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Boston Region Vision Zero Action Plan: A Roadmap to Safer Streets

This document is draft and has not gone through the internal editorial review process.



Table of Contents

1. Introduction.....	1
What is the Vision Zero Action Plan?.....	1
What is Vision Zero?	2
Safe Streets and Roads for All (SS4A)	3
2. How the Plan was Developed	4
Process to Prepare the Plan	4
Relation to Other Safety Plans.....	5
3. Safety Analysis	6
Key Crash Trends and Emphasis Areas	6
High-Injury and High-Risk Networks	11
4. Public and Stakeholder Engagement.....	30
Engagement Strategy and Goals.....	30
Vision Zero Task Force	33
Who We Heard From	34
Engagement Takeaways.....	36
5. Strategies, Policies, Countermeasures, and Plan Implementation	39
Proven Safety Countermeasures and Best Practices.....	39
Funding for Implementation	40
Policies that Require Legislative Changes.....	41
Vision Zero Action Plan Strategies	41
Other Strategies for the Boston Region	55
6. Progress and Transparency	57
Boston Region MPO’s Role in Improving Transportation Safety	57
7. Next Steps	59
Appendix A: Terms and Acronyms.....	A-1
Appendix B: Existing Conditions	B-1
Appendix C: High-Injury Network and Demographic Analysis	C-1
Appendix D: Systemic Analysis	D-1
Appendix E: Municipality Profiles	E-1

Appendix F: Public and Stakeholder Engagement Summary	F-1
Appendix G: Policy and Process Analysis	G-1
Appendix H: Plan Strategies and Countermeasures	H-1
Appendix I: Progress Reporting	I-1
Appendix J: Safe Streets and Roads for All Checklist	J-1

DRAFT

List of Tables

Table 2.1 Relation to Other Strategic Safety Plans.....	5
Table 3.1 Emphasis Areas	9
Table 3.2 Crash Scores by Severity.....	12
Table 3.3 Network Screening Elements	16
Table 3.4 High-Scoring Locations in the ICC Subregion	19
Table 3.5 High-Scoring Locations in the MAGIC Subregion	20
Table 3.6 High-Scoring Locations in the MetroWest Subregion	21
Table 3.7 High-Scoring Locations in the NSPC Subregion	22
Table 3.8 High-Scoring Locations in the NSTF Subregion.....	23
Table 3.9 High-Scoring Locations in the SSC Subregion	24
Table 3.10 High-Scoring Locations in the SWAP Subregion.....	25
Table 3.11 High-Scoring Locations in the TRIC Subregion.....	26
Table 4.1 Vision Zero Task Force Members	33
Table 4.2 Vision Zero Action Plan Engagement Activities	34
Table 5.1 Innovative Countermeasures and Strategies.....	56
Table 6.1 Vision Zero Action Plan Performance Metrics (All Roads).....	58
Table 6.2 Vision Zero Action Plan Performance Metrics (Interstates, Expressways, Other Fully Access-Controlled Roads, and Ramps).....	58

List of Figures

Figure 1.1 Safe System Approach Principles and Elements	3
Figure 2.1 Vision Zero Action Plan Development Process	4
Figure 3.1 Total Fatal and Serious Injury Crashes by Mode, 2018–2022	6
Figure 3.2 All Fatal and Serious Injury Crashes by Roadway Type, 2018–2022	7
Figure 3.3 All Fatal and Serious Injury Crashes by Road Ownership, 2018–2022	7
Figure 3.4 Fatal and Serious Injury Crashes by Collision Type, 2018–2022	8
Figure 3.5 Regional High-Injury Network	13
Figure 3.6 Regional High-Injury Network and Priority Transportation Investment Areas.....	15
Figure 3.7 Prioritized Regional High-Injury Network.....	17
Figure 3.8 Prioritized HIN in the ICC Subregion	19
Figure 3.9 Prioritized HIN in the MAGIC Subregion	20
Figure 3.10 Prioritized HIN in the MetroWest Subregion.....	21
Figure 3.11 Prioritized HIN in the NSPC Subregion	22
Figure 3.12 Prioritized HIN in the NSTF Subregion	23
Figure 3.13 Prioritized HIN in the SSC Subregion.....	24
Figure 3.14 Prioritized HIN in the SWAP Subregion	25
Figure 3.15 Prioritized HIN in the TRIC Subregion	26
Figure 3.16 High-Risk Network Example—Lane Departure Crashes	28
Figure 4.1 Engagement Timeline	32

About the Plan

Boston Region Vision Zero Action Plan

JUNE 26, 2025

This plan was funded in part through grants from the U.S. Department of Transportation (U.S. DOT). Its contents do not necessarily reflect the official views or policies of the U.S. DOT.

About the Boston MPO

The [Boston Region Metropolitan Planning Organization](#) (MPO) is responsible for conducting the federally required metropolitan transportation planning process for the Boston metropolitan area. The MPO encompasses 97 cities and towns, covering approximately 1,360 square miles and stretching from Boston to Ipswich in the north, Marshfield in the south, and to approximately Interstate 495 in the west. Cooperatively selecting transportation programs and projects for funding is a role of the MPO's 23 voting [members](#), which includes state agencies, regional entities, and municipalities. The work of the MPO is performed by the [Central Transportation Planning Staff](#) under the direction of the MPO Board. The MPO is composed of:



Permanent Members

- Regional Transit Authorities (represented by MetroWest Regional Transit Authority)
- Massachusetts Department of Transportation
- Metropolitan Area Planning Council
- Massachusetts Bay Transportation Authority
- Massachusetts Bay Transportation Authority (MBTA) Advisory Board
- Massachusetts Port Authority
- Regional Transportation Advisory Council
- City of Boston

Elected Members

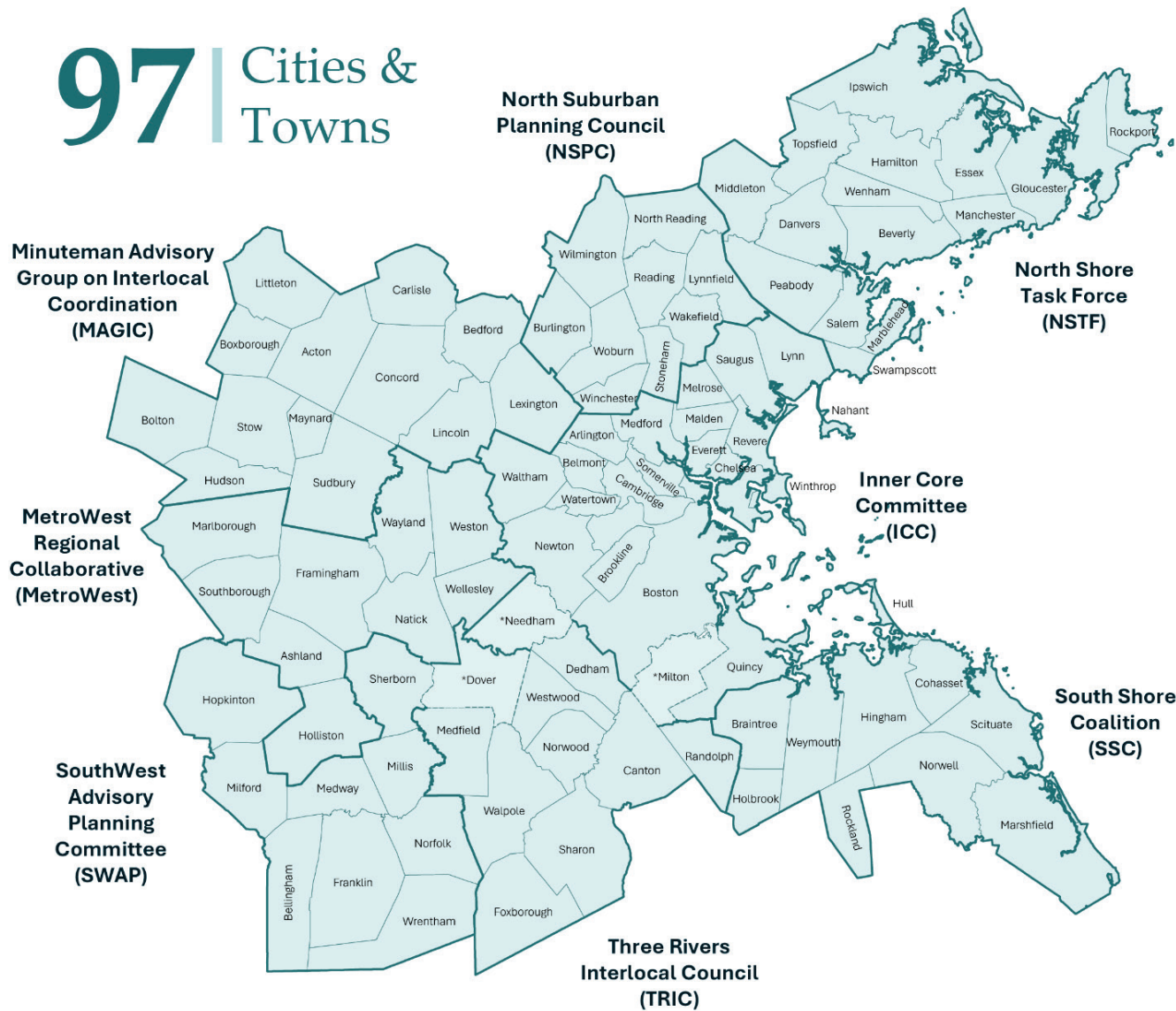
- At-Large City, City of Everett
- At-Large City, City of Newton
- At-Large Town, Town of Brookline
- At-Large Town, Town of Arlington

- Subregional Representative: North Shore Task Force, City of Beverly
- Subregional Representative: SouthWest Advisory Planning Committee, Town of Wrentham
- Subregional Representative: North Suburban Planning Council, Town of Burlington
- Subregional Representative: Three Rivers Interlocal Council, Town of Norwood
- Subregional Representative: Inner Core Committee, City of Somerville
- Subregional Representative: MetroWest Regional Collaborative, City of Framingham
- Subregional Representative: Minuteman Advisory Group on Interlocal Coordination, Town of Acton
- Subregional Representative: South Shore Coalition, Town of Hull

Nonvoting Members

- Federal Highway Administration
- Federal Transit Administration

97 | Cities & Towns



*Community is in more than one subregion: Dover is in TRIC and SWAP; Milton and Needham are in ICC and TRIC.

Acknowledgements

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BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

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

Message from the Chair and Executive Director

Dear Boston Region Residents and Visitors,

The Boston Region Vision Zero Action Plan is a response to persistent traffic crashes that have injured or killed members of our communities. The Boston Region Metropolitan Planning Organization (MPO) adopted an ambitious goal to reach zero traffic fatalities in the region by 2050. We have an obligation and a tremendous opportunity to improve our roadways, promote safe driving behavior, adopt policies focused on safety, and foster a culture of traffic safety that treats all road users with respect and dignity. Every crash is preventable, but to reach this goal will require collective effort from us all.

This Action Plan is built upon a paradigm shift in traffic safety—the Safe System Approach—which prioritizes human life and health by designing transportation systems that anticipate mistakes and reduce crash severity. To understand the region’s safety challenges, we analyzed a range of data and carefully gathered insights from stakeholders, partners, and the traveling public. Based on our findings, we developed a comprehensive plan to make strategic, impactful investments that will bring the Safe System Approach to our streets.

This Action Plan closely aligns with the MPO’s long-term vision and plan for transportation in the Boston region. At the heart of the vision is a commitment to do all that we can to make sure that everyone—whether walking, biking, riding public transit, or driving—can reach their destination safely. This Action Plan is designed to be relevant for all 97 cities and towns in our region, each with its own unique transportation needs and priorities.

We want to thank the MPO staff, the members of our board, and the members of our Vision Zero Task Force for their thoughtful contributions to this effort. We also want to thank residents and travelers across our region for their engagement and support. Traffic safety is a shared responsibility, and we look forward to continuing this work together as we pursue our Vision Zero goals.

Sincerely,

Digitally signed by David Mohler
Date: 2025.06.16 11:08:42 -04'00'

David Mohler
for Monica Tibbits-Nutt
Chair
Boston Region MPO

Digitally signed by Tegin Teich
Date: 2025.06.16 10:25:39 -04'00'

Tegin Teich
Executive Director
Central Transportation Planning Staff
Boston Region MPO

1 Introduction

What is the Vision Zero Action Plan?

In 2024, close to 40,000 people were killed in traffic crashes in the United States and hundreds of thousands more were seriously injured. This national roadway safety problem affects us in the Boston Region as well, where traffic crashes continue to kill or seriously injure over 1,000 people per year.



The Boston Region Metropolitan Planning Organization (MPO) believes that even one death on our roads is too many, that's why we're committed to Vision Zero. Vision Zero is an approach to roadway safety that's based on the assumption that serious traffic crashes are preventable. Together, we can change how we design, operate, and maintain our streets in order to make the region safe for all road users—whether you walk, roll, bike, ride transit, or drive.

The MPO's Long Range Transportation Plan (LRTP), [Destination 2050](#), sets a goal to achieve zero transportation-related fatalities and serious injuries and improve safety for all users of the transportation system:

destination
2050

- Eliminate fatalities, injuries, and safety incidents experienced by people who walk, roll, bike, ride transit, and drive.
- Prioritize investments that improve safety for the most vulnerable roadway users: people who walk, roll, bike, ride transit, and drive.
- Prioritize investments that eliminate disparities in safety outcomes for people in disadvantaged communities.

The Boston Region Vision Zero Action Plan reflects the MPO’s commitment to saving lives. This Action Plan builds on transportation planning and safety initiatives already undertaken in the region. This effort will help the MPO and its 97 municipalities navigate the future of roadway safety and communicate clearly with residents about how we can implement safety improvements necessary to achieve Vision Zero.

What is Vision Zero?

The traditional approach to roadway safety views traffic deaths and serious injuries as “inevitable side effects of modern life” ([Vision Zero Network](#)) and refers to these serious crashes as “accidents.” Vision Zero asks us to realize that we can, in fact, prevent serious crashes by proactively prioritizing traffic safety.

Traditional Approach

Traffic deaths are **INEVITABLE**
PERFECT human behavior
Prevent **COLLISIONS**
INDIVIDUAL responsibility
Saving lives is **EXPENSIVE**

vs.

Vision Zero

Traffic deaths are **PREVENTABLE**
Integrate **HUMAN FAILING** in approach
Prevent **FATAL** and **SEVERE CRASHES**
SYSTEMS Approach
Saving lives is **NOT EXPENSIVE**



Source: Vision Zero Network

Vision Zero recognizes that people will not act perfectly on our streets, and calls on elected officials, policy makers, engineers, planners, first responders, public health professionals, and others to integrate human mistakes into our safety work.

Vision Zero calls on us to work together, across disciplines, to improve roadway safety. There are many complex factors that contribute to roadway safety and safe mobility, including street design, vehicle speeds, roadway user behaviors, and vehicle technology. However, we can design roads, update policies, and implement new programs to lessen the severity of crashes. Reaching zero fatalities and serious injuries requires us to set goals and work on actions to implement change in all of these areas.

The Safe System Approach

While Vision Zero establishes the goal of zero deaths and serious injuries on our streets, the Safe System Approach, illustrated in Figure 1.1, provides a more detailed framework for how we reach that goal. The Safe System Approach aims to address and mitigate the risks inherent in the transportation system by building and reinforcing multiple layers of protection to both prevent crashes from happening in the first place and minimize the harm caused to those involved when crashes do occur.

This holistic and comprehensive strategy focuses both on human mistakes and vulnerability and promotes a system designed with many redundancies in place to protect all road users. The Safe System Approach also embraces all types of roadway safety countermeasures and acknowledges that a multi-disciplinary approach is required to address the full range of possible safety risks. Figure 1.1 shows how the five Safe System elements—safer people, safer vehicles, safer speeds, safer roads, and post-crash care—work together to create shared responsibility for the safety of all road users.

