June 2025

Cumberland

Safe Streets and Roads for All Safety Action Plan

SS4A
SAFE STREETS FOR ALL

Town of Cumberland
Rhode Island
1747

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Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
APS	Accessible Pedestrian Signal
BCA	Baseline Crash Analysis
BMP	Bicycle Mobility Plan
DOT	U.S. Department of Transportation
DPW	Department of Public Works
FHWA	Federal Highway Administration
FI	Fatal and All Injury Crash Severities
FSI	Fatal and Serious Injury Crash Severities
HIN	High-Injury Network
HRN	High-Risk Network
HSIP	Highway Safety Improvement Plan
PAPA	Physical Alteration Permit Application
PSCi	Proven Safety Countermeasures initiative
PTO	Parent Teacher Organization
RIDOT	Rhode Island Department of Transportation
RIPTA	Rhode Island Public Transit Authority
RRFB	Rectangular Rapid Flashing Beacon
SAP	Safety Action Plan
SHSP	Strategic Highway Safety Plan
SS4A	Safe Streets and Roads for All Program
STC	State Traffic Commission
STIP	Statewide Transportation Improvement Program
VRU	Vulnerable Road Users (i.e., Pedestrians and Bicyclists, etc.)

Acknowledgments

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Thank you to the Town departments, committees, and statewide partners that helped guide this plan, and individual committee members whose input helped shape this document.

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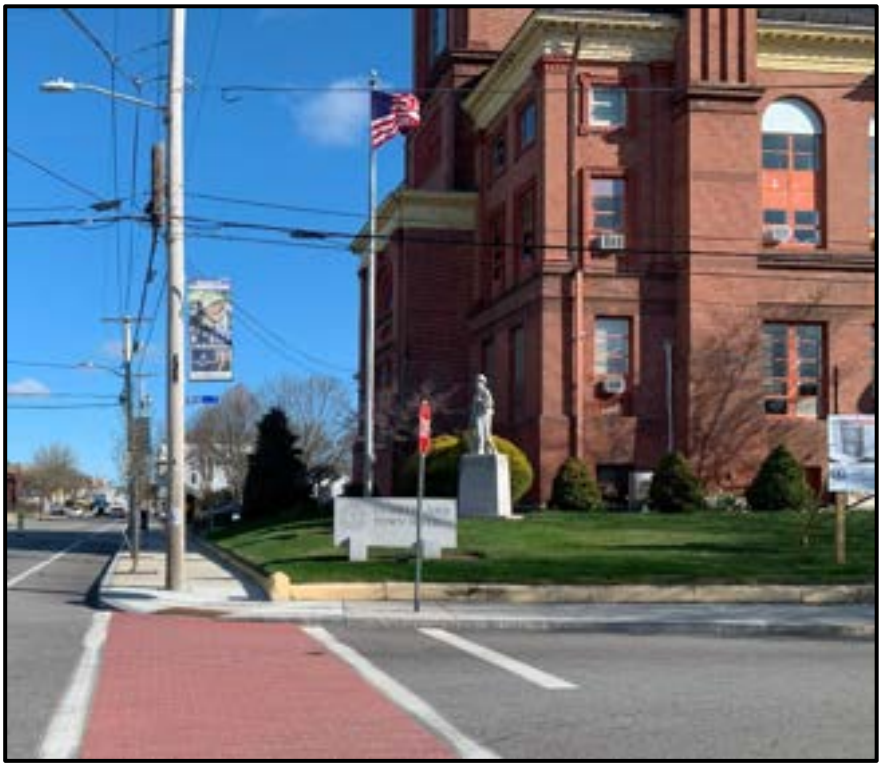


Executive Summary

SS4A & Project Overview

Roadway safety is a serious concern for most people travelling in Rhode Island. Through the U.S. Department of Transportation's Safe Streets for All (SS4A) program, the Rhode Island Public Transit Authority (RIPTA) secured funding in 2023 to support the state and participating municipalities in planning for infrastructure improvements that will prevent injuries and save lives. With the SS4A grant award and other statewide efforts through the Division of Statewide Planning and the Rhode Island Department of Transportation, the state is focused on improving safety on all roadways.

The SS4A planning project is creating municipal Safety Action Plans (SAPs) for 31 participating communities, as well as a statewide SAP. The project establishes guidelines to effectively implement a tangible version of the Safe Streets for All mission, guided by the Safe Systems Approach[1]. This encompasses shifting safety needs, known and emerging areas of safety improvement, identification of priority projects, and will help the State of Rhode Island and its municipalities position for further federal implementation funding.

This project includes a three-tier safety analysis to understand the current state of road safety in each community, identify high risk areas, and develop a predictive view of potential crash sites. However, data doesn't always tell the full story. The project team also attended community events and hosted pop-up events across Rhode Island where the public could engage in deeper discussion and learn more about the project. They were also encouraged to participate in a Safety Survey pertaining to the SS4A.

Overview

Through the SS4A program, participating municipalities and agencies have the continued opportunity to make improvements to the transportation system that will prevent injuries and save lives. In 2023, RIPTA and 31 participating municipalities were awarded SS4A funding to develop comprehensive safety action plans. In the end, each municipality will receive a tailored safety action plan with comprehensive analysis, public engagement, high-risk area identification, safety improvement recommendations, and future funding guidance. A statewide plan is also being developed to understand broader safety concerns and goals across Rhode Island.

The overarching process for developing the municipal SAPs included these general scope items and schedule:

- Discuss community goals (April-May 2024)
- Collect community input (June-October 2024)
- Develop community Safety Action Plans (July 2024-March 2025), including:
    - Safety analysis (baseline, high-risk network, high injury network)
    - Policy discussion
    - Identification of priority locations/projects

[1] https://www.transportation.gov/safe-system-approach

Project Components

Safety Analysis

The safety analysis uses data to identify key crash patterns and trends and the contributing factors that have led to fatal and serious injury crashes in the project area. This analysis is based on five years of crash data (2019-2023), collected by enforcement agencies using the State of Rhode Island Uniform Crash Report form[2], and roadway and land use data. Together, this information identifies the types of infrastructure, behavior, and contexts that have the greatest impact on safety performance. Safety analyses will inform policy, infrastructure, and programming improvements for all modes of travel.

Engagement

Stakeholder engagement and collaboration ensure that the plan includes diverse perspectives and insights, identifies risks not apparent in the data, and provides concurrence for solutions. Engagement was held early and at key junctures throughout the project, including stakeholders and the public as part of the decision-making process. The aim of SS4A is to define a technically and culturally appropriate framework for consultation as project implementation takes place.

Safety Action Plan

An action plan outlines the specific steps and strategies to address the safety challenges and goals in the project area explored throughout this plan. This SAP is structured around the standard SS4A Action Plan Components, listed below:

- Leadership Commitment and Goal Setting
- Planning Structure
- Safety Analysis
- Engagement and Collaboration
- Equity Considerations
- Policy and Process Changes
- Strategy and Project Selections
- Progress and Transparency

Proposal for future grant opportunities

By prioritizing analysis, engagement, and the action planning, the project team can assist municipalities in creating proposals and guidelines for future funding opportunities. This will support ongoing implementation and construction efforts, enhancing community safety, addressing areas of concern, and establishing infrastructure for healthier, happier communities.

[2] https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/ri_par_rev_12_06_sub_02_08_07.pdf

Introduction

Meeting the Challenge

From 2019-2023, 329 people lost their lives on Rhode Island roads and 1,401 people were seriously injured. Over 4,100 more people were injured less severely. The U.S. Department of Transportation's Safe Streets for (SS4A) program provides funding for communities to plan and implement improvements that will prevent injuries and save lives. In 2023, Rhode Island and 31 participating municipalities, including Cumberland, were awarded SS4A funding to develop comprehensive safety action plans.

This Safety Action Plan (SAP) provides strategies to enhance roadway safety, reduce fatalities, and prevent serious injuries for drivers, pedestrians, cyclists, and public transit users in Cumberland. The Town intends to use this SAP to apply for implementation grants under the SS4A Program and other grants available such as those through the Federal Highway Administration (FHWA).

This SAP analyzes overall crash patterns utilizing a baseline crash analysis (BCA). The BCA assesses hot spots where crashes have occurred, and a systemic safety analysis[3] identifies common risk factors that contribute to crashes across the entire transportation network. This combined approach, based on recent crash history and systemic risk factors, allows Cumberland to identify the high injury network, and develop effective context-specific solutions. Combining these two approaches also allows the Town to balance reactive measures that address locations where crashes are occurring with proactive measures that address areas of risk during future project implementation. This SAP is structured around the standard SS4A Action Plan Components, listed below:

- Leadership Commitment and Goal Setting
- Planning Structure
- Safety Analysis
- Engagement and Collaboration
- Equity Considerations
- Policy and Process Changes
- Strategy and Project Selections
- Progress and Transparency

The SAP details strategies that complement SS4A goals to eliminate fatal and serious injury crashes. The SAP includes individual projects, safety countermeasure opportunities, and recommended policy changes to address safety and mobility challenges in an equitable and sustainable way.

Safe System Approach

The Safe System Approach has been adopted by the transportation community to identify and reduce risks found in the transportation system. This approach focuses on evaluating human mistakes and vulnerability in addition to crash analysis to create a comprehensive plan to improve safety.

[3] https://safety.fhwa.dot.gov/systemic/fhwasa13019/

All materials and project guidelines in this SAP prioritize the Safe System Approach (Figure 1). The Safe System Approach anticipates human mistakes and proactively designs infrastructure to reduce the risk of those mistakes occurring and to reduce the crash severity when a mistake does occur.

Source: U.S. Department of Transportation

Figure 1. Safe System Approach Infographic

Principles of a Safe System Approach

Death and Serious Injuries are Unacceptable. The approach focuses on elimination of crashes that result in serious injury or death.

Humans Make Mistakes. People will unfortunately make mistakes or choices that lead to crashes of all types. This approach tries to anticipate the mistakes/choices that may be made to limit the number of serious crashes.

Humans Are Vulnerable. Human bodies have a threshold of injury during a crash before it results in death. It is of paramount importance to create a transportation system that accounts for human vulnerabilities in its design.

Responsibility is Shared. All stakeholders are vital to mitigating crash fatalities and injuries.

Safety is Proactive. Utilizing proactive tools to address safety issues before crashes occur.

Redundancy is Crucial. Reducing risks requires that all aspects of transportation have an opportunity for improvement.

The Safe System Approach provides a framework for identifying and prioritizing projects. The safe system approach was used to ensure this SAP:

- Addresses the causes and context for fatal and serious injury crashes throughout the community

- Prioritizes systemic change over individual behavioral change
- Prioritizes system-wide risk mitigation over the causes of individual crashes

By integrating these factors into this SAP's recommendations and priorities, Cumberland will achieve a balance between reactive strategies that tackle issues leading to fatal and serious injury crashes, and proactive strategies that address system risks before such crashes occur.

The balance between these strategies is addressed through the BCA, which identifies high-level patterns for fatal and serious injury crashes that have occurred, and the systemic safety analysis, which identifies risk factors that could lead to future fatal and serious injury crashes if left unaddressed.

Municipal-State Coordination

Coordination between municipalities and the state is an important part of successful implementation of road safety projects, particularly in areas where roadway networks include a mix of local and state jurisdiction. The singular focus of the municipality is contrasted with the need for the Rhode Island Department of Transportation (RIDOT) to consider systemwide improvements. RIDOT is aligned with the SS4A program in both its current participation in developing the parallel Statewide Safety Action Plan and its recent development of roadway safety plans that advance the SS4A underlying mission of Vision Zero.

The Strategic Highway Safety Plan (SHSP)[4], Highway Safety Improvement Plan (HSIP)[5], Statewide Transportation Improvement Program (STIP)[6], Bicycle Mobility Plan (BMP)[7], and RI Vulnerable Road User Safety Assessment (VRU Safety Assessment)[8], among other RIDOT plans, document the criteria and process involved in project prioritization, selection and funding determination. The following language from the VRU Safety Assessment is an example:

> *RIDOT works with municipalities to identify and mitigate crash issues on locally maintained roadways. RIDOT has developed a process for local agencies to request a safety improvement with the intent for local agencies to perform the 'planning' step from the HSIP process. RIDOT will then determine if the improvement is eligible for HSIP funds and distribute the funds needed to the local agencies so they can administer the construction of the improvements.*

In addition, the following language is included in the most recent SHSP:

> *RIDOT is not eligible for (the SS4A) competitive grant program: however, RIDOT can support cities, towns, tribal government and the MPO which are eligible…The success of the SHSP is dependent on implementation at the local level. SS4A will fund a wide array of activities addressing the priority safety concerns in Rhode Island.*

[4] https://www.dot.ri.gov/Safety/reports/docs/Strategic_Highway_Safety_Plan.pdf
[5] https://www.dot.ri.gov/safety/reports/Highway_Safety_Impovement_Program.php
[6] https://planning.ri.gov/stip
[7] https://planning.ri.gov/sites/g/files/xkgbur826/files/documents/LRTP/Bicycle-Mobility-Plan.pdf
[8] https://www.dot.ri.gov/safety/docs/Rhode_Island_VRU_Safety_Assessment.pdf

RIDOT's participation in the Statewide Safety Action Plan, as well as its acknowledgements in previous plans as noted above, show its commitment to work with municipalities to advance local and regional safety priorities across all roadway jurisdictions.

Municipal Background

Cumberland is located at the northeastern most corner of Rhode Island, abutting the Massachusetts state line. The Town's roadway network consists of both state maintained roadways including High Street (Route 114), Diamond Hill Road (Route 114), Pine Swamp Road (Route 114), Angell Road (Route 116), Nate Whipple Highway (Route 120), Mendon Road (Route 122), and Dexter Street (Route 123), and Town-maintained roadways including Curran Road, Blackstone Street, Ann and Hope Way, and Bear Hill Road. Cumberland provides connections to Route 99, Route 146, and Interstate 295 making it convenient for commuters and travelers.

The Planning Department is actively engaging in Conservation and Management plans for the Town's parks and historic sites including Diamond Hill Park, Mercy Woods, and the Monastery. The improvement plan for Diamond Hill Park focuses on the man-made wetland in front of the Performing Arts Pavilion and the Park entranceway area. The Sisters of Mercy Northeast community and the Town of Cumberland are working together to preserve the Mercy Woods Park including protecting the drinking water, preserving wildlife habitat, and creating permanent outdoor areas for hiking and educational opportunities. The Monastery is Cumberland's largest park consisting of about 500 acres. The park houses a playground and many hiking trails which are frequently used by the Cumberland High School and Middle School cross country teams.

The roadways in Cumberland are designed for multiple uses, with driving lanes, sidewalks, and access to bike paths. The Blackstone River Bikeway is the state's second longest bike path and includes an approximately 11-mile section between Cumberland and Woonsocket. Sections of the bikeway continue to be constructed to open more connections between municipalities, with the goal of spanning 48 miles and linking Worcester, MA to Providence, RI.

1. Leadership Commitment and Goal Setting

The Mayor of Cumberland publicly committed to an eventual goal of zero roadway fatalities and serious injuries. The commitment included setting a target date to achieve a 50% reduction in roadway fatalities and serious injuries over a ten-year horizon and an eventual goal of zero roadway fatalities and serious injuries over a twenty-year horizon.

1.1 Leadership Commitment

Cumberland leaders are committed to the goals set forth in this Safety Action Plan (SAP). Letters of support from the Mayor of Cumberland and other stakeholders are provided in Appendix A.

1.2 Goal Setting

The primary goals of this SAP include:

- Reduce fatal and serious injury crashes by 50% by 2035
- Achieve zero roadway fatalities and serious injuries by 2045

2. Planning Structure

This plan incorporates a rational, proven planning model for safety action planning. Every strategic plan, regardless of the goals, must seek to answer four fundamental questions:

- Where are we now?
- Where do we want to go?
- How do we get there?
- How do we measure our success?

To answer these questions, this Safety Action Plan (SAP) follows a structured process:

1. **Assessment and Data Collection**: Gather crash data and identify high-risk areas and trends

2. **Goal Setting and Prioritization**: Stakeholder engagement and development of data-driven priorities

3. **Risk Assessment and Countermeasure Application**: Identify contributing factors and select evidence-based countermeasures

4. **Action Plan Development:** Include projects, priorities, implementation guidelines, and evaluation strategies to monitor progress.

2.1 Current Planning Organizational Description

The Cumberland Safe Streets for All (SS4A) Task Force, consisting of the Planning Director, Director of Public Works, Captain of Patrol and SROs, Traffic Officer, Superintendent of Schools, and Principal Planner, was established as an advisory committee to oversee this SAP's development, implementation, and future updates. The Task Force actively participated in regular input sessions and offered valuable review and feedback on the final plan.

2.2 Recommended Organizational Changes Post-Safety Action Plan

The SAP was developed by the SS4A Task Force, incorporating input from key stakeholders and the public. Designed as an iterative plan, it will be regularly reviewed and updated by municipal staff to track and enhance traffic safety improvements. Implementation will require close collaboration between the Planning, Police, School, and Public Works departments. After each countermeasure is put into place, Town staff will jointly monitor and evaluate its impact on roadway safety to ensure continued effectiveness.

3. Safety Analysis

3.1 Analysis Overview

The safety analysis uses data to identify key crash patterns and trends and the contributing factors that have led to fatal and serious injury crashes in Cumberland. This analysis is based on five years of crash data (2019 to 2023) collected by enforcement agencies using the State of Rhode Island Uniform Crash Report form and roadway and land use data. Together, this information identifies the types of infrastructure, behavior, and contexts that impact safety performance most. Safety analyses inform policy, infrastructure, and programming improvements for all modes of travel, as described in Chapter 6 and Chapter 7. All data analysis is only as accurate as the raw data itself. Unintentional errors in the crash location data provided for analysis could lead to imprecise recommendations.

The three safety analyses covered in this section include:

- **Baseline Crash Analysis (BCA)**: This analysis is a series of charts, tables, and narratives describing recent crash trends, key factors, and overall patterns in serious and fatal injury crashes over the past five years.
- **High-Risk Network (HRN)**: The HRN is an analysis that illustrates locations at higher risk for fatal and serious injury crashes based on a statewide systemic safety analysis. This analysis identifies combinations of design features, land use context, equity metrics, and more which correlate with greater risk for future crashes. This especially supports the systemic implementation of low-cost safety treatments.
- **High Injury Network (HIN)**: The HIN is a map that identifies the roads in Cumberland with the highest concentration of fatal and serious injury crashes during the study period, as well as those with the highest risk for future fatal and serious injury crashes.

Why focus on fatal and serious injury crashes?

The goal of the Safe System Approach is to eliminate fatal and serious injuries. To support that goal, the safety analysis focuses on crash patterns and factors for fatal and serious injury crashes where possible. For less common crash types (e.g., pedestrians), additional crash severities were included to help reveal crash patterns.

Why look at five years of crash data?

Crashes can fluctuate naturally from year-to-year based on road conditions, community circumstances, and more. A five-year study period effectively balances changes in safety over time while capturing overall trends. The result is a safety analysis that is comprehensive and supports long-term decision making.

The key findings of the safety analysis for Cumberland are:

- Vulnerable road user (VRU) crashes have a higher rate of injury (89%) than motor vehicle crashes (19%)
- Cumberland has the lowest crash rate compared to its neighboring Rhode Island towns
- Cumberland has the 19th lowest fatal and serious injury (FSI) crash rate out of all 39 municipalities
- Injury crashes for all modes have steadily increased since 2019
- Injury crashes for VRUs slightly increased from 2019 to 2020 but was generally steady between 2020 to 2023
- State roads have a quarter of the mileage of local roads but account for many more fatal and all injury (FI) crashes

3.2 Baseline Crash Analysis

The BCA is an overview of the state of safety within Cumberland summarizing key trends in safety performance, helping to create a shared understanding of the greatest opportunities for safety improvement within the community. The BCA pinpoints the regional and local factors that contribute to frequent and severe crashes. It identifies road segments and intersections most affected by fatal and serious injury crashes.

The BCA answers questions like:

- How has crash frequency changed in recent years?
- How do crash patterns vary by road users' modes of travel?
- What types of behaviors and environmental factors are most prevalent among severe crashes?
- How do safety outcomes correlate with equity factors such as poverty or transportation access?
- What roadway and environmental attributes influence safety outcomes?
- Which roadways and areas had the highest concentration of severe crashes over recent years?

