



RHODE ISLAND

**HIGHWAY SAFETY  
IMPROVEMENT PROGRAM**  
2020 ANNUAL REPORT



U.S. Department of Transportation  
Federal Highway Administration

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## **Disclaimer**

### ***Protection of Data from Discovery Admission into Evidence***

23 U.S.C. 148(h)(4) states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section[HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data.

23 U.S.C. 148(h)(4) states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section[HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data.23 U.S.C. 409 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.”

## Executive Summary

The Rhode Island Department of Transportation (RIDOT) has followed the Highway Safety Manual process to guide their HSIP. RIDOT currently uses the predictive method and frequency ranking to identify top crash site-specific locations as well as risk factors for systemic type issues statewide. RIDOT reviews the top crash lists/types to develop and fine tune a plan of incorporating safety improvements through new and existing spot location/systemic projects. Rhode Island also has a HSIP committee that uses a data-driven approach to making any safety related decision and has developed a ranking form based on safety benefits, feasibility and policy conformance to be used whenever HSIP funds are considered for a project.

RIDOT's HSIP program has been ever-evolving since 2010, as other RIDOT programs, sections, and administrations have changed. In 2015, RIDOT's administration has placed a renewed focus on upgrading and maintaining our bridges and roads. RIDOT now has a 10-year plan for all of its core programs (traffic/safety, road, and bridge) that budgets projects based on focus areas. The emphasis on bridges and roads does not mean safety projects are ignored. Safety will always be a critical and necessary program, and while available funding may fluctuate in any given year, RIDOT is collecting the data and possessing the tools to make more informed data-driven decisions to spend safety dollars in the most beneficial way to the State.

RIDOT has developed several programs within the HSIP to help tackle the most severe crashes. The major programs focus on roadway departure, angle/broadside crashes at intersections, and vulnerable road users (pedestrians & bicyclists). The crashes experienced in these three categories make up over 75% of fatal and serious injury crashes in RI. RIDOT's HSIP focuses on these 3 programs, addressing locations using both a site-specific (using SPFs) and systemic (using risk factors) methodology.

For site-specific locations, RIDOT developed SPFs for urban and rural 2 and 4 lane highways. RIDOT has also advanced a horizontal curve and STEP systemic program, including development of risk factors and prioritization as well as a GIS based tool for programming and project tracking. An intersection systemic program in the data collection phase for 2021.

RIDOT also advanced their first state-specific crash modification factor (CMF) for Road Diets. The results are a CMF of 0.71 (29% reduction) for all crashes and a CMF of 0.63 (37% reduction) for KABC crashes. The 0.71 is in-line with the 5-star road diet CMF on the Clearinghouse. This data further enforces the need for road diets along high risk corridors.

## Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP Reporting Guidance dated December 29, 2016 and consists of five sections: program structure, progress in implementing highway safety improvement projects, progress in achieving safety outcomes and performance targets, effectiveness of the improvements and compliance assessment.

## Program Structure

### *Program Administration*

#### **Describe the general structure of the HSIP in the State.**

Since 2010, The Rhode Island Department of Transportation (RIDOT) has followed the Highway Safety Manual process to guide their HSIP. For network screening, RIDOT currently uses societal crash cost ranking using the KABCO scale to identify top crash site-specific locations as well as systemic type issues statewide. The systemic approach is a risk based approach that examines roadway types that are susceptible to a specific crash type (roadway departure, intersection) and identified through high-level queries. RIDOT reviews the top crash lists/types to develop and fine tune a plan of incorporating safety improvements through new and existing spot location/systemic projects.

Beginning in 2020, RIDOT have advanced several systemic programs with the development of risk factors to prioritize locations. This includes horizontal curve and unsignalized pedestrian crossings (STEP). With this list, RIDOT has begun reviewing each site to identify proposed improvements to be implemented.

The HSIP Committee is made up of safety stakeholders, including RIDOT, FHWA, and RIDOT HSIP Engineering Support Services consultant that meets monthly to develop the HSIP program, approve HSIP projects and requests for projects, and discuss other safety related issues. The HSIP committee uses a data-driven approach to making any safety related decision and has developed a ranking form based on safety benefits, feasibility and policy conformance to be used whenever HSIP funds are considered for a project. Not only does the HSIP committee review internal requests for funds, but also requests that come in from the local municipalities.

As part of the HSIP project ranking form, points are given for conducting a Road Safety Assessment (RSA) at the location under consideration for safety improvements. The RSA's follow federal RSA guidelines and RI has embraced the usefulness of the RSA process. The RSA process also promotes involvement from stakeholders outside of RIDOT and strengthens relationships between RIDOT and participating municipalities. These strengthening relationships will prove to be imperative for sharing/updating roadway data to allow for predictive network screening and state-specific SPF development in the future.

The collection of the MIRE elements will also assist with the selection of systemic project locations and countermeasures with the risk for specific crash types (i.e. Curves). RIDOT also uses FHWA low-cost proven safety countermeasures, NCHRP, FHWA reports, and other safety documents to assist with countermeasure identification. Again, the MIRE data collection and sharing with municipalities will improve the overall HSIP program as it will provide the municipalities additional tools to conduct RSA's and submit strong safety project candidates for HSIP committee review and approval. RIDOT has begun implementation of SPF's for FY20.

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RIDOT prioritizes projects based on the ranking scores and how the improvements fit into the roadway departure, local safety, safety corridor, intersections, interchanges, and vulnerable users programs. Once completed, the projects are evaluated to determine the safety effectiveness of the safety improvements. The resulting data will assist RIDOT with developing their own crash modification factors.

### **Where is HSIP staff located within the State DOT?**

Planning

RIDOT Safety section is responsible for implementation of the HSIP. They are a separate group from RIDOT Planning and focus on traffic/safety but carry out the planning function for all safety related projects.

### **How are HSIP funds allocated in a State?**

- Central Office via Statewide Competitive Application Process
- SHSP Emphasis Area Data

RIDOT selects the majority of HSIP funded projects thru the SHSP EA. A small portion is allotted to outside RIDOT requests. This competitive process still requires alignment with the SHSP.

### **Describe how local and tribal roads are addressed as part of HSIP.**

Network Screening - On an annual basis, the RIDOT identifies the roadway facilities exhibiting the most severe safety needs based on crash severity and frequency/exposure or the predictive method. Through the RIDOT's HSIP, ALL public roads are addressed, focusing on fatal and serious injury crashes in line with their SHSP and the performance measures set forth in MAP-21 and the FAST Act. Most of the State-owned roadway network and some of the local roadways are mapped to a Linear Referencing System; however, the majority of the local roadways is not referenced and is manually reviewed to ensure their inclusion into the HSIP process.

As part of RIDOT's STEP program, all roadways have been assigned a priority scope based on 20&#43; attributes. RIDOT plans on expanding its other systemic program inventory to local roads in the coming years.

Diagnosis and Implementation: The RIDOT works with municipalities to identify and mitigate crash issues on locally-maintained roadways. RIDOT has developed a process for locals to request a safety improvement with the intent for locals 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 locals so they can administer the construction of the improvements.

RIDOT has worked with several municipalities on pedestrian and bicycle safety. They have developed safety action plans for 2 communities with high pedestrian activity. RIDOT has also reviewed all segments statewide and assigned a "risk" score to them. This will help RIDOT and locals prioritize safety for vulnerable road users.

### **Identify which internal partners (e.g., State departments of transportation (DOTs) Bureaus, Divisions) are involved with HSIP planning.**

- Design
- Governors Highway Safety Office
- Local Aid Programs Office/Division
- Maintenance
- Operations
- Planning

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- Traffic Engineering/Safety

### **Describe coordination with internal partners.**

RIDOT works internally with transportation planners (Statewide Planning), RIDOT GIS analysts, RIDOT safety engineers, RIDOT and OHS highway safety program coordinators and RIDOT operations staff as part of the entire HSIP process, including the identification of critical locations and the selection of appropriate countermeasures/ improvements. These partners are involved in Road Safety Assessments (RSAs) that were performed at many of these locations to facilitate this multi-discipline approach.

RIDOT also houses the Office of Highway Safety where the HSIP, HSP, and SHSP are all developed in a coordinated effort focused on developing consistent safety goals. Safety initiatives are now implemented in a more integrated and multi-disciplinary manner, providing RIDOT with more flexibility to direct resources to address particular safety needs. As part of the FAST Act, the RIDOT and OHS along with RI's Office of Performance Management coordinated the development of performance measurement and targets for FY21.