Figure 1.1 | Safe System Approach Principles and Elements



Safe Streets and Roads for All (SS4A)

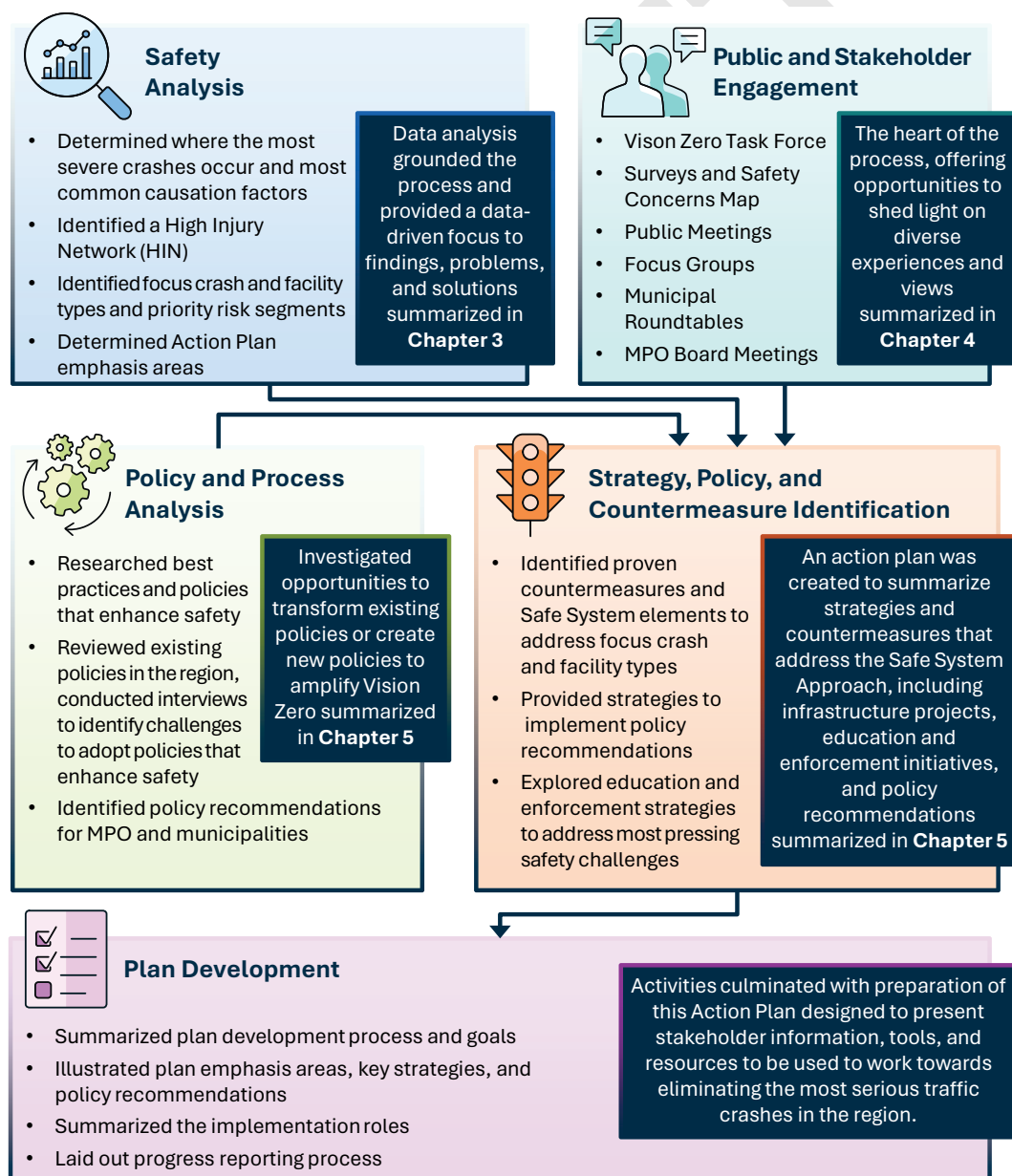
In 2023, the U.S. Department of Transportation (U.S. DOT) awarded the MPO a Safe Streets and Roads for All (SS4A) Planning and Demonstration Grant to develop a comprehensive roadway safety action plan. This Action Plan is the primary deliverable of this federal assistance and fully reflects the program's priorities. Appendix J includes a checklist that shows how this comprehensive safety action plan aligns with all Federal requirements for this grant program.

2 | How the Plan was Developed

Process to Prepare the Plan

The multistep process used by the MPO to develop this Action Plan is shown in Figure 2.1.

Figure 2.1 | Vision Zero Action Plan Development Process



Relation to Other Safety Plans

Several other transportation and safety plans were referenced during the creation of this Vision Zero Action Plan, as noted in Table 2.1.

Table 2.1 | Relation to Other Strategic Safety Plans

Resource	
Destination 2050	This Action Plan will address safety needs documented in the MPO's LRTP. The LRTP also sets a goal of achieving zero crash fatalities in the region by 2050.
MetroCommon 2050	This Action Plan is aligned with MAPC's 2021 regional land use and policy plan, which sets the goals of having safe transportation and healthy and safe neighborhoods.
Transportation Improvement Plan (TIP)	This Action Plan suggests priority corridors that could develop into projects funded through the MPO's capital plan.
Beyond Mobility	This Action Plan aligns with the needs and actions identified in Massachusetts' 2050 Transportation Plan.
Massachusetts Strategic Highway Safety Plan (SHSP)	This Action Plan's safety analysis, emphasis areas, and proposed strategies and countermeasures are consistent with the goals of MassDOT's SHSP.
Massachusetts Highway Safety Improvement Program (HSIP)	This Action Plan lists many infrastructure safety projects that may be eligible for support from MassDOT's HSIP.
Vision Zero Plans and Safety Studies by the region's cities and towns	<p>Several MPO members have developed their own Vision Zero Plans, many of which were consulted. This Action Plan provides additional projects and countermeasures that these cities and towns can adopt:</p> <ul style="list-style-type: none"> • Vision Zero Boston • Cambridge Vision Zero • Vision Zero Somerville • Everett Safety Action Plan • Salem Safe Streets for All Action Plan • Dedham Local Roads Safety Plan • Lynn Safety Action Plan • Weymouth Vision Zero Plan <p>Other municipalities are in the process of developing plans or demonstration projects, including Chelsea, Needham, Peabody, Quincy, and Watertown.</p>

3 | Safety Analysis

An in-depth safety analysis, provided as Appendix B, forms a critical foundation for this Vision Zero Action Plan. This analysis identified where and why crashes are occurring across the Boston region, helped the MPO to assess current safety performance, supported data-driven decision-making by stakeholders and the Vision Zero Task Force, and guided the development of targeted safety strategies.

Key Crash Trends and Emphasis Areas

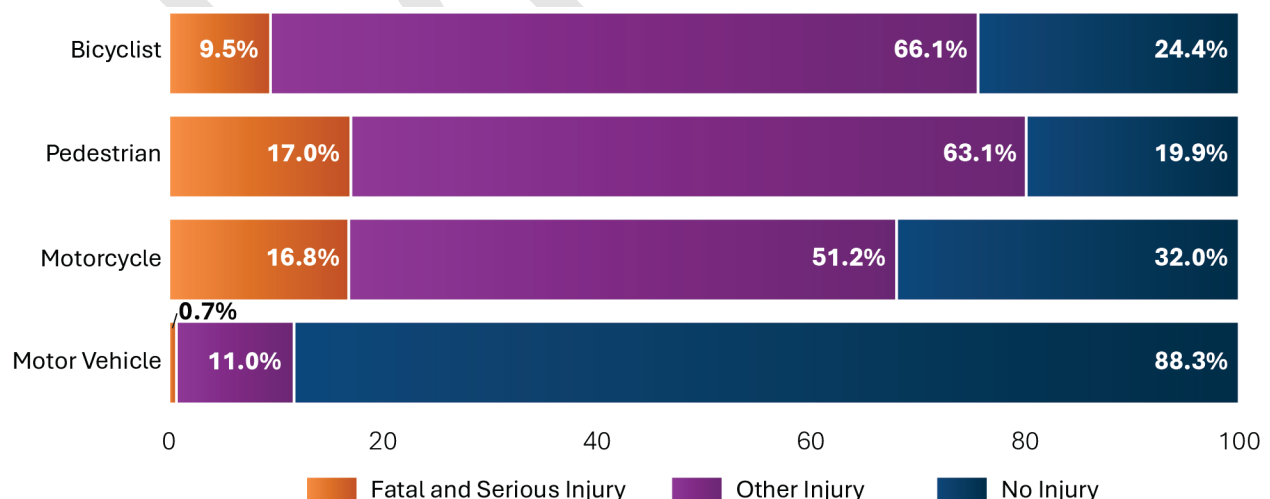
To better understand current crash patterns and the contributing factors associated with the most common and overrepresented crash types, the most recent five-year crash data were analyzed to help identify key factors that may contribute to future crashes.¹

Data Sources

1. Historical data (1980–2022) from the [U.S. DOT Fatality Analysis Reporting System \(FARS\)](#)
2. Most recent five years (2018–2022) of available data from the [MassDOT Open Data Portal](#) and the [MassDOT IMPACT tool](#)

As described in Chapter 1, nearly 1,000 people are killed or seriously injured in crashes in the region every year. Figure 3.1 shows the breakdown of fatal and serious injury crashes by mode from 2018 through 2022. Bicyclists, pedestrians, and motorcyclists are at significant risk for serious injury or death when involved in crashes with motor vehicles.

Figure 3.1 | Total Fatal and Serious Injury Crashes by Mode, 2018–2022



¹ The summaries in this section do not include crashes along Interstates, expressways, other fully access-controlled roadways, or ramps unless otherwise noted.

Crashes create costs that are born not just by victims and survivors but by our entire community in the form of insurance premiums, taxes, congestion-related costs, and workplace losses. From 2018 through 2022 in the Boston Region alone, crashes incurred an estimated total cost of \$26.5 billion, averaging around \$5.3 billion per year. Of that total, \$12.2 billion (or 46 percent) came from fatal and serious injury crashes.

By pinpointing where and how fatal and serious injury crashes happen, we can better understand the underlying causes of crashes.

Where are Crashes Happening?

Figure 3.3 shows that principle and minor arterials have the highest proportion of fatal and serious injury crashes. Crashes involving people walking, rolling, and bicycling are also more prevalent on principal and minor arterials—where fast vehicles and non-motorized traffic mix, often in a dangerous way.

Most roads are managed, or owned, by either a municipality, MassDOT, or the Department of Conservation and Recreation (DCR). Figure 3.4 shows that most fatal and serious injuries occur on locally owned roads. This suggests a significant proportion of improvements to advance safety are actionable by municipalities in the region.

Figure 3.2 | All Fatal and Serious Injury Crashes by Roadway Type, 2018–2022

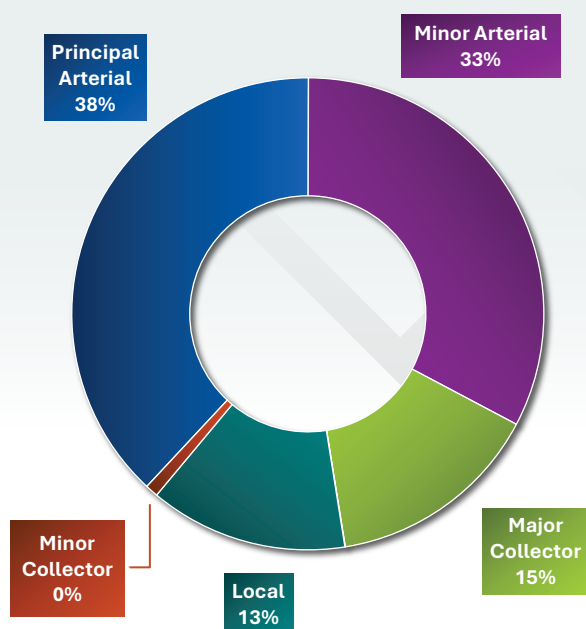
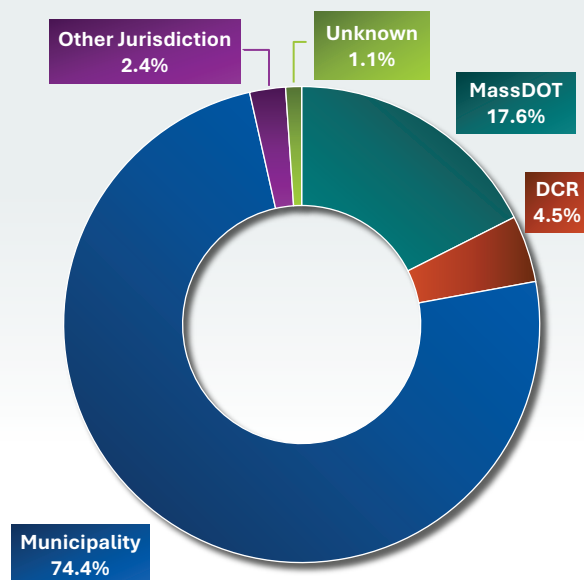


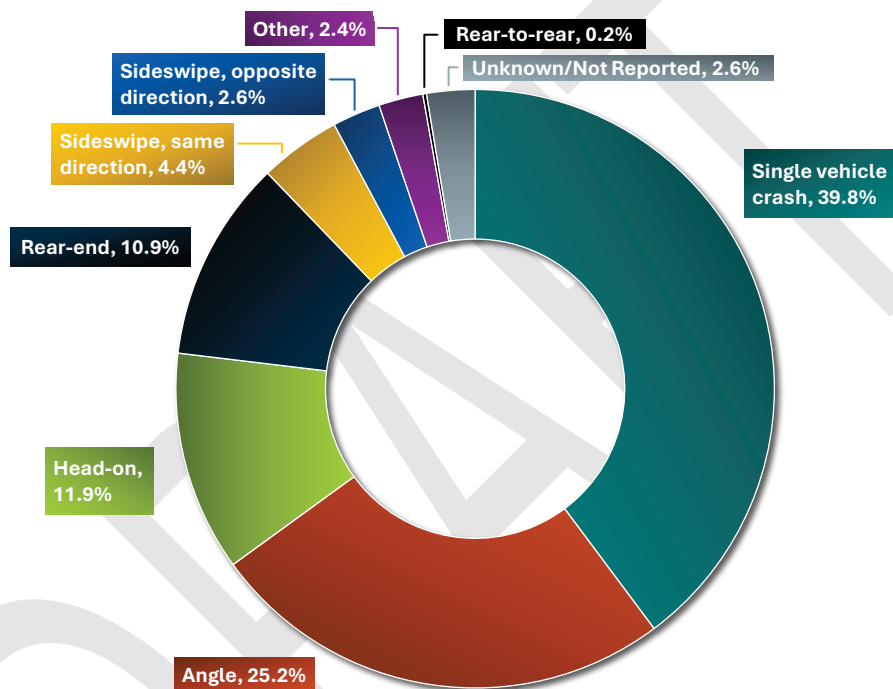
Figure 3.3 | All Fatal and Serious Injury Crashes by Road Ownership, 2018–2022



How are Crashes Happening?

Figure 3.4 illustrates that nearly 60 percent fatal and serious injury crashes involved two or more vehicles and approximately 40 percent were single vehicle crashes. Among single vehicle crashes resulting in a fatality or serious injury, the most common first harmful events were collisions with pedestrians at 35 percent.

Figure 3.4 | Fatal and Serious Injury Crashes by Collision Type, 2018–2022



The data also shows us that crashes that happen at night are disproportionately more likely to result in fatalities or serious injuries, often due to increased impaired driving and speeding.

Emphasis Areas

To further determine the major crash types this Action Plan should focus on, the MPO examined emphasis areas for the Commonwealth identified by the Massachusetts Highway Safety Improvement Program (HSIP), which offer a helpful framework for identifying common crash issues, analyzing contributing factors, and linking them with a set of targeted countermeasures and strategies.²

² Massachusetts Highway Safety Improvement Program, MassDOT. Source: <https://www.mass.gov/info-details/highway-safety-improvement-program>.

In Table 3.1, emphasis areas that are more prevalent in the region compared to the Commonwealth are highlighted in bold. Data in this table do not include crashes along Interstates, expressways, other fully access-controlled roadways, or ramps.

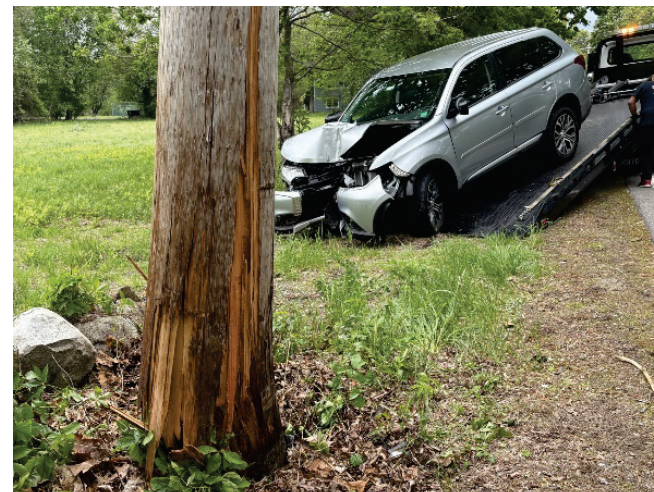
Table 3.1 | Emphasis Areas

Massachusetts HSIP Emphasis Area	Boston Region			Massachusetts	
	Number of Fatal and Serious Injury Crashes	% of Total Fatal and Serious Injury Crashes	Percent Change from 2018 to 2022	% of Total Fatal and Serious Injury Crashes	Percent Change from 2018 to 2022
Intersections	1,756	44.1%	7.0%	39.7%	15.6%
Lane Departure	842	21.1%	42.8%	25.9%	37.7%
Older Drivers	837	21.0%	23.5%	20.0%	18.5%
Pedestrians	781	19.6%	-3.9%	14.9%	11.0%
Younger Drivers	449	11.3%	53.7%	12.7%	52.2%
Motorcyclists	424	10.6%	62.9%	14.5%	58.6%
Distracted Driving	314	7.9%	36.5%	8.9%	23.4%
Bicyclists	300	7.5%	92.3%	5.1%	60.9%
Impaired Driving	277	6.9%	23.9%	8.3%	48.0%
Large Vehicles	215	5.4%	20.0%	5.3%	27.2%
Speeding	205	5.1%	90.6%	6.6%	84.8%
Occupant Protection	182	4.6%	37.5%	4.8%	15.0%

Source: Data Query and Visualization from MassDOT IMPACT Portal.

Note: Percentages bolded are greater than the corresponding percentage in the entire Commonwealth of Massachusetts. Data in Table 3.1 does not include crashes along Interstates, expressways, other fully access-controlled roadways, or ramps.

Based on the prevalence and overrepresentation in the region's fatal and serious injury crashes, the increasing rates of crashes observed over the past five years, and stakeholder input, **Intersections, Lane Departure, Vulnerable Road Users, Older Drivers, Speeding, and Large Vehicles** emerged as key Emphasis Areas (EA) for this Plan. These areas guide the focus of strategies and actions outlined below.