3.2.1 Baseline Crash Analysis Findings

- The annual number of FI crashes trended upward in Cumberland over the five-year analysis period, with these crashes increasing from 71 crashes in 2019 to 138 crashes in 2023. Similarly, the FSI crashes increased from 5 crashes in 2019 to 9 crashes in 2023
- Half of all FSI crashes involved a single vehicle and over a quarter (27%) of FI crashes involved a single vehicle
- Out of state drivers were involved in 21% of FSI crashes and 31% of FI crashes
- Senior drivers were a factor in 29% of FSI crashes and 27% of FI crashes
- Operating under the influence was a factor in 7% of FSI crashes and 3% of FI crashes
- 65% of FSI crashes and 52% of FI crashes occurred on state roadways for motor vehicles
- The majority of FSI and FI crashes did not occur at intersections. 75% of FSI crashes and 76% of FI crashes for motor vehicles occurred mid-block
- The majority of FSI (61%) and FI (70%) crashes occurred during daylight conditions

- FI crashes for motor vehicles were highest from October to December. FI crashes for motorcycles were highest for the months of June, July, and September. FI crashes for bicycles were highest in October and FI crashes for pedestrians were highest in November
- The majority of FSI (89%) and FI (78%) crashes occurred during clear conditions
- For all modes, the majority of crashes occur from 3:00 PM to 6:00 PM

The KABCO scale was developed by the FHWA to assess the severity of crashes. The following defines each level:

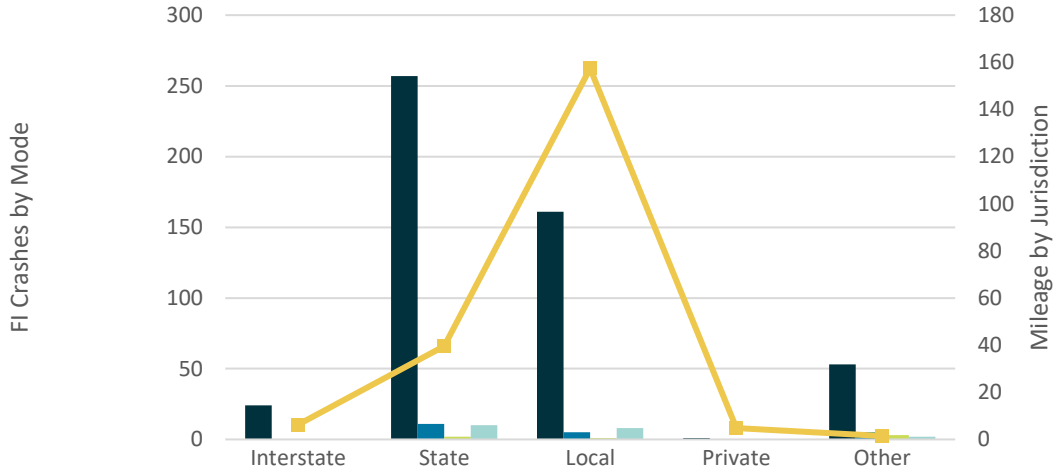
K: Fatal Injury
A: Incapacitating (i.e., Serious) Injury
B: Non-incapacitating Injury
C: Possible Injury
O: Property damage only

Table 1. Crashes by Severity and Mode (2019-2023)

Severity	Motorized				VRU			
	Motor Vehicle		*Motorcycle*		*Bicyclist*		*Pedestrian*	
	#	%	#	%	#	%	#	%
K	6	0.2%	0	0.0%	0	0.0%	0	0.0%
A	14	0.5%	3	10.7%	1	12.5%	4	19.0%
B	57	2.2%	7	25.0%	2	25.0%	8	38.1%
C	419	15.9%	11	39.3%	3	37.5%	8	38.1%
O	2,139	81.2%	7	25.0%	2	25.0%	1	4.8%
FSI Total	**20**	**0.8%**	**3**	**10.7%**	**1**	**12.5%**	**4**	**19.0%**
FI Total	**496**	**18.8%**	**21**	**75.0%**	**6**	**75.0%**	**20**	**95.2%**
Grand Total	**2,635**	**100%**	**28**	**100%**	**8**	**100%**	**21**	**100%**

Roadway safety in Cumberland is crucial to protecting the lives and well-being of all road users. As shown in Table 1, over the 5-year period from 2019-2023, there were six fatalities, 22 serious injuries, 74 minor injuries, and 441 possibly injuries resulting from roadway crashes in Cumberland. While there were many more crashes involving motor vehicles (2,635 total), approximately 81% of these crashes resulted in property damage only, whereas approximately 90% of crashes involving a bicyclist or pedestrian resulted in an injury. Likewise, for motorcycles, 75% of crashes resulted in an injury. The higher propensity for VRU and motorcycle crashes to result in a fatality or injury elevates these types of crashes above others for consideration and safety treatments.

Figure 2. Fatal and All Injury Crashes by Mode by Roadway Jurisdiction (2019-2023)

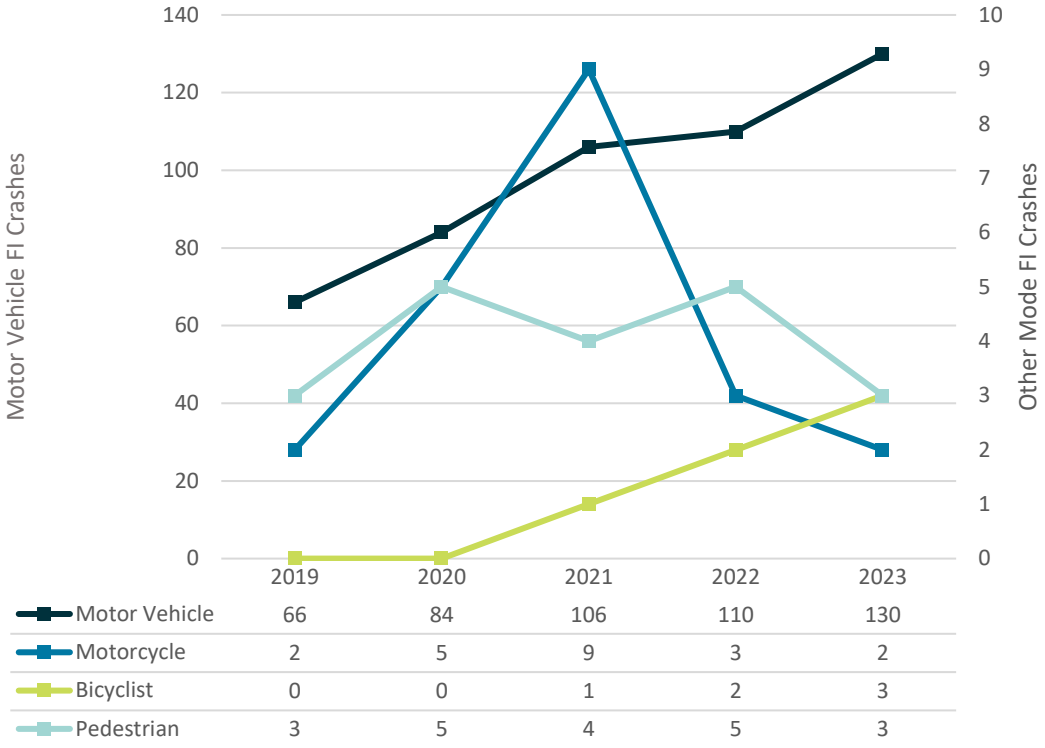


	Interstate	State	Local	Private	Other
Motor Vehicle	24	257	161	1	53
Motorcycle	0	11	5	0	5
Bicyclist	0	2	1	0	3
Pedestrian	0	10	8	0	2
Mileage	6	40	157	5	1

Crashes resulting in an injury or fatality occur more frequently on RIDOT roadways (Figure 2). While RIDOT roadways account for approximately one-quarter as much mileage as Town roadways, there are more crashes on RIDOT roadways for all users. Given that most of the major corridors and intersections in Cumberland are RIDOT roads, this finding is not entirely surprising as these roadways generally have higher traffic volumes and speeds.

While only covering 5 years of data including the years impacted by the COVID-19 pandemic, analysis of the year-to-year trend in crash data in Cumberland can help describe if and in what direction crash quantity and severity are headed to help inform the appropriate strategies and goals. For fatal and all injury crashes for all modes, the numbers have either increased or remained steady from 2019 to 2023.

Figure 3. Fatal and All Injury Crashes by Year by Mode (2019-2023)



Heatmaps of the crashes were developed to identify the locations in Cumberland with the highest density of crashes in the Town. Heatmaps of the fatal and serious injuries for all modes and VRUs are shown in Figure 4 and Figure 5, respectively.

FATAL AND SERIOUS INJURY ALL MODES CRASH HEATMAP

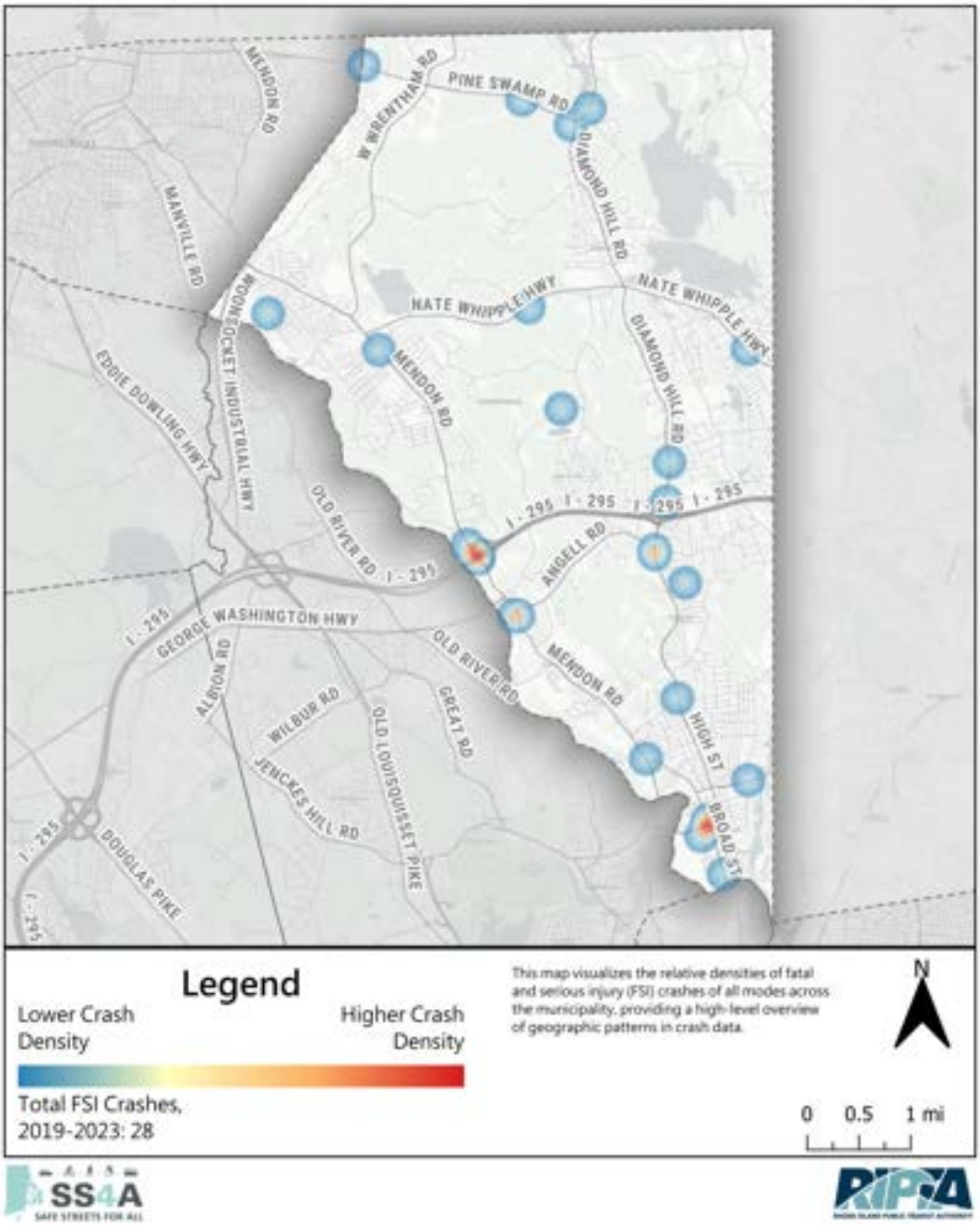


Figure 4. Fatal and Serious Injury All Modes Crash Heatmap

Among all FSI crashes (Figure 3), the locations with the highest density of crashes included Mendon Road, Diamond Hill Road, Interstate 295 Interchanges, and Valley Falls neighborhood.

VULNERABLE ROAD USER
FATAL AND SERIOUS INJURY CRASH HEATMAP

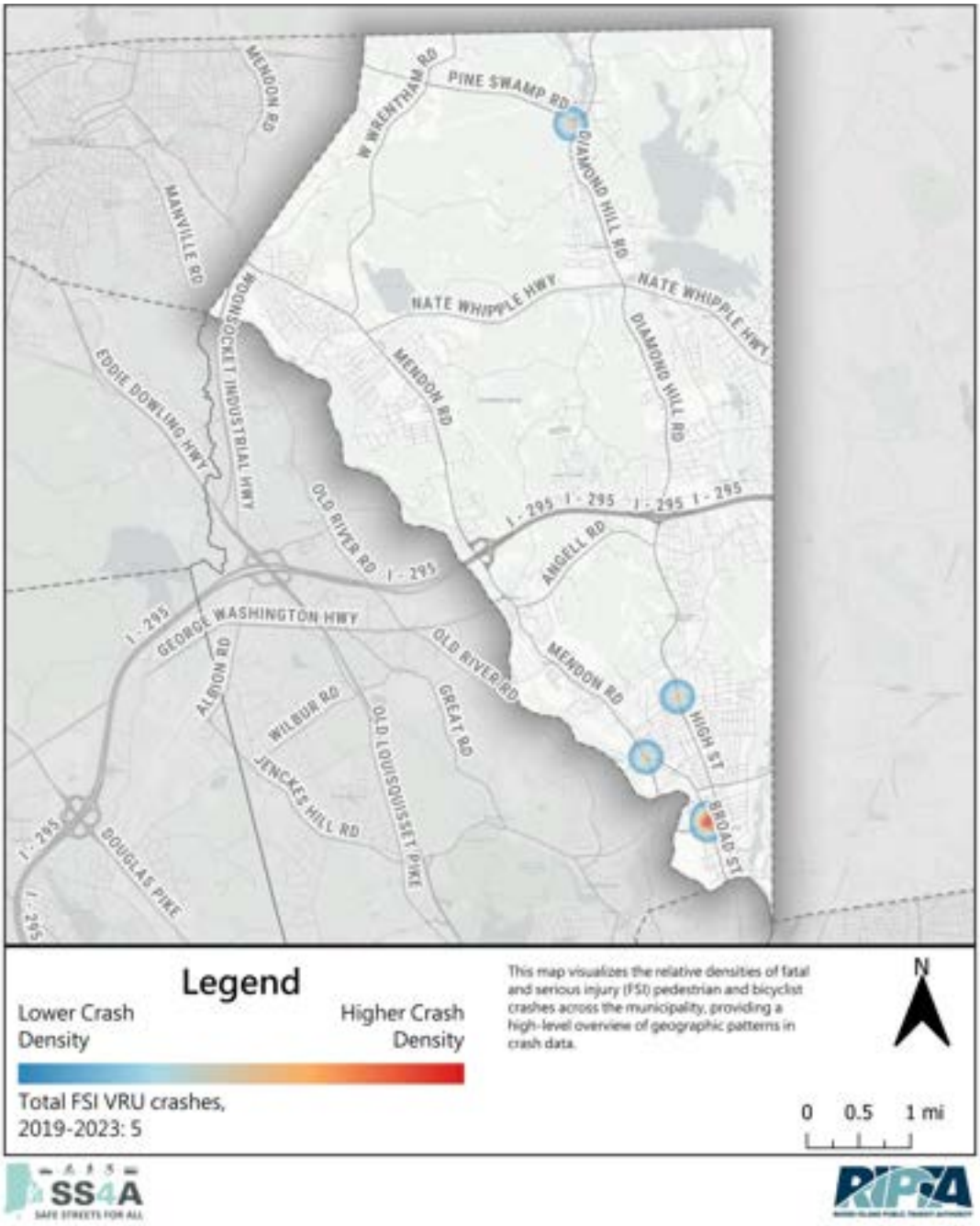


Figure 5. Fatal and Serious Injury Vulnerable Road User (VRU) Crash Heatmap

Among VRU crashes (Figure 4), the locations with the highest densities included Diamond Hill Road, Valley Falls neighborhood, and Broad Street at John Street and Chambers Street.

3.3 High-Risk Network

The HRN identifies opportunities to proactively improve traffic safety. The HRN identifies the types of roads and land use contexts that correlate with more frequent crashes. Combinations of risk factors, such as community context, traffic volume, and vehicle lane configurations, vary between communities and across roadway networks, relating to different safety outcomes. The risk analysis is used as a method to link similar facilities with segments that have been identified in the baseline crash analysis as having high concentrations of historical fatal and serious injury crashes.

Identifying statewide risk factors helps to highlight where crashes may be expected in the future, even if recent crashes have not occurred. By identifying roadways featuring these risk factors, Cumberland will be better equipped to implement context-appropriate solutions, such as safe crosswalks, signage, and improved lighting. Table 2 illustrates the common risk factors considered in assessing risk for future crashes.

Table 2. Potential Risk Factors

Screening Factor	Description
Roadway Jurisdiction	State, Local, or Other (Unknown or Private)
Lane Configuration	Two-lane, Multilane
Traffic Volume Range (Average Annual Daily Traffic)	0 – 1,000, 1,000 – 10,000, 10,000+
Proximity to a School	Within ¼ Mile, Not Within ¼ Mile
Proximity to a Public Park	Within ¼ Mile, Not Within ¼ Mile
Percent of Population with Income Below 2x of the Poverty Level	Under 20%, 20-40%, Over 40%
Percent of Households with Zero Vehicles	Below 10%, 10-20%, Over 20%
Percent of Population Aged 65 or Older	Below 10%, 10-20%, Over 20%
Percent of Population Aged Below 18	Below 10%, 10-20%, Over 20%

To identify statewide network safety patterns that can be applied at the municipal level, the team analyzed statewide crash, roadway, and demographic data. Separate analyses were conducted for urban, suburban, and rural areas, as well as for both all modes and VRU modes (note that VRU modes were not modeled for rural areas due to a small sample size of crashes). For each land use context and mode, risk models distinguish between relatively high and low risk facilities, assigning each segment a risk tier of Critical, High, Medium, Low, or Minimal. Higher risk tiers reflect a greater average risk for future crashes on roads.

The HRN is especially valuable in communities with infrequent crashes or crashes that do not concentrate in specific locations. The HRN is also useful when studying crashes involving pedestrians or bicyclists and in rural areas with less vehicle traffic. This is because the HRN analysis isolates areas with a high risk for crashes because of their risk factors. Both the BCA and the HRN are important tools and can influence the overall strategy for choosing priorities and making investments.

Several key risk factors identified within the study area, broken out by mode and land use area, are listed below, in order of importance in evaluating risk.

All Modes

- ***Urban***
    - Traffic Volume Range (Average Annual Daily Traffic, or AADT)
    - % Zero Vehicle Households
    - Roadway Jurisdiction
    - % Population Below 2x Poverty Level
    - Within ¼ Mile of School
- ***Suburban***
    - Roadway Jurisdiction
    - Traffic Volume Range (AADT)
    - Within ¼ Mile of School
    - Lane Configuration
    - % Zero Vehicle Households
    - % Population Below 18
- ***Rural***
    - Traffic Volume Range (AADT)
    - Roadway Jurisdiction
    - % Population Below 2x Poverty Level

Vulnerable Road Users

- ***Urban***
    - % Zero Vehicle Households
    - Traffic Volume Range (AADT)
    - % Population Below 18
    - Within ¼ Mile of School
    - % Population Below 2x Poverty Level
    - Within ¼ Mile of Public Park
- ***Suburban***
    - Traffic Volume Range (AADT)
    - % Zero Vehicle Households
    - Within ¼ Mile of School
    - Roadway Jurisdiction
    - Within ¼ Mile of Public Park
    - % Population Below 18
    - % Population Below 2x Poverty Level

3.3.1 Analysis Findings

Figure 6 and Figure 7 show the HRNs in Cumberland for all roadway users and VRUs, respectively.

