

Table of	Contents
----------	----------

3
3
4
8
8
8
4
1
1
3
0
0
5
8
9
9
9
3
8
1
2

# 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**

Traffic deaths and crashes across Ohio have been rising as the statewide economy continues to improve. In 2019, Ohio had 1,155 traffic deaths and 7,496 serious injuries, representing an 8% increase in fatalities and a 1.7% decrease in serious injuries compared to 2018.

Ohio's safest year in history was 2013 when the state dropped below 1,000 traffic deaths for the first time since it began collecting records in 1935. However, traffic deaths rose 10% in 2015, 2% in 2016, 4% in 2017, saw a 9% decrease in 2018, and rose 8% in 2019. Although the top common factors in these crashes have long been roadway departure, speed, alcohol, seatbelts and young drivers, over the past four years the state has seen a rise in the number of deaths involving pedestrians, older and distracted drivers.

To respond to these trends, Ohio's Strategic Highway Safety Plan (SHSP) Steering Committee has moved from quarterly to bi-monthly meetings, and now communicates via email on a bi-weekly basis to share crash trend information and discuss strategies and investments. The committee includes members from 15 key safety organizations operating at the local, state and federal level including: County Engineers Association of Ohio (CEAO); Ohio Association of Regional Councils (OARC); Ohio Department of Public Safety (ODPS); Federal Highway Administration (FHWA); Ohio State Highway Patrol (OSHP); Federal Motor Carrier Safety Administration (FMCSA); and American Automobile Association (AAA). These organizations then feed the information to a network of hundreds of other stakeholders who are getting more actively involved in the SHSP. The SHSP is currently being updated with completion scheduled for November 2020. The updated plan will reflect Ohio's strategies and action items for reducing fatalities and serious injuries on all public roadways in Ohio over the next five years.

Below is a summary of the state's enhanced and coordinated efforts to address the increase in crashes statewide.

#### Ohio Launches Action Teams and New Programs to Address Emerging Crash Trends

#### Active Transportation Team

Ohio's Active Transportation Plan is in its fifth year of implementation. As a result, ODOT has increased its investments in data collection projects to quantify the amount of bicycle and pedestrian travel across the state. This data will help ODOT and its partners better pinpoint where travel is so we can collectively target our pedestrian and bicycle infrastructure investments.

In 2017, ODOT and the Ohio Department of Health launched the state's first Active Transportation educational program. ODOT continues to house and promote Your Move Ohio campaign materials – a statewide campaign to increase awareness for people walking and biking and encourage more Ohioans to choose active transportation. ODOT continued the campaign in 2018, but with a focus on pedestrian safety. In 2019, the focus was on bundling these messages and campaign materials into one website that can be marketed to our safety partners across the state for use in their communities. Educational opportunities for practitioners continue to be available through ODOT's Active Transportation Academy. New courses were added such as a Mobility Solutions: Transit's First and Last Mile course, Creating a Rural Active Transportation Plan, and an online eLearning Active Transportation Basics Course. In 2020, the Academy featured additional workshop opportunities to support Vision Zero Action Planning and provide education on Traffic Calming and Safety Countermeasures. In 2021, new educational materials and experiential opportunities will also be developed for local decision makers to build more awareness around existing active transportation safety challenges and opportunities in their community. "Your Move Ohio" is a statewide campaign to educate the public on the rules of the road and encourage more Ohioans to walk, bike and bus safely.

In fall 2019, ODOT launched its **Pedestrian Safety Improvement Program** using up to \$10M in HSIP funds. This program provides municipalities within the state assistance and funding to systemically implement low-tomedium cost proven pedestrian safety countermeasures along high-risk facilities such as collectors and arterials. Countermeasures will include Rectangular Rapid Flashing Beacons, Pedestrian Hybrid Beacons, Refugee Islands, Curb bump outs, high-visibility crosswalk markings, among others. This program utilizes a combination of project bundling and consultant support to accelerate delivery across the state and streamline the delivery process of these proven, lifesaving countermeasures.

As of 2020, 455 locations and over 2000 individual treatments are being designed across the eight cities participating in this program.

Construction is set to begin in March of 2021.

#### Older Road User Action Team

Ohio's Older Road User Action Team is in its 5th year of action plan development and implementation. The team is continuing to work on implementation of several critical strategies including: expanding the safe routes to age in place program, promoting the use and installation of roadway improvements that compensate for the impacts of aging on safe driving, increasing the knowledge of medical providers, law enforcement and licensing personnel on the recognition, assessment, and reporting of older at-risk drivers. The team is working hard to engage the Ohio Bureau of Motor Vehicles (BMV) on this issue.

In 2018, the team successfully launched the Stay Fit to Drive statewide education campaign to raise awareness for how aging can affect our ability to drive. The goal is to educate older Ohioans, families, friends and caregivers about the signs of declining safe driving skills — either due to normal aging or a medical condition; resources available to evaluate safe driving skills; and how to plan for retirement from driving. In 2019, ODOT worked with AAA, AARP, Safe Communities and Ohio Occupational Therapists to promote the campaign through CarFit Events around the state. In 2020, new strategies in the Strategic Highway Safety Plan are being developed that will be implemented over the next five years.

#### Distracted Driving Task Force

Distracted Driving will continue to be a major initiative for the state. Traffic deaths in Ohio have risen five of the past six years despite safer vehicle technology. This rise correlates with the widespread adoption of smart phone use, which we believe is a significant factor in traffic crashes – though underreported in Ohio crash data.

In 2019, Governor Mike DeWine worked with several members of the Ohio Senate to introduce Senate Bill (SB) 285. The legislation will modernize Ohio's texting law to require "Hands Free" use with primary enforcement. The bill would:

- Prohibit drivers from having physical contact with their phones or other wireless devices while driving or stopped in a lane of traffic.
- Prohibit drivers from surfing the internet and streaming video while driving activities our phones couldn't do when Ohio passed legislation in 2012.
- Drivers must use voice commands or single-touch activation to make calls, text, use GPS or listen to music on mobile devices
- Allows exceptions for emergency calls and emergency personnel, such as police and fire.
- Allows primary enforcement. An officer can pull you over, warn or cite drivers for violating the law.

Several hearings were held on the bill in April 2020. Additional hearings are expected to resume in the fall.

ODOT District Offices are supporting the Governor's Distracted Driving Initiative and SB 285 by partnering with law enforcement agencies across the state to designate distracted driving corridors. There are five locations in

the state with active enforcement and another seven locations under development. These corridors will be key in raising public awareness for distracted driving until the Senate reconvenes in the fall.

#### Increased Public and Stakeholder Engagement

#### Freeway and Portable Message Signs

Since 2015, Ohio has been using its Freeway and Portable Message Signs to post safety messages and the number of traffic deaths on Ohio roads. The state leverages the message boards with a bi-weekly email to SHSP stakeholders that<u>encourages organizations to use and share the same coordinated message</u>.

ODOT posts messages every other week, and the messages are synced to the communication calendar published by the National Highway Traffic Safety Administration. Messages are selected, and sometimes developed, by a committee from ODOT, the Ohio Department of Public Safety, Federal Highway Administration and Ohio State Highway Patrol.

In September 2017, Ohio launched a website to support this effort, which allows the public to develop and submit safety messages that support SHSP emphasis areas. The winners are selected by the statewide committee and publicized to further incentivize the effort and spread information. ODOT routinely works with the Public Information Office to promote the web site and solicit new ideas.

#### Increased Local Government Engagement

In late 2018, ODOT hired a full-time coordinator and kicked off a **Local Safety Assistance Program**. This program provides local governments and metropolitan planning organizations in the state the technical assistance and consultant support necessary for the development of County and Regional Safety Plans. These plans are helping local agencies identify and understand the safety issues occurring within their communities. They are helping identify priority safety locations to target investments. And they are outlining robust multi-disciplinary action plans aimed at addressing severe crashes and reducing fatalities.

# So far, Ohio has initiated 34 safety studies or Road Safety Audits (RSAs), 11 regional or county safety plans, and 3 systemic safety improvement analyses for local governments.