Intersection-Related Crashes: Intersection-related crashes were the most common type of fatal and serious injury crashes from 2018 to 2022, contributing to 44 percent of the region's total. Particularly, crashes at four-way intersections and T-intersections accounted for the majority (94 percent) of fatal and serious injury intersection crashes.



Vulnerable Road User-Involved Crashes: From 2018 to 2022, while these crashes accounted for only 5 percent of total roadway crashes, they made up 27 percent of fatal and serious injury crashes within the region. Compared to other road users, Vulnerable Road Users were eight times more likely to be killed or seriously injured in a crash. The inclusion of this EA is further supported by the Vision Zero emphasis on these road users.



Lane Departure Crashes: Lane departure fatal and serious injury crashes increased steadily from 138 in 2018 to 197 in 2022, representing a 43 percent rise over five years. These crashes were often correlated with instances of impaired driving and speeding, emphasizing the importance of context-sensitive roadway design and awareness efforts targeting these high-risk behaviors.



Older Driver-Involved Crashes: Key risk factors associated with older drivers are age-related declines in physical and cognitive function, underlying medical conditions, individual driving habits, and limitations in roadway design and vehicle features. The older driver EA has one of the largest shares (21 percent) of all fatal and serious injury crashes between 2018 and 2022. Older drivers crashes are also overrepresented in the region compared to the rest of the Commonwealth.



Speeding-Related Crashes: The region experienced a substantial increase of 91 percent in speeding-related fatal and serious injury crashes from 2018 to 2022, one of the fastest growing areas of concern. Speeding is a key issue identified by many stakeholders.



Large Vehicle-Involved Crashes: Those involved in crashes involving large vehicles faced a particularly high risk of fatal or serious injury when not wearing seatbelts or those traveling at night. Other potential contributing coincidental factors included a lack of lane separation, high posted speed limits, and inadequate roadway lighting. Many stakeholders identified large vehicle safety as a key issue.

High-Injury and High-Risk Networks

The MPO carried out a network screening to identify and classify sites with road safety risks using a two-part approach. By addressing both specific and systemic safety needs, we build a Safe System through identification of a High Injury Network (HIN) and High-Risk Network (HRN).

High-Injury Network (HIN)

A **crash data-based approach** that identifies locations with the **highest concentrations of past fatal and serious injury crashes** based on historical crash data. This method targets locations with the **greatest potential for safety improvement** and supports site-specific safety issue diagnosis and countermeasure development.

High-Risk (Systemic) Network (HRN)

A **proactive approach** that focuses on **sites with the highest risk of future fatal and serious injury crashes** based on the **presence of contributing risk factors** from a systemwide perspective. This method enables **the implementation of low-cost proven countermeasures across the network** to prevent future severe crashes.

High-Injury Network

The development of an HIN is a critical component of Vision Zero planning. An HIN is a data-driven tool to identify the small proportion of roads that result in the greatest number of serious injury and fatal injury crashes. This HIN uses data for 2018-2022 from the Registry of Motor Vehicles (RMV) and takes into account the following considerations:

- **A focus on non-access controlled roadways.** Roadways with access control, such as Interstates, have stricter design standards and are often out of local municipalities' control.
- **A focus on crashes resulting in fatalities and serious injuries** to be consistent with the Safe System Approach and to prioritize roadways with the most severe crashes.
- **A focus on vulnerable road users** to reflect the importance of prioritizing locations where the most vulnerable users are at the most risk.

To account for the differences in crash severity, crashes were weighted if they were more severe or if they involved vulnerable road users. Table 3.2 shows how each crash was scored along a corridor to develop the HIN.

Table 3.2 | Crash Scores by Severity

KABCO Severity Category	Non-VRU Crash Score	VRU Crash Score
Fatal Injury (K)	15	22.5
Suspected Serious Injury (A)	15	22.5
Suspected Minor Injury (B)	2	3
Possible Injury (C)	1	1.5

More details on how the HIN was developed are in Appendix C.

Key Findings

This network crash analysis resulted in two levels of severity of high-injury roads in the region:

- **HIN Corridors:** Portions of the network that are hotspots for the most severe and impactful crashes.
- **Corridors of Concern:** Portions of the network that have many crashes, but not many fatalities or serious injuries.

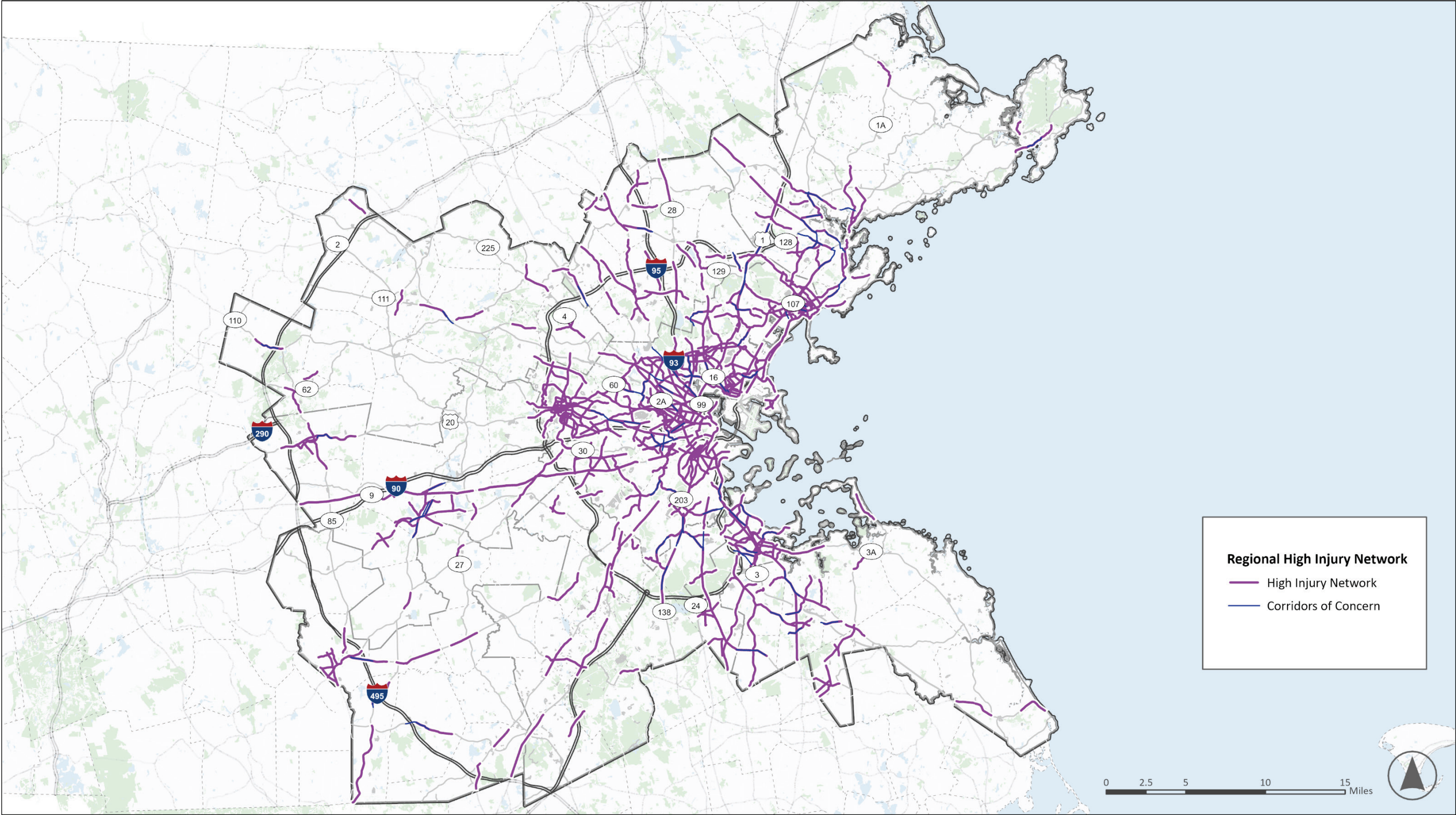
The HIN provides valuable insight into how severe crashes are distributed across the roadway network. Regionally, HIN corridors make up just 7 percent of the roadway network by mileage, yet they account for approximately 65 percent of fatal and serious injury crashes between 2018 and 2022.

As shown in Figure 3.5, the regional HIN is heavily concentrated in and around the Inner Core Committee (ICC) subregion. This pattern is likely influenced by higher traffic volumes and increased levels of pedestrian and bicycle activity in the area, which lead to more frequent interactions among roadway users and a greater potential for conflicts.

Subregional and Municipal HINs

To provide a more context-sensitive understanding of corridors with severe crash concerns, subregional and municipal HINs were also developed. These finer-scale networks can support local municipalities in prioritizing safety improvements based on localized crash patterns. Municipalities can also partner with neighboring communities to implement coordinated safety projects along corridors that span municipal boundaries. To review the HINs in more detail, please visit <https://www.bostonmpo.org/visionzero>.

Figure 3.5 | Regional High-Injury Network



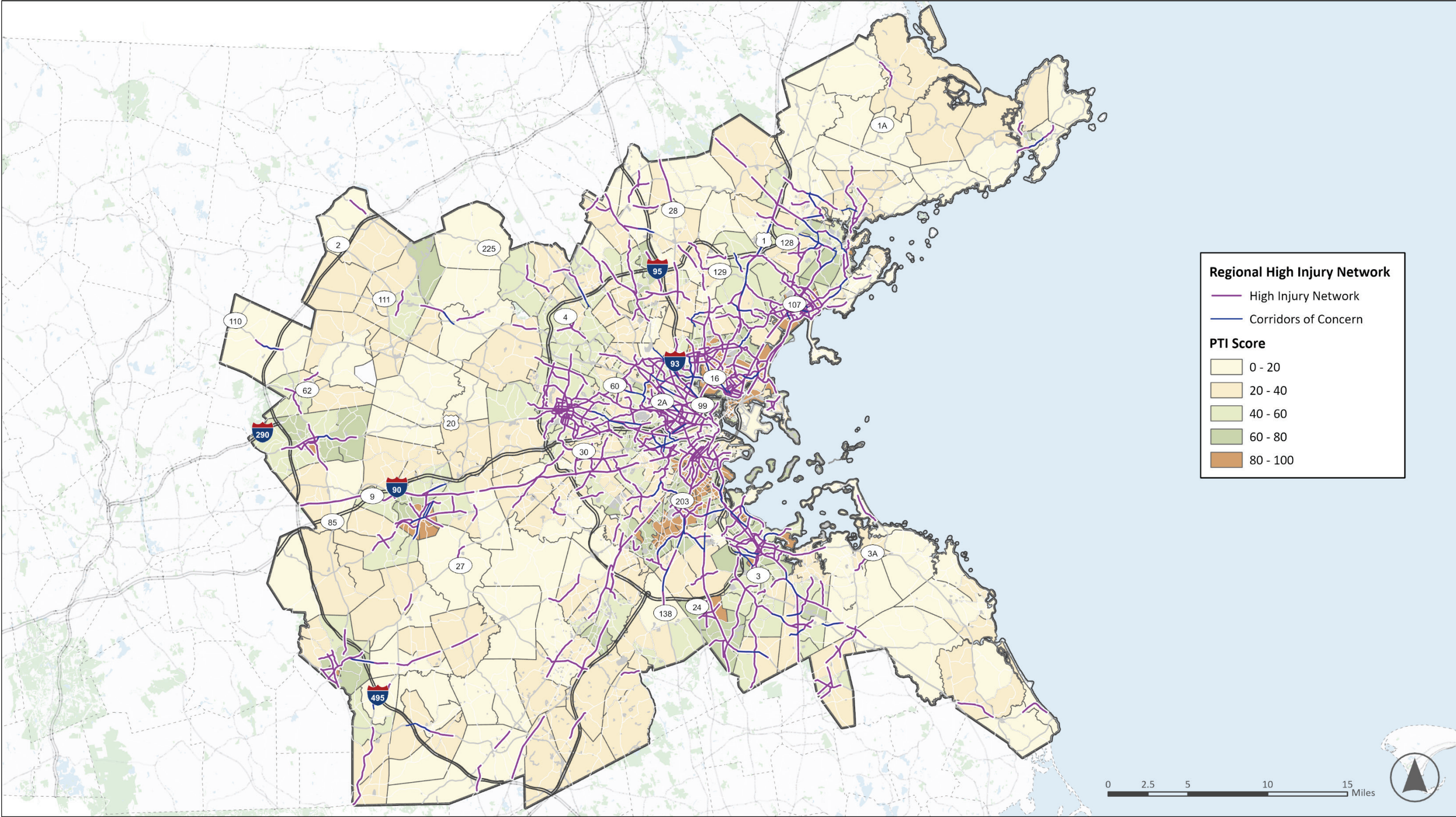
Source: MassDOT IMPACT Data Query and Visualization and MassDOT Road Inventory 2022.
Note: Data from MassDOT IMPACT tool do not include fully access-controlled roadways and ramps.

Priority Transportation Investment (PTI) Areas

To identify communities and neighborhoods that are disproportionately exposed to unsafe infrastructure, the geographic distribution of Priority Transportation Investment (PTI) populations was overlaid with the regional HIN to assess whether a greater share of HIN corridors falls within areas with high concentrations of PTI populations. PTI populations were defined based on the share of low-income, minority, and limited English proficiency residents in each Census tract. Figure 3.6 shows this overlay. Appendix C includes more detail on the methodology, analysis and findings to identify PTI areas.



Figure 3.6 | Regional High-Injury Network and Priority Transportation Investment Areas



Prioritized High-Injury Network

The priority network combines the HIN with other key criteria related to how people reach important destinations—whether the location is within a PTI community, has high rates of Vulnerable Road User travel, or is near transit stops, schools, hospitals, or other points of interest. The Prioritized HIN was developed at the regional, subregional, and municipal levels.

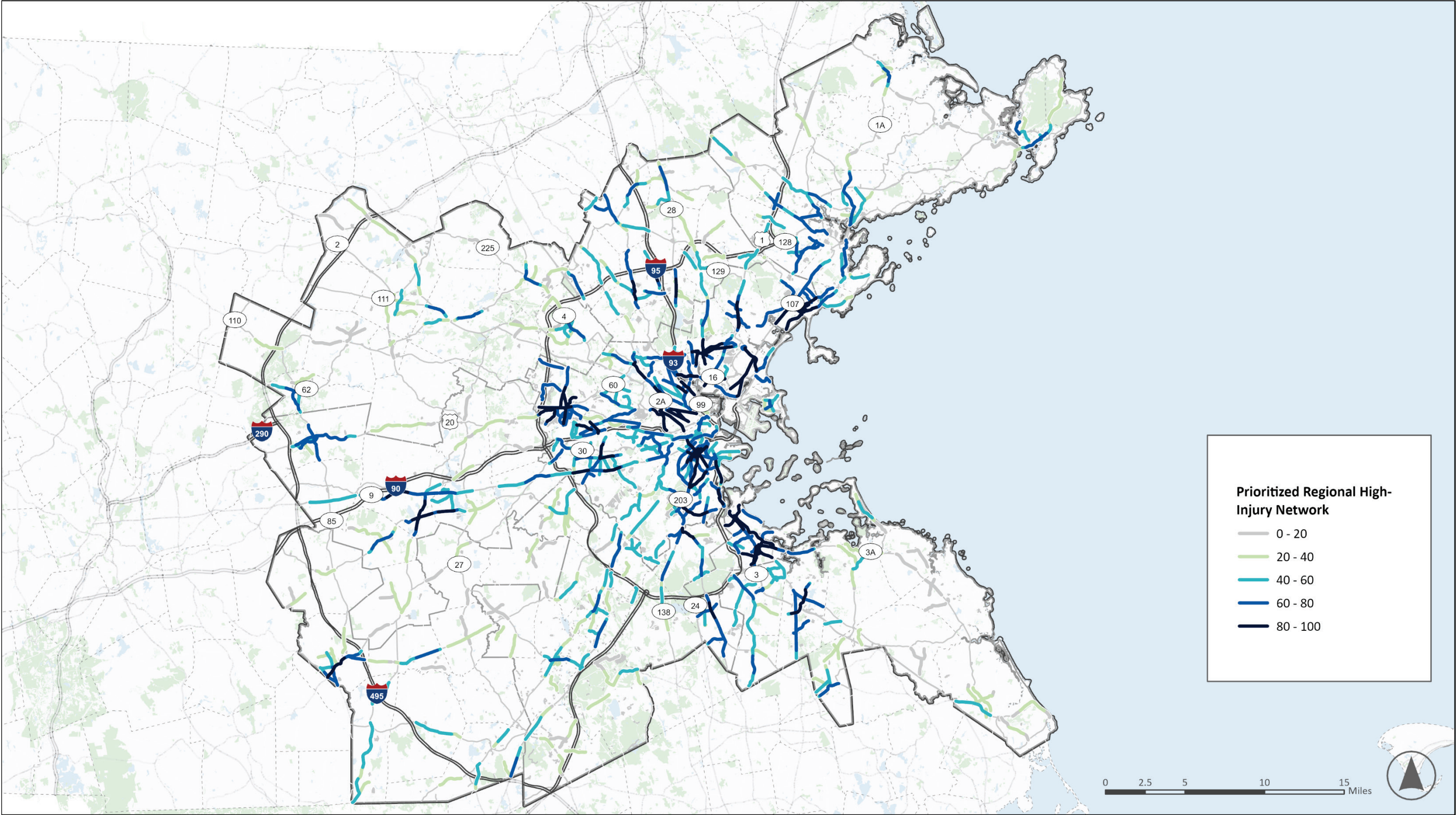
The networks were prioritized and scored from 0 to 100 using the screening elements and weights shown in Table 3.3, then normalized so that in each region, each subregion, or each municipality (depending on the network level), the highest score was 100 and the lowest score was 0. This final, normalized score is known as the **priority score**. The final regional prioritized network is shown in Figure 3.7.