Cumberland High Risk Network – All Modes

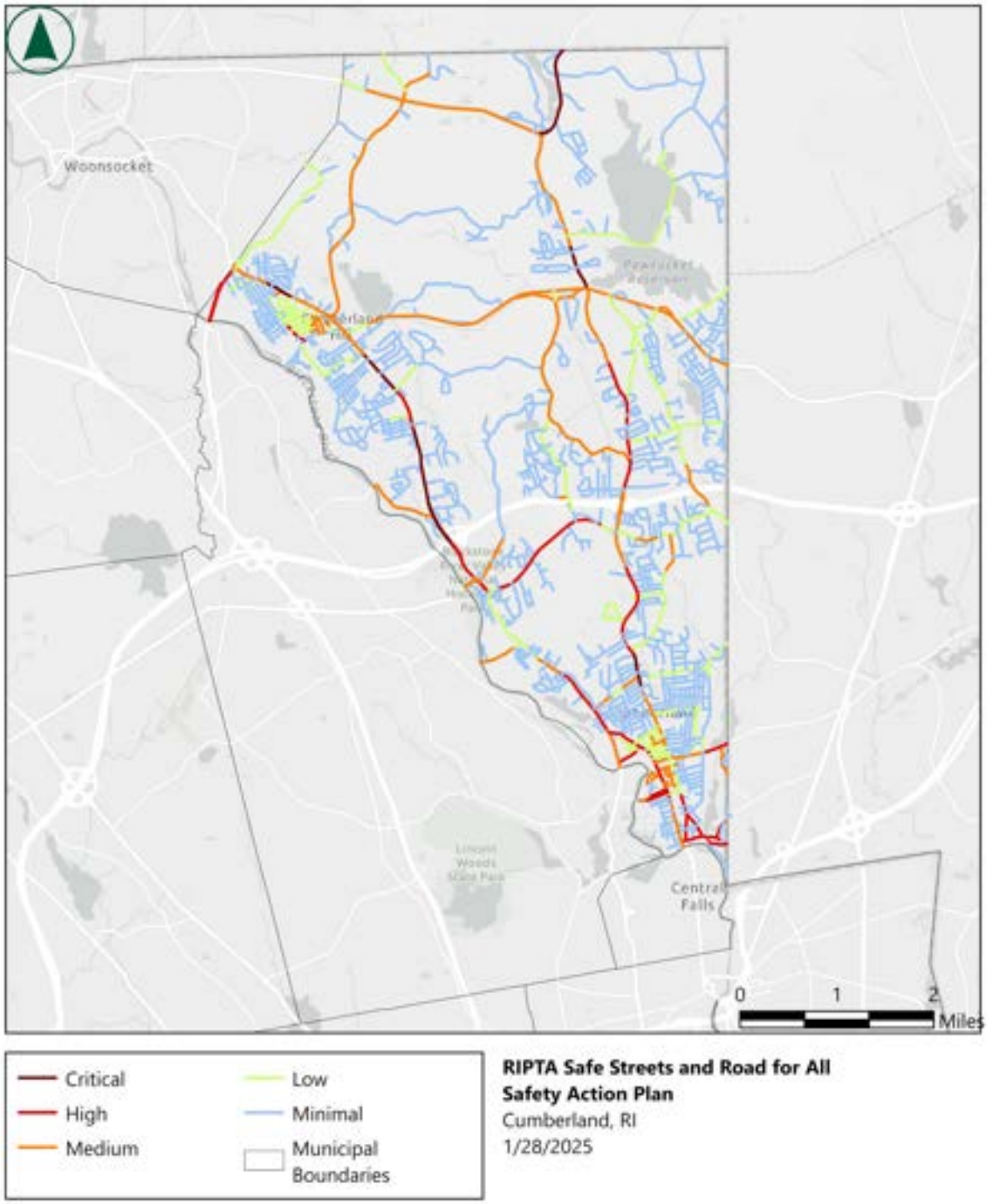


Figure 6. High Risk Network Map – All Modes

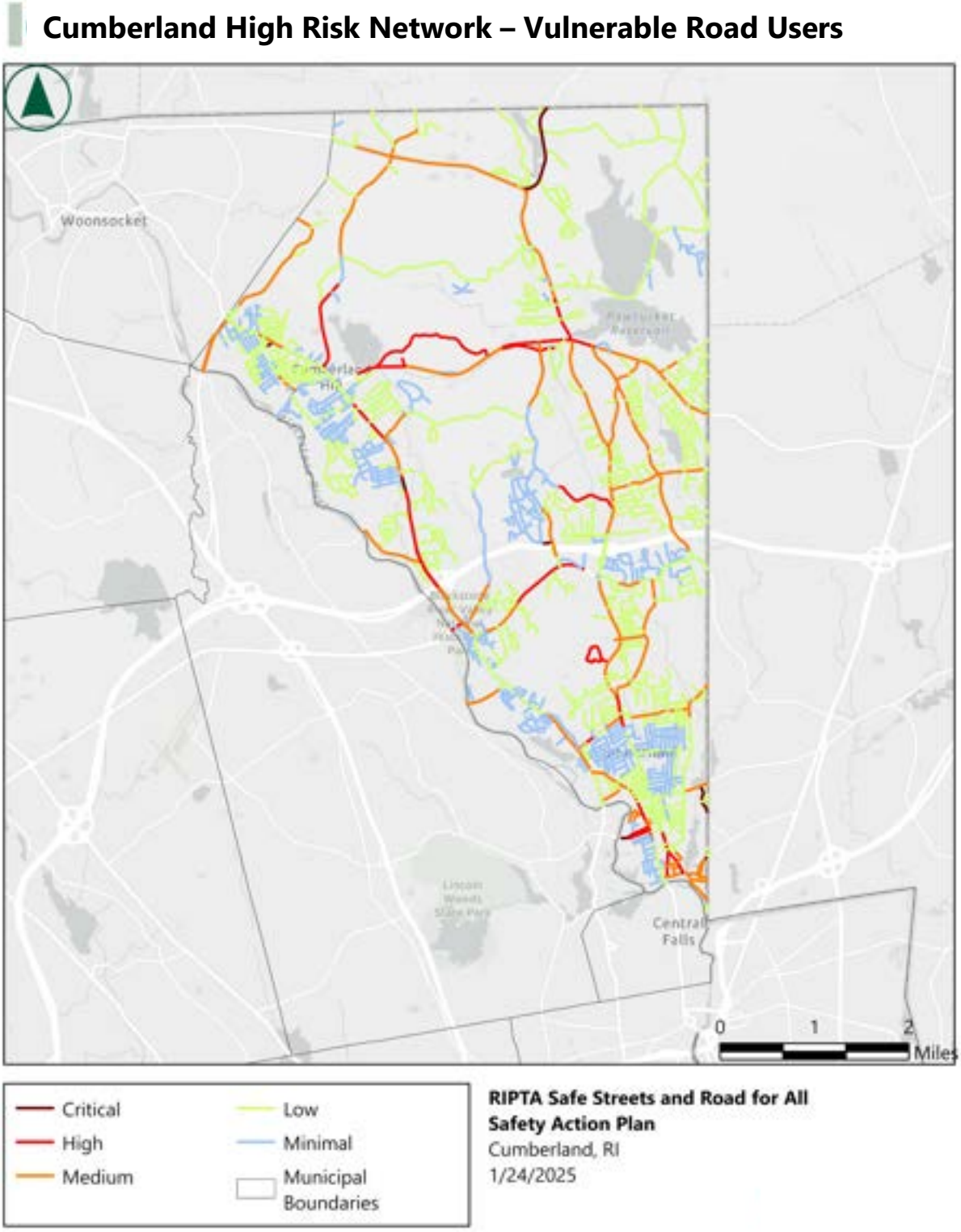


Figure 7. High Risk Network Map – Vulnerable Road Users

3.4 High-Injury Network

The final component of the safety analysis is the creation of the High Injury Network (HIN), which evaluates roadways in terms of both a crash density analysis and the HRN analysis. By combining these two analyses into one final network, the HIN communicates a holistic assessment of the need for intervention, based on both a reactive, crash-based scoring system and a proactive, risk-based scoring system. Each roadway segment falls into one of four categories:

- Reactive: Segments which appear on the baseline crash analysis maps based on a top 15% crash score for the given mode and municipality
- Proactive: Segments which appear in the top risk tiers for the given mode and municipality – this includes Critical, High, Medium, Low, and Minimal tiers for the all modes analysis and High, Medium, Low, and Minimal tiers for the VRU modes analysis
- Reactive & Proactive: Segments which satisfy both the reactive and proactive categories
- None: Segments which satisfy neither the reactive nor proactive categories

These designations were made for both the all-modes and VRU modes analyses, resulting in a set of High Injury Network maps for each municipality. VRUs were not modeled for rural areas on the HIN due to a small sample size of crashes.

3.4.1 Analysis Findings

HIN segments were identified using crash data from 2019 to 2023, focusing primarily on fatal and serious injury crashes. The HIN segments, shown in Figure 7 and Figure 8 below, represent the roadways in Cumberland with the highest concentrations of all mode or VRU crashes or with the highest risk for future crashes. As noted above, roads classified as being in rural areas were not evaluated for the VRU HIN. In Cumberland, segments of Diamond Hill Road, Nate Whipple Highway, Pine Swamp Road, Wrentham Road, West Wrentham Road, Mendon Road, and other local roadways are considered rural and were excluded from the VRU HIN.

The All Modes HIN (Figure 8) only accounts for 52 miles, or about 25% of Cumberland's 209 total miles of roadway but represents 79% (22 crashes) of fatal and serious injury crashes. The VRU HIN (Figure 9) only accounts for 36 miles, or about 17% of Cumberland's total roadway miles, but represents 80% (4 crashes) of fatal and serious injury crashes.

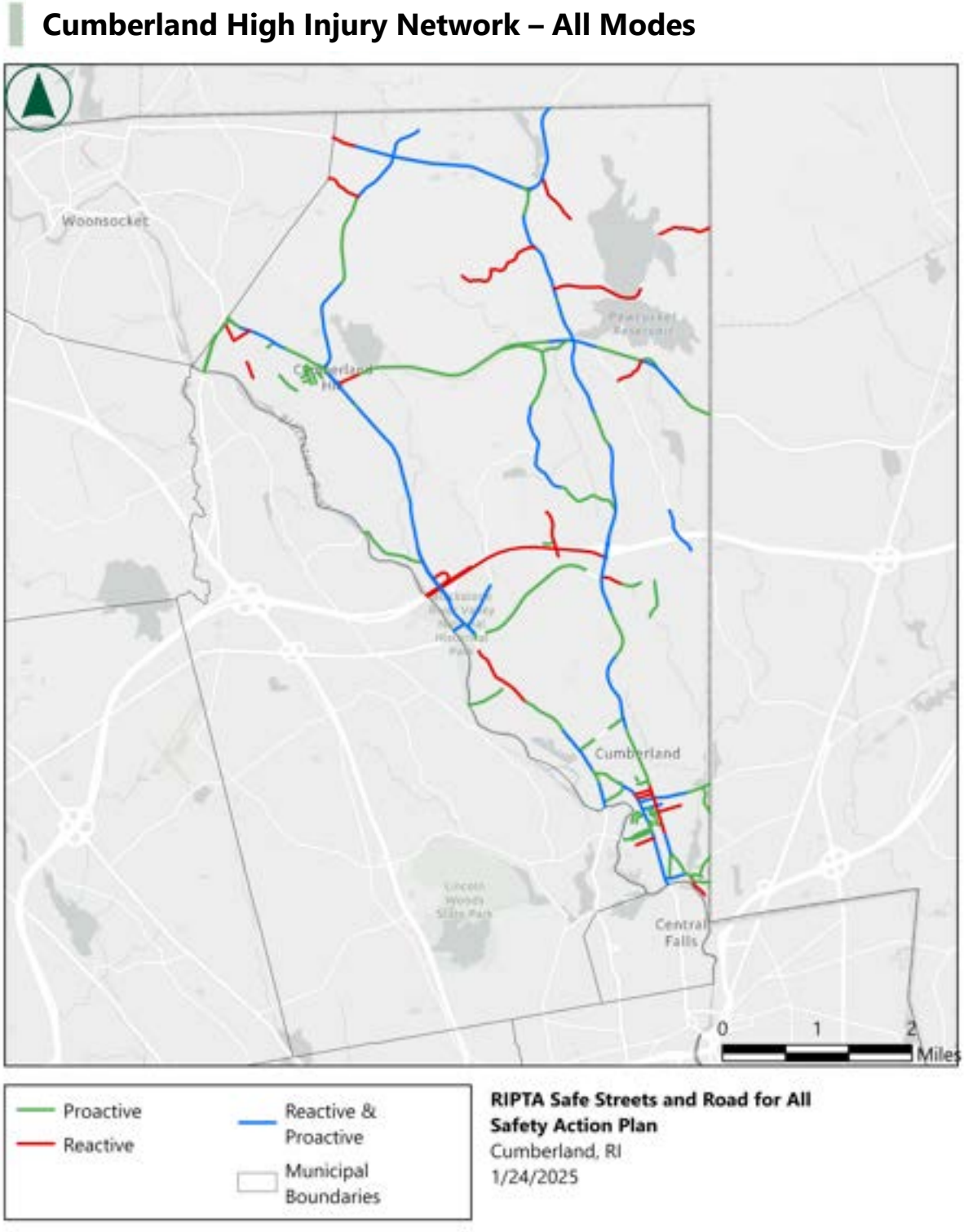


Figure 8. High-Injury Network Map – All Modes

Cumberland High Injury Network – Vulnerable Road Users

Figure 9. High-Injury Network Map – Vulnerable Road Users

4. Engagement and Collaboration

Stakeholder engagement and collaboration ensure that this Safety Action Plan (SAP) includes diverse perspectives and insights, identifies risks not apparent in the data, and provides local support for solutions. The team conducted engagement early and at key junctures throughout the plan development, including stakeholders and the public as part of the decision-making process. The aim of the Safe Streets for All (SS4A) is to define a technically and locally appropriate framework as project implementation takes place.

4.1 Stakeholders

Many stakeholders contributed to the creation of this SAP. Cumberland established an early network of key stakeholders to be included in the engagement process. These individuals and organizations helped facilitate public engagement and encourage feedback at the community level. They may also contribute in an ongoing manner to an advisory committee that will advise the municipality and advance safety solutions and investments during implementation.

When identifying key stakeholders for the SAP, various organizations and individuals were considered, including those representing the following groups:

- Members of Cumberland Town Council
- Public Works department staff
- Local or regional transportation authorities
- Emergency response services
- Local law enforcement agencies
- Schools and universities
- Hospitals and clinics
- Neighborhood association groups
- Business owners
- Pedestrian and bicycle advocacy organizations
- Blackstone Valley Tourism Council
- Food pantries
- Boys and Girls Club

While not all these groups were among those interviewed, starting with this comprehensive list allowed Cumberland to consider the various needs and priorities that should be considered during the development of the SAP.

4.1.1 Stakeholder Feedback Summary

The stakeholder group convened for this plan included 8 individuals, representing the Parent Teacher Organization (PTO), the Northern Rhode Island Food Pantry, the Blackstone Valley Tourism Council, and a bicyclist advocate within Cumberland. The stakeholder group was consulted during strategic junctures throughout plan development, including during the safety analysis, goal setting, community outreach, action plan development, and implementation strategy development. The following is a summary of key information provided from these stakeholder gatherings:

- Bus stop locations and distance to walk policies for K-12 students should be evaluated for safety considerations, including in Cumberland Hill, Diamond Hill Rd north of I-295, and Curran Road.
- There is a school bus stop on Curran Road around the corner from a junk yard where students need to cross the road and there are no sidewalks.
- High Street at Blackstone Street has high pedestrian use and vehicles make a southbound right-turn at high speeds due to the geometry.
- Sidewalks and pedestrian infrastructure are lacking along certain roadways including Diamond Hill Rd near Garvin Elementary and north of I-295, Farm Drive near the High School, around Ashton Elementary, rectangular rapid flashing beacons (RRFBs) at Mendon Rd and Forest View Drive, and Curran Road. Circulation patterns at the High School should be evaluated during pick-up/drop-off time as there are safety concerns with vehicle and pedestrian conflicts, especially with teen drivers trying to take a left out of the High School parking lot.
- In Cumberland, the Police respond to complaints about roadway speeding by performing and study on road speeds and work with other departments to implement traffic calming measures.
- During food pick up days at the Food Pantry on the 1st and 3rd Saturday of each month, vehicles back up along Angell Road and block the intersection with Mendon Road.
- Issues related to access/egress with commercial developments on Diamond Hill Road south of Angell Road.
- Need additional pedestrian signage for crossing Diamond Hill Road at Diamond Hill Park.

4.2 Public Engagement

Public engagement can transform any planning study into a collaborative effort, resulting in a more practical and responsive plan. This SAP is no different, and Cumberland set out early on to identify junctures in the process to engage the public and gather feedback to guide findings and recommendations.

Public engagement opportunities during the development of the SAP included:

- Community-wide survey, available both on paper and online
- Regular stakeholder calls and meetings
- Tabling and participation at the Cumberland Community Celebration and the Franklin Farm Harvest Festival

Through these engagement touchpoints, Cumberland identified safety concerns broadly within the community, educated the public on transportation safety challenges, evaluated support for proposed safety improvements, and established partnerships for long-term improvements.

4.3 Public Engagement Summary

The public was engaged during the development of the SAP to provide information on the process, findings, recommendations, proposed projects, and timelines. Through surveys and tabling at community events, Cumberland gained insights from the community to inform this SAP and its implementation.

The community-wide survey included questions about travel patterns, important destinations in the community, safety concerns, infrastructure improvement strategies, and asked how the respondents would weigh various tradeoffs. Open-ended questions allowed respondents to provide thoughts, comments, or questions for Cumberland's consideration and inclusion in the SAP.

In total, 16 Cumberland residents completed a survey between July and October. The following bullets list the key findings from these surveys:

- Respondents desire safer ways to cross the street, a more complete sidewalk network, and better maintenance of sidewalks and bikeways for pedestrians and bicyclists
- Respondents desire more shelters and/or seating at transit stops, better and more available maps, signage, and schedule information at bus stops and train stations, better lighting at transit stops, better routine maintenance at transit stops, and service at more times of the day than currently runs.
- Respondents desire smoother pavement conditions and fewer potholes and more visible lane striping and other pavement markings for drivers.
- Respondents believe more enforcement of traffic laws and education to reduce distracted driving would have the greatest impact on improving road safety.

The online survey also included a map where respondents identified locations of safety concerns. Four map comments were received which included the following:

- Diamond Hill Road needs sidewalks
- Mendon Road has flooding issues and needs to be repaved due to many areas of patchwork

Public input was also gathered by tabling at local community events. At each of these events, Cumberland provided posters, maps, and informational flyers describing the process and findings of the SAP. The following bullets list key findings from these public engagement efforts:

- Residents find that lighting and visibility are poor, especially for people walking and biking.
- Education in schools is needed to improve cyclist safety, enforce traffic rules, address distracted driving and pedestrian behavior, and promote responsible teen driving.
- Mendon Road was the most frequently mentioned roadway with safety issues as it has poor pavement conditions, an incomplete sidewalk network, high traffic volume, and has 3 schools located on it.
- Poppy's employees park on the sidewalk making it unsafe to walk to Cumberland Hill Elementary School.
- Residents were concerned about missing sidewalks and shoulders and too many turning vehicles on Diamond Hill Road.

Through these surveys and public meetings, the community provided valuable input that was incorporated into the safety analysis, policy changes, safety project priorities, and implementation activities. Plan Engage[9] provided a single resource that incorporated information and feedback from all participating communities in a single statewide platform. Public engagement materials are included in Appendix B.

[9] https://us.planengage.com/ri_safestreets/page/home

5. Equity Considerations

5.1 Defining Equity

Equity was a key consideration during every aspect of this plan development. In line with best practices, equity is defined as meeting the needs of rural areas, economically disadvantaged communities, historically underserved residents, and vulnerable road users (VRUs). Acknowledging the needs of these diverse groups, Cumberland evaluated strategies that protect the safety of all travelers.

5.2 Equity Issues in Cumberland

Special efforts were made to reach out to stakeholders and members of the public with diverse perspectives from disadvantaged groups to better understand their needs and priorities. Policies and project priorities were evaluated against those needs and priorities to appropriately balance recommendations in this SAP.

5.3 Key Equity Findings in Cumberland

The data reviewed includes that from the Census and from the Rhode Island Social Equity Platform. The following are key points from the planning process that impact equity:

- Cumberland's two middle schools have distinct transportation patterns. At McCourt Middle, situated in a lower-income neighborhood, a larger number of students walk to school because bussing is not an option, while most North Middle students are able to bus to school. PTO representatives have raised concerns about pedestrian safety around McCourt Middle, urging improvements to the sidewalk network to address equity issues.
- The Northern Rhode Island Food Pantry, located at the intersection of Angell Rd and Mendon Rd, serves around 770 families during their 3-hour food pickup windows on the 1st and 3rd Saturday of each month. As almost all patrons drive to the pantry, pick-up time results in extensive queuing of cars on Mendon Road. While a police detail has helped with controlling traffic flow and safety in and around the pantry, it is costing the pantry money each month that could be directed towards food.
- Based on 2017 data, the majority of Cumberland Census Block Groups fall within the 0-20% of low-wage workers (Figure 10).
- Based on US Census Bureau data from 2019-2023, only two of the 25 Census Block Groups in Cumberland have more than 20% of households that do not have a vehicle (Figure 11).
- Based on US Census Bureau data from 2019-2023, overall, the Town has approximately 4% of households that do not have a vehicle.
- Income inequality, as measured by the GINI index, is high in central Cumberland.
- Based on US Census Bureau data from 2019-2023, residents with a disability comprise about 12% of Cumberland.
- Based on US Census Bureau data from 2019-2023, residents aged 65+ comprise approximately 18% of the population in Cumberland.

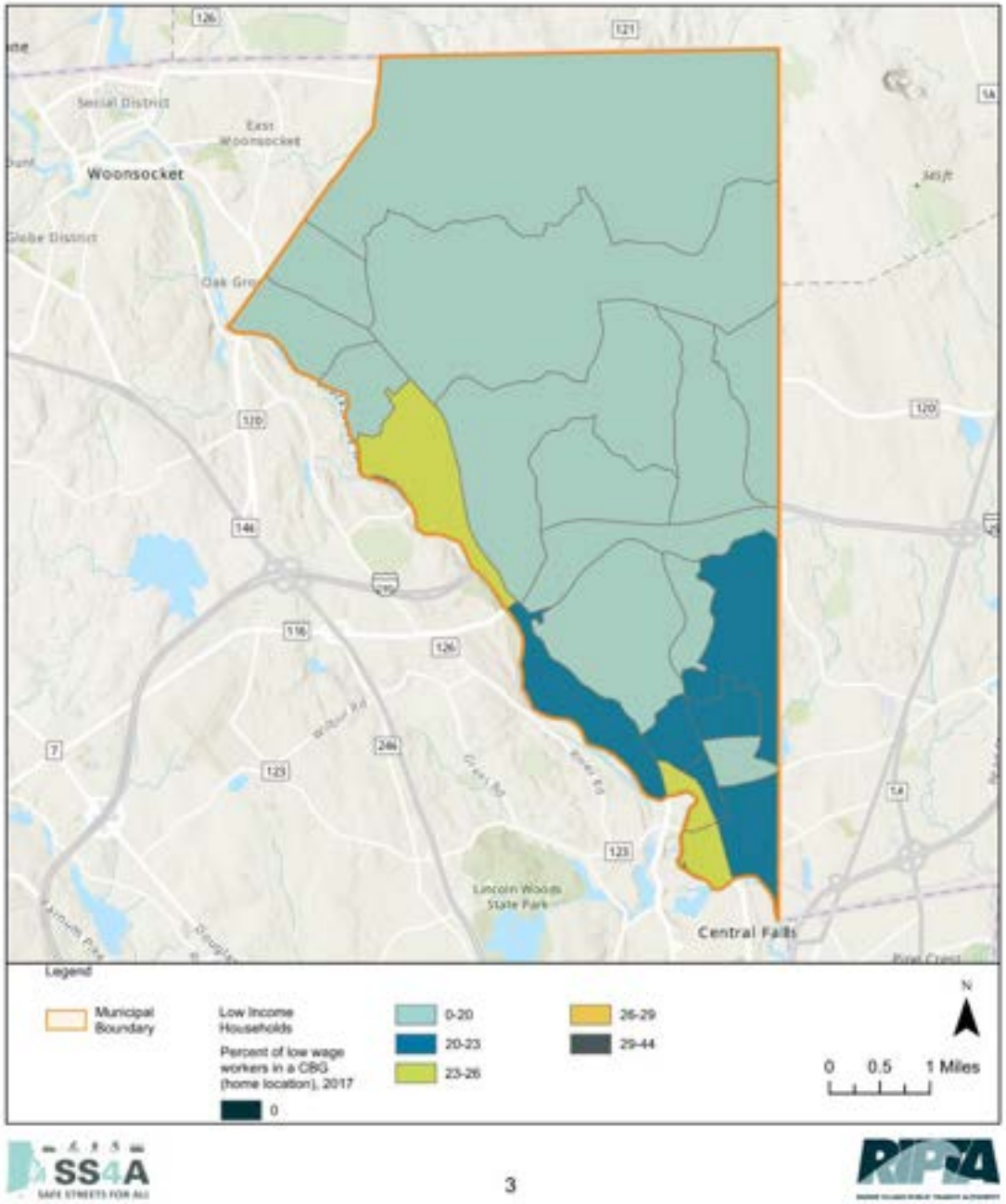


Figure 10. 2017 Percentage of Low-Wage Workers by Census Block

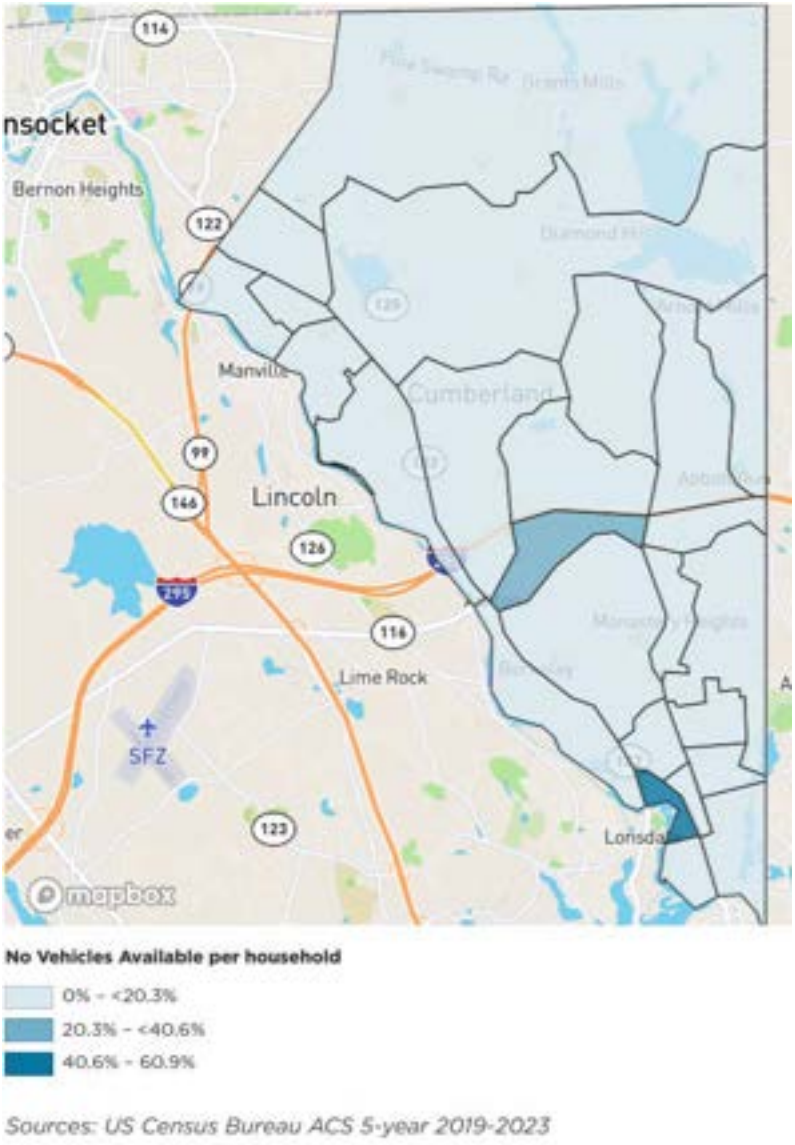


Figure 11. Percent of Households with No Vehicles Available (2019-2023)

5.4 How Equity will Impact Planning in Cumberland

Equity was also a consideration used to develop the project selection matrix described in Chapter 7.

