield right of way)	31	. 84			V1 was traveling SB on Bedford St. V2 was traveling WB on Grove St. V2 attempted to cross Bedford St and struck V1. Both vehicles were towed from the scene.	
3	72	7/12/2017	Wednesday	4:16 PM	Non-fatal injury - Non- incapacitating	Angle	Daylight	Clear/Rain	Wet	D1:(No improper driving) D2:(Failed to yield right of way)	17	24			V1 was traveling SB on Bedford St. V2 was traveling WB on Grove St. V2 attempted to cross Bedford St. and struck V1. Both vehicles were towed from the scene.	
3	83	9/26/2017	Tuesday	7:26 AM	No Injury	Rear-end	Daylight	Clear	Dry	D1:(No improper driving) D2:(Followed too closely)	53	29			V1 and V2 were traveling NB on Bedford St. V1 slowed due to traffic ahead, V2 did not slow and rear ended V1.	
3	88	10/26/2017	Thursday	9:29 AM	Non-fatal injury - Incapacitating	Angle	Daylight	Cloudy/Rain	Wet	D1:(Visibility obstructed),(Other improper action) D2:(No improper driving)	81	. 44			V1 was traveling WB on Grove St. V2 was traveling SB on Bedford St. V1 proceeded across Bedford St. and struck V2.	
3	96	2/6/2018	Tuesday	6:18 PM	No injury	Angle	Dark - lighted roadway	Clear	Dry	D1:(No improper driving) D2:(Failed to yield right of way),(No improper driving)	43	20			V1 was traveling NB on Bedford St. V2 was traveling WB on Grove St. and attempted to cross Bedford St. and struck V1. D2 claims that another vehicle was in the left lane on WB Grove St. and pulled further into traffic, blocking sightlines.	
3	101	3/23/2018	Friday	7:33 AM	No injury	Angle	Daylight	Clear	Wet	D1:(Failed to yield right of way) D2:(No improper driving)	19	52			V1 was traveling WB on Grove St stopped at the stop sign. V2 was traveling NB on Bedford St. V1 then attempted to cross Bedford St. and struck V2.	
3	106	4/26/2018	Thursday	9:23 AM	Non-fatal injury - Non- incapacitating	Rear-end	Daylight	Clear	Wet	D1:(No improper driving) D2:(No improper driving) D3:(Followed too closely)	60	19	21		V1, V2, and V3 were traveling SB on Bedford St. V1 and V2 were stopped with traffic at a marked crosswalk. V3 failed to stop and rear ended V2. V2 was pushed into V1. V2 and V3 were towed from the scene.	
3	109	6/1/2018	Friday	4:16 PM	No injury	Angle	Daylight	Rain	Wet	D1:(No improper driving) D2:(Failed to yield right of way)	24	55			V1 was traveling SB on Bedford St. V2 was traveling WB on Grove St and was stopped at the stop sign. V2 then attempted to cross over Bedford St, did not see V1, and struck V1.	
3	112	6/23/2018	Saturday	1:57 PM	Non-fatal injury - Incapacitating	Angle	Daylight	Clear	Dry	D1:(Distracted),(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner) D2:(No improper driving) D3:(No improper driving) D4:(No improper driving)	18	23	45	23	V1 was traveling WB on Grove St. and continued through stop sign at Bedford St at 30 mph. V2 was traveling NB on Bedford St. and V3 was traveling SB on Bedford St. V1 first struck V2, then struck V3. Both collisions caused V1 to begin spinning and V1 then struck V4, who was traveling NB on Bedford St. and was slowing down for traffic. D4 was transported to hospital. All vehicles were towed from the scene.	

^{*}Courtesy Crash - A term used to describe a crash that occurs subsequent to a non-involved mainline driver who gives the right of way, contrary to the rules of the road, to another driver.

8/22/2019

2016-2018 Crash Data Summary Table Bedford Street at Grove Street Bridgewater, MA