Table 3.3 | Network Screening Elements

Network Screening Elements	Weight
Crash Score	50
Priority Transportation Investment Communities	20
Total Trip Activity	5
Vulnerable Road User Trip Activity	5
Presence of a Healthcare Facility	5
Presence of an Education Facility	5
Presence of a Transit Stop	5
Presence of Other Points of Interest	5
Maximum Total Score	100

Building on this analysis, a series of Municipal Safety Profiles were created, included as Appendix E. These profiles describe common infrastructure, behavioral, operational, and modal safety challenges specific to each municipality. They also integrate findings from the existing conditions analysis, the HIN, community outreach, and other components of the plan to provide a comprehensive, context-sensitive understanding of local safety issues.

Figure 3.7 | Prioritized Regional High-Injury Network



High Scoring Corridors

The following maps and tables identify some of the highest-scoring corridors within each of the eight subregions. The identification of these top scoring corridors in each subregion helps illustrate how the MPO can use the prioritized HIN to start to focus in on the highest crash corridors that are in proximity to other mobility factors that the MPO prioritizes, such as transit, schools, and PTI areas. Next steps for what the MPO and municipalities can do to address safety concerns in these locations are detailed in the list of actions in Chapter 5.³



³ To demonstrate locations in a variety of municipalities in each region, a maximum of two locations from each municipality are included in these lists. There may be more than two high-scoring locations in each municipality.

Figure 3.8 | Prioritized HIN in the ICC Subregion

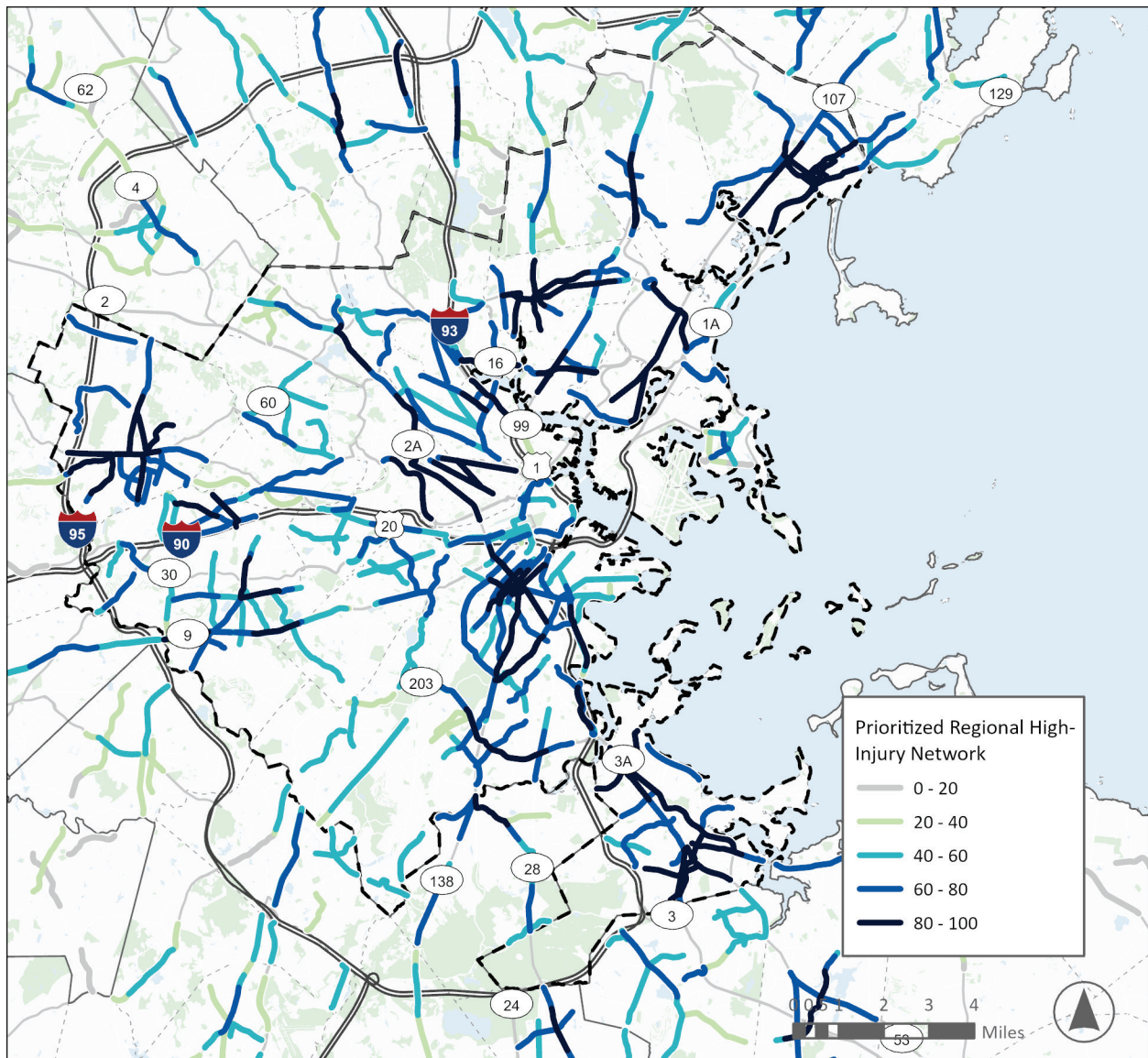


Table 3.4 | High-Scoring Locations in the ICC Subregion

Road	From	To	Ownership	Municipality
Washington St	Western Ave	Broad St	Local	Lynn
Liberty St	Market St	Baldwin St	Local	Lynn
Squantum St	Montclair Ave	Billings St	Local	Quincy
Hampshire St	Amory St	Broadway	Local	Cambridge
Massachusetts Ave	Columbus Ave	Pompeli St	Local	Boston

Figure 3.9 | Prioritized HIN in the MAGIC Subregion

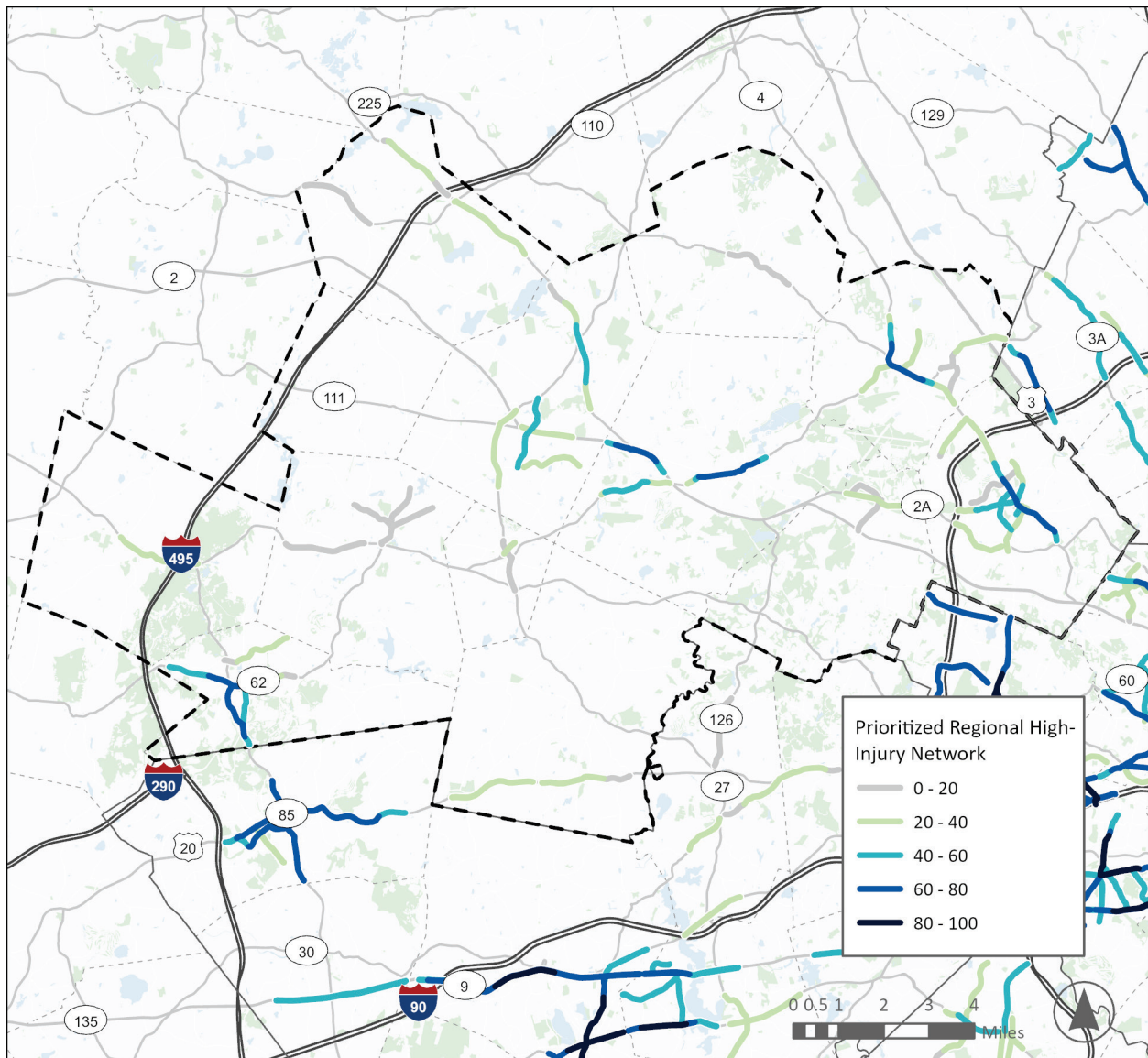


Table 3.5 | High-Scoring Locations in the MAGIC Subregion

Road	From	To	Ownership	Municipality
Massachusetts Ave / Bedford St	Percy Rd	Hill St	Local	Lexington
Central St / Main St	Coolidge St	High St	Local	Hudson
Union Tpke	School St	Baker Ave Ext.	State	Concord
Washington St	Main St	Hudson St	Local	Hudson
Great Rd	Loomis St	North Rd	Local	Bedford

Figure 3.10 | Prioritized HIN in the MetroWest Subregion

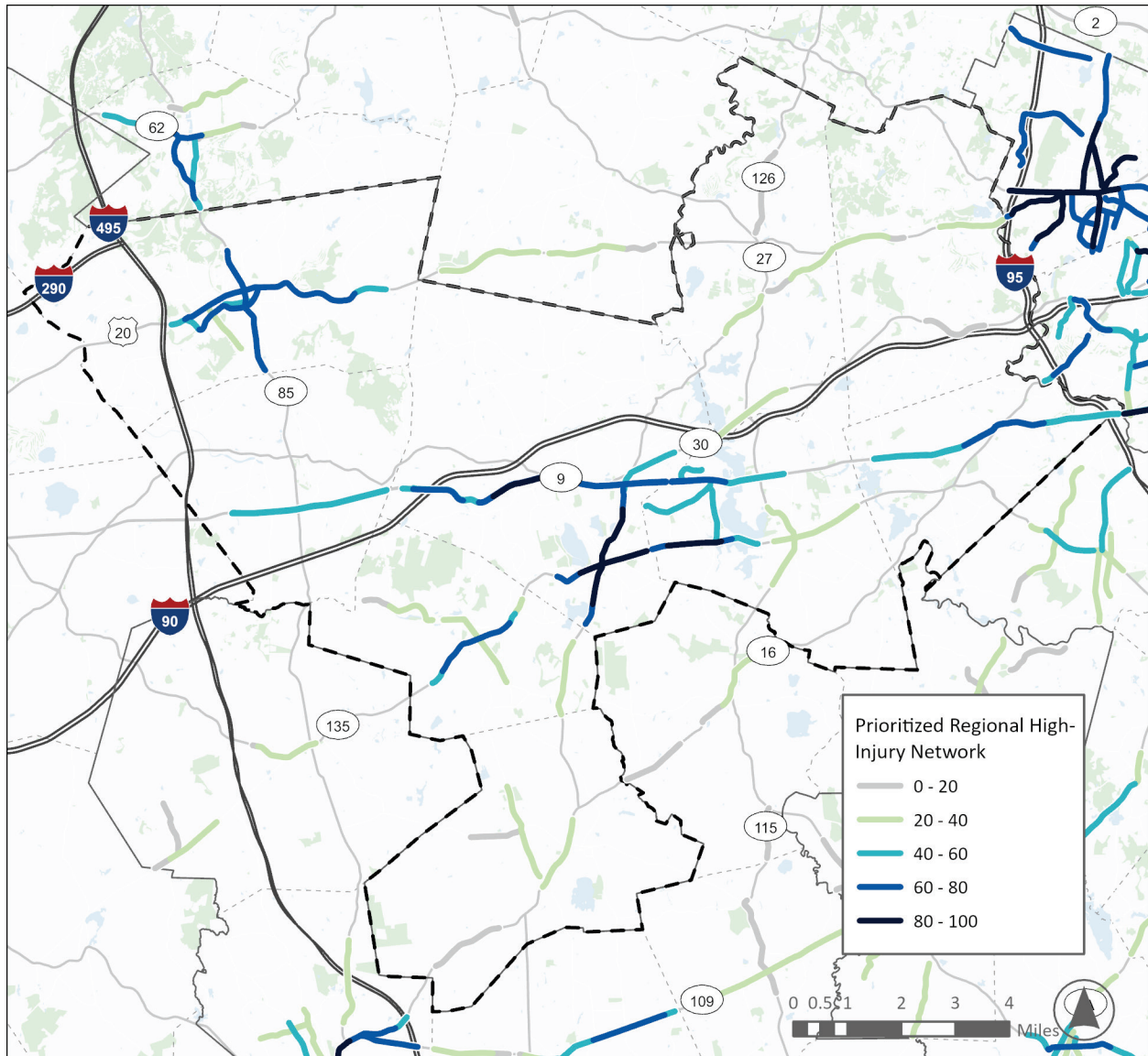


Table 3.6 | High-Scoring Locations in the MetroWest Subregion

Road	From	To	Ownership	Municipality
Concord St / Holls St	Normandy Rd	Andrew St	Local	Framingham
Waverly St	Fountain St	2 nd St	Local	Framingham
W Central St	Kendall Ln	Speen St	Local	Natick
Bolton St	Union St	South St	Local	Marlborough
Union St	Chestnut St	Indian Spring Rd	Local	Ashland

Figure 3.11 | Prioritized HIN in the NSPC Subregion

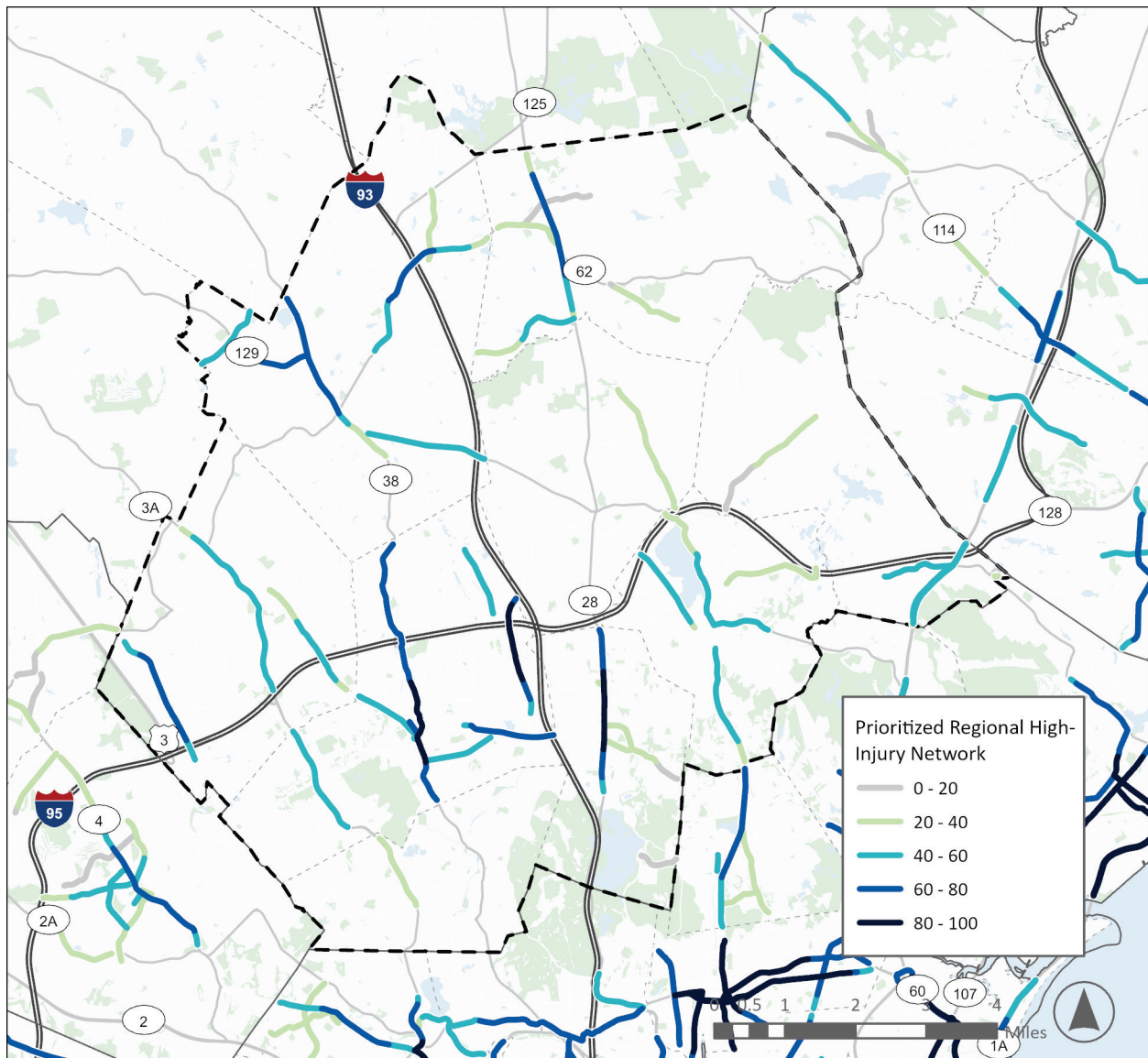


Table 3.7 | High-Scoring Locations in the NSPC Subregion

Road	From	To	Ownership	Municipality
Main St	Green St	Clinton St	Local	Woburn
Main St / Rt 28	Broadway	William St	State	Stoneham
Main St / Rt 28	William St	Middle St	Local	Stoneham
Washington St	Dragon Ct	Salem St	State	Woburn
Middlesex Tpke	I-95	Terrace Hall Ave	Local	Burlington