6. Policy and Process Changes

6.1 Defining Policy and Process in Safety Action Planning

While many of the recommendations from this plan focus on physical countermeasures to improve safety through roadway design, there are also several policies and program changes that Cumberland can consider to help reduce and eliminate roadway fatalities and serious injuries.

In accordance with the Federal Highway Administration's (FHWA's) priorities under the Safe Streets for All (SS4A) program, policy recommendations were geared towards providing redundancies to protect human life and address the following areas:

- Leadership commitment to safety
- Community engagement
- Safe infrastructure and safe speeds
- Data-driven transparency and accountability

6.2 Key Policy and Process Findings in Cumberland

Municipal departments within Cumberland regularly collaborate to ensure the safety of their residents. As part of this plan, the Town's Mayor signed a letter demonstrating support for implementing safety measures and committing to a 50% reduction of roadway fatalities and serious injuries by 2035 and an eventual goal of zero roadway fatalities and serious injuries by 2045.

An Americans with Disabilities Act (ADA) coordinator was hired recently, and an ADA transition plan is currently underway. There was a sidewalk plan prepared for the Town that addresses the installation of new sidewalks.

The Police Department completed traffic studies in 2023 for each school zone and will be conducting another round of traffic studies this year. They are considering implementing speed cameras in all school zones. The Police Department is also considering one-way streets to provide on-street parking where parking on sidewalks is an issue. The Police Department also observes locations of concern based on resident feedback and crash data.

The Planning Department reviews private development projects with consideration of traffic and pedestrian/bicyclist safety. There are ordinances for parking lot layout and pedestrian infrastructure within the Land Development and Subdivision Regulations document. The 2016 Comprehensive Plan states the Town should prioritize conducting traffic studies at high accident locations and implement safety measures to reduce the accident rates.

6.3 Key Policy and Process Recommendations in Cumberland

Following are descriptions of each of the policy and process changes recommended in Cumberland, categorized by policy area.

6.3.1 Leadership

- Town Council to approve this plan and identify elements of the plan that municipal departments can implement without additional approval, elements that may require a minor notification, and elements that the Town Council should approve individually once funding is identified and design is complete
- Revisit this plan at least every ten years to reexamine recommendations, goals, and progress on achieving zero roadway fatalities and serious injuries
- Create a quick-build pilot program for municipal departments to conduct safety-related pilot programs with minimal cost or disruption with ongoing, identified safety issues based on accident data being prioritized

6.3.2 Public Works

- Enforce policy on curbing requirements
- Install sidewalks in accordance with the Townwide sidewalk plan
- Create a formal policy for the Town's responsibility and residents' responsibility on snow clearance on sidewalks. Sidewalks connecting schools should be prioritized
- Develop a Townwide traffic calming plan
- Create a formal policy for striping of all roadways above the 'local' classification

6.3.3 Police

- Increase and maintain consistent enforcement of no parking on sidewalks
- Consider implementing one-way streets to allow for on-street parking
- Install speed cameras for all school zones within the Town

6.3.4 Planning

- Develop a Townwide pedestrian and bicycle plan to advance improvements noted in the state bicycle plan
- Develop bicycle parking regulations that include parking quantity and design of bike racks for development projects meeting a certain threshold, as determined by Town Council
- Reduce minimum parking requirements for new developments as large empty parking lots can unnecessarily increase the distance between sidewalk, bike lane networks, and transit stops and may discourage use of walking, bicycling or taking transit

6.3.5 Education

- Explore educational opportunities through the RI Department of Public Safety
- Develop an educational program on roadway safety for board members with jurisdiction over safety to ensure everyone is aware of the latest guidance on roadway safety, including the Town Council
- Educate drivers who park on sidewalks about the importance of keeping sidewalks clear for pedestrians

- Pursue grassroots educational campaigns with local community groups and integrate street safety into education into the K-12 curriculum to reach young people in the Town following a similar format as MassDOT and the City of Brockton's "Buckle Up, Brockton" seatbelt initiative[10]. Philadelphia's Bicycle and Pedestrian Safety Activity Book[11] may be a useful resource for this effort

[10] https://www.mass.gov/news/massdot-partners-with-city-of-brockton-to-remind-drivers-to-buckle-up
[11] https://www.phila.gov/media/20210212122740/SRP-Bicycle-and-Pedestrian-Safety-Activity-Book.pdf

7. Action Plan

The Action Plan consists of a combination of town-wide actions, which are safety solutions that can apply to locations across Cumberland, and targeted locations, which are specific roadway segments and intersections with recommended improvements. While the targeted location recommendations include many of the town-wide actions, Cumberland can consider implementing town-wide actions at locations not specifically addressed in the Action Plan.

7.1 Proven Safety Countermeasures

The Federal Highway Administration's (FHWA's) Proven Safety Countermeasures[12] are a series of 28 countermeasures and strategies to effectively reduce fatal and serious injury crashes. Each countermeasure provides a focused way to address at least one of the following safety areas:

- Speed management
- Intersection safety
- Roadway departures
- Pedestrians and bicyclists

Some of the countermeasures are also crosscutting, addressing multiple safety areas. The safety countermeasures are applicable across a wide spectrum of road types, including dense urban road networks, rural roads, less traveled two-lane state roads, signalized and unsignalized crossings, and horizontal curves. Considerations, applications, and expected safety benefits are provided for each countermeasure.

Cumberland used these FHWA Proven Safety Countermeasures as a starting point to generate the recommendations provided in this Safety Action Plan (SAP).

7.2 Townwide Actions

- Enact policy recommendations discussed in Chapter 6
- Restripe crosswalks in continental style
- Install accessible pedestrian signal (APS) pedestrian push buttons
- Install countdown timers for all signalized pedestrian crossings
- Upgrade curb ramps to be Americans with Disabilities Act (ADA)-compliant
- Improve roadway geometry, enhance sight distance and induce traffic calming

7.3 Targeted Locations

The targeted locations listed below propose potential improvements in Cumberland. Each of the targeted locations was visited by the project team to guide in developing the specific countermeasures. The locations are separated by jurisdiction between the Town of Cumberland and RIDOT, enabling the Town to understand which projects it can implement on its own and which will require coordination with RIDOT.

[12] https://highways.dot.gov/safety/proven-safety-countermeasures

Additional detail on the findings and recommendations at each location are shown in Appendix D. Each countermeasure is listed with an approximate cost for the proposed improvement. Costs are categorized into low, medium, and high, based on the ranges shown in Table 3. Cost estimates are for physical improvements only and include a design cost contingency. Cost estimates are planning-level order of magnitude estimates and will need to be updated as design progresses. Table 3 also includes estimated timeframes for implementation.

Please note that all infrastructure improvements with pedestrian facilities will require appropriate ADA (Americans with Disabilities Act) accommodations, whether or not it is explicitly stated in the project descriptions herein. It is likely that drainage/stormwater impacts will need to be addressed for any improvements that include changes to the curbline. All projects on state roadways require coordination with RIDOT, and all changes to traffic control devices on state roadways need to be approved by the State Traffic Commission (STC). All projects should be compared against the State Transportation Improvement Program (STIP) to review opportunities for efficiency or to evaluate potential conflicts with other planned projects.

Table 3. Physical Countermeasure Cost Estimates and Implementation Timeframes

Cost	Approximate Range	Icon	Time Frame	Range	Icon
Low	Less than $50,000	$	**Short-term**	Less than 5 years	
Medium	$50,000-$250,000	$$	**Mid-term**	5 to 10 years	
High	$250,000-$1,000,000	$$$	**Long-term**	More than 10 years	
Significant	Over $1,000,000	$$$$			

7.3.1 Municipal Locations

Ralco Way / Carpenter Street

- Install stop bar on Carpenter Street westbound approach $
- Add lane striping on all approaches to the intersection $
- Evaluate Ralco Way northbound and southbound approaches for potential stop sign control $
- Access management for curb cut on northeast corner of intersection $

7.3.2 Shared Municipal / State-Maintained Locations

Ann and Hope Way

- Install Rectangular Rapid Flashing Beacon (RRFB) at existing crosswalk at 1 Ann and Hope Way $
  - This would require State Traffic Commission (STC) approval
- Restripe crosswalks across Ann and Hope Way $
- Add bus shelters to existing bus stop locations $$

- Install ADA-compliant curb ramps $
- Install APS pedestrian push buttons and countdown timers at signals on either end of the roadway $

7.3.3 State-Maintained Locations

Broad Street / Mill Street

- Install curb bump-outs $
- Daylighting to improve sight distance (restricting parking adjacent to intersection) $
- Upgrade crosswalk signs to fluorescent $

Broad Street / John Street

- Add LEDs around 'Do Not Enter' signs on John Street $
- Daylighting to improve visibility of 'Do Not Enter' signs on John Street $
- Paint 'Do Not Block Box' and install signage at Mendon Express gas station driveways $

Broad Street / Bernard F. Norton School

- Relocate crosswalk across Broad St in between school driveways and install RRFB at crosswalk $
  - This would require STC approval
- Work with school to create a more efficient drop-off/pick-up pattern N/A

High Street / Dexter Street

- Restripe crosswalks in continental style across Dexter Street to be consistent $
- Install ADA-compliant curb ramps $
- Install APS pedestrian push buttons and countdown timers $
- Update phasing to incorporate pedestrian phase $
- Install 'Left-Turn Yield on Green' signs $

Dexter Street / Curran Road

- Install advance warning signage on Dexter Street approaching intersection $
- Install ADA-compliant curb ramps $$
  - This would require utility pole relocation
- Stripe crosswalks in continental style across Curran Road approaches $
- Maintenance for existing sidewalks $$
  - This would require multiple utility pole relocations and retaining wall reconstruction

High Street / Blackstone Street

- Install curb bump-outs on the northwest corner of the intersection to reduce roadway space, shorten pedestrian crossing, and reduce speeds for right-turn onto Blackstone Street $
- Stripe crosswalk in continental style across the Blackstone Street approach $
- Upgrade beacon to full rectangular rapid flashing beacon (RRFB) on pedestrian crossing sign for High Street $

- This would require STC approval

Diamond Hill Road / Angell Road / Bear Hill Road

- Evaluate the necessity and functioning of each driveway south of the intersection and consider closing or combining driveways or adjusting to right-in/right-out only $
  - This would require a physical alteration permit application (PAPA)

Diamond Hill Road / Diamond Hill Park

- Continue working with abutter to create landing for crosswalk $
- Install RRFB for crosswalk $
  - This would require STC approval
- Install speed feedback signs along Diamond Hill Road in the vicinity of the Ice Cream Machine $$

Diamond Hill Road / Wrentham Road / Pine Swamp Road

- Install curve warning signage $

Mendon Road / Nate Whipple Highway

- Install ADA-compliant curb ramps $
- Install APS pedestrian push buttons and countdown timers $
- Install RRFB at crosswalk to the elementary school south of the intersection $
  - This would require STC approval
- Restripe crosswalks in continental style $
- Evaluate coordinating signal with Mendon Road at Manville Hill Road $

Mendon Road / Manville Hill Road

- Define sidewalks and parking around Poppy's Restaurant to protect safe pedestrian space $
- Restripe crosswalks in continental style $
- Install ADA-compliant curb ramps $
- Install APS pedestrian push buttons and countdown timers $
- Evaluate coordinating signal with Mendon Road at Nate Whipple Highway $

Mendon Road / Route 116 / Scott Road

- Add pavement markings to Scott Road $
- Install RRFB for crosswalk south of Scott Road $
  - This would require STC approval
- Restripe all crosswalks in continental style $
- Install ADA-compliant curb ramps $
- Install APS pedestrian push buttons and countdown timers at signal $
- Incorporate pedestrian phase at signal $
- Install lane designation signage at signal $
- Sidewalk and curb repairs $$

In addition to the proposed countermeasures discussed above, the Town of Cumberland and RIDOT are working on other projects within the Town to address safety concerns. These projects include:

- Installing an RRFB for the existing crosswalk across Broad Street at Lusitana Avenue
- Signalizing Diamond Hill Road / Wrentham Road / Pine Swamp Road and installing advanced RED signal ahead signs and speed feedback signs in 2026
- Reconstructing the Route 116 bridge
- Reconstructing the Bernard F. Norton School and updating the circulation patterns
- Painting 'Do Not Block Box' markings at the intersection of Broad Street at Chambers Street
- Reconstruction of Dexter Street from Broad Street to the Massachusetts State Line, including installation of new sidewalks and a reset of existing granite curbing
- Mill and overlay with limited sidewalk replacement and ADA ramp improvements on Mendon Road from Nate Whipple Highway to Homestead Road

7.4 Strategy and Project Selection

During the development of this SAP, projects were prioritized to provide a measurable and transparent approach to improve safety within the transportation system.

The Cumberland Safe Streets for All (SS4A) Task Force ranked nine criteria to weight projects, shown below in their descending order of priority:

- Crash data/High-Injury Network (HIN) – All Modes
- Proximity to schools, public housing, or senior housing
- Crash data/HIN – Vulnerable road users (VRUs)
- Proximity to commercial areas
- Identified as near-miss location by Town police officers that did not appear as high crash location in HIN network
- Location under municipal control
- Locations with a higher percentage of households without a vehicle
- Proximity to future development identified by the Town's Planning Director
- Proximity to transit stops

Since there were no near-miss locations identified by Town police offices that were not already documented in the HINs, this criterion was removed from the prioritization process.

Projects were ranked based on the overall criteria scores and the extent to which they met each criterion (Table 4). For example, locations that were on both a Proactive *and* Reactive HIN for VRUs received the full weight, while locations that were only on the Proactive *or* Reactive HIN received partial weight. The ranked list of locations is shown in Table 5. Although the prioritization is outlined below, the Town of Cumberland may choose to update prioritization or make improvements to projects based on new information or issues that may arise after the completion of this SAP.

Table 4. Criteria Definitions

Criteria	Definition
High Injury Network (HIN) - All Modes	100% - both Reactive and Proactive on HIN 50% - either Reactive or Proactive on HIN 0% - not on HIN
High Injury Network (HIN) – Vulnerable Road Users (VRUs)	100% - both Reactive and Proactive on VRU HIN 75% - either Reactive or Proactive on VRU HIN 0% - not on VRU HIN
Locally Controlled Roadway	100% - yes 0% - no
Within 0.25 mi of Schools, Public Housing, Elder Housing	100% - yes 0% - no
Within 0.25 mi of Commercial Areas/Destinations	100% - yes 0% - no
Within 0.25 mi of Future Development	100% - yes 0% - no
Within 0.25 mi of Transit Stop	100% - yes 0% - no

Table 5. Cumberland Safety Action Plan Project Prioritization Matrix

		PRIORITIZATION CRITERIA								
Rank	**Location**	**HIN (all modes)**	**HIN (VRUs)**	**Under municipal control**	**Proximity to schools, public housing, or senior housing (within 0.25 mi)**	**Proximity to notable commercial areas (within 0.25 mi)**	**Proximity to notable future development (within 0.25 mi)**	**High % of zero-car households**	**Proximity to a RIPTA bus stop**	**Total Score**
		Weight 4.4	*Weight 3.8*	*Weight 1.4*	*Weight 4.2*	*Weight 2.8*	*Weight 1.2*	*Weight 1.4*	*Weight 1*	
1	Ann and Hope Way	2.2	2.9	1.4	4.2	2.8	1.2	1.4	1.0	17.1
2	Broad Street / Bernard F. Norton School	4.4	3.8	0.0	4.2	0.0	1.2	1.4	1.0	16.0
3	Diamond Hill Road / Angell Road / Bear Hill Road	4.4	2.9	0.0	4.2	2.8	0.0	0.7	0.0	15.0
4	Broad Street / John Street	4.4	3.8	0.0	4.2	0.0	1.2	0.0	1.0	14.6
5	Broad Street / Mill Street	4.4	3.8	0.0	4.2	0.0	1.2	0.0	1.0	14.6
6	Mendon Road / Nate Whipple Highway	4.4	0.0	0.0	4.2	2.8	0.0	0.0	0.0	11.4
7	Mendon Road / Manville Hill Road	4.4	0.0	0.0	4.2	2.8	0.0	0.0	0.0	11.4
8	Mendon Road / Route 116 / Scott Road	4.4	2.9	0.0	0.0	2.8	0.0	0.0	1.0	11.1
9	Diamond Hill Road / Wrentham Road / Pine Swamp Road	4.4	0.0	0.0	4.2	0.0	0.0	0.0	0.0	8.6
10	Ralco Way / Carpenter Street	2.2	2.9	1.4	0.0	0.0	0.0	0.0	1.0	7.5
11	High Street / Dexter Street	4.4	0.0	0.0	0.0	0.0	1.2	0.0	1.0	6.6
12	High Street / Blackstone Street	2.2	0.0	0.0	4.2	0.0	0.0	0.0	0.0	6.4
13	Dexter Street / Curran Road	2.2	2.9	0.0	0.0	0.0	0.0	0.0	0.0	5.1
14	Diamond Hill Road / Diamond Hill Park	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2

8. Progress and Transparency

A process and tools for measuring progress and providing transparency were established with residents and other relevant stakeholders. Progress and transparency methods were developed for both the Safety Action Plan (SAP) and for future use during implementation.

Task Force meetings allowed progress to be tracked and reported to the broader group of stakeholders. Regular touchpoints were established with community leadership, who were invited to be involved in all major decisions. The project team also maintained quarterly and annual reporting on project progress throughout plan development in accordance with Federal Highway Administration (FHWA) requirements for the Safe Streets for All (SS4A) grant.

To deliver on progress and transparency goals during implementation, Cumberland is committed to providing the following on an ongoing basis:

Progress Measures

- **Annual Reporting**: Regularly assess the progress made toward reducing roadway fatalities and serious injuries. This involves annual public and accessible reporting on the outcomes achieved through the action plan.
- **Outcome Data**: Provide relevant data or information measuring the impact of implemented strategies. This data-driven approach helps track improvements over time.

Transparency Measures

- **Public Posting**: Make the action plan available to the public by posting it online. Transparency ensures that residents, stakeholders, and interested parties can access this SAP's details, including all regular updates.
- **Ongoing Communication**: Maintain an open line of communication with the community and stakeholders during updates, Town hall meetings, and engagement sessions to foster transparency and build trust.
- **Regular Town Hall Updates**: Regular updates will keep the Town Hall current on activities and progress to share at public meetings.

These progress and transparency measures provide a platform for ongoing accountability as this SAP is implemented. These reports should capture the activities and progress since the previous reporting period, ensuring that project success builds on previous activities and reporting. They should also be related directly to the recommendations, priority projects, and strategies provided in Chapter 6 and Chapter 7.

8.1 Summary of Key Timeline and Actions

The following is a summary of the meetings and correspondence with the Task Force.

Date	Type	Topic
May 20, 2024	Virtual	Project kick-off
May 29, 2024	Virtual	Meeting with Police on near-miss hotspots
June 25, 2024	Email	Planning structure, support letter, public engagement
July 12, 2024	Email	Public engagement plan review
September 10, 2024	In person	Task Force check-in
November 22, 2024	Virtual	Crash data analysis
December 10, 2024	In person	Field visit for Targeted Locations
January 14, 2025	Virtual	Countermeasures recommendations
January 29, 2025	Virtual	Safety Action Plan preview

Appendix A: Letters of Support

TOWN OF CUMBERLAND
OFFICE OF THE MAYOR
Jeffrey J. Mutter

Sara Brelsford
CHIEF OF STAFF

Sarah King
COMMUNITY OUTREACH

January 23, 2025

Ms. Julia Evelyn, Long-Range Planner
RIPTA
705 Elmwood Ave
Providence, RI 02907

RE: Letter of Support for Safety Action Planning

Dear Ms. Evelyn:

I am writing to express my strong support for the safety action planning initiatives within the Town of Cumberland. Community well-being is of greatest importance to municipal leadership, and as such I believe that proactive safety measures are crucial for fostering a secure and thriving environment for our residents.