### **Identify which external partners are involved with HSIP planning.**

- Academia/University
- FHWA
- Law Enforcement Agency
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Tribal Agency

### **Describe coordination with external partners.**

RIDOT works with University of RI to develop SPFs.

LEL and FHWA are involved in bi-monthly safety meetings.

The MPO is involved in the TIP process (specifically for safety projects)

RIDOT address all public roads, including tribal agency roadways. Crashes on locally and tribal owned roadways are included in the network screening process. Any safety improvements necessary based on prioritization are coordinated with these agencies.

Tribal agencies are included in the SHSP planning process and are stakeholders on the SHSP steering committee.

### **Describe other aspects of HSIP Administration on which the State would like to elaborate.**

RIDOT performs a monthly review of safety improvement proposals for selection. Local governments and RIDOT staff submit engineering studies of potential safety projects. These safety proposals are evaluated to focus limited resources on areas of greatest need. HSIP funds are available for locations or corridors where a known 'substantive safety' problem exists as indicated by location specific data on severe crashes or where a risk-based analysis has demonstrated the need for systemic countermeasures. All HSIP expenditures require that a specific project action can produce a measurable and significant reduction in the number or risk of severe crashes. To achieve the maximum benefit, the focus of the program is on cost effective use of the funds allocated for safety improvements. RIDOT's HSIP project selection methods prioritize safety proposals that

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align with the SHSP, address roadways with actual or potential for higher deaths and serious injuries, and target the underlying safety issue.

The Multi-Disciplinary HSIP Selection Committee is made up of the HSIP Program Manager, FHWA Safety and Operations Engineer, and other RIDOT staff. The purpose of the committee is to review and select HSIP proposals for advancement. The HSIP PSC will be transformed with COVID-19. They will meet on a monthly basis (virtually or in person) to review locations to be added to the HSIP program. Projects will be reviewed for conformance with the HSIP and SHSP. Safety projects added to the TIP must demonstrate a projected safety benefit that in sum meet annual goals set by RIDOT in order to meet its SHSP goals. If by any means the annual safety goal is not met for a given year, the safety projects included in the TIP will be revised by the HSIP Selection Committee the following year to increase the projected safety benefits to ensure the goal is still obtainable. Projected safety benefits are provided by the HSIP Proposal forms. For safety program placeholder projects, RIDOT uses national published crash modification factors to help predict the reduction in fatalities and injuries based on the type of countermeasure deployed on a wide scale basis across the State to target roadway facilities and users identified in the SHSP as emphasis area.

Once a location is programmed, RIDOT will bundle into standalone safety projects or with another bridge or highway project.

RIDOT has 4 different "on-call" consultant contracts. The first on-call contract involves one consultant to perform the network screening, diagnosis, and countermeasure selection (HSIP On-Call Administration Consultant). This consultant will then develop conceptual improvement plans for RIDOT's review. RIDOT then distributes all improvement projects to the RIDOT Project Management where the other 3 on-call consultants are charged with advancing the conceptual plans to final design and construction. Once the improvements have been implemented, the first on-call consultant tracks these projects and develops safety effectiveness evaluations.

### ***Program Methodology***

#### **Does the State have an HSIP manual or similar that clearly describes HSIP planning, implementation and evaluation processes?**

Yes

A revision to the program manual is slated for 2021 with the addition of state-specific SPFs and CMFs and expanded info on systemic programs.

#### **Select the programs that are administered under the HSIP.**

- Right Angle Crash
- Roadway Departure
- Safe Corridor
- Wrong Way Driving
- Other-Vulnerable Road Users

Pedestrian safety and bicycle safety are covered under OTHER-Vulnerable Road Users.

Low Cost Spot Improvements are applicable to all of the other programs selected. RIDOT does not have a standalone low cost program. We deploy low cost improvements via RIDOT maintenance and a master price agreement to streamline improvements.

**Program: Right Angle Crash**

***Date of Program Methodology:10/1/2016***

***What is the justification for this program?***

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

***What is the funding approach for this program?***

Funding set-aside

***What data types were used in the program methodology?***

Crashes	Exposure	Roadway
<ul style="list-style-type: none"><li>• Fatal and serious injury crashes only</li></ul>	<ul style="list-style-type: none"><li>• Volume</li><li>• Lane miles</li></ul>	

***What project identification methodology was used for this program?***

- Crash frequency

***Are local roads (non-state owned and operated) included or addressed in this program?***

Yes

***Are local road projects identified using the same methodology as state roads?***

Yes

***How are projects under this program advanced for implementation?***

- selection committee

***Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).***

**Relative Weight in Scoring**

Ranking based on B/C:15

Other-Reduction in fatalities and injuries:15

Other-Facility risk level:20

Other-SHSP emphasis area:15

Other-Project feasibility:25

Other-Policy conformance:10

Total Relative Weight:100

**Program: Roadway Departure**

***Date of Program Methodology:4/19/2015***

***What is the justification for this program?***

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

***What is the funding approach for this program?***

Funding set-aside

***What data types were used in the program methodology?***

**Crashes**

- All crashes
- Fatal and serious injury crashes only

**Exposure**

- Volume

**Roadway**

- Median width
- Horizontal curvature
- Functional classification
- Roadside features
- Other-Roadway width
- Other-Clear Zone

***What project identification methodology was used for this program?***

- Excess expected crash frequency with the EB adjustment
- Other-Crash frequency - Fatal and serious crashes only
- Other-Facility risk factors/similar geometric types
- Relative severity index

***Are local roads (non-state owned and operated) included or addressed in this program?***

Yes

***Are local road projects identified using the same methodology as state roads?***

Yes

***How are projects under this program advanced for implementation?***

- selection committee

***Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).***

**Relative Weight in Scoring**

Ranking based on B/C:15

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Other-Reduction in fatalities and injuries:15

Other-Facility risk level:20

Other-SHSP emphasis area:15

Other-Project feasibility:25

Other-Policy conformance:10

Total Relative Weight:100

### **Program: Safe Corridor**

***Date of Program Methodology:4/19/2015***

***What is the justification for this program?***

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

***What is the funding approach for this program?***

Funding set-aside

***What data types were used in the program methodology?***

#### **Crashes**

- All crashes
- Fatal and serious injury crashes only

#### **Exposure**

- Traffic
- Volume
- Other-Transit

#### **Roadway**

- Functional classification
- Roadside features
- Other-# Of Lanes

***What project identification methodology was used for this program?***

- Other-Crash frequency - fatal and serious injury crashes only
- Other-Facility risk factors/similar geometric types
- Relative severity index

***Are local roads (non-state owned and operated) included or addressed in this program?***

Yes

***Are local road projects identified using the same methodology as state roads?***

Yes

***How are projects under this program advanced for implementation?***

- selection committee

***Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must***

**equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).**

**Relative Weight in Scoring**

Ranking based on B/C:15  
Other-Reduction in fatalities and serious injuries:15  
Other-Facility risk level:20  
Other-SHSP emphasis area:15  
Other-Project feasibility:25  
Other-Policy conformance:10  
Total Relative Weight:100

**Program: Wrong Way Driving**

***Date of Program Methodology:5/1/2015***

***What is the justification for this program?***

- Addresses SHSP priority or emphasis area

***What is the funding approach for this program?***

Funding set-aside

***What data types were used in the program methodology?***

Crashes	Exposure	Roadway
<ul style="list-style-type: none"><li>• Other-Wrong way driving incidents</li></ul>		

***What project identification methodology was used for this program?***

- Other-Wrong Way Driving Incidents - Potential Freeway Entry Points

***Are local roads (non-state owned and operated) included or addressed in this program?***

Yes

***Are local road projects identified using the same methodology as state roads?***

Yes

***How are projects under this program advanced for implementation?***

- Other-Dedicated projects in TIP

***Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must***

***equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).***

Rank of Priority Consideration

**Program: Other-Vulnerable Road Users**

***Date of Program Methodology:8/1/2013***

***What is the justification for this program?***

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety

***What is the funding approach for this program?***

Funding set-aside

***What data types were used in the program methodology?***

**Crashes**

- All crashes
- Fatal and serious injury crashes only

**Exposure**

- Traffic
- Volume

**Roadway**

- Functional classification
- Other-Roadway width

***What project identification methodology was used for this program?***

- Crash frequency
- Other-Facility risk/similar type geometrics

***Are local roads (non-state owned and operated) included or addressed in this program?***

Yes

***Are local road projects identified using the same methodology as state roads?***

Yes

***How are projects under this program advanced for implementation?***

- selection committee

***Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).***

Relative Weight in Scoring

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Ranking based on B/C:15

Other-Reduction in fatal and serious injury crashes:15

Other-facility risk level:20

Other-Project feasibility:25

Other-Policy conformance:15

Other-SHSP emphasis area:10

Total Relative Weight:100

### **What percentage of HSIP funds address systemic improvements?**

60

### **HSIP funds are used to address which of the following systemic improvements?**

- Add/Upgrade/Modify/Remove Traffic Signal
- Clear Zone Improvements
- High friction surface treatment
- Horizontal curve signs
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Traffic Control Device Rehabilitation
- Upgrade Guard Rails

### **What process is used to identify potential countermeasures?**

- Crash data analysis
- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Other-Crash Modification Clearinghouse
- Other-NCHRP Report 500 Series

### **Does the State HSIP consider connected vehicles and ITS technologies?**

Yes

### **Describe how the State HSIP considers connected vehicles and ITS technologies.**

RIDOT has created a working Connected/Autonomous Vehicle (CAV) group made up of various departments with RIDOT including Traffic Safety. RIDOT is exploring CAV and its impact to safety.