Figure 3.12 | Prioritized HIN in the NSTF Subregion

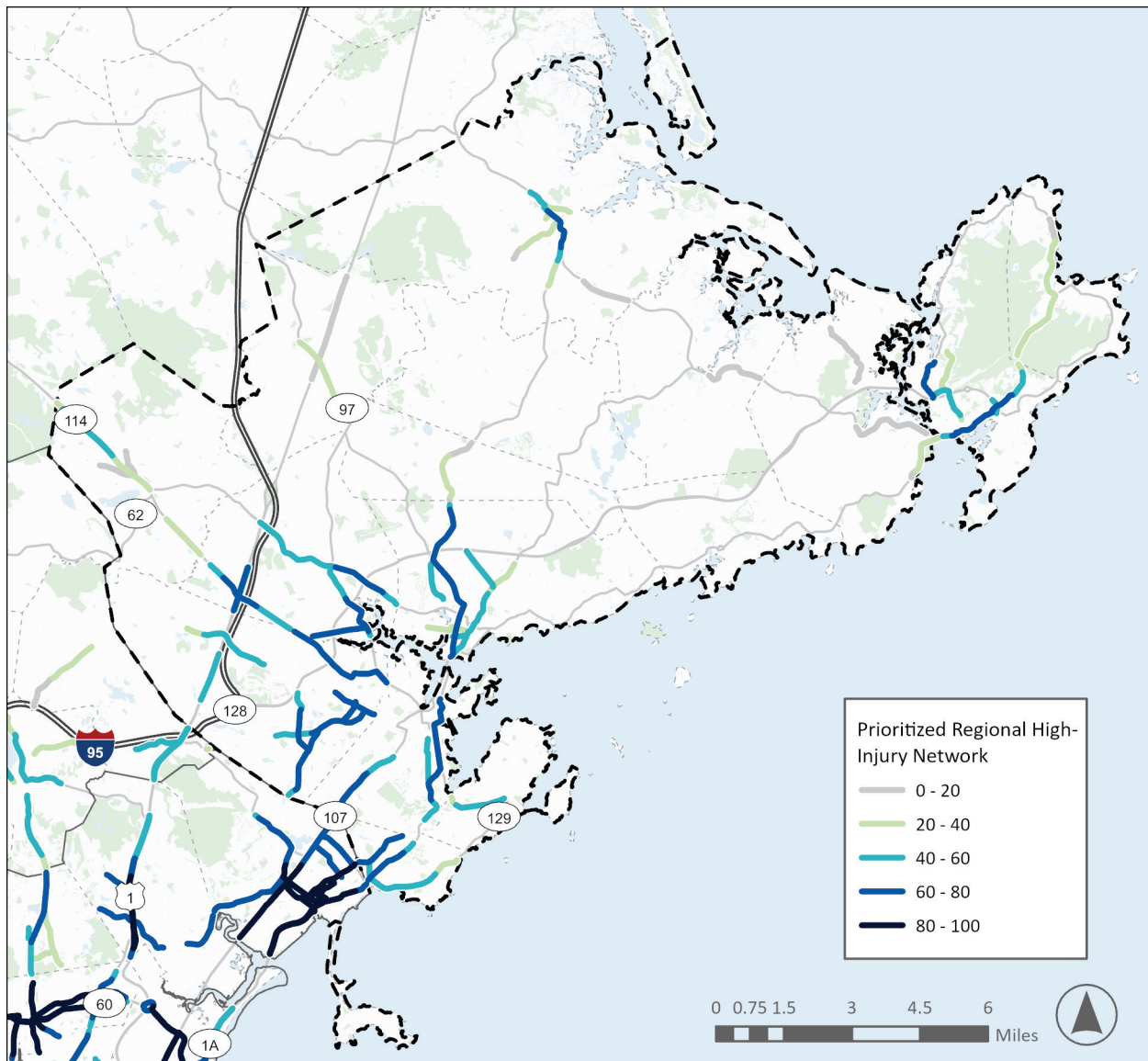


Table 3.8 | High-Scoring Locations in the NSTF Subregion

Road	From	To	Ownership	Municipality
Rantoul St	Swan St	Pleasant St	Local	Beverly
Hawthorn Blvd / Winter St	Bridge St	Derby St	Local	Salem
Essex St	Beach Ave	Ryan Pl	Local	Swampscott
Lafayette St	New Derby St	Hancock St	Local	Salem
Main St	Endicott St	Howley St	Local	Peabody

Figure 3.13 | Prioritized HIN in the SSC Subregion

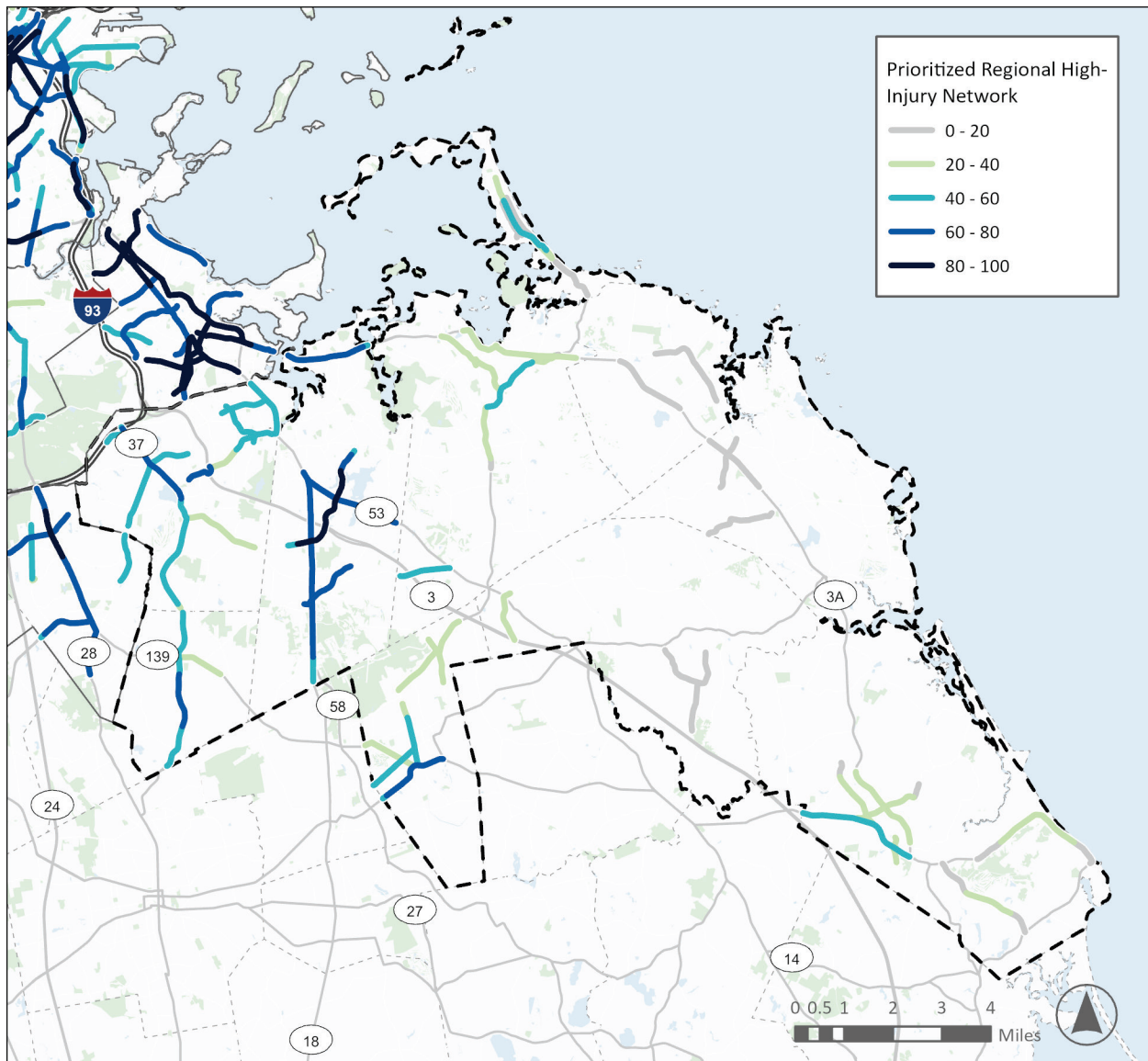


Table 3.9 | High-Scoring Locations in the SSC Subregion

Road	From	To	Ownership	Municipality
Middle St	Main St	Essex St	Local	Weymouth
Pleasant St	Main St	Park Ave	Local	Weymouth
Granite St / Franklin St	I-93	Washington St	State	Braintree
Union St	Washington St	Pilgrims Hwy	Local	Braintree
Center Ave / Market St	Central St	Liberty St	State	Rockland

Figure 3.14 | Prioritized HIN in the SWAP Subregion

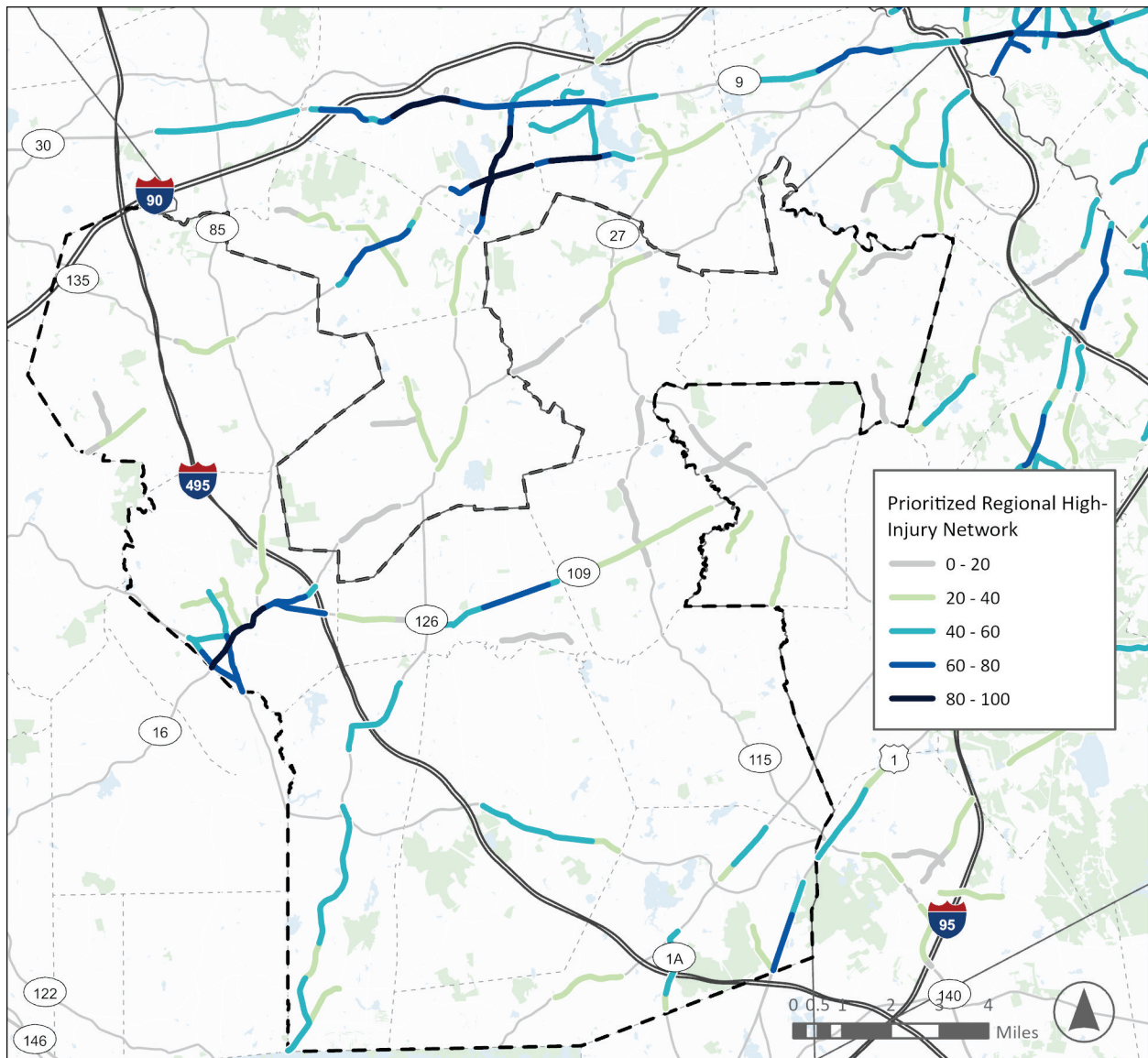


Table 3.10 | High-Scoring Locations in the SWAP Subregion

Road	From	To	Ownership	Municipality
Main St / E Main St	Prospect St	Fortune Blvd	Local	Milford
Medway St	E Main St	I-495	Local	Milford
US1 / Washington St	Thurston St	Madison St	State	Wrentham
Main St	Coffee St	Pond St	Local	Medway
Pulaski Blvd	S Main St	Bellingham St	Local	Bellingham

Figure 3.15 | Prioritized HIN in the TRIC Subregion

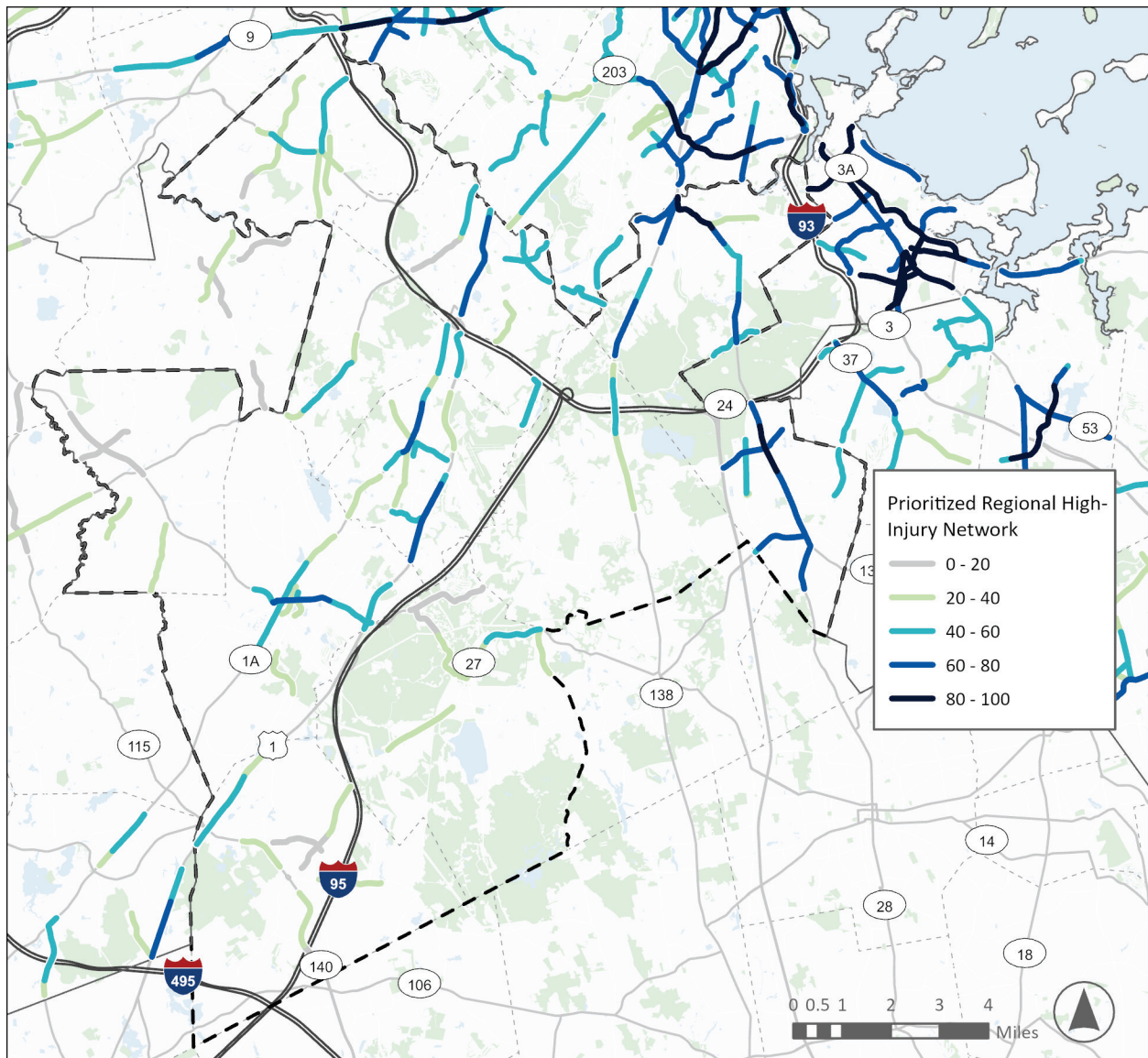


Table 3.11 | High-Scoring Locations in the TRIC Subregion

Road	From	To	Ownership	Municipality
Brook Rd	Blue Hills Pkwy	Reedsdale Rd	Local	Milton
Rt 28 / N Main St	I-93	Union St	State	Randolph
Pond St / Reed St	Rt 28 / N Main St	High St	Local	Randolph
Blue Hills Ave	Blue Hills Pkwy	Valentine Rd	State	Milton
Providence Hwy	Washington St	Elm St	State	Dedham

High-Risk Network

While the HIN identifies locations with a high concentration of crashes, the risk-based (or systemic) analysis and high-risk network (HRN) focuses on locations with a high risk of severe crashes, regardless of crash history. The HRN uses roadway features tied to the region's most severe crash types to identify corridors and intersections that share these features. Corridors and intersections that have many features in common with areas where severe crashes have already occurred are deemed to have the highest risk for future severe crashes. This proactive approach enables road owners to prioritize higher-risk locations for preventative safety improvements before a significant number of severe crashes take place.