Cumberland's safety action plan addresses safety by:

- Actively involving residents, local businesses, and relevant stakeholders
- Assessing crashes and risk on our roadways
- Prioritizing actionable steps to address these issues through infrastructure and policy
- Collaboration with law enforcement and emergency response agencies, including partnerships, training programs, and other tools and protocols

Cumberland is committed to promoting the health, safety, and wellbeing of all our residents, and we recognize that healthy streets lead to a healthier community. We therefore, as part of this effort, commit to an eventual goal of zero roadway fatalities and serious injuries. Our timeline for this goal is to achieve a 50% reduction of roadway fatalities and serious injuries by 2035 and to achieve zero roadway fatalities and serious injuries by 2045.

We look forward to collaborating closely with the state and other stakeholders to implement effective safety measures. Thank you for your dedication to our community's safety.

Sincerely,

Mayor Jeffrey J. Mutter

Richard Telesmanick
Co-Executive Director
Northern RI Food Pantry
February 21, 2025

Town of Cumberland
Cumberland, RI 02864

Subject: Support for the Safety Action Plan

To Whom It May Concern,

On behalf of the Northern RI Food Pantry, I am writing to express our strong support for the Town of Cumberland's Safety Action Plan. As an organization dedicated to fighting food insecurity in our community, we recognize the critical importance of ensuring safe access for all residents, particularly those who rely on our services.

Safety on Cumberland's streets is a key concern for our customers and volunteers, especially on food distribution days when traffic congestion and driver behavior can create hazardous conditions. The addition of a police detail on Angell Road during these times has been invaluable in improving safety and ensuring a smooth flow of both pedestrian and vehicular traffic. Initiatives like the Safety Action Plan further reinforce the town's commitment to protecting all road users—pedestrians, bicyclists, transit riders, and motorists alike.

We wholeheartedly support efforts that enhance street safety and accessibility for all members of our community. Thank you for prioritizing this important issue, and we look forward to seeing the positive impact of this plan in Cumberland.

Sincerely,

Richard Telesmanick
Co-Executive Director
Northern RI Food Pantry

Cumberland School Department
Office of the Superintendent
2602 Mendon Road, Cumberland, Rhode Island 02864-3726
401/658-1600 Fax No. 401/658-4620
RI RELAY 711
www.cumberlandschools.org

Philip D. Thornton, Ed.D.
Superintendent

February 24, 2025

To Whom It May Concern:

Cumberland School Department, with a mission to promote a dynamic learning Community and a safe, inclusive, and innovative positive learning environment for children in the Town of Cumberland, is a stakeholder when it comes to safety for all users on Cumberland streets. We have ongoing concerns about our students and families being unable to reach their destinations due to driver behavior and the state of the existing infrastructure.

We wholeheartedly support efforts, such as this Safety Action Plan, which aims to improve our streets for the safety of everyone who uses them – pedestrians, bicyclists, transit users, and motorists.

Sincerely,

Philip D. Thornton, Ed.D.
Superintendent of Schools

The Cumberland School Department does not discriminate on the basis of age, gender, gender expression, race, religion, national origin, color or disability in accordance with applicable laws and regulations.

Blackstone Valley
TOURISM COUNCIL

TOURBLACKSTONE.COM

February 26, 2025

Julia Evelyn
RIPTA
705 Elmwood Ave
Providence, RI 02907

Dear Ms. Evelyn:

The Blackstone Valley Tourism Council, with a mission to develop sustainable tourism in the 10 Blackstone Valley communities in Rhode Island, is a stakeholder when it comes to safety for all users on Woonsocket and Cumberland streets. We have ongoing concerns about our visitors being able to reach their destinations due to driver behavior and the state of existing infrastructure. Our agency worked closely with Cumberland, Central Falls and Pawtucket on the redevelopment of the Broad Street corridor. Safety and street enjoyment for all users was our focus. We developed the Broad Street Regeneration Initiative with the empathetic goals of street safety being of paramount concern.

The Tourism Council wholeheartedly support efforts, such as the Safety Action Plans for Woonsocket and Cumberland, which aim to improve our streets for the safety of everyone that uses them – pedestrians, bicyclists, transit users, and motorists.

Sincerely,

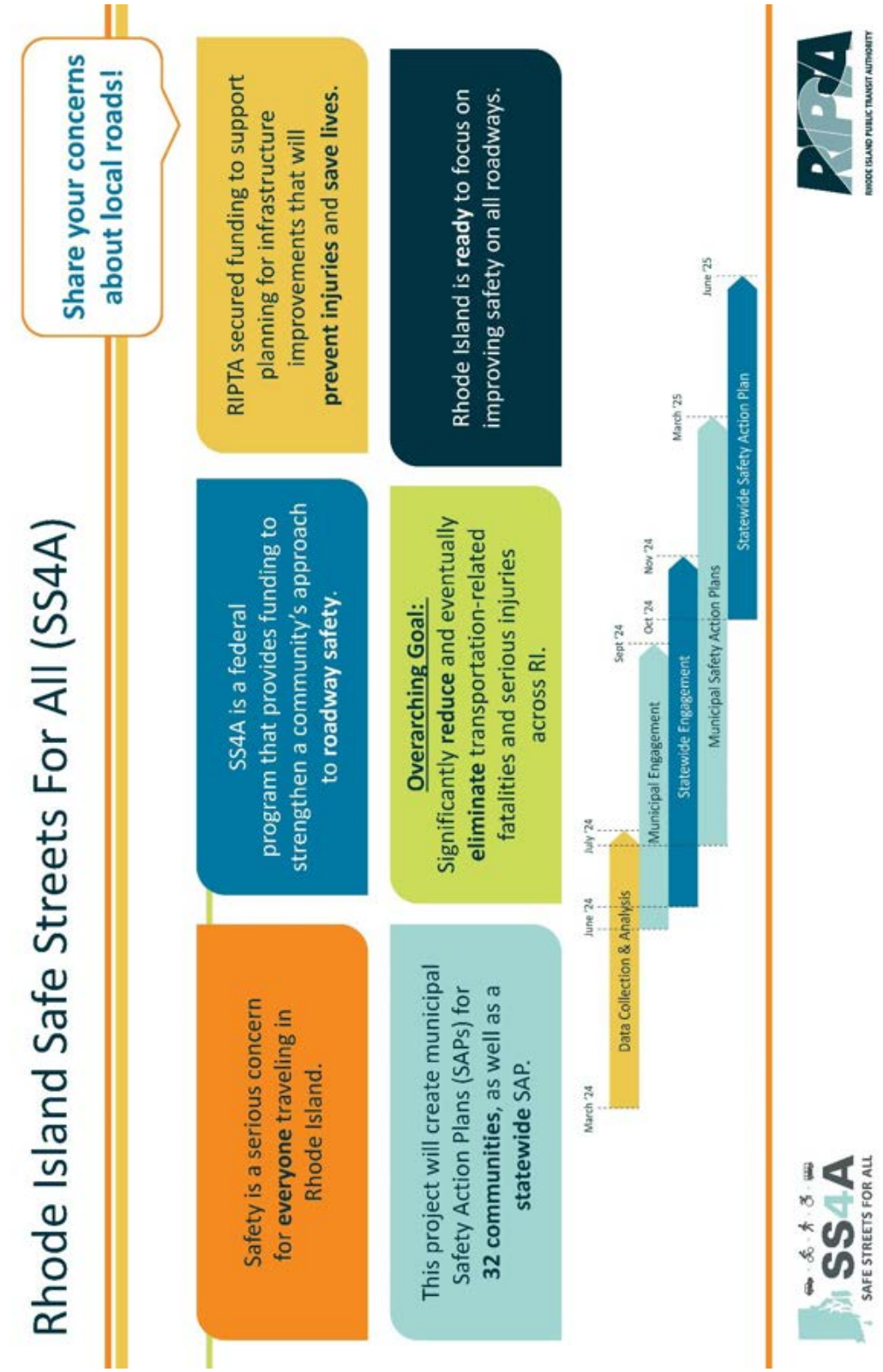
Dr. Robert Billington, Outgoing Director

EAT | DRINK | HIKE | BIKE | LEARN | GROW | ENJOY

1420 Broad Street 3rd Floor
Central Falls, Rhode Island 02863

T: 401-724-2200
E: info@tourblackstone.com

Appendix B: Public Engagement Materials


Rhode Island Safe Streets For All (SS4A)
Share your concerns about local roads!
Safety is a serious concern for everyone traveling in Rhode Island.
SS4A is a federal program that provides funding to strengthen a community's approach to roadway safety.
RIPTA secured funding to support planning for infrastructure improvements that will prevent injuries and save lives.
This project will create municipal Safety Action Plans (SAPs) for 32 communities, as well as a statewide SAP.
Overarching Goal:
Significantly reduce and eventually eliminate transportation-related fatalities and serious injuries across RI.
Rhode Island is ready to focus on improving safety on all roadways.
March '24
June '24
July '24
Sept '24
Oct '24
Nov '24
March '25
June '25
Data Collection & Analysis
Municipal Engagement
Statewide Engagement
Municipal Safety Action Plans
Statewide Safety Action Plan
SS4A SAFE STREETS FOR ALL
RIPTA RHODE ISLAND PUBLIC TRANSIT AUTHORITY

Rhode Island Public Transit Authority Safe Streets for All Survey (English)

Safety continues to be a concern for all travel modes in Rhode Island. Through the Federal Highway Administration (FHWA) Safe Streets for All (SS4A) program, the Rhode Island Public Transit Authority (RIPTA) secured funding to support the state and participating municipalities in planning for roadway infrastructure improvements that will prevent injuries and save lives. The SS4A planning project will be accomplished by creating municipal Safety Action Plans (SAPs) for 32 participating communities and a statewide Safety Action Plan. Please help the study team to identify areas of safety concern, where successful improvements have been made, and to understand the preferences of Rhode Islanders on effective safety improvement methods. The survey should take around 5-10 minutes to complete. Thank you for sharing your time and thoughts.

Please enter the zip code where you live.

The value must be a number

I am responding as... Select one.

- ◯ Rhode Island resident
- ◯ Municipal employee
- ◯ State employee
- ◯ Other type of employee
- ◯ Member or representative of a local or regional advocacy organization (please type in the organization)
- ◯ Member or representative of a statewide advocacy organization (please type in the organization)
- ◯ Student
- ◯ Visitor
- ◯ Other (please specify)
- ◯ Other

Do you feel that roadway safety is an important issue in Rhode Island?

- ◯ Yes
- ◯ No
- ◯ Maybe
- ◯ Other

On a scale of 1 (not important) to 5 (extremely important), how important do you think this roadway safety project is?

1	2	3	4	5

On the map, please share locations by dropping a marker where you have noticed or experienced transportation safety issues (for example, locations with no sidewalks or excessive vehicle speeds).
Click on the map to drop a marker (Then tap "OK" at the top if using a mobile device)
Scroll down to add your comment.
Scroll back up and click the + button above to continue adding locations.
What makes this location a safety concern?
Do you have any other comments or ideas about improving transportation safety here?
Please identify a recent (within the last 5 years) safety improvement.

What safety and comfort improvements would you like to see for drivers? Please select up to 3 responses.

Please select at most 3 options.

- [ ] More visible lane striping and other pavement markings
- [ ] More visible traffic signs
- [ ] Lower speed limits
- [ ] Reduced driving lane widths
- [ ] More guardrails or other roadway barriers
- [ ] Smoother pavement conditions and fewer potholes
- [ ] Fewer curb cuts / driveways to businesses and homes
- [ ] Better lighting
- [ ] Rumble strips
- [ ] Greater visibility
- [ ] Better drainage
- [ ] Other (please specify)
- [ ] Other

What safety and comfort improvements would you like to see for pedestrians and bicyclists? Please select up to 3 responses.

Please select at most 3 options.

- [ ] A more complete sidewalk network
- [ ] Wider sidewalks
- [ ] Safer ways to cross the street (e.g. crosswalks, pedestrian traffic lights, etc.)
- [ ] Longer crossing times at signalized intersections
- [ ] Better maintenance of sidewalks and bikeways
- [ ] A more complete, low-stress bikeway network separate from cars
- [ ] Bicycle parking
- [ ] Slower-moving car traffic
- [ ] Better lighting
- [ ] Accessibility improvements
- [ ] Landscape and greenspace elements to aid with shade, cooler road temperatures, stormwater drainage, and/or barriers from traffic
- [ ] Other (please specify)
- [ ] Other

What safety and comfort improvements would you like to see for transit and paratransit riders? Please select up to 3 responses.

Please select at most 3 options.

- [ ] Better and more available maps, signage, and schedule information at bus stops and train stations
- [ ] More shelters and/or seating at transit stops
- [ ] Better lighting at transit stops
- [ ] More staff at bus stops or train stations
- [ ] Better routine maintenance at transit stops such as garbage removal and cleaning
- [ ] More and/or better bike racks, with increased protection from inclement weather
- [ ] More frequent service
- [ ] Service at more times of day than currently runs (earlier, later, on weekends)
- [ ] Faster trip times (e.g. bus-only lanes, transit signal priority)
- [ ] Other (please specify)
- [ ] Other

Which of the following behavioral programs do you think would have the greatest impact on improving road safety? Select all that apply.

- [ ] Education to reduce impaired roadway users
- [ ] Education to reduce distracted driving
- [ ] Education to increase address behaviors to increase safety for roadway users
- [ ] More speed management (e.g. appropriate speed limits)
- [ ] More enforcement of traffic laws
- [ ] Other (please specify)
- [ ] Other

Do you own or regularly have access to a personal vehicle?

- ◯ Yes
- ◯ No

Why don't you have access to a personal vehicle? Select all that apply.

- ◯ Cars are too expensive.
- ◯ Cars are a hassle.
- ◯ I enjoy walking, bicycling, and/or taking transit and can get where I need to go with those modes.
- ◯ I choose not to own a personal vehicle for environmental reasons.
- ◯ I do not have a driver's license
- ◯ Other (please specify)
- ◯ Other

Please check all the ways you travel and the frequency that you travel by that mode (Please select all that apply).

	Daily or almost daily	A few times per week	A few times per month	Once a month or less	Never
Drive	○	○	○	○	○
Carpool, vanpool, or get a ride	○	○	○	○	○
Bike / Scooter (including e-bike / e-scooter)	○	○	○	○	○
Walk / Use personal mobility device	○	○	○	○	○
Ridesharing services (cab or Uber for example)	○	○	○	○	○
Transit or Paratransit	○	○	○	○	○
Other (please specify)	○	○	○	○	○

What are some reasons you currently choose to take walk or bike? Select all that apply.

- [ ] It is faster than other transportation options
- [ ] It is more convenient
- [ ] It is less expensive than other options
- [ ] It is good exercise / for health reasons
- [ ] I walk or bike for environmental reasons
- [ ] I do not have access to a car
- [ ] I enjoy it
- [ ] Other (please specify)
- [ ] Other

What are some reasons you currently choose to take transit? Select all that apply.

- [ ] It is faster than other transportation options
- [ ] It is more convenient
- [ ] It is less expensive than other options
- [ ] I take transit for environmental reasons
- [ ] I do not have access to a car
- [ ] I enjoy it
- [ ] Other (please specify)
- [ ] Other

Do you have any other comments or concerns about transportation safety?

Please input your email if you are interested in receiving project updates.

Appendix C: Project Engagement Summary & Stakeholder List

Stakeholder List

Name(s)	Organization	Date of Interview
Bob Billington	Blackstone Valley Tourism Council	6/18/2024
Jaklyn, Andrea Esteves, Amy Thistle, Chelsea Matos, Sue Borba	Parent Teacher Organization	10/3/2024
Richard Telesmanick	Northern RI Food Pantry	10/22/2024
Kevin O'Neill	Bicyclist Advocate	11/11/2024

Map Survey Comments

What makes this location a safety concern?	Do you have any other comments or ideas about improving transportation safety here?
I routinely see people walking on Diamond Hill Road here. There are a good amount of residential homes through this area and people have to walk in the road to access the Monastery or the commercial businesses at the Chapel 4 Corners. Typically, I see the same workers from Dunkin Donuts or Dave's Marketplace walking to and from work, sometimes early in the morning or at night.	Sidewalks are a necessity.
This entire section of Mendon Road from Route 116 to Coastal 1 is in deplorable condition! There are constant potholes that appear overnight in different areas, the patches that are put down at the end of the day turn into either speed bumps or divots, and the flooding when it rains even just a little bit is a safety issue. This has been an on-going construction project for years now and people's vehicles are getting damaged, businesses are suffering, and it's a traffic headache.	
This road is the worst in the state. It's like driving over railroad tracks. Awful and inexcusable that it has been this way for years now.	Pave!
After the water main break, the patch put over the repair left this section of Mendon Road in bad shape. The road is now uneven causing drainage issues and all ruts and bumps.	

Community Engagement Comments

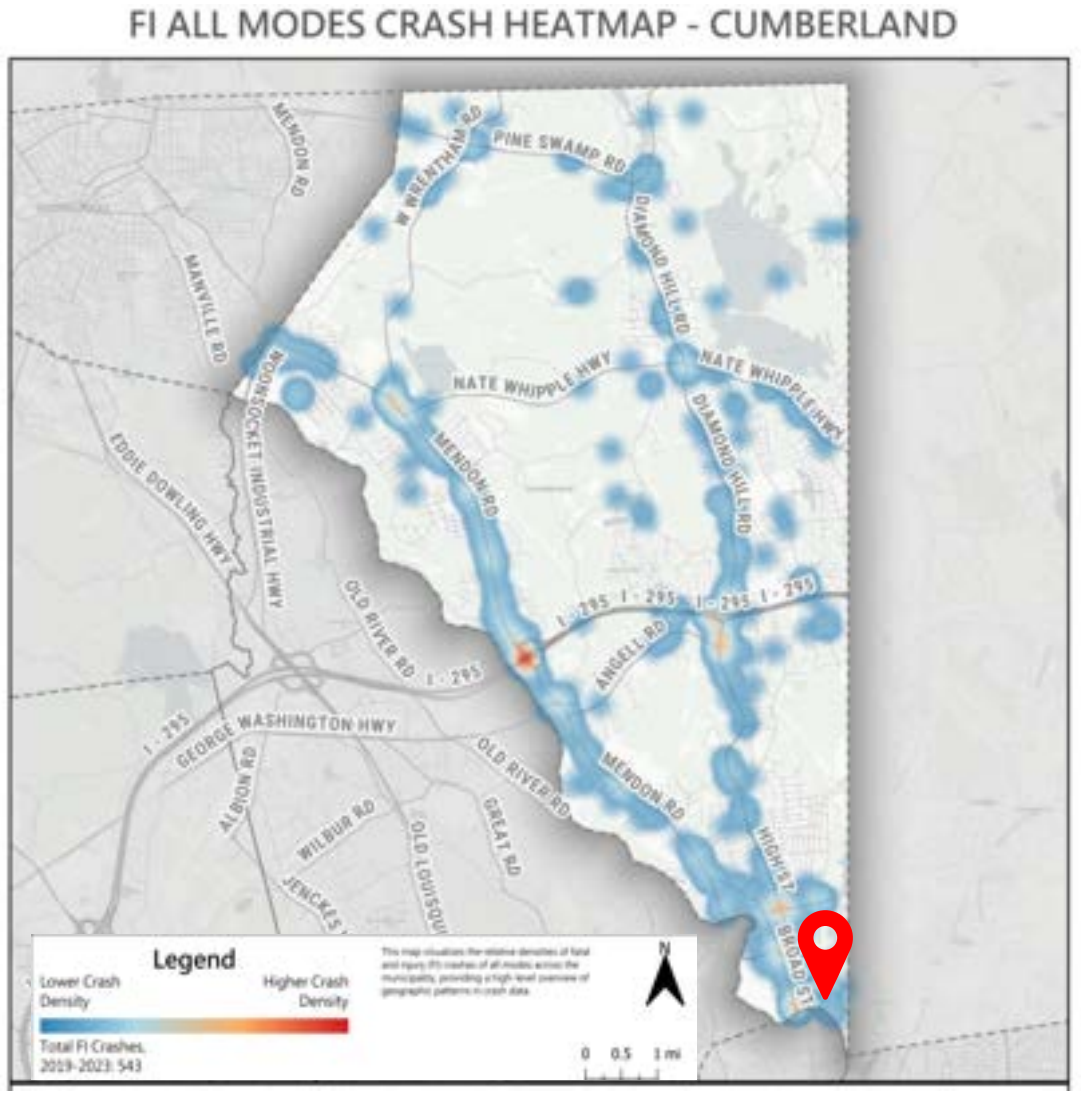
Event	Comments
Cumberland Community Celebration	We need better visibility for people when they are walking and biking
Cumberland Community Celebration	Better cyclist education needed/bring bike safety back into the schools
Cumberland Community Celebration	Lighting on the streets is poor
Cumberland Community Celebration	Utility companies rip up the roads after paving; they should do the work prior to a street being repaved, and be forced to repave the full width of the road afterwards
Cumberland Community Celebration	parking-protected bike lanes are better than conventional
Cumberland Community Celebration	Need to complete the Blackstone River Bikeway through Woonsocket
Cumberland Community Celebration	Mendon Rd and Manville Rd: Poppy's employees park on the sidewalk, making it unsafe to walk to Cumberland Hill Elementary School. Principal wants kids to walk to school but lack of parking enforcement makes it unsafe
Cumberland Community Celebration	Dislikes the DTC bus lanes in Providence
Cumberland Community Celebration	sidewalks are important for families and children's freedom to walk ahead of parents. Tactile warning panels make good visual stopping points for kids
Cumberland Community Celebration	need better connectivity between suburban neighborhoods and urban centers for walking/biking
Cumberland Community Celebration	more bus stops needed on/near Manville Hill Rd
Cumberland Community Celebration	Don't relocate central bus hub from Kennedy Plaza. It works for bus users.
Cumberland Community Celebration	Poor pavement condition is a transportation safety issue. Especially the onramp from Reservoir Ave onto Rt 10 SB
Cumberland Community Celebration	People who walk with headphones on or walk in the street when there's a sidewalk available, are a danger to themselves
Cumberland Community Celebration	Distracted driving is a danger: phones/texting
Cumberland Community Celebration	We should raise the age for getting a drivers license, teens aren't as responsible as they used to be
CUMBERLAND (@ Lincoln Farmers Mkt)	Diamond hill approaching Phantom Farms there are no sidewalk or shoulder
CUMBERLAND (@ Lincoln Farmers Mkt)	Intersection of 114 diamond hill road, angell, too many crashes, high traffic volumes, people are not careful, town is aware of it
CUMBERLAND (@ Lincoln Farmers Mkt)	Mendon Road, Cumberland - construction "always happening", too many potholes, delay is too long, can't use the road
CUMBERLAND (@ Lincoln Farmers Mkt)	Lynch Pl: posted as 15 mph, apparently the town changed speed limits town-wide to 25 mph, but people go much faster, 40-45 mph