Sheet Page	Crash Diagram Ref #	Crash Date	•	Crash Time	Injury Status	Manner of Collision	Ambient Light	Weather Condition	Road Surface	Driver Contributing Codes			Ages	Comments
	#	mm/dd/yyyy	Day	hh:mm		Туре	Туре	Туре	Туре	Туре	D1	D2	D3 D4	
3	118	7/29/2018	Sunday	10:21 PM	No injury	Angle	Dark - lighted roadway	Clear	Drv	D1:(No improper driving) D2:(Other improper action)	22	23		V1 was traveling NB on Bedford St. V2 was traveling WB on Grove St. and did not stop properly at the stop sign, entering the intersection with Bedford St. and colliding with V1. V1 was towed from scene.
3	123	9/10/2018	Monday	5:05 PM	No injury	Angle	Daylight	Rain	Wet	D1:(Failed to yield right of way) D2:(No improper driving)	56	60		V1 was traveling WB on Grove St. and stopped at the stop sign at the intersection with Bedford St. V2 was traveling SB on Bedford St. V1 then attempted to cross Bedford St. and struck V2. Bedford St. NB traffic was backed up, causing sight issues. Both vehicles were towed from the scene.
3	126	9/26/2018	Wednesday	12:06 PM	Non-fatal injury - Possible	Angle	Daylight	Cloudy	Drv	D1:(No improper driving) D2:(Failed to yield right of way)	56	71		V1 was traveling SB on Bedford St. V2 was traveling WB on Grove St and attempted to cross Bedford St. and struck V1. D1 transported to hospital. V1 was towed from the scene.
3	133	11/6/2018	Tuesday	9:17 PM	Non-fatal injury - Possible	Single vehicle crash	Dark - lighted roadway	Cloudy/Rain	Wet	D1:(Visibility obstructed)	19			V1 was traveling WB on Grove St and turned left onto Bedford St. SB. V1 then struck a pedestrian (age 72) in the crosswalk. V1 did not see the pedestrian, claiming the pedestrian was in his blind spot.
3	134	11/8/2018	Thursday	12:32 PM	Non-fatal injury - Possible	Angle	Daylight	Clear	Drv	D1:(Failed to yield right of way) D2:(No improper driving)	25	33		V1 was traveling WB on Grove St. and was stopped at the stop sign at Bedford St. and attemped to cross Bedford St. from the left turn only lane. V2 was traveling SB on Bedford St. and was struck by V1.
3	135	11/17/2018	Saturday	11:10 AM	No injury	Angle	Daylight	Clear	Drv	D1:(No improper driving) D2:(Other improper action)	59	26		V1 was traveling SB on Bedford St. V2 was traveling WB on Grove St. V2 attempted to cross Bedford St. and struck V1.
3	139	12/12/2018	Wednesday	2:25 PM	Non-fatal injury - Non- incapacitating	Angle	Daylight	Clear		D1:(No improper driving) D2:(Failed to yield right of way)	26	18		V1 was traveling NB on Bedford St. V2 was traveling WB on Grove St. V2 then attempted to cross Bedford St. and struck V1. D2 was transported to hospital. Both vehicles were towed from the scene.

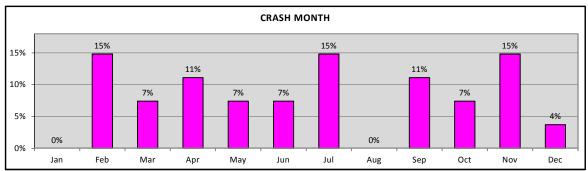
Summaries based on crash reports obtained from the Bridgewater Police Department.

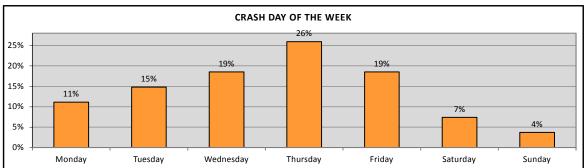
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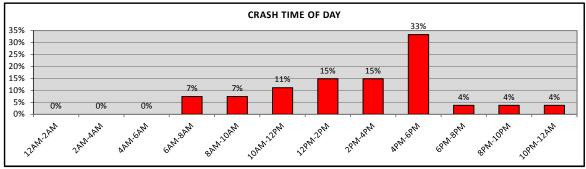
^{*}Courtesy Crash - A term used to describe a crash that occurs subsequent to a non-involved mainline driver who gives the right of way, contrary to the rules of the road, to another driver.

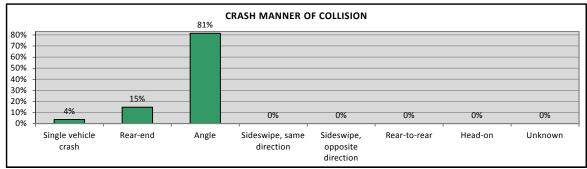
Crash Data Summary Charts Bedford Street at Grove Street

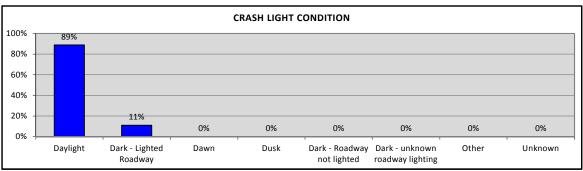
Bridgewater, MA









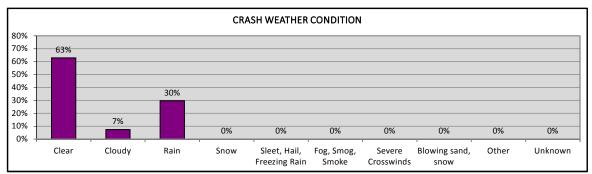


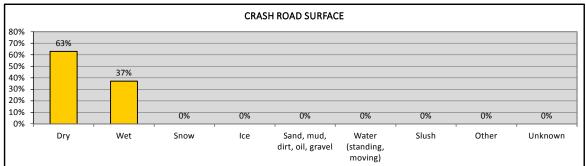


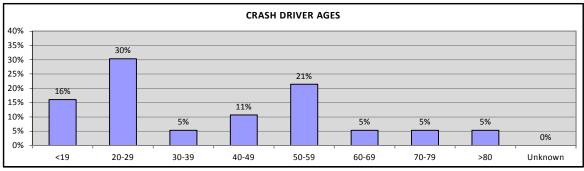
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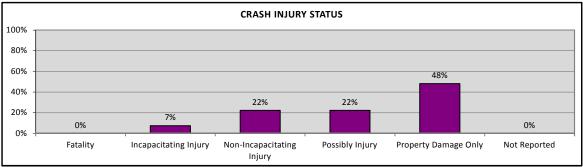
Crash Data Summary Charts Bedford Street at Grove Street

Bridgewater, MA











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