RIDOT is currently working with May Mobility to operate a autonomous shuttle as a pilot program.

RIDOT has placeholders in the TIP for CAV projects related to safety.

RIDOT may participate in the AASHTO SPAT Challenge with a focus on a high crash corridor.

### **Does the State use the Highway Safety Manual to support HSIP efforts?**

Yes

**Please describe how the State uses the HSM to support HSIP efforts.**

RIDOT refers to the HSM methodologies on all aspects of safety where possible, including in the network screening, diagnosis, countermeasure selection, prioritization, and safety effectiveness evaluation categories. Please see attached HSIP Program Manual for more information.

**Describe other aspects of the HSIP methodology on which the State would like to elaborate.**

RIDOT encourages using the predictive method to use a more sound, data-driven approach to allocating resources that results in fewer fatalities and serious injuries on the nation's roadways. The predictive method (Excess expected crash frequency using SPFs, EB adjustment,) combines crash, roadway inventory and traffic volume data to provide more reliable estimates of an existing or proposed roadway's expected safety performance, such as crash frequency and severity. To achieve this goal, RIDOT undertook a large data collection effort to obtain all of the Model Inventory of Roadway Data Elements (MIRE), which included roadway, traffic, and other data needed to assist the RIDOT make the most efficient decisions where to allocate safety funds and resources. The RIDOT also is working on developing a data maintenance effort to ensure all data collected is updated on a timely basis. RIDOT has begun using the predictive method for some rural segment and will continue to expand in the coming years.

RIDOT is expanding its systemic program in the next few years, including creating a detailed risk based analysis and process. RIDOT has automated this process by developing a tool that resided on a GIS platform for 2 programs (horizontal curves and STEP). The network screening portion of the tool would automate the site-specific and systemic identification process which is currently performed manually. For site-specific analysis, the tool will use state-specific SPF equations for all facility types, addressing the predictive analysis requirements. The tool will provide a list of locations ranked by Excess Excepted Crash Frequency (Expected Crashes – Predicted Crashes). The systemic analysis will use allow the user to identify potential trends (geometry, traffic volumes) that have a higher occurrence of fatal and serious injury crashes in RI using the crash and MIRE data incorporated into the tool. Once the potential trends (aka risk factors) are identified, the tool will identify locations that have similar trends which could lead to fatal or serious injury crashes. The user can assign a weighted “point “system for each trend to help prioritize locations based on severity or number of trends at a given site. This allows the tool to provide the user with a “ranked” list of risk-based locations

RIDOT also has its own HSIP Program Manual. The purpose of this document is to describe RIDOT's processes for planning, implementing, and evaluating HSIP funded improvements and to describe its relationship to other safety initiatives found in Rhode Island's SHSP. This document not only helps Rhode Island to demonstrate their own successes, but also serves as a mechanism for other states to achieve improved highway safety.

## Project Implementation

### *Funds Programmed*

#### Reporting period for HSIP funding.

Federal Fiscal Year

Enter the programmed and obligated funding for each applicable funding category.

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	\$13,615,142	\$13,615,142	100%
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$0	\$0	0%
Penalty Funds (23 U.S.C. 154)	\$0	\$0	0%
Penalty Funds (23 U.S.C. 164)	\$4,606,149	\$4,606,149	100%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	\$0	\$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	\$2,974,455	\$2,974,455	100%
State and Local Funds	\$200,000	\$200,000	100%
<b>Totals</b>	<b>\$21,395,746</b>	<b>\$21,395,746</b>	<b>100%</b>

#### How much funding is programmed to local (non-state owned and operated) or tribal safety projects?

\$1,372,430

#### How much funding is obligated to local or tribal safety projects?

\$1,372,430

Low cost spot safety improvements are deployed on local roads using state funds with RIDOT maintenance forces.

#### How much funding is programmed to non-infrastructure safety projects?

\$1,953,155

#### How much funding is obligated to non-infrastructure safety projects?

\$1,953,155

#### How much funding was transferred in to the HSIP from other core program areas during the reporting period under 23 U.S.C. 126?

0%

**How much funding was transferred out of the HSIP to other core program areas during the reporting period under 23 U.S.C. 126?**

0%

**Discuss impediments to obligating HSIP funds and plans to overcome this challenge in the future.**

**Project Delivery**

Currently, RIDOT has two methods for project delivery: state maintenance forces and project management. State maintenance forces are used to install basic signing and striping. This enables RIDOT to advance low-cost safety improvements for horizontal curves, pedestrian crossings, and intersections. Any improvements beyond this require projects to be programmed in a construction project administered by RIDOT's Project Management section. While larger and complex improvements, such as new traffic signals, roundabouts, and high friction treatments require this type of project delivery mechanism, lower cost improvements such as RRFBs, signal modifications, guardrail, etc. must wait 2-3 years for programming and often frustrates our safety partners in such a delay given the low cost and potential immediate benefit. To help streamline lower cost improvements to help drive down fatalities and serious injuries quicker and show action taken to safety stakeholders, RIDOT is developing a Master Price Agreement contract for lower cost improvements to start in FY2020. This will be funded with HSIP funds and will enable RIDOT to reduce project soft costs and accelerate delivery. The Office of Safety will administer these contracts with the goal to turn projects around within 6 months to a year from study.

**Stakeholder Outreach**

Engage safety stakeholders in a discussion about program needs and potential solutions. Consider talking to Highway Safety Office, the MPO, and local agencies. RIDOT works internally with transportation planners (Statewide Planning), RIDOT GIS analysts, RIDOT safety engineers, RIDOT and OHS highway safety program coordinators and RIDOT operations staff as part of the entire HSIP process, including the identification of critical locations and the selection of appropriate countermeasures/ improvements. These partners are involved in Road Safety Assessments (RSAs) that were performed at many of these locations to facilitate this multi-discipline approach. RIDOT also houses the Office of Highway Safety where the HSIP, HSP, and SHSP are all developed in a coordinated effort focused on developing consistent safety goals. Safety initiatives are now implemented in a more integrated and multi-disciplinary manner, providing RIDOT with more flexibility to direct resources to address particular safety needs. As part of the FAST Act, the RIDOT and OHS along with RI's Office of Performance Management coordinated the development of performance measurement and targets. RIDOT has issues maintaining local support for safety projects. Often, over the project development period, local leadership changes and can undermine the final delivery of the project. As previously discussed, with the implementing of the Master Price Agreement contracts, RIDOT expects a turnaround time within 6 months to a year from study. This will avoid most of the conflict of local leadership turnover.

**General Listing of Projects**

List the projects obligated using HSIP funds for the reporting period.