Once a plan is completed, project sponsors can submit abbreviated or formal safety applications for HSIP funds. Abbreviated safety applications can be submitted year-round for non-complex safety improvements that are \$500,000 or less. Formal safety applications for higher dollar, more complex improvements can be submitted in April and September each year. Funding is available for all phases of project development. **So far, Ohio has funded 7 projects from the effort.** 

Lastly, ODOT has received additional State Safety funds for State Fiscal Years 2020 and 2021. These additional funds will be used along with the Federal HSIP funds to help advance more Safety programs and projects on Ohio's roadways.

#### The Pandemic's Effect on Crash Trends

Traffic deaths are continuing to rise this summer with the resumption of statewide travel. Ohio has been losing ground on traffic deaths since May. Unfortunately, July was the worst month for traffic deaths in 10 years.

During the height of the pandemic and the Governor's stay-at-home order, statewide travel dropped by nearly 50% and traffic deaths by almost 20% compared to 2019.

As of the end of July, statewide travel was down about 14% and traffic deaths were up 4%. So far this year, there have been over 800 deaths on Ohio roads.

Traffic deaths in Ohio have risen five of the past six years despite safer vehicle technology. This rise correlates with the widespread adoption of smart phone use, which we believe is a significant factor – though underreported in Ohio crash data.

For 2020, we are seeing the typical distribution of traffic deaths across categories such as roadway departure, speeding, seat belts, alcohol, young and older drivers and distractions. However, **traffic deaths involving intersections, motorcycles and pedestrians are higher this year than last.** The one positive note is traffic deaths involving Commercial Motor Vehicles, which are down this year despite an 8% increase in CMV travel.

Anecdotally, high speeds have been a concern during the pandemic, but it has not resulted in higher deaths or serious injuries this year. Speed was a factor in 30% of all traffic deaths in 2019 compared to 28% this year. However, those numbers could shift through the summer. A recent analysis of ODOT's Automated Traffic Recorders found a 15% decrease in vehicles but a 30% increase in drivers traveling at high speeds from February to July.

Percentage of all vehicles:

If the pandemic results in consistently lower vehicle miles traveled (VMT) across the state, ODOT may have to adjust state funding levels for the Safety Program in 2021. The gas tax revenue has already necessitated a change in funding levels for the fall round of safety applications. The department had originally offered local governments 100% funding for 2020. Instead, we are notifying project sponsors that a 10% match will be required.

## 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.

ODOT has established the Highway Safety Improvement Program to create a process which emphasizes safety of the traveling public by analyzing the crash statistics on Ohio's state and local highway system. The Department utilizes AASHTOWare Safety Analyst to identify intersections and highway sections with the potential for safety improvement. Each of the 12 District Safety Review Teams (DSRT) reviews these prioritized locations as part of a Safety Annual Work Plan (SAWP) and accepts the plan. In addition, the Districts perform safety studies to determine the contributing factors related to crashes at the locations. The DSRT strives to identify crash patterns and recommend countermeasures to reduce the severity and long-term average frequency of crashes.

Safety projects are not limited to the state highway system. Proposed local projects on public roads are also evaluated and prioritized to improve safety as outlined in the application and selection process. These projects are reviewed and approved by the DSRT.

Upon recommendation from the District Safety Review Teams, eligible projects are submitted to ODOT Central Office for funding consideration, and evaluated and prioritized based on uniform and objective criteria. Projects which contribute most to improving safety and reducing the severity and long-term average frequency of crashes are considered for funding and further development. Twice a year, a listing of all newly approved safety projects is produced.

The Highway Safety Improvement Program historically receives approximately \$159 million annually of combined Federal and State funding. The actual level of funding designated for the program is determined by the Funds Management Committee and the Director, and is contingent on available state and federal revenues. The funding is used to implement countermeasures at identified crash locations on Ohio's roadways to ensure safety is the primary consideration in the design, development, and operation of this program.

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

Planning

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

- Central Office via Statewide Competitive Application Process
- Other-Direct Sub-Allocation to CEAO
- Other-Pedestrian Safety Improvement Program
- Other-Ohio Township Sign Grant Program
- Other-Governor's Intersection Safety Program

• Other-Systemic Safety Improvements

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

Local governments can qualify for funding and technical assistance to address SHSP emphasis areas and prioritized safety locations through the HSIP programs administered by ODOT (\$159M annually), the County Engineers Association (\$12M annually) and Local Technical Assistance Program (\$2M).

#### Local Road Safety Initiative

To encourage local governments to apply for these funds and overcome capacity constraints at the local level, in 2018 ODOT's Highway Safety Program launched its Local Safety Assistance program. This program provides local governments and metropolitan planning organizations in the state the technical assistance and consultant support necessary for developing County and Regional Safety Plans, conducting safety studies/road safety audits, and developing systemic safety improvement projects

- **County & Regional Safety Plans** are helping local agencies identify and understand the safety issues occurring within their communities. They are helping identify priority safety locations to target investments. And they are outlining robust multi-disciplinary action plans aimed at addressing severe crashes and reducing fatalities and identify available resources for implementation.
- Safety Studies and Road Safety Audits are almost always required to apply for HSIP within Ohio. Through ODOT's Local Safety Assistance program, local agencies are provided with the technical assistance to complete the studies necessary to apply for HSIP funds at no cost to them.
- Systemic Safety Project Development can be a challenge at the local level, whether that's conducting a systemic analysis to managing the construction process. ODOT's Highway Safety Program provides technical assistance on the development of these projects and is working to streamline the project delivery process.

#### **CEAO Safety Program**

ODOT also works with the Ohio County Engineers Association to administer a separate safety program (\$12 million of HSIP funds) dedicated to making improvements on county-maintained roads. This funding can be used to make spot and systemic improvements tied to the SHSP. Applications are accepted once a year by CEAO and scored using criteria developed in conjunction with ODOT.

CEAO subdivides the \$12 million in to several smaller funding categories. Each county is permitted to program eligible construction projects up to \$5 million overall for spot safety improvements. In addition to spot safety improvements, CEAO provides up to \$300,000 per county for each guardrail project, \$150,000 per county for each pavement marking project, \$75,000 per county for each raised pavement marker project, and \$15,000 per county for curve signage upgrade projects.

#### **Township Sign Grants**

ODOT also sets aside \$2M annually to upgrade safety-related signs on township roads. The grants are administered by the Ohio Local Technical Assistance Program (LTAP).

This program was developed to address intersection and curve systematic signage upgrades for townships with a high number of severe crashes. The top 100 townships (for severe crashes) are invited to apply each year. Funding is capped at \$50,000 for any one township. Funding is provided at 100% so no local matching funds are required. Township or county forces install the signs at their own cost.

There are 1,308 townships in Ohio and 226 of these have participated and completed signage installations since 2015.

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

- Design
- Districts/Regions
- Local Aid Programs Office/Division
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety

#### Describe coordination with internal partners.

ODOT's Office of Program Management accepts applications – accompanied by safety studies – from ODOT District Offices and local governments twice a year. Applications must be submitted through the District Offices, which have a multi-disciplinary committee that reviews and approves them for Central Office consideration. Projects are then reviewed and selected for funding by the Safety Review Committee in Central Office, which includes expertise from internal partners in safety, planning, geometric design, and traffic operations.

Priority is given to any project that improves safety at a roadway location with high frequency, severity and rate of crashes. Projects are scored based on:

- Expected Crash Frequency
- Ratio of Observed Fatal and Serious Injuries to Observed Total Crashes
- Relative Severity Index
- Equivalent Property Damage Only Index (weighing severity and EPDO cost)
- Volume to Capacity Ratio
- Benefit-Cost Ratio (anticipated savings in crash costs, property damage, injuries and fatalities relative to the cost of the improvement plus cost of maintenance for the life of the project).
- Highway Safety Improvement Program Funding Percentage

Funding awarded through the program is used to make traditional safety improvements at spot locations, such as intersections, and along sections or corridors throughout the state. Consideration is also given to lower-volume, lower-crash local roads with identified needs and cost-effective countermeasures.