CUMBERLAND (@ Lincoln Farmers Mkt)	Lynch Pl: Residential street where kids are playing, but lots of traffic and construction vehicles on this road
CUMBERLAND (@ Lincoln Farmers Mkt)	Mendon Rd: Pavement in bad condition – needs to be repaved
CUMBERLAND (@ Lincoln Farmers Mkt)	Mendon Rd: narrow, no sidewalk
CUMBERLAND (@ Lincoln Farmers Mkt)	Mendon Rd: no sidewalk for kids to walk on near school
CUMBERLAND (@ Lincoln Farmers Mkt)	Mendon Rd: lots of traffic, developments adding more volume, lots of potholes
CUMBERLAND (@ Lincoln Farmers Mkt)	Minerva Ave: residential street that needs to be repaved
CUMBERLAND (@ Lincoln Farmers Mkt)	Dave's Market on Diamond Hill: too many entrances/exits, too many turning vehicles on wide road with lots of traffic

Appendix D: Targeted Locations

Ralco Way / Carpenter St

- Key Observations
  - Most accidents were angle or head-on collisions
  - No good spot for stop signs next to train signals on Ralco Way
  - Confusing for drivers on who has ROW
  - Wide curb cut at northeast corner of intersection
  - Non-ADA compliant sidewalks



Ralco Way / Carpenter St

Ralco Way / Carpenter St

Ralco Way / Carpenter St

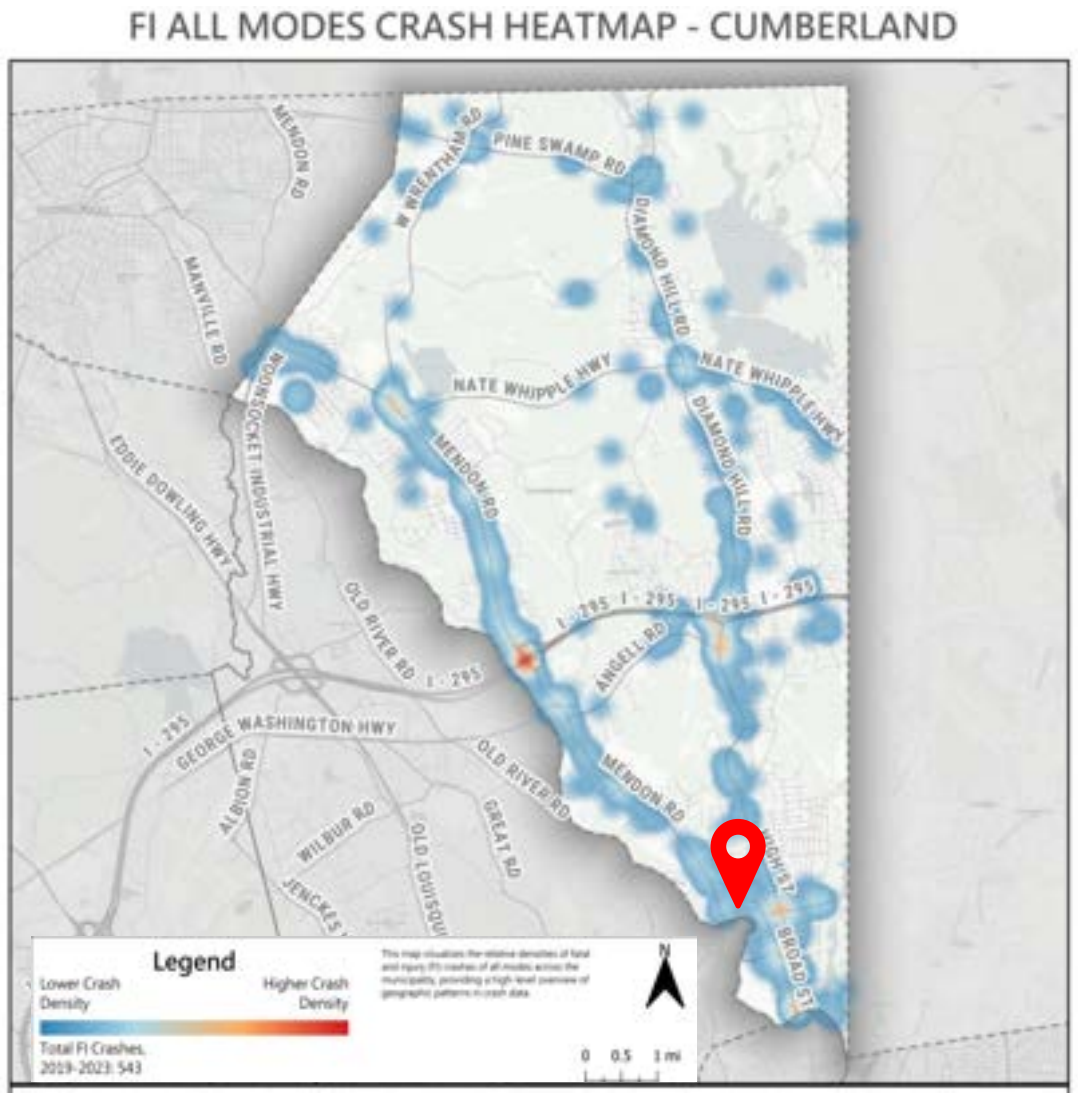
- Potential Countermeasures
  - Paint stop bar on Carpenter St westbound approach
  - Add lane striping on all approaches to the intersection
  - Evaluate Ralco Way northbound and southbound approaches for potential stop sign control
  - Access management for curb cut

Example: Garden St at Marshall Ave


Example: Broad St at Forest Ave

Ann and Hope Way

- Key Observations
  - No bus shelters for bus stops
  - Outdated pedestrian equipment at signals
  - Proposed 241 residential units



Ann and Hope Way

Ann and Hope Way

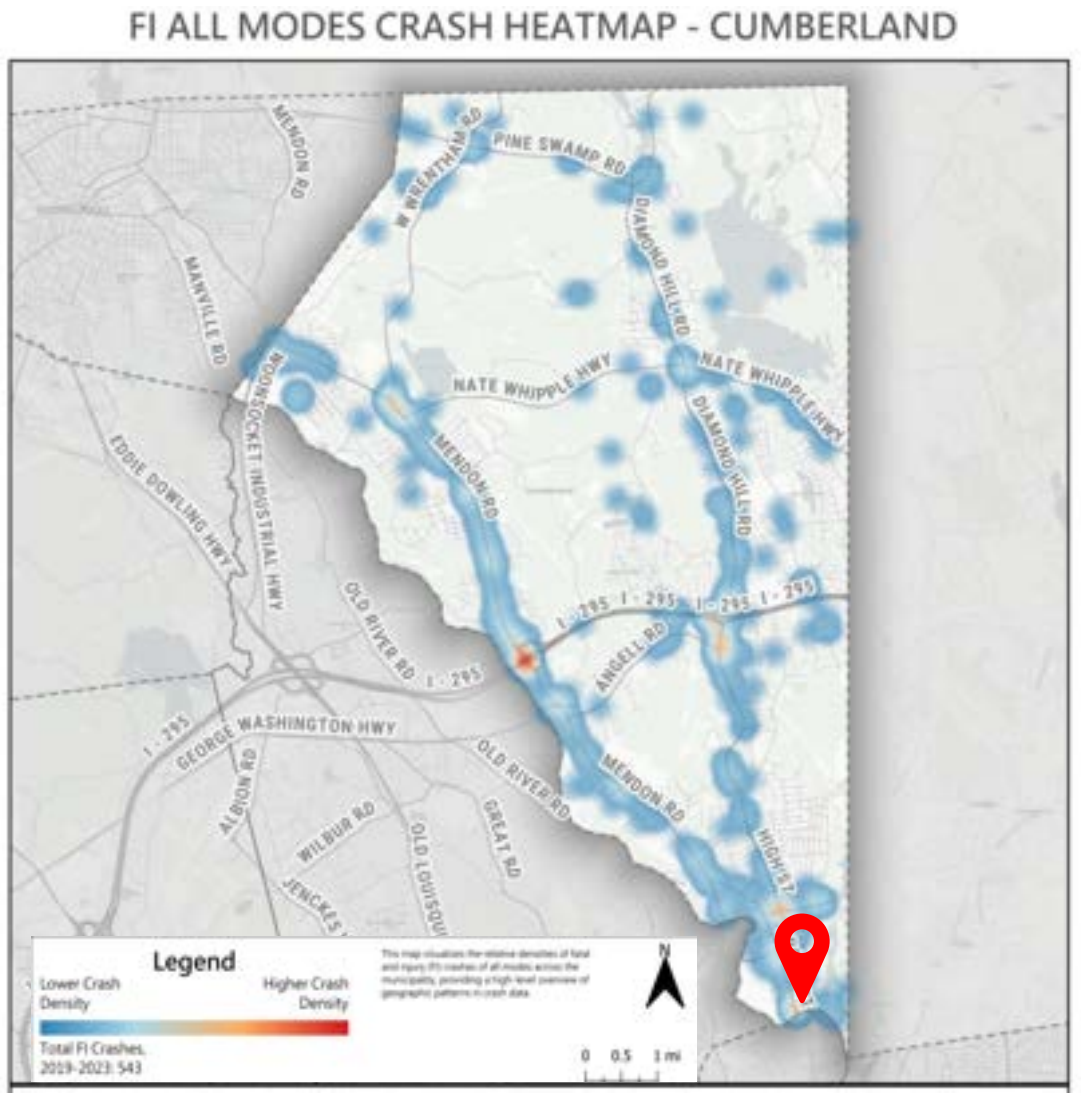
Ann and Hope Way

- Potential Countermeasures
  - Install RRFB at existing crosswalk
  - Restripe crosswalk on Ann and Hope Way
  - Install bus shelters for existing bus stops
  - Install ADA compliant curb-ramps
  - Install APS pedestrian buttons and countdown timers at signals

Example: Broad St at John St

Broad St / Mill St / Lusitana Ave

- Key Observations
  - Cars back up on Mill St during school drop-off/pick-up
  - Busy crosswalk
  - Truck traffic



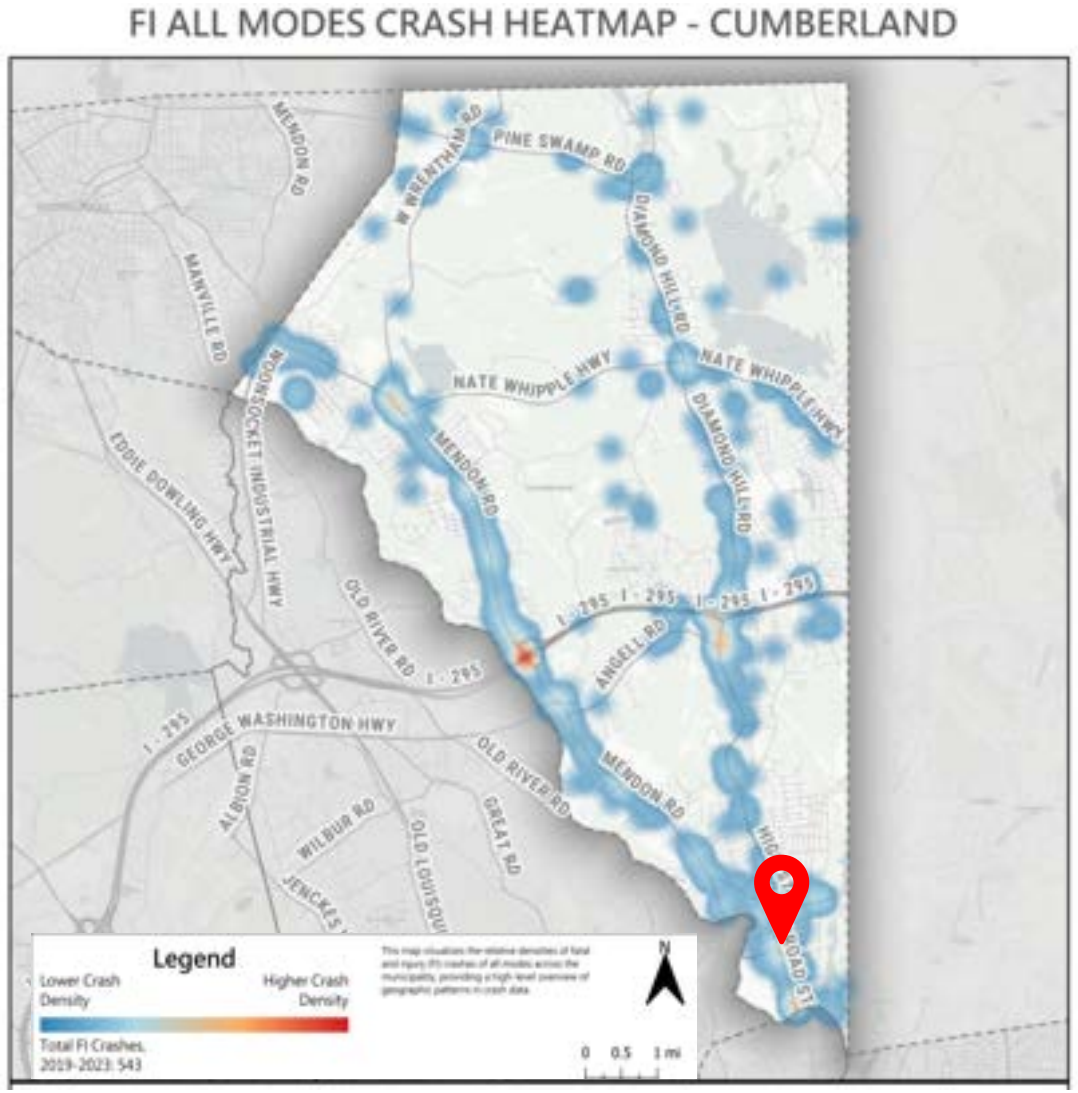
Broad St / Mill St / Lusitana Ave

Broad St / Mill St / Lusitana Ave

- Potential Countermeasures
  - Curb bump-outs
  - Daylighting to improve sight distance
  - Upgrade crosswalks signs to fluorescent
  - *State putting RRFB at crosswalk at Lusitana Ave*

Broad St / John St / Church St

- Key Observations
  - Congested - cars block intersection
  - Stop bar and signal on Broad St northbound approach is located south of Church St to allow for left-turns onto Church St
  - Mendon Express gas station driveways create issues
  - No signal for Church St
  - Recent repaving made lanes narrower
  - Exclusive walk signal



Broad St / John St / Church St

Broad St / John St / Church St

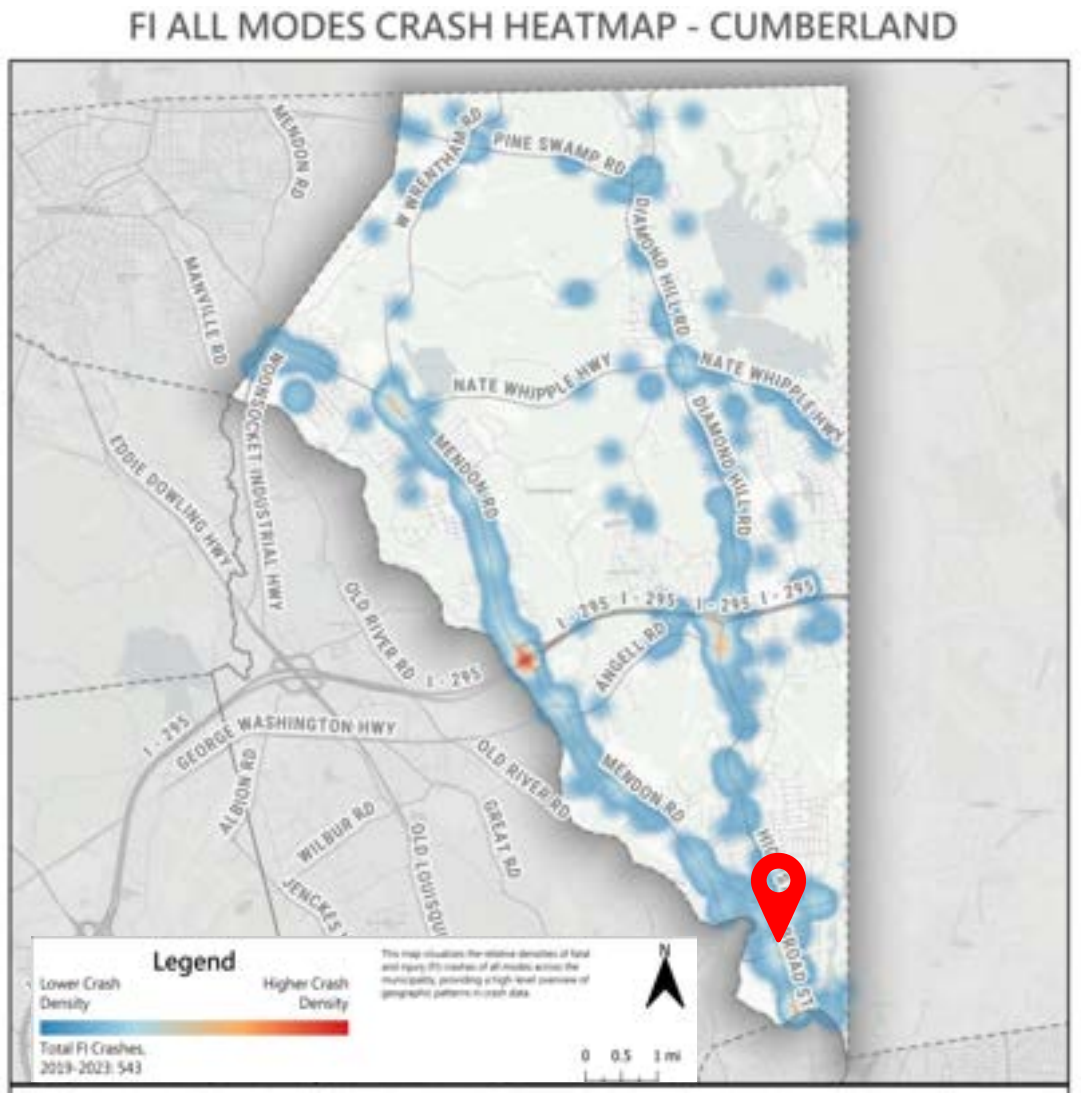
Broad St / John St / Church St

- Potential Countermeasures
  - LEDs around Do Not Enter signs on John St
  - Daylighting to improve visibility of Do Not Enter signs on John St
  - Paint ‘Do Not Block Box’ and install signage at Mendon Express gas station driveways

Example: Mendon Rd at Marshall Ave

Broad Street at Bernard F. Norton School

- Key Observations
  - Congestion during drop-off/pick-up
  - Crossing guard is present
  - Need for improved pedestrian safety
  - School is planning to be rebuilt and have new traffic patterns in Summer 2026



Broad Street at Bernard F. Norton School

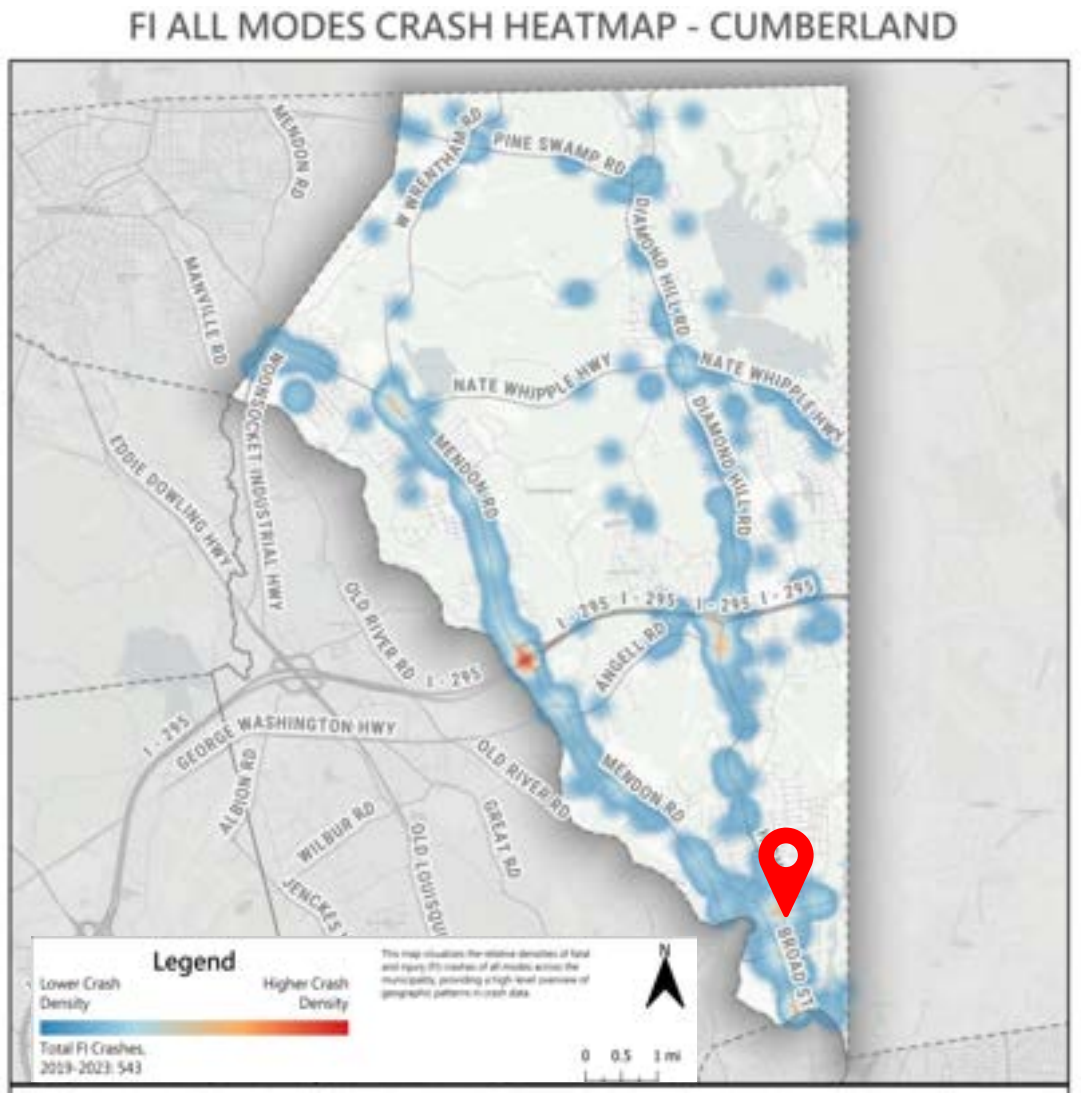
Broad Street at Bernard F. Norton School