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Statewide Roadway Departure Mitigation 2020	Roadside	Barrier- metal	3	Miles	\$3035130.7	\$3035130.7	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	50,000	65	State Highway Agency	Systemic	Roadway Departure	Roadway Departure
Intersection Safety Improvements to Allens Avenue	Intersection traffic control	Modify traffic signal - modernization/replacement	5	Intersections	\$2159807.11	\$4011209.26	Penalty Funds (23 U.S.C. 164)	Urban	Principal Arterial- Other	20,000	35	State Highway Agency	Spot	Pedestrians	STEP
Intersection Safety Improvements to Allens Avenue	Intersection traffic control	Modify traffic signal - modernization/replacement	5	Intersections	\$1851402.15	\$4011209.26	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	20,000	35	State Highway Agency		Pedestrians	
Statewide Crosswalk and Intersection Improvements	Pedestrians and bicyclists	Pedestrian beacons	5	Crosswalks	\$1846341.9	\$1846341.9	Penalty Funds (23 U.S.C. 164)	Urban	Principal Arterial- Other	15,000	25	State Highway Agency	Systemic	Pedestrians	STEP
Safety Improvements to US Route 6	Roadside	Roadside - other	5	Miles	\$5400	\$2979855.49	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	15,000	50	State Highway Agency	Systemic	Roadway Departure	Roadway Departure
Safety Improvements to US Route 6	Roadside	Roadside - other	5	Miles	\$2974455.49	\$2979855.49	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural	Principal Arterial- Other	15,000	50	State Highway Agency	Systemic	Roadway Departure	Roadway Departure
Intersection Safety Improvements to Branch Avenue	Intersection traffic control	Systemic improvements - stop-controlled	2	Intersections	\$1372430.45	\$1372430.45	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	20,000	25	City or Municipal Highway Agency	Spot	Intersections	Angle/Broadside
Statewide Crosswalk and Sign Improvements	Pedestrians and bicyclists	Modify existing crosswalk	11	Crosswalks	\$1758618.85	\$1758618.85	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	15,000	50	State Highway Agency	Systemic	Pedestrians	STEP

2020 Rhode Island Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Systemic Curve Treatments	Roadway delineation	Roadway delineation - other	15	Curves	\$100000	\$100000	State and Local Funds	Multiple/Varies	Multiple/Varies	15,000	35	Multiple/Varies	Systemic	Roadway Departure	Roadway Departure
Systemic Pedestrian Crosswalk Treatments	Pedestrians and bicyclists	Modify existing crosswalk	10	Crosswalks	\$100000	\$100000	State and Local Funds	Multiple/Varies	Multiple/Varies	15,000	35	Multiple/Varies	Systemic	Pedestrians	STEP
Misc Design for HSIP Projects	Non-infrastructure	Transportation safety planning	1	Numbers	\$753154.99	\$753154.99	HSIP (23 U.S.C. 148)	N/A	N/A	0		Multiple/Varies		All	
Misc Design for HSIP Projects	Non-infrastructure	Transportation safety planning	1	Numbers	\$600000	\$600000	Penalty Funds (23 U.S.C. 164)	N/A	N/A	0		Multiple/Varies		All	
Safety Improvements to Route 146/116	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$2098968.3	\$2098968.3	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,000	35	State Highway Agency	Spot	Intersections	Angle/Broadside
Safety Improvements to I-295 at Route 2	Interchange design	Installation of new lane on ramp	1	Intersections	\$1805623	\$1805623	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	30,000	35	State Highway Agency	Spot	Intersections	Angle/Broadside
Roadway Mitigation - I-95 South at Austin Farm Road	Roadway	Pavement surface - high friction surface	1	Miles	\$334413.06	\$33441.06	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	65,000	65	State Highway Agency	Systemic	Roadway Departure	Roadway Departure
SHSP Support	Non-infrastructure	Transportation safety planning	1	Numbers	\$600000	\$600000	HSIP (23 U.S.C. 148)	N/A	N/A	0		Multiple/Varies		All	

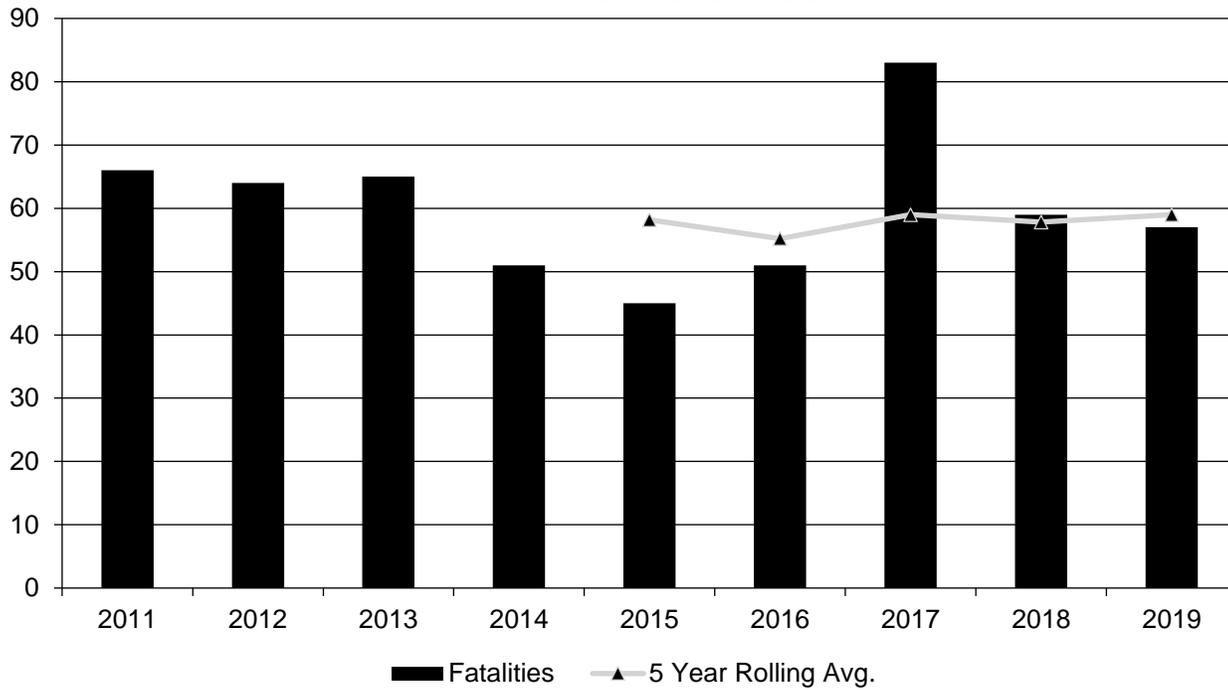
## Safety Performance

### *General Highway Safety Trends*

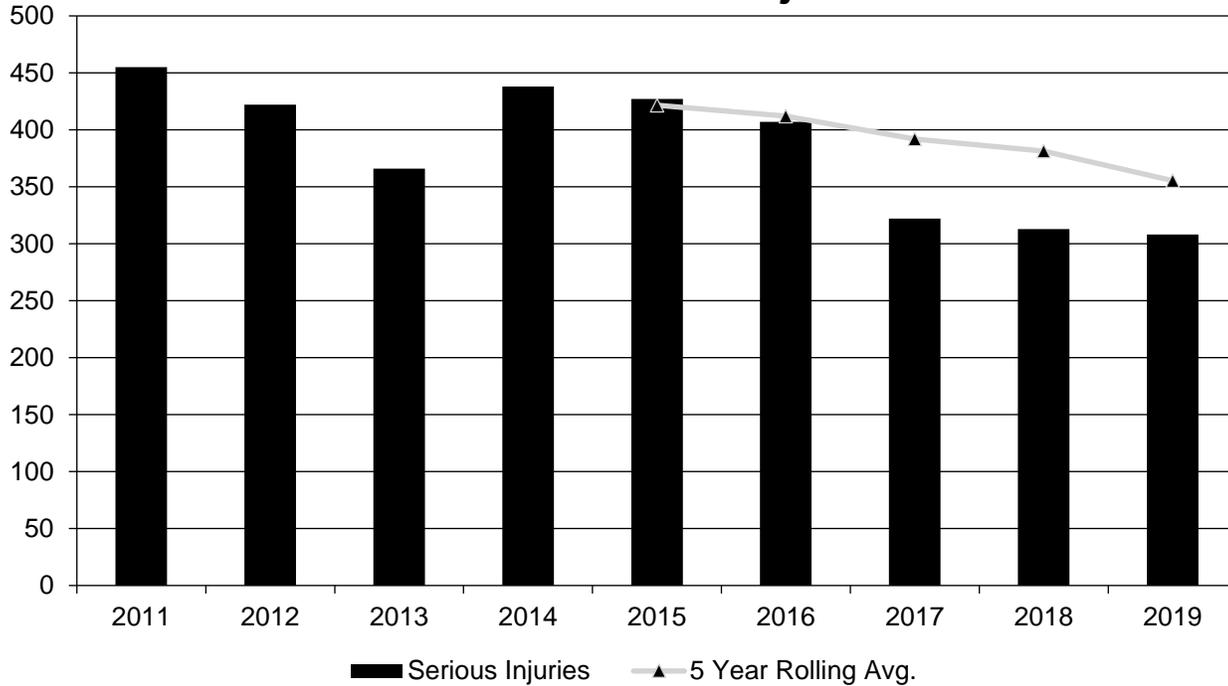
Present data showing the general highway safety trends in the State for the past five years.