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

- FHWA
- Governors Highway Safety Office
- Law Enforcement Agency
- Local Government Agency
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)

### Describe coordination with external partners.

#### SHSP Steering Committee

Ohio's SHSP Steering Committee represents the state's largest coordination effort with external partners. The committee includes members from 15 key safety organizations operating at the local, state and federal level including: Ohio County Engineers Association; Local Transportation Assistance Program, Ohio Association of Regional Councils (MPOs and RTPOs); Ohio Department of Public Safety; Ohio State Highway Patrol; Federal

Highway Administration; Ohio State Highway Patrol; Federal Motor Carrier Administration; and Ohio Department of Health. These organizations then feed the information to a network of hundreds of other stakeholders who are getting more actively involved in the SHSP and helping to guide ODOT's HSIP efforts. In 2018, Ohio also added AAA to this committee's membership.

#### **MPO/RTPO Pilot Project**

Ohio is piloting a program with the state's MPOs and RTPOs to get more local governments involved in the HSIP. In 2017, Ohio formed a working group tasked with developing a process to provide more safety analysis assistance to local governments. Many MPOs and RTPOs publish prioritize safety lists, however, too few local governments use this analysis to conduct reviews, make recommendations and apply for HSIP funding. This collaborative project seeks to close that gap. In August 2018, the working group started the process of assigning consultants to MPOs and RTPOs to assist in this process.

#### **SHSP Task Forces and Committees**

ODOT is currently managing three special task forces or committees that are reviewing, making recommendations and implementing strategies associated with preventing Pedestrian, Older Driver and Distracted Driving deaths. A fourth committee to review driver education curriculum and provide updated videos and training materials completed its work in February 2019. More detail can be found in the executive summary.

#### Local Safety Assistance Program

In late 2018, the Ohio Department of Transportation's Highway Safety Program kicked off its Local Safety Assistance program. This program provides local governments and metropolitan planning organizations in the state the technical assistance and consultant support around transportation safety issues and helps educate local governments on available HSIP resources and the SHSP. For more information on the Local Safety Assistance Program, see section on addressing local road safety.

# Describe HSIP program administration practices that have changed since the last reporting period.

This year, Ohio was required to provide an HSIP Implementation Plan for not meeting federal safety targets. Throughout the next year, Ohio will use this implementation plan to strive to meet these safety performance measure targets.

In order to do this, ODOT has undertaken a comprehensive review of fatality and serious injury trends, historical HSIP expenditures and project performance, and we've identified gaps or deficiencies in our program to modify our Competitive Selection Process and develop a new set of Strategic Initiatives.

In addition, ODOT has identified several other actions for the HSIP:

1) Complete the SHSP update and begin implementation of the action plans.

2) Evaluate the HSIP scoring methodology for possible improvement, such as the incorporation of pedestrian and bicycle safety projects.

3) Incorporate the results of the recently completed HSIP Project Evaluation study into the process of evaluating HSIP projects and the HSIP at the program level.

These changes will set us on a path to reach our safety performance targets in subsequent years.

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

Ohio uses a focused approach to safety that targets resources based on the greatest need and greatest opportunity for improvements. We also promote the use of proven, cost-effective, systemic and systematic

safety solutions that target critical, severe-crash types such roadway departure and intersections crashes. These focus areas are embodied in both the HSIP and the state's Strategic Highway Safety Plan.

We advanced the HSIP through the balanced deployment and implementation of a host of traditional spot safety investments and a host of systemic and systematic safety investments.

#### ODOT's Highway Safety Improvement Program and Safety Analyst Implementation

Each year, ODOT staff reviews the top safety locations in Ohio. Ohio is one of the first states in the country to fully implement AASHTOWare Safety Analyst and use it to prioritize safety locations across Ohio. Safety Analyst uses state-of-the-art statistical methodologies to identify roadway locations and safety improvements with the highest potential for reducing crashes. The software systems flag spot locations and road segments that have higher-than-predicted crash frequencies. It also flags locations for review based on crash severity. This methodology is more efficient and cost effective and will allow the department to study fewer locations yet address more crashes each year.

ODOT has developed eight priority lists based on rural, suburban, and urban roadway types. The urban system covers all streets, roads, and highways located within incorporated areas with populations greater than 5,000. The suburban system is the network outside the incorporated area but still within the urban boundaries designated by the U.S. Census Bureau. The Bureau defines two types of urban areas based on population. Small urban areas are urban places with a population or 5,000 or more and not located within any urbanized area. An urbanized area is an area with a population of 50,000 or more. As might be expected, the rural functional classification system covers all other streets, roads, and highways that are not located within the boundaries of small urban and urbanized areas.

The priority lists are:

- 1. Rural Intersection Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted crash frequency for each intersection. Approximately, the Top 25 locations will be studied.
- 2. Rural Non-Freeway Peak Searching Excess Segment Locations: These locations were selected because they have a higher-than-predicted crash frequency for this roadway type. Approximately, the Top 25 locations will be studied. Only crashes indicated on the OH-1 crash report form as being non-intersection crashes were included in this analysis.
- 3. Rural Freeway Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted crash frequency for this roadway type or interchange location. Approximately, the Top 25 locations will be studied.
- 4. Urban Intersection Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for each intersection. Approximately, the Top 25 locations will be studied.
- 5. Urban Non-Freeway Peak Searching Excess Segment Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for this roadway type. Approximately, the Top 25 locations will be studied. Only crashes indicated on the OH-1 crash report form as being non-intersection crashes were included in this analysis.
- 6. Urban Freeway Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for this roadway type or interchange location. Approximately, the Top 25 locations will be studied.
- 7. Suburban Intersection Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for each intersection. Approximately, the Top 25 locations will be studied.
- 8. Suburban Non-Freeway Peak Searching Excess Segment Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for this roadway type.

Approximately, the Top 25 locations will be studied. Only crashes indicated on the OH-1 crash report form as being non-intersection crashes were included in this analysis.

#### Highway Safety Improvement Program Abbreviated Application

In 2020, ODOT continued a process that was initialized in 2016 to implement low cost safety improvements faster. These requests are less than \$500,000 that are either standalone projects or existing projects located on a priority location. This is part of an initiative to make safety improvements on all programmed projects.

#### Systemic and Systematic Safety Program

The Ohio Department of Transportation spends approximately \$15 million annually of the \$159 million program on systemic and systematic safety improvements. These are safety improvements that can be installed across hundreds of road miles for a relatively small public investment. Systematic safety improvements are low cost improvements that are complete at similar locations to address a specific type of crash pattern. Systemic safety improvements are those improvements that are constructed system-wide to reduce the likelihood of a crash of occurring based on roadway features, traffic volumes or other features such as speed limit or land use type.

Examples of systemic and systematic project types are Curve Signing Upgrade, Edge Line Rumble Stripes, Cable Barrier, Signal Upgrade, Intersection Signing Upgrade, Wider Pavement Markings, and Guardrail End Treatment Upgrade Projects.

#### Safe Routes to School Program

ODOT uses \$4 million from the Transportation Alternatives Program to fund Ohio's Safe Routes to School Program. Again, this is separate and in addition to the \$159 million ODOT HSIP program. Funds can be used on any public roadway if the school has completed a School Travel Plan. The School Travel Plan outlines where investments should be made for a specific school district.

#### **ODOT Receives Record Number of Safety Applications**

This spring, ODOT received 77 applications requesting \$197M in federal and state safety funds to make improvements on high-crash and severe-crash roads across Ohio. It was the largest number of applications ever received by the department.

Applications nearly doubled this year because ODOT offered 100% funding to local governments in the spring. The program has historically required a 10% match. About 24 cities, 22 counties, 3 villages and 1 township applied for funding this spring for a range of safety improvements including sidewalks and multi-use paths, upgrading traffic signals, and building turn lanes, roundabouts and Restricted Crossing U-Turn Intersections (R-Cuts).

Local government participation is critical to reducing Ohio's worst crashes. Every year, most fatal and serious injury crashes occur on locally maintained roads – with 40% in cities and villages.

ODOT will award funding for 48 projects worth \$95.4M. Another \$32.6M for 12 projects are pending approval until additional information is received from the project sponsor. These projects will likely be awarded funding sometime this summer.