- Potential Countermeasures
  - Relocate crosswalk in between school driveways
  - Install RRFB for relocated crosswalk
  - Work with school to create a more efficient drop-off/pick-up pattern (currently in the works)

Example: Mendon Rd at Davenport's

High St / Dexter St

- Key Observations
  - High St was recently repaved
  - State is narrowing travel lanes on Dexter Street to add bike lanes
  - Different speed limits on Dexter Street eastbound
  - Different types of crosswalks on approaches
  - Poor sidewalk, curb cuts and crossing conditions



High St / Dexter St

High St / Dexter St

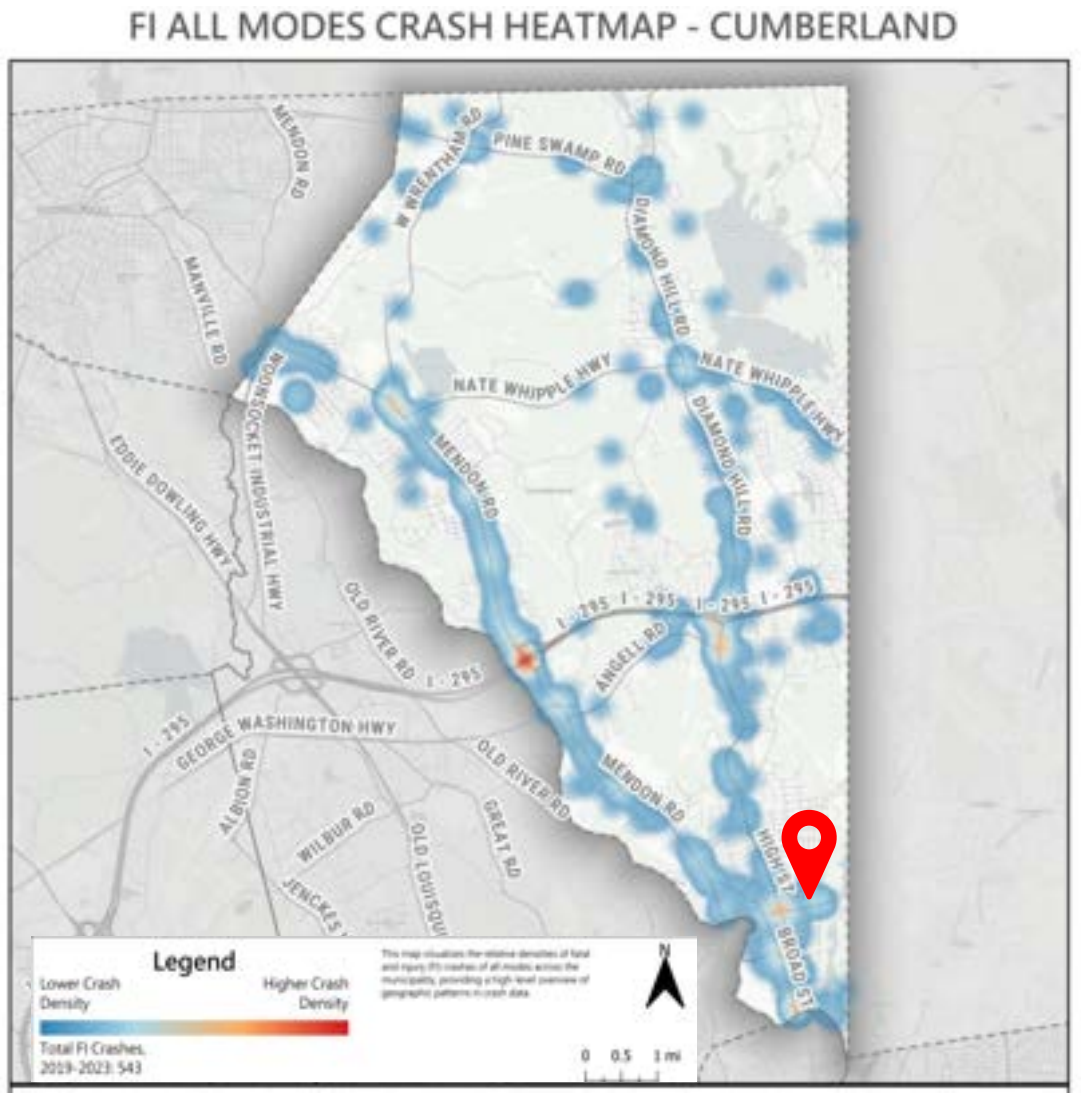
- Potential Countermeasures
  - Restripe crosswalks to be consistent
  - Install ADA compliant ramps
  - Install APS pedestrian push buttons and countdown timers
  - Update phasing to incorporate pedestrian phase
  - Install ‘Left-Turn Yield on Green’ signs

R10-12


Example: Broad St at John St

Dexter St / Curran Rd

- Key Observations
  - Received request for stop signs
  - Cars maximize speed – up to 40 mph
  - Witnessed near miss incident – vehicle pulling out of Curran Rd
  - No crosswalks connecting sidewalks
  - Non-compliant ramps on south side; no curb ramps on north side



Dexter St / Curran Rd

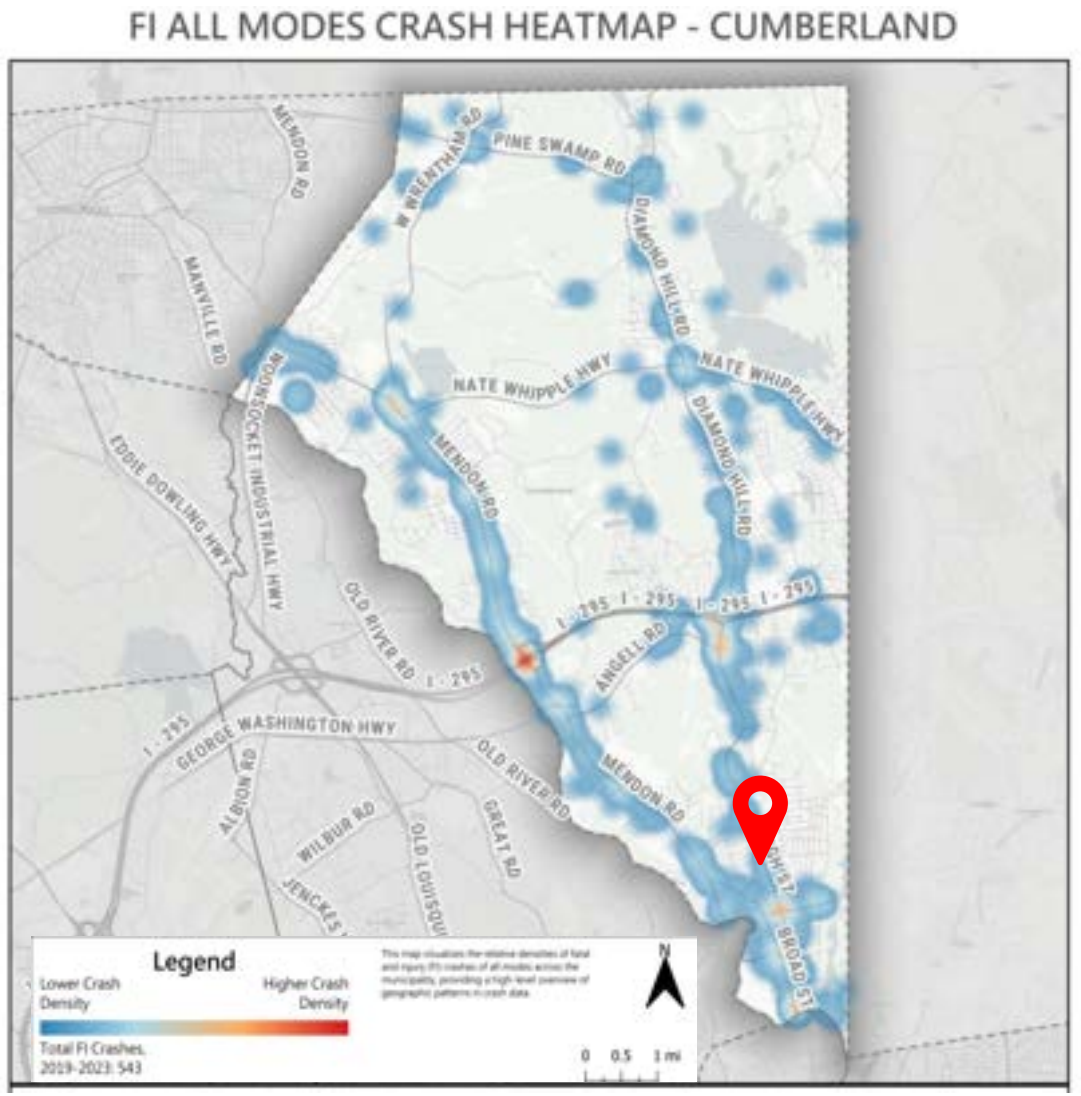
Dexter St / Curran Rd

- Potential Countermeasures
  - Install advance warning signage on Dexter St approaching intersection
  - Install ADA compliant ramps
  - Install crosswalks across Curran Rd approaches
  - Maintenance for existing sidewalks

Example: Broad St at John St

High St / Blackstone St

- Key Observations
  - Many middle school students walking in this area – crossing guard present during school times
  - Wide curb cut at northwest corner
  - Fast southbound turns onto Blackstone St due to wide radius
  - No crosswalk across Blackstone St approach
  - Mature tree and utility pole at southwest corner interferes with sight distance



High St / Blackstone St

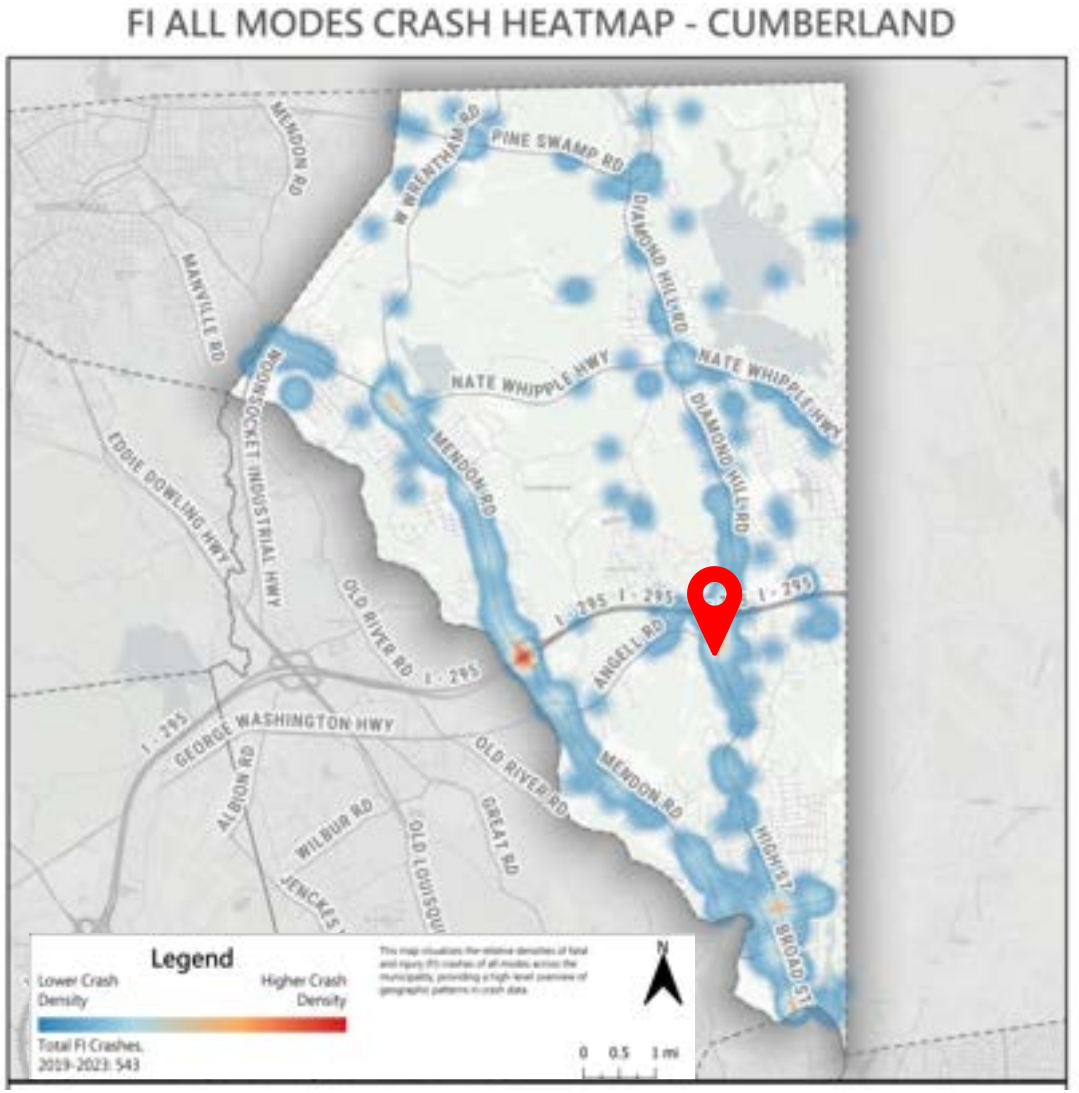
High St / Blackstone St

High St / Blackstone St

- Potential Countermeasures
  - Install curb bump-outs on northwest corner to reduce roadway space and shorten pedestrian crossing and reduce speeds for right-turn onto Blackstone St
  - Install crosswalk across Blackstone St approach
  - Upgrade beacon to full RRFB on pedestrian crossing sign for High Street

Diamond Hill Rd / Angell Rd / Bear Hill Rd

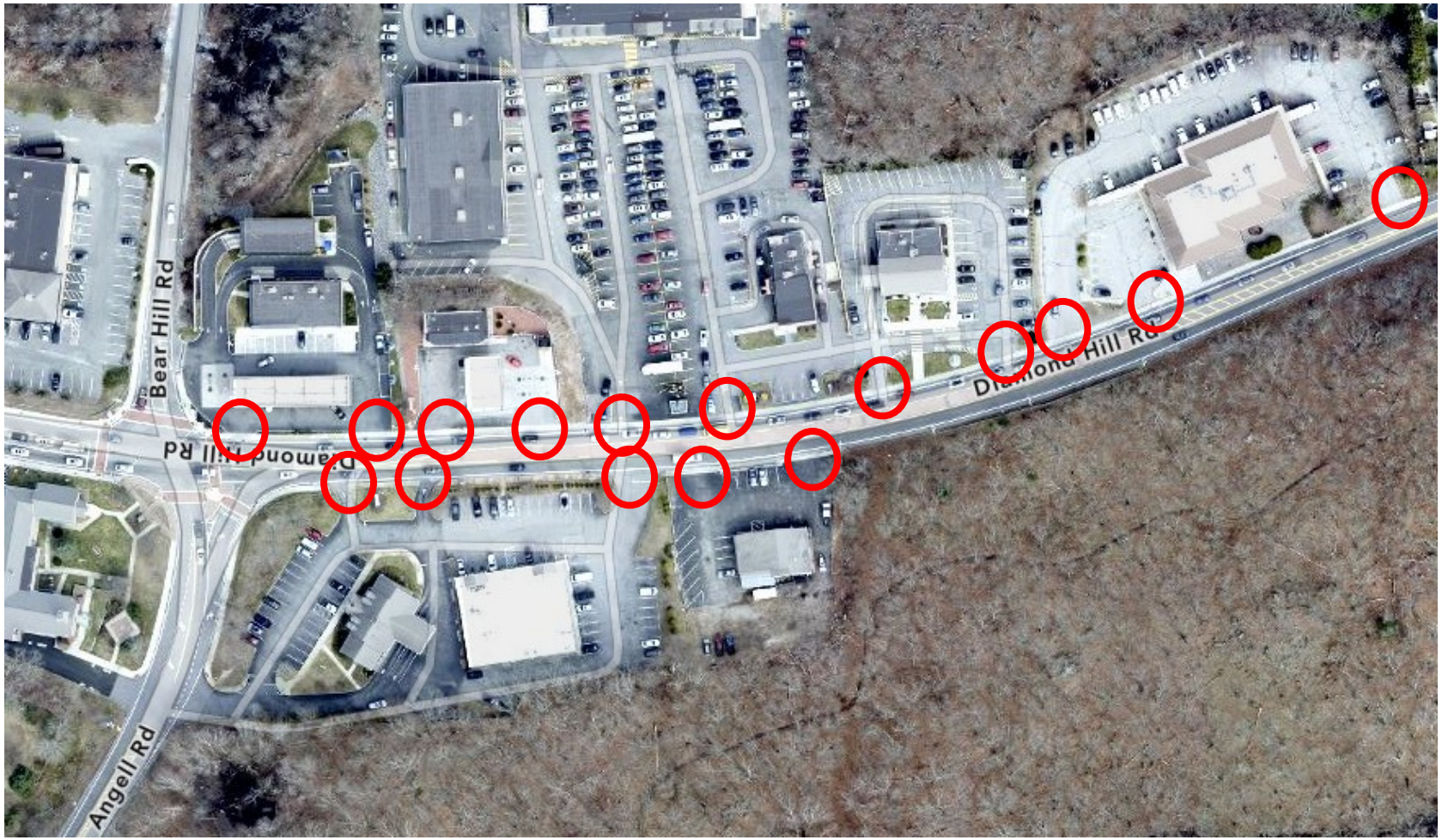
- Key Observations
  - Congested intersection
  - Issues with driveways south of intersection - too many curb cuts



Diamond Hill Rd / Angell Rd / Bear Hill Rd

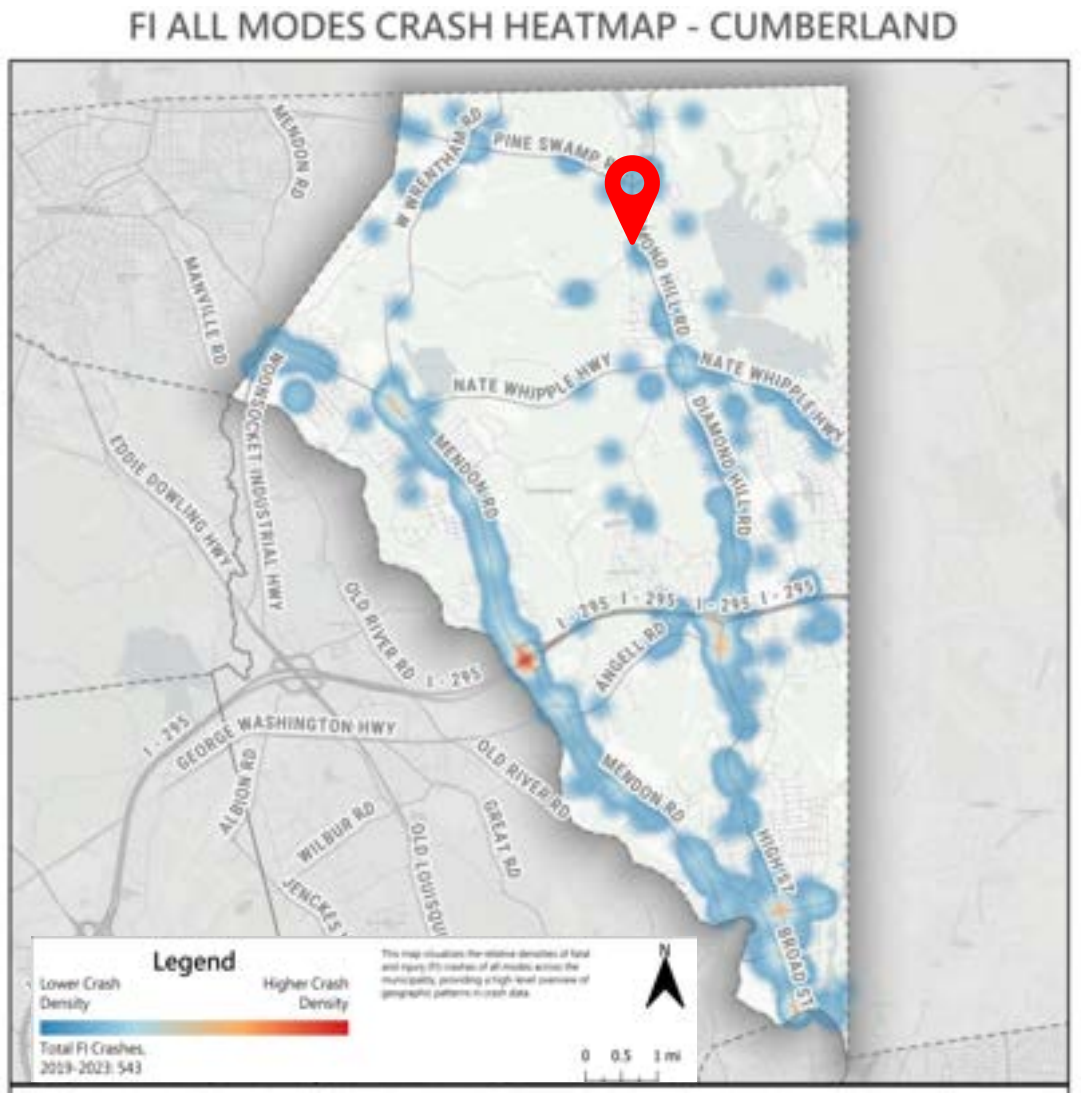
Diamond Hill Rd / Angell Rd / Bear Hill Rd

- Potential Countermeasures
  - Evaluate the necessity and functioning of each driveway and consider closing or combining driveways or adjusting to right-in/right-out only



Diamond Hill Rd / Diamond Hill Park

- Key Observations
  - High parking demand from Diamond Hill Park/parking area to The Ice Cream Machine
  - Town considered moving crosswalk south but not good sight distance
  - Currently constructing landing for crosswalk and path on Diamond Hill Park side
    - Need to work with abutter on The Ice Cream Machine side – stone wall
  - Cars park on the roadway in the summer