<b>PERFORMANCE MEASURES</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Fatalities	66	64	65	51	45	51	83	59	57
Serious Injuries	455	422	366	438	427	407	322	313	308
Fatality rate (per HMVMT)	0.840	0.820	0.840	0.660	0.570	0.640	1.040	0.737	0.710
Serious injury rate (per HMVMT)	5.759	5.405	4.707	5.705	5.451	5.108	4.024	3.908	3.837
Number non-motorized fatalities	14	7	17	14	8	16	23	9	8
Number of non-motorized serious injuries	91	88	69	75	80	57	74	52	63

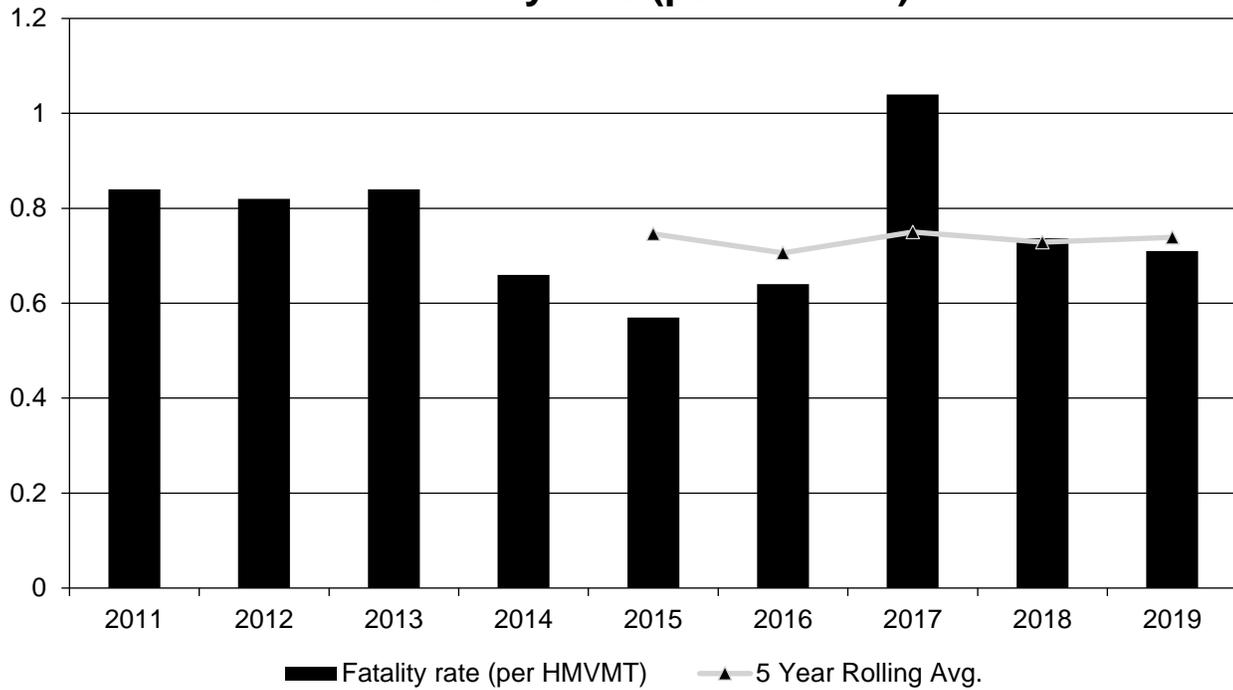
### Annual Fatalities



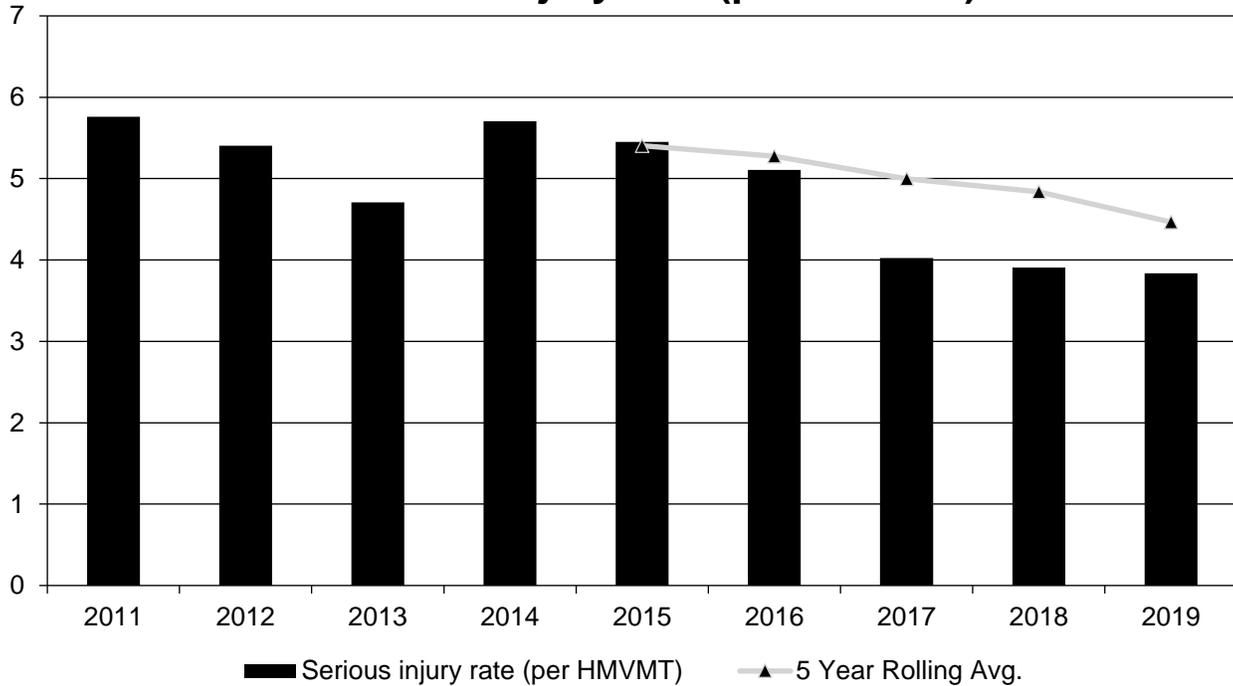
### Annual Serious Injuries



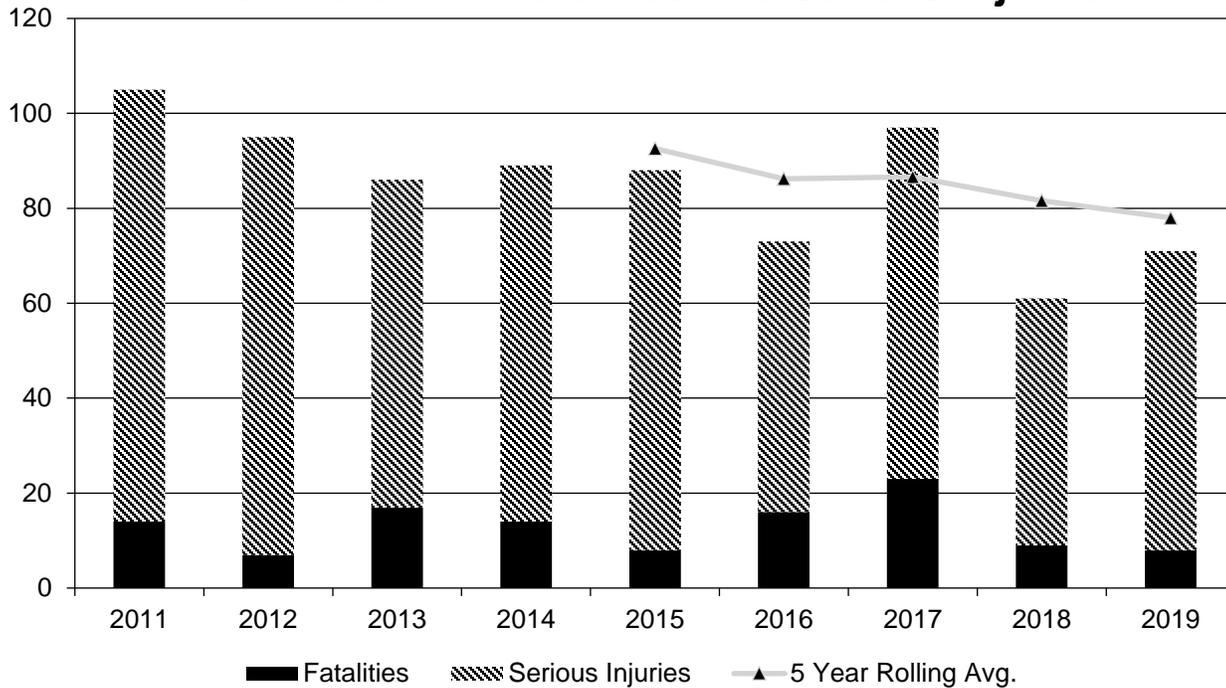
### Fatality rate (per HMVMT)