#### ODOT Commits \$10M in Safety Funds to Prevent Pedestrian Crashes in Ohio Cities

Pedestrian deaths in Ohio have risen 40% since 2013. To combat the problem, ODOT has dedicated \$10M in funding this year to Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Toledo, and Youngstown to build pedestrian safety improvements at 455 locations statewide. The improvements include high visibility crosswalks, street lighting, signage, pedestrian signals and beacons, refuge median islands, curb ramps, and curb bump outs that shorten the walking distance for pedestrians.

ODOT chose these cities because they have the highest number of fatal and serious injury crashes involving pedestrians in the state. ODOT is also piloting a new project development process that bundles low-cost safety improvements and streamlines the environmental and construction process to design and begin construction within 18 months. If the program is successful, ODOT will extend the funding to other Ohio cities.

#### Governor's Intersection Safety Program

Over the next two years, ODOT will begin or complete construction on **39 intersection safety projects worth \$86M** as part of the Governor's Intersection Safety Program. The program was launched by the Governor in 2019 to prevent crashes at 150 rural, urban and suburban intersections. Each year, about 37% of all fatal and serious injuries occur at Ohio intersections.

Funding is being used to make a range of safety improvements including upgrading signals, pavement markings and signs, installing turn lanes and high visibility pedestrian crossings, and building roundabouts.

#### **Other Programs**

Small portions of ODOT's state funding are used for work zone enforcement, sobriety checkpoints, and other educational opportunities (Federal HSIP funding is no longer available for education or enforcement activities). Although money is not specifically set aside for the High-Risk Rural Roads (HRRR) Program in Ohio at this time, we still encourage agencies to apply for funding through our traditional application process. Any projects that are prioritized based on the HRRR Program are funded through the ODOT's HSIP Program (\$159 million).

ODOT also combines HSIP funding with other funding sources (such as MPO and Ohio Rail Development Commission (ORDC)) to make safety improvements.

## Program Methodology

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

Yes

See Program Methodology Attachments for HSIP Procedure Manual

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

- Low-Cost Spot Improvements
- Pedestrian Safety
- Sign Replacement And Improvement
- Other-State HSIP Program
- Other-CEAO HSIP Program

## Program: Low-Cost Spot Improvements

### Date of Program Methodology:5/1/2016

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

• Addresses SHSP priority or emphasis area

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

Competes with all projects

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

Crashes	Exposure	Roadway
<ul> <li>All crashes</li> <li>Fatal and serious injury crashes only</li> </ul>	• Volume	

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

- Crash frequency
- Expected crash frequency with EB adjustment

# 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).

#### Rank of Priority Consideration

Ranking based on B/C:1 Available funding:3 Cost Effectiveness:2

## **Program: Pedestrian Safety**

## Date of Program Methodology:10/1/2019

### 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

Fatal and serious injury crashes ٠ only

Functional classification

#### 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?

Other-Priority Based

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** Available funding:1 Cost Effectiveness:2

## Program: Sign Replacement And Improvement

### Date of Program Methodology:12/1/2012

#### 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

All crashes

Population Lane miles

### 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?

• Other-Priority Based

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 Available funding:1

## Program: Other-State HSIP Program

## Date of Program Methodology:3/1/2016

## What is the justification for this program?

• Addresses SHSP priority or emphasis area

## What is the funding approach for this program?

Competes with all projects

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

#### Exposure

Roadway

All crashes

- Traffic
- Fatal and serious injury crashes only
   Volume

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

- EPDO crash frequency with EB adjustment
- Excess expected crash frequency with the EB adjustment
- Expected crash frequency with EB adjustment

- Other-(Total Fatal and Serious Injuries) / Total Crashes
- Other-Volume to Capacity Ratio
- 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?

- Competitive application process
- 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).

#### Rank of Priority Consideration

Ranking based on B/C:1 Available funding:3 Cost Effectiveness:2

## Program: Other-CEAO HSIP Program

### Date of Program Methodology:7/1/2011

### 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> <li>All crashes</li> <li>Fatal and serious injury crashes only</li> </ul>	Traffic	<ul> <li>Other-Rural County Highway System</li> </ul>							

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

- Crash frequency
- Crash rate
- Equivalent property damage only (EPDO Crash frequency)
- Other-Amount of Funding Requested
- 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?

- Competitive application process
- 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).

#### Rank of Priority Consideration

Ranking based on B/C:1 Available funding:3 Cost Effectiveness:2

## What percentage of HSIP funds address systemic improvements?

19

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

- Horizontal curve signs
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Other-Local Pedestrian Safety Improvements
- Rumble Strips
- Traffic Control Device Rehabilitation
- Upgrade Guard Rails
- Wrong way driving treatments

## 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

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

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

ODOT safety staff participate in bi monthly meetings with the Autonomous Vehicle, Connected Vehicle and Transportation Systems Management & Operations (AV/CV TSMO) Group. Additionally, the Ohio HSIP Program has been supportive in ITS technologies and AV/CV will be included in the SHSP update in 2020. Example projects include the following: Freeway queue warning system with driver messages, freeway camera monitoring equipment, and ramp wrong way driver alert systems.

#### 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.

Ohio uses AASHTOWare Safety Analyst (Safety Analyst) to prioritize the roadway network within the state. Safety Analyst faithfully implements Part B of the Highway Safety Manual (HSM).

All projects submitting for State HSIP Program funds are required to complete a Part C analysis included in the HSM. Additionally, ODOT has developed policy guidance to implement HSM for all projects. The level of analysis varies depending on the complexity of the project. For smaller projects, basic crash analysis is required. This includes identifying if the location is a priority location and reviewing general observed crash trends. For larger projects, Part C analysis is added as a requirement to understand the change in long term crash frequency.

# **Project Implementation**

## Funds Programmed

### Reporting period for HSIP funding.

State 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)	\$149,555,687	\$104,149,532	69.64%
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$0	\$0	0%
Penalty Funds (23 U.S.C. 154)	\$1,044,879	\$1,044,879	100%
Penalty Funds (23 U.S.C. 164)	\$30,383,350	\$30,383,350	100%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	\$0	\$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	\$169,671,788	\$133,049,048	78.42%
State and Local Funds	\$93,155,204	\$82,845,416	88.93%
Totals	\$443,810,908	\$351,472,225	79.19%

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

41%

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

How much funding is programmed to non-infrastructure safety projects? 5%

How much funding is obligated to non-infrastructure safety projects? 5%

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

# 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.

In FFY 2019, Ohio obligated 71.4% of its HSIP funds. For FFY 2020, Ohio has obligated approximately 100%. ODOT's safety program is making great progress working with our SHSP partners to reduce fatal and serious injury crashes in Ohio.

# Describe any other aspects of the State's progress in implementing HSIP projects on which the State would like to elaborate.

Ohio has had several instances over the past year where we had to use state funds to support enforcement and education programs that are no longer eligible for HSIP funding. All the projects are tied to the state's SHSP and emphasis areas that FHWA has encouraged us to address holistically using engaging engineering, enforcement, education, and emergency response (4 E's). Yet, we can't use federal funds to supplement the associated costs.

In 2020, the nation has faced the COVID-19 pandemic. The pandemic may continue to result in consistently lower VMT across the state. If this happens ODOT may have to adjust state funding levels for the Safety Program in 2021.