The process to develop a HRN follows the process recommended by the Federal Highway Administration (FHWA) in its [Systemic Safety User Guide](#). The process identifies facility types where the crashes are most likely to occur, then calculates a risk score where locations with higher risk scores are more likely to have crashes of a specific type. The risk score is then used to categorize either intersections, segments, or municipalities into the following types:

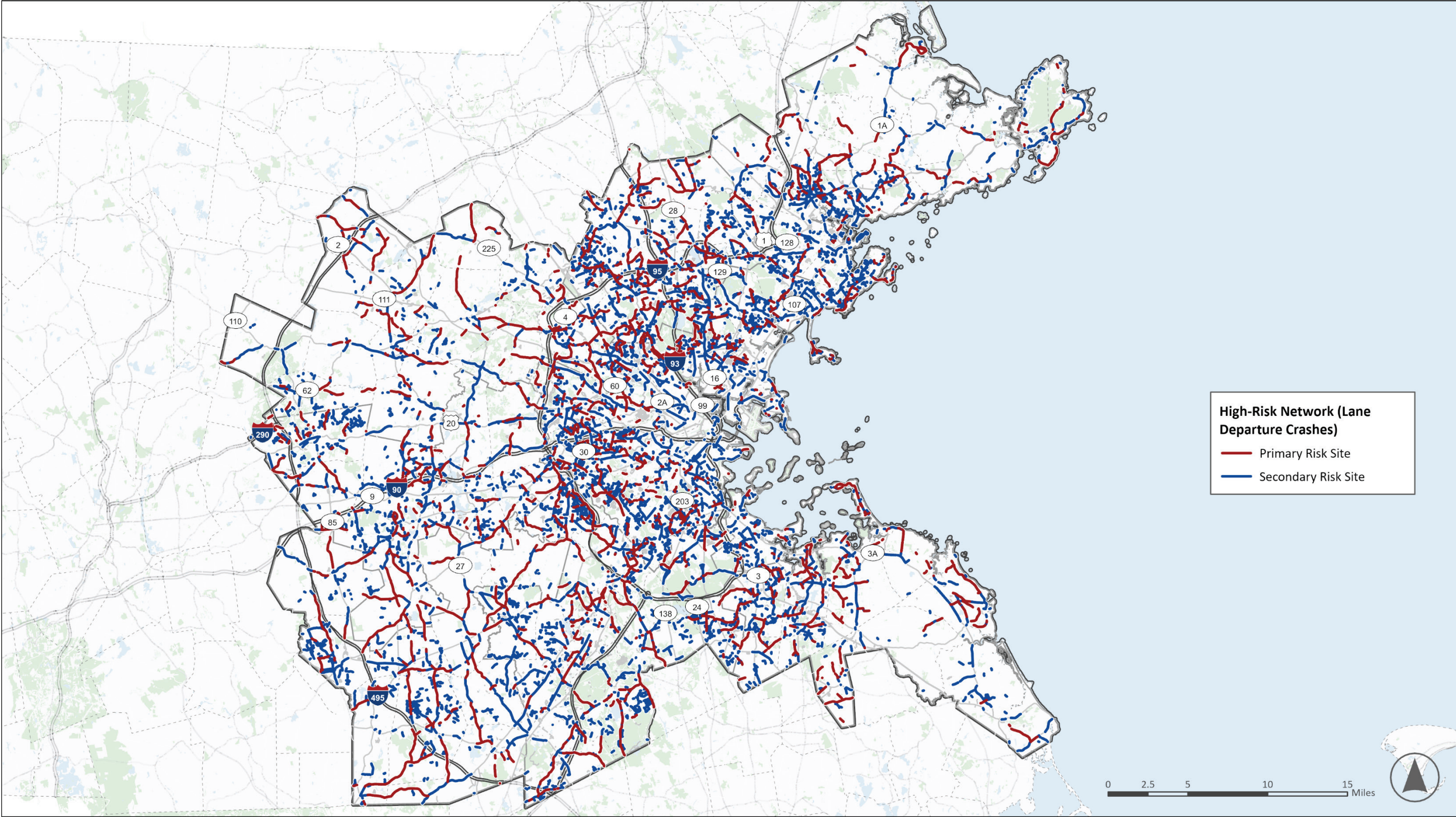
- **Primary Risk Sites:** Ranked in the top 5th percentile, indicating the highest risk level for a given emphasis area
- **Secondary Risk Sites:** Ranked in the next-highest 10th percentile (i.e., the 6th to 15th percentile), representing a moderate level of risk

Six of these networks were developed, one for each of the region's key emphasis areas. Figure 3.16 shows an example of the HRN for lane departure crashes. The full list of focus facility types and risk factors identified for each regional emphasis area is provided in Appendix D, along with a summary of sites by jurisdiction, risk category, a detailed methodology, and all underlying data.

The focus crash types considered in the HRN are consistent with the Massachusetts SHSP Emphasis Areas and the supporting countermeasures are in alignment with MassDOT and FHWA guidance.



Figure 3.16 | High-Risk Network Example—Lane Departure Crashes



How to Use the Regional Vision Zero Network Analysis

As described above, the Boston Region Vision Zero Action Plan uses two key tools: the prioritized HIN and the HRN. The **HIN** can help roadway owners and stakeholders pinpoint locations that have already proven to be dangerous, guiding a deeper look into why those crashes occurred. The **HRN**, on the other hand, takes a proactive approach by identifying locations with characteristics known to contribute to crashes, even if they haven't had a high number of reported incidents yet. Both networks serve as a starting point for more detailed investigations into safety concerns at specific locations. Both networks can be further explored using an online interactive map on our website <https://www.bostonmpo.org/visionzero>. This tool will allow stakeholders to understand what these networks mean for their communities. The countermeasures and strategies in Chapter 5 will also guide how the region can address the roadway safety and risk challenges identified in this plan.

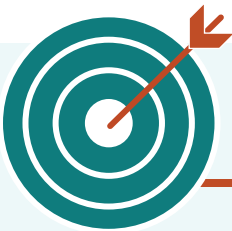


4 | Public and Stakeholder Engagement

Engagement is crucial to develop a successful Vision Zero Action Plan that directly addresses the region's transportation safety challenges. By engaging a wide variety of stakeholders, the MPO was able to collect meaningful insight into the region's biggest safety concerns and identify where the Action Plan should focus its efforts. Engagement activities also identified potential and preferred solutions that can make the Boston region's streets safer for all people who walk, roll, bike, ride transit, and drive.

Engagement Strategy and Goals

As communities in the Boston region range from relatively rural towns (such as Dover) to larger urban centers (e.g., Boston and Cambridge), the MPO developed an engagement strategy to ensure input was collected from the wide array of diverse perspectives within the MPO's jurisdiction.



Vision Zero Action Plan Engagement Goals

1. Convene municipalities and others working on roadway safety, spread awareness of Vision Zero initiatives, and **assist municipalities in understanding, planning for, and implementing Vision Zero.**
2. **Identify key stakeholders** for the Action Plan with a focus on key safety and community-based data.
3. **Leverage engagement strategies early** in the project and around key project milestones.
4. **Coordinate** with appropriate communities, officials, agencies, and organizations that are Action Plan stakeholders.
5. **Disseminate easy-to-understand information** using a variety of methods in a timely manner.
6. Generate an **interactive, collaborative, and credible public process** that provides multiple and convenient ways for stakeholders to receive information and participate in the development of the Action Plan.

DEPTH OF ENGAGEMENT ACTIVITIES



**Meetings of the
18-member Task Force**



**Public Survey Respondents
(representing 58 municipalities)**



**Municipalities engaged through
various outreach efforts**



**Responses to the Safety Concerns Map
(representing 55 municipalities)**



**Interviews with state and municipal
planners, engineers, public health
practitioners, law enforcement,
and public works staff**



**Municipal Stakeholders interviewed
specifically regarding safety policies**



**Interviews with other
Stakeholder organizations**



**First Virtual Public Forum
Participants**

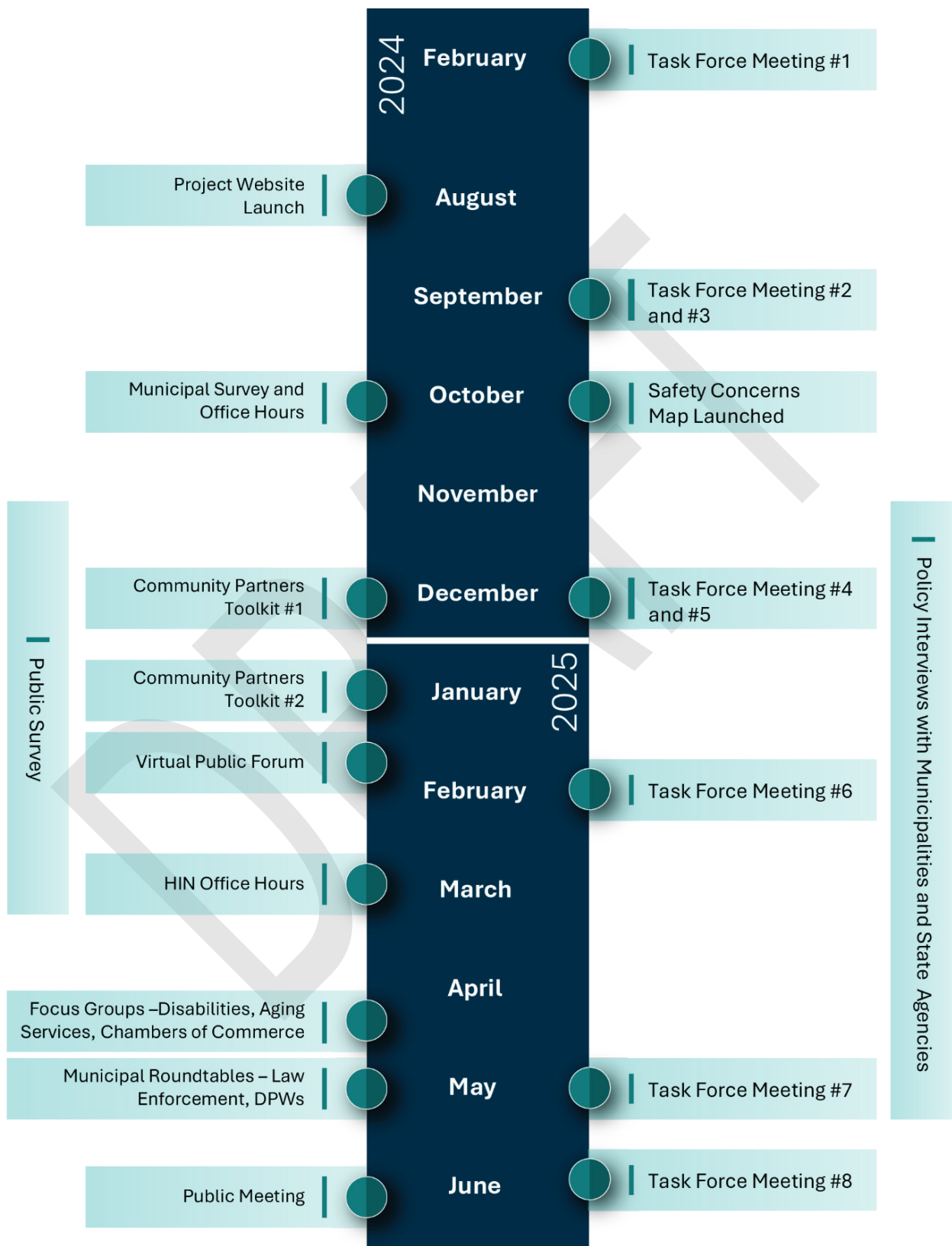
The MPO also leveraged a diverse range of communication tools to share updates about the project, collect input, and invite stakeholders to participate in plan development:

- Public project website
- Email updates to a public email distribution list
- Social media posts
- Community Partners Toolkit
- Vision Zero email newsletter
- The engagement timeline is shown in Figure 4.1.

Community Partners Toolkit

The MPO shared this with 75 CBOs in the region to help spread awareness of the Action Plan development among various audiences. The toolkit includes a variety of messages and tools in “ready to share” format.

Figure 4.1 | Engagement Timeline



Appendix F describes the purpose of each individual engagement activity or communication tool and provides an overview of participants for each engagement activity, as well as the intended audience or type of attendee.

Vision Zero Task Force

Vision Zero Task Force input is key to shaping an action plan that shifts the region away from the status quo. Task Force members brought perspectives from municipalities; school systems; pedestrian, bike, accessibility, and public health organizations; and state and federal transportation agencies. In addition to the full Task Force, the MPO also designated three Subcommittees focused on safety analysis, engagement, and policy. The members of the Task Force are shown in Table 4.1.

Table 4.1 | Vision Zero Task Force Members

Name	Title
Daniel Albert, Ph.D.	Historian, Writer, Resident of Marblehead
Ari Belathar	Former Executive Director, Boston Cyclists Union
Kristopher Carter	Chief Possibility Officer, MassDOT
Jacqueline DeWolfe	Director of Mobility Policy and Program Development, MassDOT
Alex Epstein	Somerville Alliance for Safe Streets Steering Committee
Charlotte Fleetwood	Senior Transportation Planner, Boston Transportation Department
JR Frey	Town Engineer, Town of Hingham
James Fuccione	Executive Director, Massachusetts Healthy Aging Collaborative
Catherine Gleason	Former Public Policy Manager, Liveable Streets Alliance
Tina Hein	Vice Chair Select Board, Town of Holliston; Massachusetts Safe Routes to School Outreach Coordinator
Brendan Kearney	Co-Executive Director, WalkMassachusetts
Jeremy Marsette	Town Administrator, Town of Sherborn
Galen Mook	Executive Director, MassBike
Shavel'le Oliver	Executive Director, Mattapan Food and Fitness Coalition
Kathryn Quigley	Deputy Director of Strategic Planning, MBTA Systemwide Accessibility
Brad Rawson	Director, Mobility Division, City of Somerville
Katarina Torres Radisic	Riders Transportation Access Group (RTAG)
Ryan Williams	City Councilor, City of Melrose
Stephen Winslow	City Councilor, City of Malden

Task Force member participation informed several essential sections of the Action Plan's development. The Task force guided public and stakeholder engagement, the safety analysis, policy and process review, and selection of strategies and countermeasures for implementation.

Additionally, combined feedback from the Task Force and municipalities helped refine and finalize this project's HIN.

Who We Heard From

Across all activities, participants included members of the general public, municipal planners and engineers, municipal law enforcement officers, other municipal staff, individuals with disabilities, Aging Service Access Point staff, Chambers of Commerce staff, and members of community-based and advocacy organizations. Table 4.2 lists all major engagement activities and who was involved.