Diamond Hill Rd / Diamond Hill Park

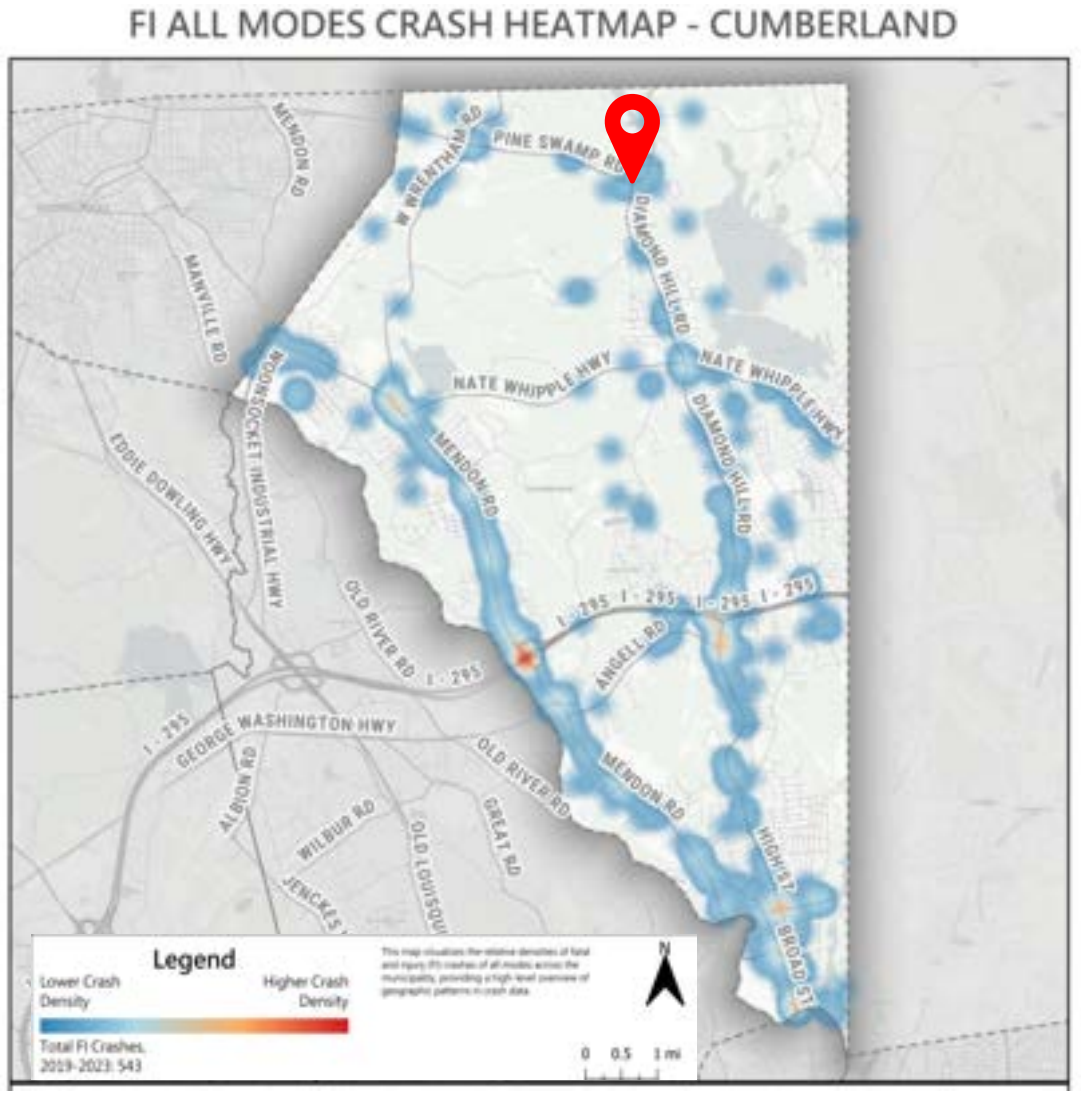
Diamond Hill Rd / Diamond Hill Park

- Potential Countermeasures
  - Continue working with abutter to create landing for crosswalk
  - Install RRFB for crosswalk
  - Install speed feedback signs along Diamond Hill Road in the vicinity of the Ice Cream Machine

W13-20

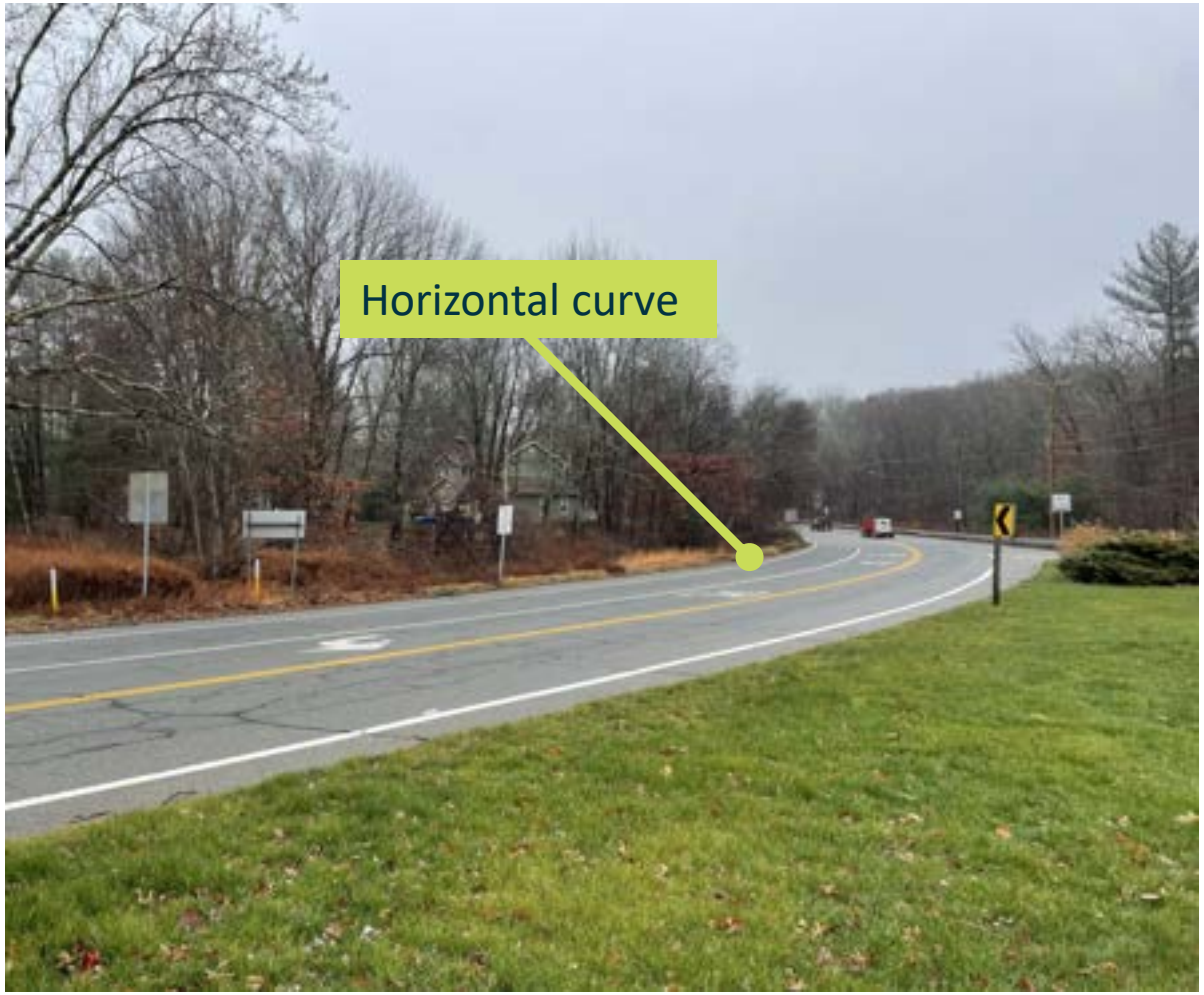
Diamond Hill Rd / Wrentham Rd / Pine Swamp Rd

- Key Observations
  - Traffic signal will be installed in 2026
  - Most crashes are broad side or off road
  - Left turns speed around the corner from Wrentham Rd westbound and onto Diamond Hill Rd
  - Most highly enforced area for speeds by police



Diamond Hill Rd / Wrentham Rd / Pine Swamp Rd

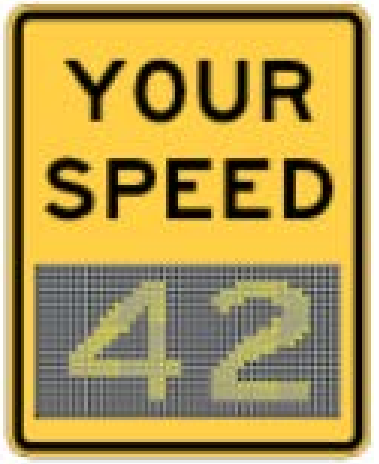
Diamond Hill Rd / Wrentham Rd / Pine Swamp Rd



Diamond Hill Rd / Wrentham Rd / Pine Swamp Rd

- Potential Countermeasures*
  - Curve warning signage
  - Speed feedback signs

*Once traffic signal is installed, it is possible these would not be needed

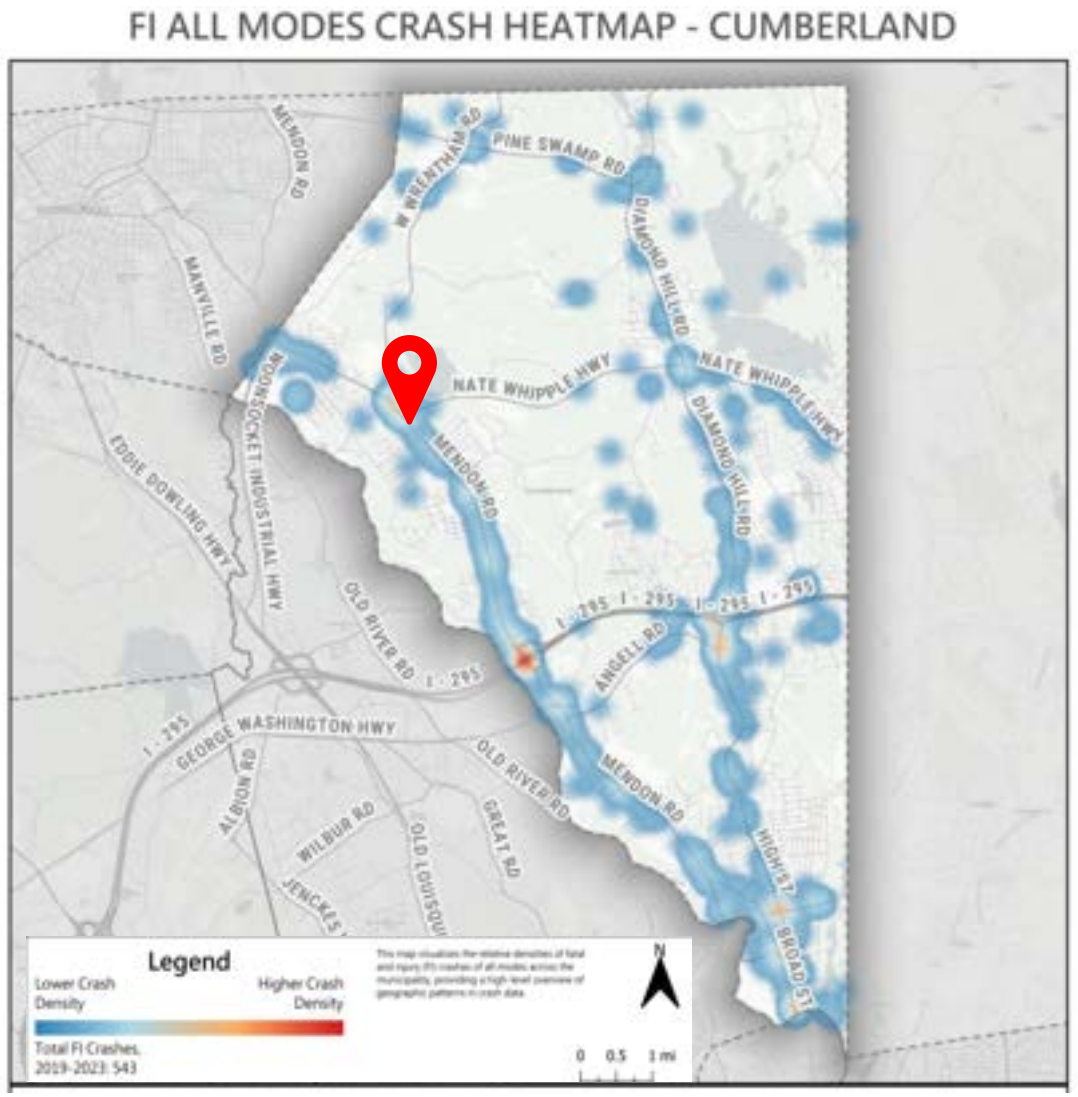


W13-20


W1-2

Mendon Rd / Nate Whipple Highway

- Key Observations
  - Mostly rear-end accidents
  - Mendon Rd is very busy within this area due to commercial uses
  - Outdated pedestrian signals and crosswalks
  - Crosswalk just south of intersection is busy – directly connects to pathway to elementary school



Mendon Rd / Nate Whipple Highway

Mendon Rd / Nate Whipple Highway

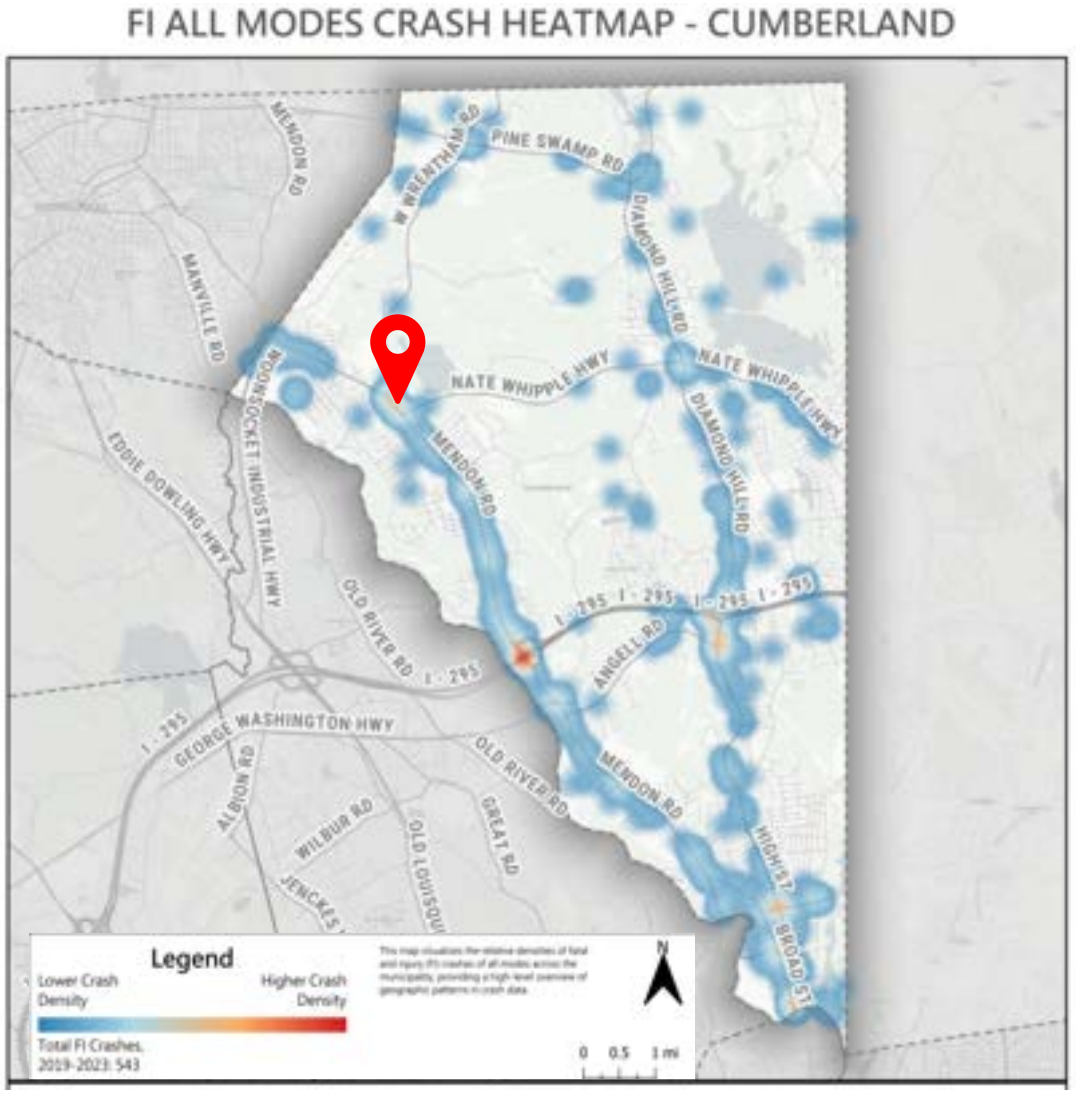
Mendon Rd / Nate Whipple Highway

- Potential Countermeasures
  - Install ADA compliant ramps
  - Install APS pedestrian push buttons and countdown timers
  - Install RRFB at crosswalk to school
  - Restripe crosswalks in continental style
  - Evaluate coordinating signal with Mendon Road at Manville Hill Road

Example: Mendon Rd at Davenport's

Mendon Rd / Manville Hill Rd

- Key Observations
  - Parking on sidewalk at Poppy's Restaurant blocks sidewalk accessibility
  - Poor sidewalk/crossing conditions
  - Congestion and speeding



Mendon Rd / Manville Hill Rd

Mendon Rd / Manville Hill Rd

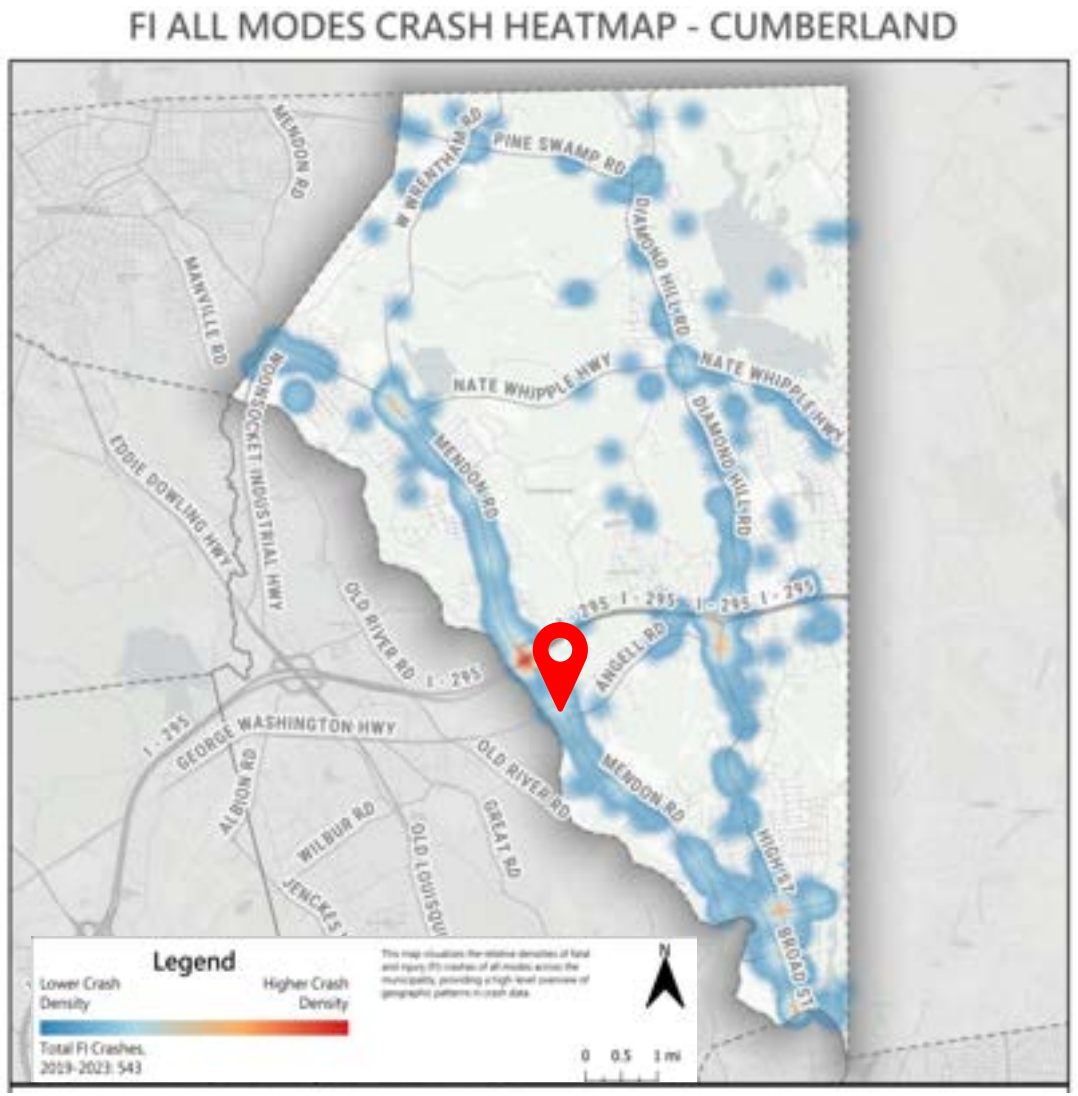
Mendon Rd / Manville Hill Rd

- Potential Countermeasures
  - Define sidewalks and parking around Poppy's Restaurant to protect safe pedestrian space
  - Restripe crosswalks
  - Install ADA compliant ramps
  - Install APS pedestrian push buttons and countdown timers
  - Evaluate coordinating signal with Mendon Road at Nate Whipple Highway


Example: Broad St at John St

Mendon Road at Scott Road / Route 116

- Key Observations
  - Poor pedestrian and bicycle-friendly accommodations
  - Roadways are narrow
  - Poor geometry



Mendon Road at Scott Road / Route 116

Mendon Road at Scott Road / Route 116

Mendon Road at Scott Road / Route 116

- Potential Countermeasures
  - Add pavement markings to Scott Rd
  - Install RRFB at crosswalk south of Scott Rd
  - Restripe crosswalks
  - Install ADA compliant curb ramps
  - Install APS pedestrian buttons and countdown timers and implement pedestrian phase at signal
  - Install lane designation signage for Mendon Rd NB approach to signal
  - Sidewalk/curb repairs


Example: Broad St at John St