# General Listing of Projects

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

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
100348 - MOT W AIRWAY RD	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	0.9	Miles	\$709168.6	\$2488787.75	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	17,045	35	City or Municipal Highway Agency	Spot	Intersection s	Widen shoulders to reduce rear end and bicycle crashes
100471 - STA SR 0241 09.71	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	4	Intersection s	\$678969.9	\$678969.9	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	13,466	40	City or Municipal Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes
100907 - CLE WAR Culverts FY20 (A)		Widen shoulder - paved or other	0.15	Miles	\$125936.99	\$1727156.1	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural	Minor Arterial	9,001	55	State Highway Agency	Spot	Roadway Departure	Widen shoulders to reduce fixed object crashes
100927 - FRA SR 317 12.96 (Hamilton)		Miscellaneous pedestrians and bicyclists	1	Intersection s	\$265133.67	\$265133.67	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	30,313	50	City or Municipal Highway Agency	Spot	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
100928 - MED US 0224 13.47	Intersection geometry	Intersection geometry - other	2	Intersection s	\$1153080.0 1	\$1153080.01	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	10,086	60	State Highway Agency	Spot	Intersection s	Construct restricted crossing u turns to reduce angle crashes
100940 - MER SR 118 14.42	Roadway	Rumble strips - center	3.55	Miles	\$16106.31	\$940988.01	State and Local Funds	Rural	Minor Collector	2,082	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble strips to reduce head on crashes
101097 - FRA US 33 8.780	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$1772379	\$1772379	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	22,087	45	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
101212 - GRE US 68 9.43	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	8	Intersection s	\$2000	\$2000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	16,714	35	City or Municipal	Systemic	Bicyclists	Improve pedestrian

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
												Highway Agency			and bicycle facilities to reduce pedestrian and bicycle crashes
101232 - FUL US 20A 12.49 Resurfacing	Roadside	Barrier end treatments (crash cushions, terminals)	4	Numbers	\$4950	\$31236.23	State and Local Funds	Urban	Minor Arterial	13,948	55	State Highway Agency	Systemic	Roadway Departure	Upgrade roadside hardware to reduce fixed object crashes
101359 - LOR US 0020 19.40	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	1	Lanes	\$935500	\$935500	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	31,334	50	State Highway Agency	Spot	Bicyclists	Perform a road diet to reduce bicycle crashes
101402 - SUM 76/77 Central Interchange	Interchange design	Interchange design - other	7	Ramps	\$119221.2	\$540065	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Interstate	131,63 7	60	State Highway Agency	Spot	Intersection s	Improve interchange configuration to reduce rear end and sideswipe crashes
101787 - FRA CR 15 (Livingston) at James	Intersection traffic control	Modify traffic signal - modify signal mounting (spanwire to mast arm)	1	Intersection s	\$286700	\$286700	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	22,755	0	City or Municipal Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end crashes
101881 - FAY CR PM FY2021	Roadway delineation	Improve retroreflectivity	1	County	\$550000	\$750000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,069	45	County Highway Agency	Systemic	Roadway Departure	Improve pavement markings to reduce roadway departure crashes
101977 - POR SR 0014 18.06	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$258051.71	\$258051.71	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	13,049	45	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
102027 - LOR SR 0254 02.03	Intersection geometry	Auxiliary lanes - add right-turn lane	3	Intersection s	\$647592.49	\$647592.49	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	31,365	35	State Highway Agency	Spot	Intersection s	Construct right turn lanes to reduce rear end crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
102028 - MED SR 0018 15.99	Intersection traffic control	Modify traffic signal - modernization/replacement	6	Intersection s	\$106169.8	\$328074	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	26,917	55	State Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end crashes
102054 - CUY 17/94/480 10.78/10.05/13.9 6	Intersection geometry	Auxiliary lanes - add right-turn lane	2	Intersection s	\$2045765	\$2045765	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	144,21 2	60	State Highway Agency	Spot	Intersection s	Construct right turn lanes to reduce rear end crashes
102059 - BUT SR 73 13.05	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersection s	\$3126613.3 8	\$3126613.38	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	6,363	55	State Highway Agency	Spot	Intersection s	Construct Roundabout to reduce angle crashes
102097 - DEL SR 003 07.21	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$553692.27	\$553692.27	State and Local Funds	Urban	Principal Arterial- Other	12,072	55	County Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
102108 - ASD US 0030 00.11	Intersection geometry	Intersection geometry - other	1	Intersection s	\$373761.9	\$373761.9	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	16,195	60	State Highway Agency	Spot	Intersection s	Construct restricted crossing u turns to reduce angle crashes
102204 - POR SR 0044 07.71	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Intersection s	\$53269.48	\$53269.48	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	15,042	40	State Highway Agency	Spot	Intersection s	Construct right turn lanes to reduce rear end crashes
102421 - GRE US 35 4.30	Intersection geometry	Intersection geometry - other	2	Intersection s	\$327063.64	\$950838.6	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	43,783	55	State Highway Agency	Spot	Intersection s	Construct a superstreet intersection to reduce rear end and angle crashes
102599 - D11- SIGN-FY2020		Curve-related warning signs and flashers	1	District	\$186666.66	\$339965.2	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	11,689	55	State Highway Agency	Systemic	Roadway Departure	Sign upgrade and replacement to reduce fixed object crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
103108 - COL US 30 18.220	Intersection traffic control	Modify traffic signal - modernization/replacement	3	Intersection s	\$350255.24	\$352342.24	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	9,404	40	State Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce angle crashes
103120 - MED SR 0003 14.95	Intersection traffic control	Modify traffic signal - modify signal mounting (spanwire to mast arm)	1	Intersection s	\$19440	\$28444	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	16,846	55	State Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end crashes
103592 - HOL SR 39 24.96	Intersection geometry	Intersection geometrics - realignment to increase cross street offset	2	Intersection s	\$355446.12	\$1845598.44	State and Local Funds	Rural	Minor Arterial	10,563	55	State Highway Agency	Spot	Intersection s	Realignment of intersection approaches to reduce angle and left turn crashes
103626 - DEL US 36 11.03	Railroad grade crossings	Widen crossing for additional lane	1	Locations	\$1694313	\$1694313	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	27,544	55	City or Municipal Highway Agency	Spot	Railroad	Improve railroad overpass clearance height to reduce fixed object crashes
103689 - DEF SR 15 16.56 Cleveland Ave	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$114768.9	\$114768.9	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	5,670	35	City or Municipal Highway Agency	Spot	Intersection s	Construct roundabout to reduce angle crashes
103708 - SCI SR 140 2.16 Safety	Roadside	Removal of roadside objects (trees, poles, etc.)	0.04	Miles	\$99594	\$100604	HSIP (23 U.S.C. 148)	Urban	Minor Collector	6,859	55	State Highway Agency	Spot	Roadway Departure	Removal of fixed objects to reduce fixed object crashes
103718 - STA US 0030 32.12	Intersection geometry	Intersection geometry - other	1	Intersection s	\$909054	\$938615.49	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	6,563	25	State Highway Agency	Spot	Intersection s	Realignment of intersection approaches to reduce angle and left turn crashes
103721 - STA SR 0021 16.37	Intersection geometry	Intersection geometry - other	1	Intersection s	\$1705432	\$2296156.54	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	17,725	60	State Highway Agency	Spot	Intersection s	Construct restricted crossing u turns to reduce angle crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
103744 - WOO US 20 8.87 Turn Lane Sfty	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$40824.97	\$40824.97	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	14,402	55	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
103754 - BUT IR 75 5.35	Intersection geometry	Auxiliary lanes - add left-turn lane	3	Intersection s	\$158490.34	\$168789.35	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	135,66 7	65	County Highway Agency	Spot	Intersection s	Construct an additional left turn lane to reduce rear end crashes and improve ramp storage capacity
103790 - MOT SR 725/741 14.85/2.93	Intersection traffic control	Intersection signing - add basic advance warning	1	Intersection s	\$414216	\$470697.11	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	30,320	55	State Highway Agency	Spot	Intersection s	Install overhead signage to reduce rear end crashes
103791 - CLA US 40 16.82	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersection s	\$18442.72	\$20442.72	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	15,512	55	City or Municipal Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce left turn and crashes
103884 - GEA SR 608 03.09 Buggy Lane	Shoulder treatments	Widen shoulder - paved or other	0.47	Miles	\$160047.9	\$195537	HSIP (23 U.S.C. 148)	Rural	Minor Collector	7,423	55	State Highway Agency	Spot	Roadway Departure	Widen shoulders to reduce buggy crashes
103899 - TUS SR 39 13.040	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersection s	\$204477	\$204477	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	20,591	35	City or Municipal Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end and angle crashes
104247 - HAN Lincoln/Blanchar d Paths	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	1.3	Miles	\$1292248.5 1	\$1855755.01	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	12,656	35	City or Municipal Highway Agency	Spot	Bicyclists	Perform a road diet to reduce bicycle crashes
104407 - CLE IR 275 9.50	Interchange design	Installation of new lane on ramp	1	Ramps	\$109207.82	\$109207.82	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	81,267	65	State Highway Agency	Spot	Roadway Departure	Construct an additional ramp lane to reduce rear end and sideswipe