Table 4.2 | Vision Zero Action Plan Engagement Activities

Engagement Activity	Dates Completed	Purpose	Number of Attendees/ Respondents	Type of Attendee/Audience
Task Force	February 13, 2024 October 2, 2024 October 9, 2024 December 16, 2024 December 19, 2024 February 3, 2025 May 2, 2025 June 16, 2025	Provide input and guidance about the development of the Vision Zero Action Plan, including meetings with safety analysis, engagement, and policy subcommittees	18 Task Force members	Representation from multiple levels of municipal leadership; advocates for walking, biking, schools, and accessibility; and state and Federal partners
Municipal Survey	Opened: September 24, 2024 Closed: October 4, 2024	Collect input from municipal staff about transportation safety issues, challenges to improving safety, and priorities. Paired with municipal virtual office hours	Submissions from 36 municipalities	Planners, City Councilors, Public Works staff, Town Engineers, Housing and Economic Development Staff
Municipal Virtual Office Hours	September 25, 2024, 11:00 AM	Collect input from municipal staff about transportation safety issues, challenges to improving safety, and priorities. Paired with municipal survey	6 attendees	Planners, City Councilors, DPW directors, Town Engineers, Transportation Planners, Housing and Economic Development Staff
Public Survey	Opened: October 17, 2024 Closed: February 14, 2025	Collect input from members of the general public about perceived transportation safety concerns and desired solutions	761 submissions from people who live across 58 municipalities within region	General public

Engagement Activity	Dates Completed	Purpose	Number of Attendees/ Respondents	Type of Attendee/Audience
Safety Concerns Comment Map	Opened: October 17, 2024 Closed: April 2, 2025	Collect input from members of the public about perceived transportation safety concerns and desired solutions at specific locations throughout the region	921 submissions identifying 3,952 safety concerns across 55 municipalities within region	General public
Virtual Public Forum	January 29, 2025, 6:00 PM	Present overview and purpose of Vision Zero Action Plan and region's safety data; learn about public's perspectives on safety challenges, concerns, and solutions	37 attendees	General public
High Injury Network Municipal Virtual Office Hours	March 3, 2025 March 6, 2025	Discuss the draft HIN and HRN methodology and maps	14 attendees on March 3 8 attendees on March 6	Municipal Planners, Public Works Directors, Town Engineers, Law Enforcement
Policy Interviews	November 2024 through May 2025	Identify policies and processes that might be missing, that inhibit safety, or need additional resources to implement successfully	13 interviews	Municipal Planners, Public Works Directors, Town Engineers; Massachusetts Department of Conservation and Recreation; Massachusetts Executive Office of Public Safety and Security Office of Grants and Research
Focus Group—Adults with Disabilities	April 14, 2025, 5:30 PM	Understand how stakeholders with disabilities that impact their mobility travel and maneuver safely around the region	8 attendees	Adults with Disabilities in the Boston region
Aging Services Access Point Providers Roundtable and follow-up Older Adults Survey	April 16, 2025, 2:00 PM	Understand how older adults travel and their perceptions about traffic safety challenges and needs in the region	7 attendees (Discussion) 2 submissions (Survey)	ASAP Directors and Staff

Engagement Activity	Dates Completed	Purpose	Number of Attendees/ Respondents	Type of Attendee/Audience
Discussion on Roadway Safety—Chambers of Commerce	April 17, 2025, 2:00 PM	Understand the business community’s perceptions of safety challenges and efforts to improve safety	3 attendees; 1 follow-up conversation	Chambers of Commerce Staff
Municipal Roundtable—Law Enforcement	May 8, 2025, 10:00 AM	Discuss potential solutions and strategies to address identified safety issues, from an enforcement perspective	5 attendees	Municipal Law Enforcement
Municipal Roundtable—Departments of Public Works and Planning	May 9, 2025, 10:00 AM	Discuss potential solutions and strategies to address identified safety issues, from a municipal perspective	7 attendees; 1 follow-up conversation	Municipal Planners and DPW Staff

Engagement Takeaways

Across all engagement efforts, several key takeaways emerged about dangerous driver behaviors, roadway design and maintenance needs, policies influencing roadway safety, and funding gaps.

Driver Behavior

People shared their mistrust of other road users—people do not trust others to make the right or safest decisions. For example, pedestrians do not trust drivers to stop for them at intersections or crosswalks; drivers do not trust other drivers to drive unimpaired or distraction-free; and bicyclists do not trust that drivers will give them enough space or keep bicycle lanes free of barriers (such as parked cars).

TOP REPORTED DRIVER BEHAVIOR CONCERNS:

- **Speeding**
- **Distracted driving**
- **Aggressive and reckless driving**
- **Driver passing too close to people bicycling, walking, or rolling**
- **Red-light running**

Roadway Design and Maintenance

Roadway design, geometry, and infrastructure conditions play key roles in people's travel patterns and mode choices. Roadway designs that allow vehicles to travel at high speeds can inhibit awareness of pedestrians and bicyclists. When people feel unsafe biking or walking they are more likely to travel by vehicle. At the same time, some motor vehicle drivers feel unsafe while driving due to confusing roadway geometry, coupled with speeding and aggressive driving behaviors by others.

TOP REPORTED INFRASTRUCTURE CONCERNS:

- Poor or missing sidewalks, crosswalks, and bike lanes
- Roadway design that feels unsafe
- Lack of visibility at intersections
- Poor drainage (e.g., ice, snow, or water on the roads or sidewalks)



Roadway Policies

Public policy and decision-making processes determine what safety priorities people and organizations will focus on, as well as how, when, and who can select, implement, and evaluate roadway safety solutions. While the Commonwealth and the region have many proactive and supportive safety policies and processes, stakeholders identified several policy areas where change is needed. Organizations that will lead and support policy changes include the MPO, municipalities, MassDOT, the Massachusetts General Court, and advocacy and non-profit organizations.

POLICY AND PROCESS SUGGESTIONS INCLUDE:

- Legalizing automated enforcement for speeding, work zones, red light running, and moving violations in bus lanes and bike lanes
- Expanding driver education curriculum and licensing requirements
- Expanding protections for and education about vulnerable road users
- Implementing taxes and fees for large vehicles
- Expanding speed management guidance and implementation at the local level



Funding

Many municipal stakeholders, including planners, public works staff, and law enforcement officers, identified lack of funding and funding inflexibility as critical challenges to undertaking more roadway safety improvements. This sentiment was expressed across many engagement activities, including the municipal survey, virtual office hours, interviews, and roundtables. Stakeholders want to address roadway safety in a holistic and comprehensive manner but have insufficient resources to do so. While quick-build, low-cost improvements can improve safety outcomes in some cases, many proven safety countermeasures are resource- and time-intensive. Staff capacity can also be a challenge, especially for smaller municipal departments with many shared responsibilities.



5 | Strategies, Policies, Countermeasures, and Plan Implementation

This Vision Zero Action Plan offers a comprehensive set strategies, countermeasures, and implementation resources to address regional traffic safety challenges identified throughout the Action Plan development process.

Proven Safety Countermeasures and Best Practices

Safety improvements in the region should be guided by the data analysis, prioritized HIN and HRN mapping (Chapter 3), and stakeholder engagement feedback (Chapter 4). The National Highway Traffic Safety Administration (NHTSA) and the FHWA provide guidance on the application and impact of Proven Safety Countermeasures to address speeding, pedestrian and bicyclist safety, roadway departure, intersections, and crosscutting safety improvements. These measures should be considered for widespread implementation to address unsafe infrastructure and dangerous driving in the region. More information and guidance on Proven Safety Countermeasures can be found in Appendix H.

Additional best practice resources include:

- FHWA [STEP](#)
- FHWA's [Handbook for Designing Roadways for the Aging Population](#)
- FHWA [Pedestrian Lighting Primer](#)
- FHWA [Intersection Control Evaluation](#)
- FHWA [Traffic Calming ePrimer](#)
- FHWA [Work Zone Management Program](#)
- NHTSA [Countermeasures That Work](#)
- NACTO [Design Guides](#)
- MassDOT [Safe Speeds Roadway Treatment Technical Toolkit](#)
- MassDOT [Speed Management Guidance](#)
- MBTA [Bus Lane Design Guide](#)

Funding for Implementation

In addition to pursuing funding through the MPO's TIP (see: <https://www.bostonmpo.org/tip>), other programs are available to provide funding to implement projects described in this Action Plan, as safety-focused projects, or as part of other, broader initiatives, depending on the countermeasure and project.

- **The Massachusetts Safe Routes to School (SRTS) program** offers funding for transportation safety projects. Municipalities can apply on behalf of public or charter schools partnered with the SRTS program for both larger infrastructure projects and smaller "Signs and Lines" projects, which provide design services and up to \$10,000 for low-cost improvements. Additionally, a Bike Rack Grant is available to install bike racks at eligible SRTS partner schools. For more information see the [SRTS Engineering webpage](#).
- **MassDOT** provides funding for safety related projects through several programs including the [Complete Streets Funding Program](#), the [Shared Streets & Spaces Program](#), the [Chapter 90 Program](#), and the [Community Transit Grant Program](#)
- **The Executive Office of Housing and Community Development** offers the [Massachusetts Downtown Initiative \(MDI\)](#).
- **The Executive Office of Economic Development** offers the community one stop for growth application which houses two useful grants for communities planning on implementing safe streets: the Massachusetts Downtown Initiative offers technical assistant grants for consultants to assist communities; the MassWorks Infrastructure Program offers capital funds for infrastructure projects
- **The Office of Grants and Research** offers [Highway Safety Grants](#) for behavioral highway safety initiatives.
- **The Department of Conversation and Recreation** offers [MassTrails Grants](#).
- **The Governor's Office** offers the [Community Compact program](#).
- **U.S. DOT offers a range of competitive grants that may be applied to safety initiatives**, including the [Active Transportation Infrastructure Investment Program \(ATIIP\)](#), [Better Utilizing Investments to Leverage Development \(BUILD\) Grants](#), the [Infrastructure for Rebuilding America \(INFRA\) Grant Program](#), the [Railroad Crossing Elimination \(RCE\) Grant Program](#), and the [Safe Streets and Roads for All \(SS4A\) Grant Program](#).

Policies that Require Legislative Changes

Some strategies require legislative changes in the Massachusetts General Court. As Action Plan implementation continues, the MPO will track roadway safety bills and help communicate the role and importance of these policies to stakeholders. These policies are explained in detail in Appendix G and summarized here:

- Permit the use of automated red light enforcement and citations at signalized intersections.
- Permit the use of automated speed enforcement and citations.
- Change seat belt usage enforcement to a primary offense for all front and rear passengers.
- Extend legal protections for Vulnerable Road Users by building upon the 2022 Massachusetts law, [An Act to Reduce Traffic Fatalities](#).
- Permit the use of automated bicycle and bus lane enforcement and citations via bus-mounted cameras for both parking and moving violations.

Vision Zero Action Plan Strategies

A critical part of implementation of the regional Vision Zero Action Plan will be for the MPO to continue engagement with municipal partners to refine the prioritized HIN, understand more about the causes of crashes at high priority locations, and create communication and education materials to continue to spread awareness of Vision Zero and the Safe System Approach. The strategies below also identify the key actions that municipal partners should consider to address high priority crash and risk locations.

Action Plan strategies are organized by emphasis area (**Intersections, Lane Departure, Vulnerable Road Users, Older Drivers, Speeding, and Large Vehicles**) and include policies, process changes, education and engagement, enforcement, and infrastructure best practices. Each action identifies a lead agency and supporting partners. Actions are grouped by timeframe for implementation (short-term: 1–3 years; medium-term: 3–5 years; long-term: 5 or more years; and, ongoing: actions that will recur or happen annually). These actions are supported by input gathered during stakeholder engagement, as well as Vision Zero implementation best practices (refer to Appendix F for more detail).



CROSS-CUTTING

Cross-cutting Actions

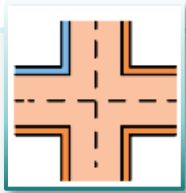
Cross-cutting actions span across every emphasis area to reflect the MPO's commitment to saving lives. Cross-cutting action items reinforce the guiding principles of the Safe System Approach: death and serious injuries are unacceptable, humans make mistakes, humans are vulnerable, responsibility is shared, safety is proactive, and redundancy is crucial.

Action	Lead	Support	Timeframe ¹	Type
Develop engaging messaging and educational materials to raise awareness about key crash causes and best practice interventions (including street design changes).	Boston Region MPO		Short-term	Process
Transition the MPO's Regional Vision Zero Task Force to a Regional Action Plan Implementation Task Force.	Boston Region MPO		Short-term	Process
Work with municipalities, MassDOT, and public health stakeholders to involve public health professionals in roadway safety efforts including local public health staff and epidemiologists as well as staff from the Massachusetts Department of Public Health's Injury Prevention and Control Program.	Boston Region MPO	Municipalities/ MassDOT MAPC Public Health Team	Short-term	Process
Coordinate with municipalities to explore the need for roadway safety educational materials that can be used to facilitate communication with the business community.	Boston Region MPO	Municipalities	Short-term	Process
Create a toolkit of engineering countermeasures, including typical dimensions and specifications or standard drawings, drawing from local best practices (Boston, Cambridge, Somerville guides), MassDOT, NACTO, FHWA, and AASHTO guides.	Boston Region MPO	MassDOT	Medium-term	Process

Action	Lead	Support	Timeframe ¹	Type
Further analysis of the prioritized HIN and coordination with municipalities to understand key crash types, causes, and locations (intersection vs. corridor) to develop interventions (including quick-build solutions).	Boston Region MPO	Municipalities/ MassDOT	Medium-term	Process
Work to align MPO planning and programming with Vision Zero goals and Safe System principles.	Boston Region MPO		Medium-term	Process
Conduct a data gap analysis and explore public health datasets ((e.g., hospital records, EMS data, syndromic surveillance, trauma registries) to explore and analyze further the causes of injury.	Boston Region MPO		Medium-term	Data
Plan and host peer exchanges to share best practices and problem solving with municipal planners, Depts of Public Works, law enforcement, elected officials, school leaders, and first responders.	Boston Region MPO		Ongoing	Process
Provide annual progress reports on the Regional Vision Zero Action Plan implementation.	Boston Region MPO		Ongoing	Process
Track state legislative changes related to roadway safety and communicate priority bills and safety impacts to stakeholders.	Boston Region MPO	Vision Zero and safe streets advocates	Ongoing	Process
Research the potential of new technology solutions and share information with municipal and state partners, including intelligent speed assist and intelligent transportation system technologies such as adaptive signal control and vehicle-to-infrastructure communication.	Boston Region MPO	Municipalities/ MassDOT	Ongoing	Process
Incorporate HIN and HRN data and analysis into corridor reconstruction and maintenance projects so that safety improvements and best practices can be integrated with every municipal project, as appropriate.	Municipalities	MassDOT	Short-term	Infrastructure
Adopt a local Vision Zero policy and goal	Municipalities		Short-term	Policy
Consider locations where pilot or quick-build traffic calming projects	Municipalities	Boston Region MPO	Medium-term	Process/Infrastructure

Action	Lead	Support	Timeframe ¹	Type
would be appropriate. Collect before and after data to evaluate the project and communicate findings with stakeholders and residents.				
Establish a municipal Vision Zero Task Force or Working Group to foster a collaborative, data-driven, and equitable approach to traffic safety within the municipality and to review serious crashes when they do occur.	Municipalities	Boston Region MPO	Medium-term	Process
Implement a systemic program to assess and improve street lighting, with a priority on locations with documented nighttime crashes involving vulnerable road users (pedestrians, cyclists, transit riders). This includes evaluating existing lighting levels, identifying dark or poor contrast zones, and deploying modern, high-efficiency lighting solutions to create safer conditions.	Municipalities	Boston Region MPO	Long-term	Process/ Infrastructure
Request MPO technical assistance for planning and design of intersection and corridor safety improvements.	Municipalities		Ongoing	Process

¹ Timeframes: Short-term: 1–3 years; Medium-term: 3–5 years; Long-term: 5+ years



INTERSECTIONS

Intersection Actions

Intersection safety is a cornerstone of any effective Action plan, as intersections are frequently points of conflict and high-severity crashes. The goal is to design intersections that are forgiving of human error and minimize vehicle speed involved in potential collisions.

Action	Lead	Support	Timeframe ¹	Type
Develop prioritized list of high-crash intersections and coordinate with municipalities to develop safety interventions.	Boston Region MPO	Municipalities/ MassDOT	Ongoing	Process
Develop and implement a traffic safety signal policy and prioritization framework that includes guidelines for municipal signal changes such as protected left turns, leading pedestrian intervals, pedestrian and cyclist detection and phasing, accessible pedestrian signals, signal timing optimization for safety, clearance intervals, and emergency vehicle pre-emption and transit signal priority.	Municipalities		Medium-term	Policy
Improve crosswalk visibility by installing high-visibility crosswalks or raised crosswalks at all high-volume intersection crossings with a focus on intersections near priority destinations (such as schools, senior centers, hospitals, and transit stops).	Municipalities	MassDOT	Medium-term	Infrastructure
Install pavement markings and physical delineation near crosswalks and intersections to improve sightlines for people driving and walking or rolling (daylighting intersections).	Municipalities	MassDOT	Medium-term	Infrastructure
Install 'no turn on red' signage at signalized intersections on the HIN and HRN.	Municipalities	MassDOT	Medium-term	Infrastructure

Action	Lead	Support	Timeframe ¹	Type
Coordinate with the MBTA to improve safety at at-grade rail crossings along the HIN and HRN.	Municipalities	Boston Region MPO/MBTA	Medium-term	Infrastructure
Adopt citywide 'No Turn on Red' policy.	Municipalities	MassDOT	Medium-term	Policy

¹ Timeframes: Short-term: 1–3 years; Medium-term: 3–5 years; Long-term: 5+ years



LANE DEPARTURE

Lane Departure Actions

Roadway departure crashes, where a vehicle leaves the traveled way and often strikes a fixed object, overturns, or enters a ditch, are a significant contributor to fatalities and serious injuries. This Action Plan will implement a multi-faceted approach to prevent these crashes by recommending more forgiving roadsides, improved driver awareness, and steps to address common contributing factors.