### Serious injury rate (per HMVMT)



### Non Motorized Fatalities and Serious Injuries



**Describe fatality data source.**

FARS

FARS for fatalities and state crash data for serious injuries. VMT data are obtained from the FHWA Office of Highway Policy Information Highway Statistics Series

**To the maximum extent possible, present this data by functional classification and ownership.**

**Year 2019**

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	1.6	6.2	0.52	2.03
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0.4	9	0.76	9.61
Rural Principal Arterial (RPA) - Other	3	4.8	1.31	2.12
Rural Minor Arterial	3	11.4	2.67	10.04
Rural Minor Collector	0.2	4.8	0.23	4.27

2020 Rhode Island Highway Safety Improvement Program

<b>Functional Classification</b>	<b>Number of Fatalities (5-yr avg)</b>	<b>Number of Serious Injuries (5-yr avg)</b>	<b>Fatality Rate (per HMVMT) (5-yr avg)</b>	<b>Serious Injury Rate (per HMVMT) (5-yr avg)</b>
Rural Major Collector	0.4	9.2	1.6	20.93
Rural Local Road or Street	2.4	4.8	10.91	21.82
Urban Principal Arterial (UPA) - Interstate	9	29.8	0.48	1.61
Urban Principal Arterial (UPA) - Other Freeways and Expressways	5.4	29.2	0.46	2.44
Urban Principal Arterial (UPA) - Other	15.6	110.6	0.84	5.95
Urban Minor Arterial	5	78.4	0.48	7.6
Urban Minor Collector	1.4	1.5	0	4.23
Urban Major Collector	0.2	43.4	8.26	11.5
Urban Local Road or Street	9.4	27.2	2.44	7.07
State Highway Agency	36	142.6	0.45	1.81
Town or Township Highway Agency	0.2	0		0
City or Municipal Highway Agency	15.8	125.4	0.2	1.59

2020 Rhode Island Highway Safety Improvement Program

**Year 2019**

<b>Roadways</b>	<b>Number of Fatalities (5-yr avg)</b>	<b>Number of Serious Injuries (5-yr avg)</b>	<b>Fatality Rate (per HMVMT) (5-yr avg)</b>	<b>Serious Injury Rate (per HMVMT) (5-yr avg)</b>
State Highway Agency	36	142.6	0.45	1.81
County Highway Agency				
Town or Township Highway Agency	0.2	0		0
City or Municipal Highway Agency	15.8	125.4	0.2	1.59
State Park, Forest, or Reservation Agency				
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				

**Provide additional discussion related to general highway safety trends.**

RIDOT updated their Functional Classification in 2015. Therefore, the figures reported on in previous years HSIP Annual report will differ. In future years, the previous FC data will drop out of the 5-year rolling average calculation.

## ***Safety Performance Targets***

### **Safety Performance Targets**

#### **Calendar Year 2021 Targets \***

##### ***Number of Fatalities:69.0***

##### ***Describe the basis for established target, including how it supports SHSP goals.***

As of August 2020, Rhode Island is on pace for much higher than expected number of fatalities in 2020. This increase, along with an expected increase in in VMT in 2021, resulted in RIDOT and OHS setting higher fatality target in line with the Rhode Island FFY 2020 HSP.

##### ***Number of Serious Injuries:309.0***

##### ***Describe the basis for established target, including how it supports SHSP goals.***

Trends show serious injuries decreasing annually on a consistent basis. RIDOT expects this trend to continue. This approach is consistent with the historic method. RIDOT and OHS worked together to align targets with those within the Rhode Island FFY 2020 HSP.

##### ***Fatality Rate:0.890***

##### ***Describe the basis for established target, including how it supports SHSP goals.***

Given the effects of COVID-19 on VMTs and the lack of similar reduction in fatalities, Rhode Island expects a higher fatality rate for 2020. With VMT also expected to increase slightly in 2021, Rhode Island increased their fatality rate target. RIDOT and OHS worked together to align targets with those within the Rhode Island FFY 2020 HSP.

##### ***Serious Injury Rate:3.970***

##### ***Describe the basis for established target, including how it supports SHSP goals.***

Trends show serious injury rates decreasing annually on a consistent basis. RIDOT expects this trend to continue. This approach is consistent with the historic method.

##### ***Total Number of Non-Motorized Fatalities and Serious Injuries:79.0***

##### ***Describe the basis for established target, including how it supports SHSP goals.***

Rhode Island is experiencing a spike in non-motorist fatalities and serious injuries in 2020. As such, Rhode Island set a conservatively high target for 2021 with an increase in non-motorist fatalities and serious injuries compared to 2018 and 2019.

#### **Describe efforts to coordinate with other stakeholders (e.g. MPOs, SHSO) to establish safety performance targets.**

The Rhode Island Office on Highway Safety worked with the RIDOT engineering safety division and other State partners to align FFY 2021 fatality, serious injury, and fatality rate targets with those in the Rhode Island FFY 2021 HSP. This group of partners met on August 20, 2020 to finalize its 2020 targets. As part of the target setting exercise, data was initially projected using the FORCAST function in Excel. Staff then compared the projected crashes based on the historical trendline and discussed if and how Rhode Island could maintain this

## 2020 Rhode Island Highway Safety Improvement Program

trendline. Factors such as current year fatality and serious injury projections, recently implemented and proposed programs and projects, and funding were considered when determining targets for Fiscal Year 2021.

### Does the State want to report additional optional targets?

No

**Describe progress toward meeting the State's 2019 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.**

PERFORMANCE MEASURES	TARGETS	ACTUALS
Number of Fatalities	57.0	59.0
Number of Serious Injuries	369.0	355.4
Fatality Rate	0.720	0.739
Serious Injury Rate	4.710	4.466
Non-Motorized Fatalities and Serious Injuries	85.0	78.0

Fatalities – Rhode Island's 2019 targets are affected by the spike in fatalities experienced in 2017 due to a rise in pedestrian fatalities and the larger than expected numbers of fatalities in 2018, which were due to a rise in motorcycle crashes. The target was set assuming Rhode Island would return to its normal of 2014 through 2016, averaging slightly lower than 50 fatalities; however, the fatalities inched higher to 60 with 59 in 2018 and 57 in 2019.

Serious Injuries – Rhode Island's continued downward trend in serious injuries helped Rhode Island achieve its serious injury target for 2019.

Fatality Rate – The spike in fatalities in 2017 and increased fatalities in 2018 and 2019 outpaced the small increases in VMT over those years, resulting in Rhode Island not meeting the fatality rate target.

Serious Injury Rate – The sustained downward trend in serious injuries helped Rhode Island achieve this target.

Non-Motorized Fatalities and Serious Injuries – Pedestrian fatalities in Rhode Island did not continue their spike upward as seen in 2016 and 2017. This regression helped Rhode Island achieve this target.

### ***Applicability of Special Rules***

#### **Does the HRRR special rule apply to the State for this reporting period?**

No

**Provide the number of older driver and pedestrian fatalities and serious injuries 65 years of age and older for the past seven years.**

<b>PERFORMANCE MEASURES</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Number of Older Driver and Pedestrian Fatalities	8	18	18	5	16	12	8
Number of Older Driver and Pedestrian Serious Injuries	26	37	43	42	50	40	45

## Evaluation

### *Program Effectiveness*

#### How does the State measure effectiveness of the HSIP?

- Change in fatalities and serious injuries
- Lives saved

#### Based on the measures of effectiveness selected previously, describe the results of the State's program level evaluations.

As shown in the Progress in Achieving Safety Performance Targets section, RIDOT has see a continuous reduction, over a 5 year average, in fatalities and serious injuries.

RIDOT tracks crash reductions for all of there HSIP projects. RIDOT uses this data to make changes to a specific improvements if desired results are not achieved. RIDOT has also developed a state-specific CMF for Road Diets. This info, plus the naïve before and after data for other treatments, help RIDOT sell improvements to locals and the public.

#### What other indicators of success does the State use to demonstrate effectiveness and success of the Highway Safety Improvement Program?