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
															passing crashes
104428 - WOO CR 107 1.73 Oregon Rd	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	2.9	Miles	\$271855.8	\$271855.8	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	7,438	45	County Highway Agency	Spot	Bicyclists	Perform a road diet to reduce bicycle crashes
104615 - SHE SR 47 14.51	Roadside	Barrier- metal	0.82	Miles	\$847872.22	\$2230170.93	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	18,923	35	City or Municipal Highway Agency	Spot	Roadway Departure	Signal upgrade and guardrail replacements to reduce cross-median crashes
104623 - DEL SR 61 4.71 (at Wilson Rd)	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$370612.42	\$411791.58	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	5,511	55	State Highway Agency	Spot	Intersection s	Roundabout to reduce angle crashes
104695 - BUT SR 177 0.64	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecifie d	1	Intersection s	\$2894678	\$2894678	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	22,897	25	City or Municipal Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce angle crashes
104708 - FRA CR 6 6.26	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersection s	\$1400000	\$1400000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	13,715	0	County Highway Agency	Spot	Intersection s	Construct roundabout to reduce rear end crashes
104709 - FRA SR 161 AT CLEVELAND AVENUE	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Intersection s	\$345845.99	\$345845.99	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	25,241	35	City or Municipal Highway Agency	Spot	Intersection s	Construct right turn lane to reduce rear end crashes
104739 - STA CR 0228 08.32 Portage St	Intersection traffic control	Modify traffic signal - modernization/replacement	7	Intersection s	\$35923.5	\$359803.5	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	23,688	45	County Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end crashes
104740 - TRU CR 0329 3.27 E Market St	Intersection geometry	Intersection geometrics - re- assign existing lane use	1	Intersection s	\$566640	\$566640	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	19,597	45	State Highway Agency	Spot	Intersection s	Constructed a barrier protected through lane to separate high speed traffic from signalized crossing movement to reduce high

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
															speed angle crashes
104747 - SEN SR 53 2.80 Safety Improve	Intersection geometry	Intersection geometry - other	1	Intersection s	\$328776.07	\$422091.78	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	1,938	55	State Highway Agency	Spot	Intersection s	Reconstruct intersection profile to improve visibility and reduce left turn and angle crashes
104750 - LUC CR 84 1.18 Safety	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersection s	\$32508.84	\$32508.84	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	15,112	35	City or Municipal Highway Agency	Spot	Intersection s	Reconstruct intersection to provide visibility and reduce angle crashes
104864 - LOR SR 0113 03.75 Baumhart Sfty	Intersection traffic control	Modify control - traffic signal to roundabout	1	Intersection s	\$469112.4	\$469112.4	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural	Minor Arterial	4,897	55	County Highway Agency	Spot	Intersection s	Construct roundabout to reduce fixed object crashes
105181 - HAM Hauck Road Widening - Part 2	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$362385	\$911952.8	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Multiple/Varies	0	0	City or Municipal Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
105423 - MOT US 35 18.69	Interchange design	Ramp closure	1	Ramps	\$4000	\$100807.17	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	73,642	55	State Highway Agency	Spot	Intersection s	Construct ramp terminal improvements to remove a long loop ramp and associated crashes
105684 - GRE US 42 13.41	Pedestrians and bicyclists	Install sidewalk	0.12	Miles	\$18930	\$18930	State and Local Funds	Rural	Minor Arterial	3,004	45	State Highway Agency	Spot	Pedestrians	Install sidewalks to reduce pedestrian crashes
106107 - CUY SR 175 13.31 Safety	Intersection geometry	Intersection geometry - other	3	Intersection s	\$102635.1	\$114039	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	15,086	35	State Highway Agency	Spot	Intersection s	Remove slip ramps and upgrade traffic signal to reduce rear end crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
106239 - CUY IR 077 04.79/Wallings Road	Intersection geometry	Auxiliary lanes - add left-turn lane	2	Intersection s	\$444807.9	\$444807.9	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	13,340	35	City or Municipal Highway Agency	Spot	Intersection s	Construct additional turn lanes at ramp terminal to reduce rear end crashes and increase ramp storage capacity
106261 - GEA US 322 07.78 Safety		Auxiliary lanes - add left-turn lane	1	Intersection s	\$204330.6	\$333589	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	9,400	45	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
106328 - COL SR 170 14.790	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersection s	\$1205.1	\$1339	HSIP (23 U.S.C. 148)	Rural	Minor Collector	4,545	35	City or Municipal Highway Agency	Spot	Pedestrians	Improve pedestrian and bicycle facilities to reduce pedestrian and bicycle crashes
106330 - LUC US 20 10.66 WB Left turn add	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$719325.9	\$1197249.33	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	30,444	40	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
106389 - LUC US 24 15.61 Inters Imprvemts	Intersection geometry	Auxiliary lanes - add left-turn lane	2	Intersection s	\$23850	\$26500	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	20,403	50	City or Municipal Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
106390 - FRA CR 17 4.96 (Morse Rd)		Miscellaneous pedestrians and bicyclists	0.93	Miles	\$2478159	\$2478159	State and Local Funds	Urban	Principal Arterial- Other	32,031	45	City or Municipal Highway Agency	Spot	Pedestrians	Shared use path and other pedestrian improvements to reduce pedestrian and bicycle crashes
106393 - LUC US 20A 6.59 Weckerly Roundbt	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$64350	\$64350	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	5,270	55	County Highway Agency	Spot	Intersection s	Construct roundabout to reduce angle crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
106402 - FAY US 62 17.64	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$875574	\$902213.77	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	7,636	55	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
106404 - HAM US 27 10.39	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersection s	\$55457.1	\$61619	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	24,372	35	State Highway Agency	Spot	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
106405 - DEL- 36-25.61	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$1603935	\$1728732.33	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	9,946	55	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
106406 - FRA- 104-4.43	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$98640	\$144987	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	11,281	55	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
106407 - BUT CR 148 2.93	Intersection traffic control	Modify control - traffic signal to roundabout	1	Intersection s	\$11083.2	\$11083.2	State and Local Funds	Urban	Minor Collector	10,936	45	County Highway Agency	Spot	Intersection s	Construct roundabout to reduce rear end crashes
106411 - HAM IR 275 28.29 - Part 1		Interchange design - other	1	Interchange s	\$85351.5	\$94835	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	109,39 3	60	State Highway Agency	Spot	Intersection s	Interchange improvements to reduce angle and rear end crashes
106416 - POR SR 0043 18.23	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	1.5	Miles	\$85593.6	\$85593.6	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	19,564	35	City or Municipal Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes
106444 - HAM IR 71 1.51		Roadway signs and traffic control - other	11	Ramps	\$1221435	\$1221435	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	98,840	65	State Highway Agency	Systemic	Data	Install wrong way signage and detection to reduce wrong way crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
106445 - SUM SR 0091 13.45	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	0.9	Miles	\$153653.4	\$153653.4	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	17,799	35	City or Municipal Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes
106471 - FRA/DEL-71- 27.77/0.00	Interchange design	Acceleration / deceleration / merge lane	3	Miles	\$5820957	\$6292986	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	157,92 3	65	State Highway Agency	Spot	Intersection s	Install auxiliary lane to reduce sideswipe passing and rear end crashes
106747 - RIC SR 0309 08.10	Interchange design	Ramp closure	2	Ramps	\$6076.86	\$6077.86	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	11,387	50	City or Municipal Highway Agency	Spot	Intersection s	Remove slip ramps and replace with right turn lanes to reduce rear end and angle crashes
106876 - MED SMOOTH FY2019 (A)	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Intersection s	\$57684.4	\$3070675	State and Local Funds	Urban	Minor Arterial	16,846	55	State Highway Agency	Spot	Intersection s	Construct right turn lane to reduce angle and rear end crashes
106981 - WAR US 22 7.12	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$101565	\$112850	State and Local Funds	Urban	Minor Collector	12,337	55	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
106982 - LUC Glanzman Rd	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersection s	\$69281.47	\$69281.47	HSIP (23 U.S.C. 148)	Urban	Minor Collector	2,271	0	City or Municipal Highway Agency	Spot	Bicyclists	Install pavement markings along roadway to reduce bicycle crashes
107070 - MED SR 0003 09.04	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$337105.8	\$349110	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	12,117	55	State Highway Agency	Spot	Intersection s	Construct roundabout to reduce rear end crashes
107119 - CUY IR 071 02.65 Auxiliary Lane	Interchange design	Acceleration / deceleration / merge lane	1.9	Miles	\$1783494	\$1783494	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	99,541	60	State Highway Agency	Spot	Intersection s	Install auxiliary lane to reduce sideswipe