Action	Lead	Support	Timeframe ¹	Type
Use HIN and HRN to develop list of top locations for roadway departure crashes and roadway departure crash risk.	Boston Region MPO		Short-term	Process
Complement infrastructure improvements with targeted educational campaigns to address behavioral factors contributing to roadway departures, including partnering with state agencies and advocacy groups to conduct public awareness campaigns on the dangers of distracted and drowsy driving; and, enhancing outreach and education about the MA hands-free law.	Boston Region MPO	Municipalities	Medium-term	Process
Use context sensitive roadway departure best practices in areas where roadway departures are a common crash cause, including the installation of high friction pavement, shoulder or centerline rumble strips, wider pavement markings (6-inch edge and centerlines), and retroreflective pavement markings.	Municipalities	MassDOT	Ongoing	Infrastructure

¹ Timeframes: Short-term: 1–3 years; Medium-term: 3–5 years; Long-term: 5+ years



VULNERABLE ROAD USERS

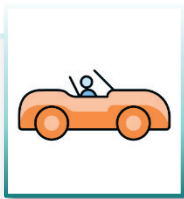
Vulnerable Road User Actions

Vulnerable Road Users—including pedestrians, bicyclists, individuals using wheelchairs, and those on scooters—are disproportionately affected by traffic crashes, often sustaining severe or fatal injuries due to their lack of physical protection. The MPO, through this Action Plan, is committed to creating a transportation system that prioritizes the safety and comfort of all Vulnerable Road Users, making walking, biking, and rolling safe and accessible modes of travel for everyone.

Action	Lead	Support	Timeframe ¹	Type
Using the Regional Active Transportation Plan, prioritize closing identified gaps in the bicycle and pedestrian network aligned with the HIN and HRN. Focus on prioritizing connections to transit, schools, hospitals, and commercial centers.	Municipalities	Boston Region MPO/ MassDOT	Short-term	Infrastructure
Develop a policy requiring traffic control guidance and design to improve safety for pedestrians and cyclists traveling through municipal-project work zones, ensuring temporary facilities are safe and clear.	Municipalities	Boston Region MPO	Short-term	Policy
Participate in the MassDOT Safe Routes to School (SRTS) program and encourage community groups, committees, or the municipality to join the Massachusetts SRTS Alliance.	Municipalities		Short-term	Process
Improve the safety and visibility of mid-block crosswalks with the installation of signage, high-visibility pavement markings, rapid rectangular flashing beacons (RRFBs) or HAWK signals along high-speed corridors and in proximity to priority destinations.	Municipalities	MassDOT	Medium-term	Infrastructure
Adopt a Complete Streets policy and leverage MassDOT Complete Streets funding opportunities to prioritize and improve walking and biking infrastructure.	Municipalities		Medium-term	Policy

Action	Lead	Support	Timeframe ¹	Type
Work with Safe Routes to School to expand educational campaigns and training programs for children and adults focusing on bicyclists and pedestrian skill education, safety-related training, helmet use, etc.	Municipalities	Boston Region MPO	Medium-term	Process
Work to implement school bus cameras to enforce the existing no passing law.	Municipalities	School Districts	Long-term	Policy

¹ Timeframes: Short-term: 1–3 years; Medium-term: 3–5 years; Long-term: 5+ years



OLDER DRIVERS

Older Adult and Older Driver Actions

Older adults, whether as pedestrians, drivers, or transit users, face unique challenges in the transportation system, often due to changes in vision, hearing, reaction time, or physical mobility. This Action Plan aims to create a transportation environment that is safe, accessible, and accommodating for our aging population, ensuring their continued mobility and independence. The Plan's strategies will address both infrastructure and behavioral aspects to mitigate risks for older adults and older drivers.

Action	Lead	Support	Timeframe ¹	Type
Use crash and risk data to prioritize locations to address the safety of older adult roadway users and to target messaging campaigns.	Boston Region MPO	Municipalities/ MassDOT	Short-term	Process
Collaborate with MassDOT and the RMV to help share information and resources about safe driving for older adults, including resources from AAA, AARP, and MIT AgeLab.	Boston Region MPO	MassDOT/RMV	Medium-term	Process
Partner with state and national organizations to educate older adults and their families about advanced vehicle safety features (e.g., blind spot monitoring, lane keeping assist, automatic emergency braking) and encourage the adoption of vehicles equipped with these technologies.	Boston Region MPO		Medium-term	Process
Continue to invest in research and planning that expands and improves public transit options, paratransit services, and community-based transportation programs tailored to the needs of older adults, reducing their reliance on private vehicles.	Boston Region MPO		Long-term	Process
Coordinate with the MBTA to facilitate "travel training" programs that help older adults learn to use public transportation safely and confidently.	Boston Region MPO	Municipalities/ COAs/RTAs	Long-term	Process

¹ Timeframes: Short-term: 1–3 years; Medium-term: 3–5 years; Long-term: 5+ years



SPEEDING

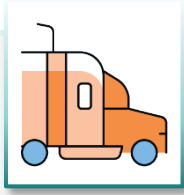
Speeding Actions

Speed is the single most critical factor in crash severity: the faster a vehicle is traveling, the greater the kinetic energy involved in a collision, and thus, the higher the likelihood of severe injury or fatality for all road users, especially vulnerable ones. This Action Plan provides for a comprehensive approach to managing speed through infrastructure design, policy changes, and targeted enforcement, ensuring that speeds are safe and appropriate for all roadway contexts.

Action	Lead	Support	Timeframe ¹	Type
Expand guidance and provide resources for municipalities to perform speed data collection more effectively, enabling data-driven identification of speeding hot spots and evaluation of countermeasure effectiveness.	Boston Region MPO	Municipalities/ MassDOT	Short-term	Process
Develop and disseminate public awareness materials highlighting the dangers of speeding and the direct correlation between speed and crash severity for all road users.	Boston Region MPO	Municipalities/ MassDOT	Short-term	Process
Research required speed-limiter devices for repeat and/or reckless speeding offenders.	Boston Region MPO	MassDOT	Medium-term	Process
Help spread awareness of and implement MassDOT's speed management guidance to collect information and analyze data, establish target speeds, design roadways for speed control and separation, set speed limits, and build a community-wide safety culture	Boston Region MPO	Municipalities	Medium-term	Process
Provide guidance to municipalities to develop traffic calming prioritization protocols to help municipal staff communicate to colleagues and residents about when and where traffic calming interventions should be implemented.	Boston Region MPO	Municipalities	Medium-term	Process

Action	Lead	Support	Timeframe ¹	Type
Review crash data on speeding related crashes and coordinate with municipalities and MassDOT to identify pilot locations for automated speed and red light safety cameras.	Boston Region MPO	Municipalities/ MassDOT	Medium-term	Process
Adopt a 25 mph speed limit in municipality-owned high-density and business districts, as authorized by Chapter 90, Section 17C of the MGL.	Municipalities		Short-term	Policy
Establish safety zones and school zones along municipal-owned roadway corridors to lower speed limits to 20 mph.	Municipalities		Short-term	Policy
Prioritize traffic calming street design changes on local and collector streets in areas at a high-risk for speeding-related crashes, such as residential neighborhoods, school zones, and commercial districts. Traffic calming interventions include road diets, raised intersections or crosswalks, speed humps, narrowing travel lanes, and gateway treatments.	Municipalities	MassDOT/ Boston Region MPO	Medium-term	Infrastructure

¹ Timeframes: Short-term: 1–3 years; Medium-term: 3–5 years; Long-term: 5+ years



LARGE VEHICLES

Large Vehicle Actions

Large vehicles, including commercial trucks, buses, and municipal fleets, present unique safety challenges due to their size, weight, blind spots, and longer stopping distances. Crashes involving large vehicles often result in severe outcomes, particularly for vulnerable road users. The Action Plan provides a commitment to mitigating these risks by promoting safer vehicle design, implementing robust fleet policies, and designing infrastructure that accounts for the operational characteristics of large vehicles.

Action	Lead	Support	Timeframe ¹	Type
Develop educational materials that municipalities can use for awareness campaigns for commercial motor vehicle (CMV) drivers on how to better share the roadway and improve safety for all (e.g., Share the Road Campaigns).	Boston Region MPO	Municipalities/ MassDOT	Short-term	Process
Develop and model safe fleet transition plan for municipalities to adopt.	Boston Region MPO	Municipalities	Medium-term	Process
Collaborate with MassDOT to promote local adoption of safety measures on large vehicles and municipal fleets according to Massachusetts Acts of 2022 Chapter 358—An Act to Reduce Fatalities, including installing side guards, backup cameras, and cross-over mirrors, as well as prohibition of hazardous aftermarket devices like bull bars and lifted suspensions. Provide guidance to municipalities on effectively incorporating these safety requirements into residential parking permit programs to encompass privately owned vehicles.	Boston Region MPO	MassDOT	Medium-term	Process
Establish clearly defined and safely designed loading/unloading zones.	Municipalities		Short-term	Process

Action	Lead	Support	Timeframe ¹	Type
<p>Adopt a ‘safe fleet’ policy that outlines municipal fleet owners’ commitment to safer vehicles with higher direct vision. This policy should draw on Boston’s and New York City’s Safe Fleet Transition Plans and should include:</p> <ul style="list-style-type: none"> • Safety Technology Requirements: Mandate the installation of side guards, blind zone cameras, white noise backup alarms, intelligent speed assist, and other proven safety technologies on all new and existing municipal fleet vehicles; prohibition of hazardous aftermarket modifications (per Chapter 358 of Acts of 2022); and provide templates for incorporating these safety requirements in all municipal contracts. • Driver Training: Require ongoing, specialized safety training for all municipal vehicle operators, with a focus on vulnerable road user awareness, safe turning maneuvers, and blind spot recognition. • Vehicle Maintenance Standards: Establish rigorous maintenance schedules and inspection protocols to ensure all safety features are fully operational. 	Municipalities	Boston Region MPO	Medium-term	Policy

¹ Timeframes: Short-term: 1–3 years; Medium-term: 3–5 years; Long-term: 5+ years

Other Strategies for the Boston Region

As noted, other road safety issues also cause death and injury on the region's roads, and the MPO encourages its partners to continue to take action in these areas as well.

Notably, **Post Crash Care** is identified as an element of the Safe System Approach and a part of MassDOT's SHSP to provide expedient access to EMS (emergency medical services) care and support the work of first responders. According to [NHTSA](#), 40 percent of 2021 crash victims nationally were alive when first responders arrived, but later died. Thus, delivering medical care can clearly and dramatically improve crash outcomes.

The region is known for its world-class hospitals and multiple Level 1 adult and pediatric [trauma centers](#). However, the MPO and its cities and towns can take additional steps to leverage Post Crash Care to help achieve Vision Zero:

- **EMS Response Times:** EMS service in Boston is coordinated by Boston Emergency Medical Services (Boston EMS), which [reported](#) a 2023 median response time for Priority 1 (life-threatening) calls as 7.4 minutes. However, communities outside of Boston are served by a range of ambulance services and EMS providers may have longer distances to travel. The MPO and subregions can better assess EMS response times throughout the region to identify problem areas.
- **Traffic Incident Management (TIM):** Roadside crash sites present complex and dangerous areas for first responders, and a notable number of first responders are struck and killed at the roadside by other vehicles. First responders in the region can participate in [training](#) offered by the MassDOT TIM Program to make roadside care more efficient and protect roadside workers.



Cutting Edge Strategies and Countermeasures

States, communities, and other countries are pioneering many other innovative approaches to highway safety. Several emerging strategies are listed in Table 5.1 that could be considered for the Boston region.

Table 5.1 | Innovative Countermeasures and Strategies

Issue	Strategy/Countermeasure
Intelligent Transportation Systems (ITS)	Intelligent Transportation Systems (ITS): Encompasses a range of digital transportation infrastructure that can include a wide spectrum of use cases for connected vehicles, vehicle-to-everything (V2X) communication, and artificial intelligence. These technologies hold tremendous promise to improve safety and mobility.
Lane Departures	Advanced Driver-Assistance Systems (ADAS): Advanced driver-assistance systems provide real-time alerts and automated interventions to prevent lane departures.
	Roadway Departure Prevention Systems: Innovations in systems that prevent vehicles from leaving the roadway, such as haptic feedback and drive-by-wire systems, are being evaluated for their effectiveness in emergency situations.
Distracted Driving	Automated Distracted Driving Detection: New safety camera technology is available that can monitor phone use of drivers, both for the purpose of enforcement and to better diagnose distracted driving trends.
Impaired Driving	Specialty OWI Courts: Massachusetts has a number of drug courts, but many states have begun leveraging DUI courts specifically to offer individualized supervision and treatment for high risk impaired driving offenders.
	Increased Drug Recognition Training: In addition to training police officers as Drug Recognition Experts (DRE), some law enforcement agencies have set goals to have all of their traffic officers certified in Advanced Roadside Impaired Driving Enforcement (ARIDE), a course offered by the Massachusetts Municipal Police Training Committee.

6 | Progress and Transparency

Achieving the Boston region's goal of eliminating fatal and serious injury crashes by 2050 will require collaboration and sustained effort among all regional transportation safety stakeholders including: planners, road owners, maintenance, law enforcement, first responders, the public, advocacy groups, engineers, policy makers, EMS, and community-based organizations.

Boston Region MPO's Role in Improving Transportation Safety

The MPO will continue to play a critical role in enhancing transportation safety by leading implementation of several Vision Zero action items to advance the region toward a Safe System.



Coordinate

The MPO will foster collaboration through peer exchanges, working groups, direct communication, and annual reporting on plan implementation.



Plan

The MPO will embed Safe System principles into future planning efforts, including updates to the Destination 2050 LRTP and the TIP, and support other safety-focused initiatives, such as Safe Routes to School and Complete Streets.



Fund

The MPO will prioritize safety investments, focusing on locations identified in the High Injury Networks and those aligned with Safe System principles.



Educate

The MPO will increase public awareness through campaigns addressing critical issues like speeding, lane departures, intersection safety, older drivers, and vulnerable road users.



Evaluate

The MPO will track and report regional safety progress based on Vision Zero Action Plan goals and will evaluate performance metrics, crash trends, and emerging risks.



Advocate

The MPO will advocate at all government levels for policies and legislation that enhance roadway safety.

The MPO will utilize this Action Plan (see the actions tracking table in Appendix J) to track and report regional safety progress based on Action Plan goals, using both outputs and outcomes on an annual basis. Outputs track and report on the progress of the MPO in supporting, promoting, and leading safety initiatives, programs, policies, plans, and projects. Outcomes evaluate the effectiveness of safety programs and investments in reducing crash frequency and severity, and evaluation findings are used to strengthen successful strategies and revise or discontinue ineffective ones.

The MPO will track performance annually through quantitative analysis of the performance metrics listed in Table 6.1 and Table 6.2. While similar metrics are tracked statewide in the SHSP, these metrics will be tracked specifically for the Boston region and publicly reported by the MPO.

Table 6.1 | Vision Zero Action Plan Performance Metrics (All Roads)

Metric	Baseline (5 Year Average 2018–2022)	Year 1— Annual Number	Year 1— Rolling 5-year Average
Number of Fatal Crashes in Boston MPO region	113		
Number of Fatalities	117		
Rate of Fatal Crashes (per 100,000 population)	3.43		
Number of Serious Injury Crashes	841		
Number of Serious Injuries	966		
Rate of Serious Injury Crashes (per 100,000 population)	25.52		

Table 6.2 | Vision Zero Action Plan Performance Metrics (Interstates, Expressways, Other Fully Access-Controlled Roads, and Ramps)

Metric	Baseline (5 Year Average 2018–2022)	Year 1— Annual Number	Year 1— Rolling 5-year Average
Percent Change in Fatal and Serious Injury (FSI) Crashes Involving Large Trucks	4%		
Percent Change in FSI Crashes Involving Older Drivers	5%		
Percent Change in FSI Crashes Involving Speeding	18%		
Percent Change in FSI Crashes Involving Intersections	1%		
Percent Change in FSI Crashes Involving Lane Departure	9%		
Percent Change in FSI Crashes Involving Vulnerable Road Users	3%		

7 | Next Steps

The Boston Region Vision Zero Action Plan represents a critical step forward in our commitment to eliminating traffic fatalities and serious injuries by 2050. Through a thorough analysis of crash data, extensive public and stakeholder engagement, and a deep dive into policy and infrastructure, we identified key areas of concern such as intersections, lane departures, and the heightened vulnerability of pedestrians and cyclists. This Action Plan is a regional roadmap built on the Safe System Approach, recognizing that human error is inevitable and that our transportation system must be designed with multiple layers of protection to ensure everyone's safety.



Moving forward, the success of this Vision Zero Action Plan hinges on sustained collaboration and proactive implementation. The MPO will continue to play a central role in coordinating efforts, embedding Safe System principles into future planning, and prioritizing investments in high-risk areas. We will also focus on educating the public, evaluating our progress against clear performance metrics, and researching and providing information to stakeholders about necessary legislative changes. This plan provides a regional framework, but its impact will be measured by the collective actions taken by all stakeholders—from state agencies and municipalities to community organizations and individual road users.

Achieving Vision Zero is a shared responsibility, demanding a unified commitment from everyone who uses and shapes our roadways. We urge all stakeholders to actively engage with the strategies and countermeasures outlined in this plan. By working together, leveraging the identified data, and adopting the Safe System Approach, we can transform our streets into safer, more equitable spaces for all. Your active participation is not just encouraged, it is essential to reach Vision Zero in the Boston Region.

Boston Region Vision Zero Action Plan: **A Roadmap to Safer Streets**

For more information, visit our [website](#)!