- # RSAs completed
- HSIP Obligations
- More systemic programs

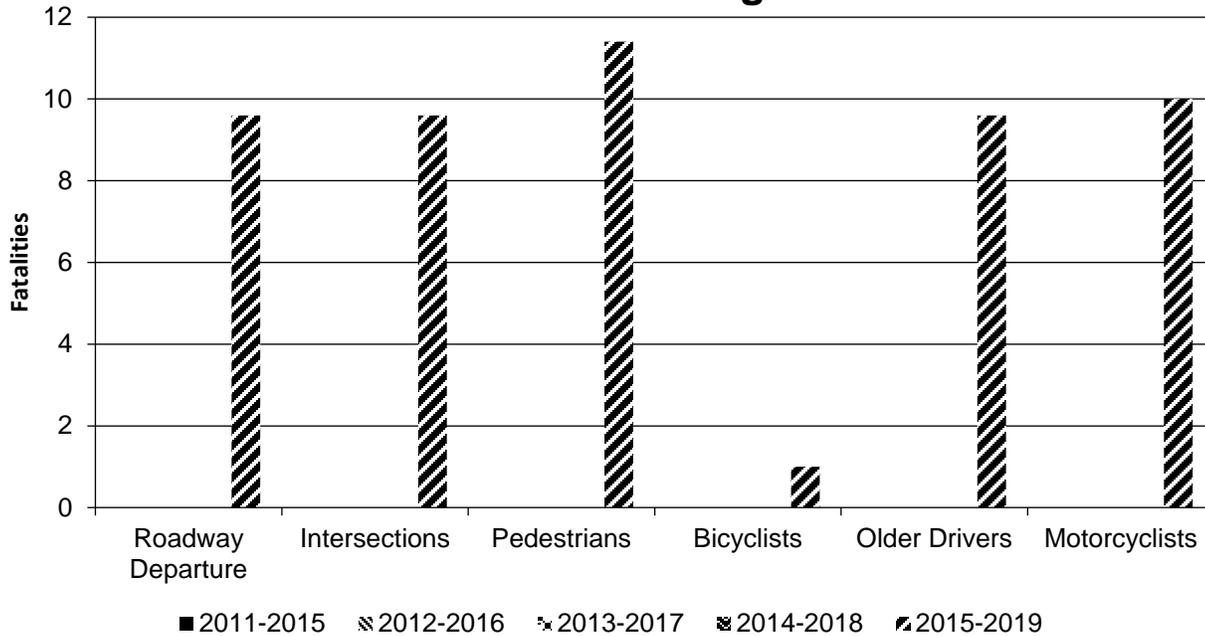
### *Effectiveness of Groupings or Similar Types of Improvements*

#### Present and describe trends in SHSP emphasis area performance measures.

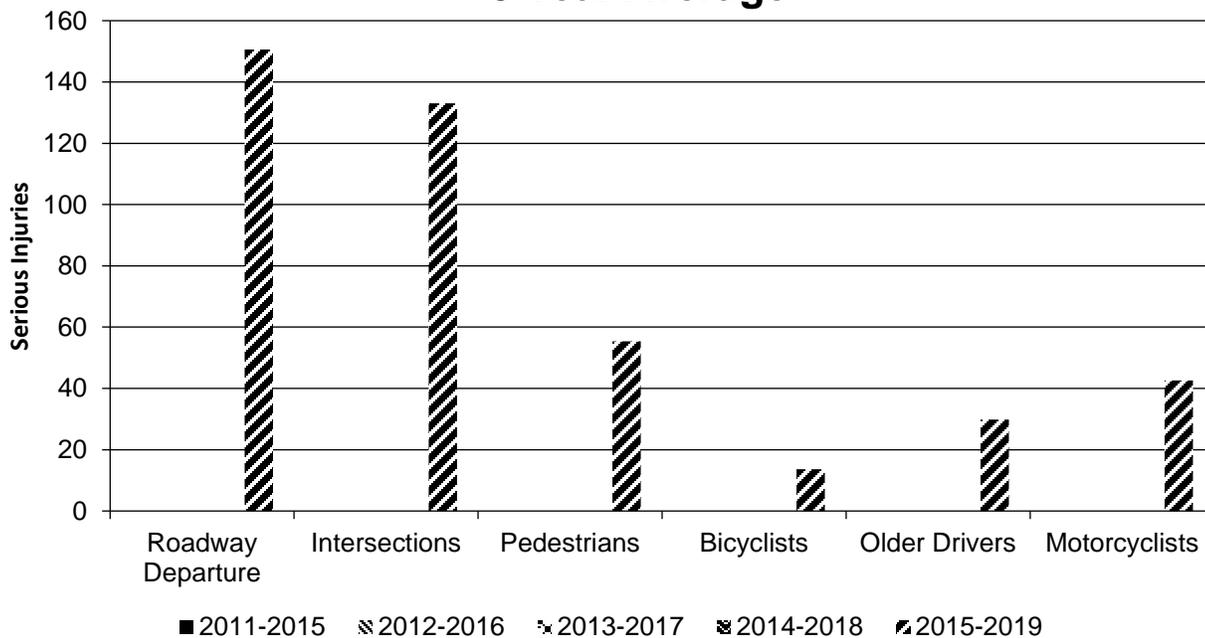
Year 2019

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Roadway Departure		9.6	150.6	0.36	1.9
Intersections		9.6	133	0.12	1.68
Pedestrians		11.4	55.4	0.14	0.7
Bicyclists		1	13.6	0.01	0.17
Older Drivers		9.6	29.8	0.12	0.38
Motorcyclists		10	42.6	0.13	0.54