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
															passing and rear end crashes
107130 - HAM CR 284 1.33	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersection s	\$119632.5	\$119632.5	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	11,045	0	City or Municipal Highway Agency	Spot	Intersection s	Construct roundabout to reduce angle crashes
107164 - LUC SR 184 0.30 Safety	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Intersection s	\$334098.56	\$451484.54	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	21,681	40	City or Municipal Highway Agency	Spot	Intersection s	Construct right turn lanes to reduce rear end crashes
107203 - SUM US 0224 12.20	Access management	Change in access - close or restrict existing access	5	Access points	\$454729.8	\$454729.8	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	29,275	55	City or Municipal Highway Agency	Spot	Intersection s	Access management improvements to reduce rear end and angle crashes
107214 - DEL US 36 14.850	Access management	Change in access - close or restrict existing access	7	Access points	\$2043657.9	\$2123731.79	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	24,854	60	State Highway Agency	Spot	Intersection s	Close median opening and construct restricted crossing u turn to reduce high speed angle and rear end crashes
107234 - FRA CR 17 (Morse Rd) 4.16		Auxiliary lanes - add left-turn lane	1	Intersection s	\$506700	\$506700	State and Local Funds	Urban	Principal Arterial- Other	32,031	45	City or Municipal Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
107240 - FRA CR 14 (Refugee) 1.99	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersection s	\$32774.16	\$32774.16	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	11,080	0	City or Municipal Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end crashes
107374 - SUM CR 0602 03.12	Non- infrastructure	Road safety audits	1	Study	\$276000.3	\$276000.3	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	13,659	0	City or Municipal Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
107518 - UNI MARYSVILLE AT STUDY	Roadway	Rumble strips - center	1	Study	\$186888	\$186888	HSIP (23 U.S.C. 148)	Urban	Minor Collector	4,311	55	City or Municipal Highway Agency	Study	Data	Safety study to identify contributing factors leading to pedestrian and bicycle crashes
107520 - MOT SR 48 N Main Street Study	Non- infrastructure	Road safety audits	1	Study	\$69665.5	\$77406.12	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	17,359	35	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
107684 - ALL/AUG US 30/SR 117 Var	Roadway	Rumble strips - center	11.33	Miles	\$99549	\$2181615.64	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	11,598	65	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble stripes to reduce head on crashes
107808 - UNI- 4/37-13.61/5.30	Roadway	Rumble strips - center	11.27	Miles	\$39436.6	\$2062771.78	State and Local Funds	Urban	Minor Arterial	12,047	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble strips to reduce head on crashes
107821 - MRW SR 95 15.330	Roadside	Barrier- metal	0.2	Miles	\$5634	\$1408154.72	State and Local Funds	Rural	Minor Collector	9,285	55	State Highway Agency	Spot	Roadway Departure	Upgrade roadside hardware to reduce fixed object crashes
107822 - UNI US 42 3.91	Intersection geometry	Intersection geometry - other	2	Intersection s	\$221441.4	\$221441.4	State and Local Funds	Rural	Principal Arterial- Other	13,195	55	State Highway Agency	Spot	Intersection s	Install traffic signal to reduce angle and rear end crashes
108054 - D07 Sign FY20	Roadway signs and traffic control	Curve-related warning signs and flashers	1	District	\$192600	\$1523419	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Interstate	121,13 6	70	State Highway Agency	Systemic	Roadway Departure	Sign upgrade and replacement to reduce fixed object crashes
108072 - STW Safety Program Training	Non- infrastructure	Training and workforce development	1	Training	\$115589.93	\$128433.26	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety course development

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															for career professionals
108230 - WAR Salem Township Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$895	\$895	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
108239 - SAN Rawson Ave Reconst Phase 1	Access management	Change in access - close or restrict existing access	7	Access points	\$123000	\$1786633.92	State and Local Funds	Urban	Minor Arterial	11,995	0	City or Municipal Highway Agency	Spot	Intersection s	Access management improvements to reduce angle crashes
108306 - HOL Walnut Creek Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$55.56	\$55.56	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
108308 - LOR Wellington Twp Sign Gra	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$436	\$436	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
108341 - WAS SR 7 7.250	Intersection traffic control	Modify traffic signal - add long vehicle detection	3	Intersection s	\$210510	\$216765	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	18,254	50	City or Municipal Highway Agency	Systemic	Intersection s	Install advanced signal detection throughout corridor to reduce rear end crashes
108470 - FAI TR 201 01.10	Intersection geometry	Auxiliary lanes - add left-turn lane	2	Intersection s	\$481500	\$674046.56	HSIP (23 U.S.C. 148)	Urban	Minor Collector	7,253	35	City or Municipal Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
108480 - CUY IR 480 14.57 Auxiliary Lane	Interchange design	Acceleration / deceleration / merge lane	0.6	Miles	\$1182798	\$1228244.79	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	142,26 6	60	State Highway Agency	Spot	Intersection s	Install auxiliary lane to reduce sideswipe passing and rear end crashes
108547 - TRU SR 46/82 DDI	Interchange design	Interchange design - other	1	Interchange s	\$1809000	\$1809000	State and Local Funds	Urban	Principal Arterial- Other Freeways & Expressways	45,771	55	State Highway Agency	Spot	Intersection s	Construct a diverging diamond interchange to reduce rear end and angle crashes
108617 - CLA Main/Western Signal Upgrade	Intersection traffic control	Modify traffic signal - modify signal mounting (spanwire to mast arm)	1	Intersection s	\$255000	\$255000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	4,382	25	City or Municipal Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce angle crashes
108619 - MOT SR 725 14.41	Pedestrians and bicyclists	Install sidewalk	0.59	Miles	\$151699.2	\$189624	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	30,320	50	State Highway Agency	Spot	Pedestrians	Install sidewalks to reduce pedestrian crashes
108633 - FRA 71 Ramp/Silver at Hudson	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Intersection s	\$552599.99	\$558184.25	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	24,698	65	State Highway Agency	Spot	Intersection s	Construct right turn lane to reduce rear end crashes
108637 - BUT TR 131 1.15	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersection s	\$1213767.3 5	\$1213767.35	HSIP (23 U.S.C. 148)	Urban	Major Collector	7,712	0	County Highway Agency	Spot	Intersection s	Construct roundabout to reduce fixed object crashes
108639 - WAR SR 48 13.64	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	2	Intersection s	\$580854.33	\$580854.33	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	18,824	55	City or Municipal Highway Agency	Spot	Pedestrians	Improve intersection pedestrian facilities to reduce pedestrian crashes
108640 - GRE US 42 3.15	Intersection geometry	Intersection geometry - other	1	Intersection s	\$1713224.1 6	\$1911610.75	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	9,636	60	State Highway Agency	Spot	Intersection s	Construct restricted crossing u turns to reduce speed
PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
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															related crashes
108642 - FRA- Cleveland Ave Ped Improve	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	5.03	Miles	\$207000	\$207000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	26,463	35	City or Municipal Highway Agency	Systemic	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
108682 - LUC CR 10 4.94 Lsky/Lewis Sfty	Intersection geometry	Intersection geometry - other	1	Intersection s	\$42363.9	\$47071	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	13,568	35	City or Municipal Highway Agency	Spot	Intersection s	Intersection improvements to reduce rear end crashes
108683 - LUC CR 10 0.85 Lasky/Talmge Sfty	Intersection geometry	Intersection geometry - other	1	Intersection s	\$47763	\$53070	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	16,694	0	City or Municipal Highway Agency	Spot	Intersection s	Intersection improvements to reduce rear end crashes
108684 - SAN US 20 28.16 Sfty	Intersection traffic control	Modify traffic signal - add additional signal heads	1	Intersection s	\$429493.64	\$580449.36	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	12,402	60	State Highway Agency	Spot	Intersection s	Install supplemental signal head to reduce angle crashes
108685 - DEL- 42-1.41	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$2503800	\$2821963	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	13,576	55	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
108734 - PIK SR 32 15.77 Safety	Intersection geometry	Intersection geometry - other	1	Intersection s	\$1094592.6	\$2516896	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	8,861	60	State Highway Agency	Spot	Intersection s	Construct restricted crossing u turns to reduce angle crashes
108742 - MAH CR32 18.11 (W Reserve TWLTL)	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	1.5	Miles	\$682479.9	\$682479.9	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	18,218	0	County Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes
108791 - MOT- Mad River/Alex Bell Improve	Intersection traffic control	Modify control - traffic signal to roundabout	1	Intersection s	\$2223	\$2223	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	9,460	0	County Highway Agency	Spot	Intersection s	construct a roundabout to reduce rear end crashes
108804 - WAS IR 77 0.000	Roadway delineation	Improve retroreflectivity	6.63	Miles	\$173709.26	\$6683080	Other Federal-aid Funds (i.e.	Urban	Principal Arterial- Interstate	20,757	70	State Highway Agency	Systemic	Roadway Departure	Install wet reflective pavement