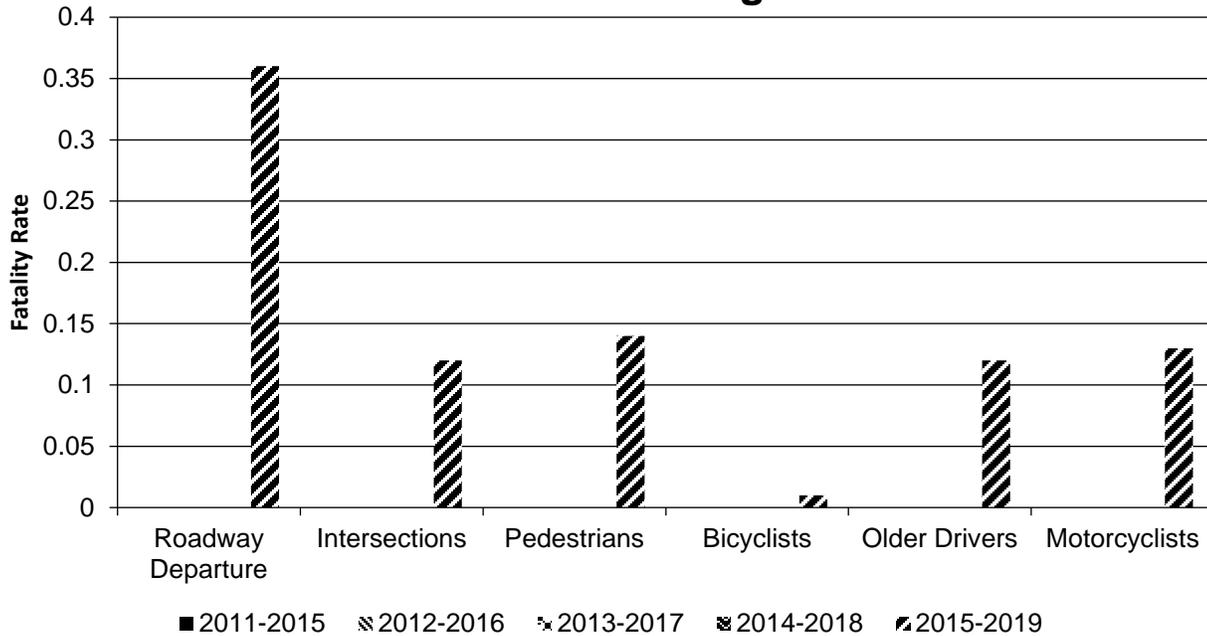
### Number of Fatalities 5 Year Average



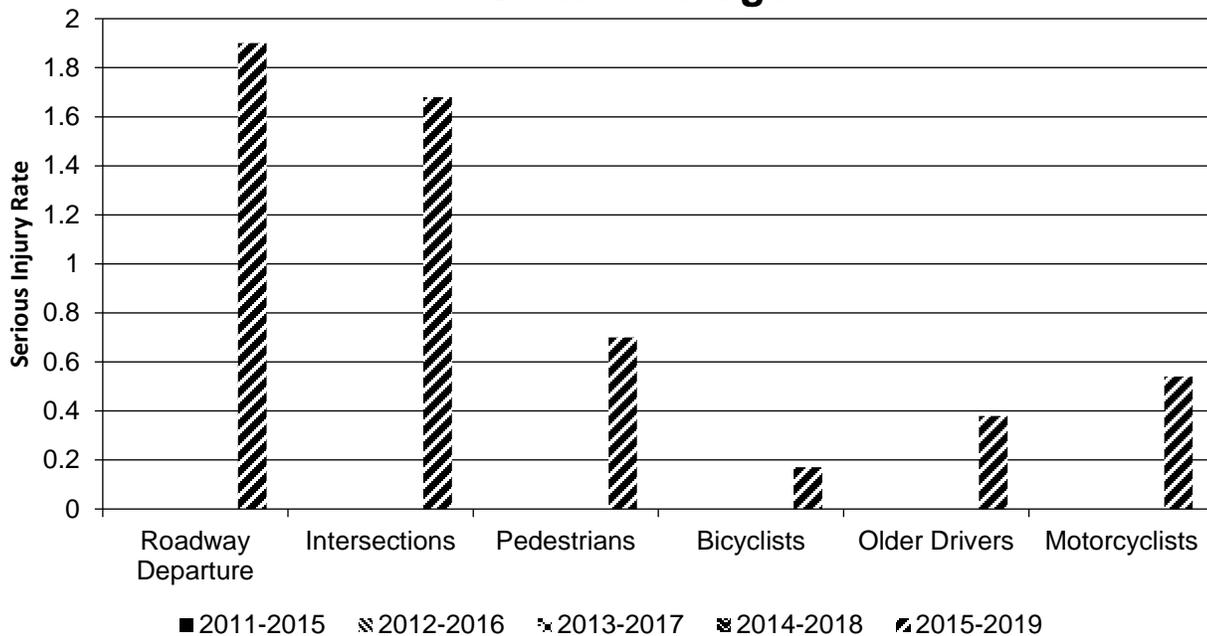
### Number of Serious Injuries 5 Year Average



### Fatality Rate (per HMVMT) 5 Year Average



### Serious Injury Rate (per HMVMT) 5 Year Average



**Has the State completed any countermeasure effectiveness evaluations during the reporting period?**

Yes

**Please provide the following summary information for each countermeasure effectiveness evaluation.**

**CounterMeasures:** Road Diet  
**Description:** RIDOT has developed a state-specific CMF.  
**Target Crash Type:** All  
**Number of Installations:** 13  
**Number of Installations:** 13  
**Miles Treated:**  
**Years Before:** 5  
**Years After:** 5  
**Methodology:** Regression cross-section  
**Results:** The results are a CMF of 0.71 (29% reduction) for all crashes and a CMF of 0.63 (37% reduction) for KABC crashes. The 0.71 is in-line with the 5-star road diet CMF on the Clearinghouse.

**File Name:** Final Road Diet CMF Report.pdf

**CounterMeasures:** Horizontal Curve Delineation  
**Description:** Install curve signage and delineation statewide  
**Target Crash Type:** Run-off-road  
**Number of Installations:** 11  
**Number of Installations:** 11  
**Miles Treated:**  
**Years Before:** 5  
**Years After:** 5  
**Methodology:** Simple before/after  
**Results:** 63% reduction in target crashes. 77% reduction on fatal and serious injury target crashes.

**File Name:** Hyperlink

**CounterMeasures:** High Friction Surface Treatment  
**Description:** Install HFST at curves with high wet weather % crashes and high speed intersection approaches  
**Target Crash Type:** Wet road  
**Number of Installations:** 7  
**Number of Installations:** 7  
**Miles Treated:**  
**Years Before:** 5  
**Years After:** 5  
**Methodology:** Simple before/after  
**Results:** 51% reduction in target crashes. 64% reduction in fatal and serious injury target crashes.

**File Name:** Hyperlink

## 2020 Rhode Island Highway Safety Improvement Program

<b>CounterMeasures:</b>	Centerline/Edgeline Rumble Stripes w/ flush median
<b>Description:</b>	Install centerline and edgeline rumble strips along with a 4 foot flush median on high speed rural 2 lane roads.
<b>Target Crash Type:</b>	Head on
<b>Number of Installations:</b>	
<b>Number of Installations:</b>	
<b>Miles Treated:</b>	5
<b>Years Before:</b>	5
<b>Years After:</b>	4
<b>Methodology:</b>	Simple before/after
<b>Results:</b>	40% reduction in total severity. 30% reduction in head-on crashes.
<b>File Name:</b>	<a href="#">Hyperlink</a>

**Project Effectiveness**

Provide the following information for previously implemented projects that the State evaluated this reporting period.

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
Statewide	Urban Principal Arterial (UPA) - Other Freeways and Expressways	Advanced technology and ITS	Advanced technology and ITS - other			8.00		10.00		13.00	1.00	31.00	1.00	25

## Compliance Assessment

**What date was the State’s current SHSP approved by the Governor or designated State representative?**

07/25/2017

**What are the years being covered by the current SHSP?**

From: 2017 To: 2022

**When does the State anticipate completing it’s next SHSP update?**

2022

**Provide the current status (percent complete) of MIRE fundamental data elements collection efforts using the table below.**

\*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT	Segment Identifier (12) [12]	100	100					100	100	100	100
	Route Number (8) [8]	100	100								
	Route/Street Name (9) [9]	100	65								
	Federal Aid/Route Type (21) [21]	45	10								
	Rural/Urban Designation (20) [20]	100	100					100	100		
	Surface Type (23) [24]	100	100					100	100		
	Begin Point Segment Descriptor (10) [10]	100	100					100	100	100	100
	End Point Segment Descriptor (11) [11]	100	100					100	100	100	100
	Segment Length (13) [13]	100	100								
	Direction of Inventory (18) [18]	100	100								
Functional Class (19) [19]	100	100					100	100	100	100	

2020 Rhode Island Highway Safety Improvement Program

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	100	100								
	Access Control (22) [23]	85	44								
	One/Two Way Operations (91) [93]	100	100								
	Number of Through Lanes (31) [32]	100	91					100	100		
	Average Annual Daily Traffic (79) [81]										
	AADT Year (80) [82]										
	Type of Governmental Ownership (4) [4]	100	100					100	100	100	100
<b>INTERSECTION</b>	Unique Junction Identifier (120) [110]			100							
	Location Identifier for Road 1 Crossing Point (122) [112]			100							
	Location Identifier for Road 2 Crossing Point (123) [113]			100							
	Intersection/Junction Geometry (126) [116]			90							
	Intersection/Junction Traffic Control (131) [131]			90							
	AADT for Each Intersecting Road (79) [81]			25							
	AADT Year (80) [82]			50							
	Unique Approach Identifier (139) [129]			100							
<b>INTERCHANGE/RAMP</b>	Unique Interchange Identifier (178) [168]					100					
	Location Identifier for Roadway at					100					

2020 Rhode Island Highway Safety Improvement Program

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Beginning of Ramp Terminal (197) [187]										
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					100					
	Ramp Length (187) [177]					100					
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100					
	Roadway Type at End Ramp Terminal (199) [189]					100					
	Interchange Type (182) [172]					100					
	Ramp AADT (191) [181]										
	Year of Ramp AADT (192) [182]										
	Functional Class (19) [19]										
	Type of Governmental Ownership (4) [4]										
<b>Totals (Average Percent Complete):</b>		<b>85.00</b>	<b>78.33</b>	<b>81.88</b>	<b>0.00</b>	<b>63.64</b>	<b>0.00</b>	<b>88.89</b>	<b>88.89</b>	<b>100.00</b>	<b>100.00</b>

\*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

**Describe actions the State will take moving forward to meet the requirement to have complete access to the MIRE fundamental data elements on all public roads by September 30, 2026.**

RIDOT is applying for various grants to complete the collection by 2026. RIDOT collected most of the data in 2016 as part of the MIRE data collection effort, however local data for some elements were not collected as part of this effort due to funding.

## **Optional Attachments**

Program Structure:

HSIP Manual\_May8\_FINAL.pdf

Project Implementation:

Safety Performance:

Evaluation:

Final Road Diet CMF Report.pdf

Compliance Assessment:

## Glossary

**5 year rolling average:** means the average of five individuals, consecutive annual points of data (e.g. annual fatality rate).

**Emphasis area:** means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.

**Highway safety improvement project:** means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.

**HMVMT:** means hundred million vehicle miles traveled.

**Non-infrastructure projects:** are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.

**Older driver special rule:** applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.

**Performance measure:** means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.

**Programmed funds:** mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.

**Roadway Functional Classification:** means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

**Strategic Highway Safety Plan (SHSP):** means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.

**Systematic:** refers to an approach where an agency deploys countermeasures at all locations across a system.

**Systemic safety improvement:** means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.

**Transfer:** means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.