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							STBG, NHPP)								markings to reduce rear end crashes
108841 - MUS CR 2004 00.00	Non- infrastructure	Transportation safety planning	1	Study	\$19726	\$19726	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	10,154	25	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
108861 - WYA US 23 12.80	Access management	Access management - other	1	Intersection s	\$346212	\$346212	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	25,341	65	State Highway Agency	Spot	Intersection s	Remove access from public street to high speed facility to reduce left turn and angle crashes
108867 - BUT/GRE 122/35 2.20/0.00	Roadway	Pavement surface - high friction surface	1	Miles	\$627300	\$627300	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	65,889	55	State Highway Agency	Spot	Roadway Departure	Install high friction resurface treatment to reduce rear end crashes
108957 - MOT Dayton Citywide SRTS	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersection s	\$400000	\$400000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	9,785	30	City or Municipal Highway Agency	Systemic	Pedestrians	Upgrade crosswalks and signals to reduce pedestrian crashes
108995 - D10 Tree Removal from Clear Zone	Roadside	Removal of roadside objects (trees, poles, etc.)	1	District	\$726066.01	\$726066.01	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	32,218	55	State Highway Agency	Systemic	Roadway Departure	Removal of trees to reduce fixed object crashes
109014 - FRA- 70-21.33	Intersection geometry	Intersection geometry - other	1	Intersection s	\$135000	\$408356	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	36,283	50	State Highway Agency	Spot	Intersection s	Removal of local street intersection with interstate ramp to reduce angle and rear end crashes
109069 - UNI SR 739 0.630	Roadside	Barrier- metal	0.3	Miles	\$25892.99	\$5877306.12	State and Local Funds	Rural	Minor Collector	8,774	55	State Highway Agency	Spot	Roadway Departure	Upgrade roadside hardware to reduce fixed

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
															object crashes
109129 - ASD US 0250 12.74	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$371700	\$371700	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	7,119	50	State Highway Agency	Spot	Intersection s	Construct roundabout to reduce angle crashes
109136 - FRA- SRTS Kingsford Rd Sidewalks	Pedestrians and bicyclists	Install sidewalk	0.3	Miles	\$123416.23	\$123416.23	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	0	City or Municipal Highway Agency	Spot	Pedestrians	Install sidewalks to reduce pedestrian crashes
109313 - WIL SR 107 9.50 Ped Sgnls	Pedestrians and bicyclists	Pedestrian signal	2	Intersection s	\$102438	\$102438	HSIP (23 U.S.C. 148)	Rural	Minor Collector	5,375	55	State Highway Agency	Spot	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
109319 - TUS CR-82-2.10/5.85 Safety Study	Non- infrastructure	Transportation safety planning	1	Study	\$8756	\$8756	HSIP (23 U.S.C. 148)	Rural	Minor Collector	913	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
109329 - LIC US 62 00.49	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$54500.4	\$60556	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	12,791	50	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
109347 - POR CR 0502 00.180 (N Water St)	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersection s	\$54972	\$54972	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	10,072	25	City or Municipal Highway Agency	Spot	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
109352 - HAM CR 453/SR 126 0.32/6.78	Roadside	Barrier - cable	7.5	Miles	\$1626930	\$1689437.1	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	59,910	60	State Highway Agency	Systemic	Roadway Departure	Install cable median barrier to reduce cross median crashes
109354 - HAM US 42 9.60	Pedestrians and bicyclists	Install sidewalk	0.3	Miles	\$4158	\$79240	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	16,827	35	State Highway Agency	Systemic	Pedestrians	Install sidewalks to reduce

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															pedestrian crashes
109357 - CLE SR 28 1.76	Intersection geometry	Intersection geometry - other	1	Intersection s	\$33295.5	\$293084	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	48,125	55	State Highway Agency	Spot	Intersection s	Construct a superstreet intersection to reduce rear end and angle crashes
109362 - WYA US 23 0.04	Intersection geometry	Intersection geometry - other	7	Intersection s	\$248671.8	\$276302	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	17,902	65	State Highway Agency	Spot	Intersection s	Construct restricted crossing u turns to reduce angle crashes
109364 - CLI SR 73 14.35	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$400000	\$505865.93	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,272	55	County Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
109374 - MOT SR 48 2.23	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersection s	\$284	\$284	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	25,098	35	City or Municipal Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end and left turn crashes
109436 - MOT IR 75 9.53	Intersection traffic control	Modify traffic signal - modernization/replacement	4	Intersection s	\$25241	\$25241	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	107,75 9	65	State Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end crashes
109455 - LOR SR 0083 02.55	Intersection traffic control	Modify control - traffic signal to roundabout	2	Intersection s	\$18000	\$35000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,053	55	State Highway Agency	Spot	Intersection s	Construct two roundabouts to reduce angle crashes
109520 - TRU SR 0046 07.81	Interchange design	Interchange design - other	1	Interchange s	\$405082.8	\$450092	State and Local Funds	Urban	Minor Arterial	17,422	40	State Highway Agency	Spot	Intersection s	Construct a diverging diamond interchange to reduce rear end and angle crashes
109550 - MAR- 98-6.22 (at SR 529)	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$364509.9	\$364509.9	HSIP (23 U.S.C. 148)	Rural	Minor Collector	5,710	55	State Highway Agency	Spot	Intersection s	Roundabout to reduce angle crashes

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109555 - HOL County Safety Plan	Non- infrastructure	Transportation safety planning	1	Study	\$22598.1	\$25109	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Local road safety plan to identify regional safety priorities and action steps
109571 - D08 Interchange Lighting	Lighting	Site lighting - interchange	4	Interchange s	\$1745685	\$1883162.5	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	83,000	70	State Highway Agency	Spot	Intersection s	Install interchange lighting to reduce nighttime related crashes
109579 - WAS SR 7 24.860	Lighting	Intersection lighting	2	Intersection s	\$26180	\$26180	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	32,218	45	City or Municipal Highway Agency	Spot	Intersection s	Install lighting to reduce rear end crashes
109598 - LUC CR 4 9.77 Monroe St Improve	Intersection geometry	Intersection geometry - other	3	Intersection s	\$241666.2	\$241666.2	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	22,112	0	City or Municipal Highway Agency	Spot	Intersection s	Construction intersection improvements and access restriction to reduce rear end and sideswipe- passing crashes
109600 - LAW US 52 20.45 Safety		Intersection geometry - other	1	Intersection s	\$733255.33	\$856222.47	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	25,694	55	State Highway Agency	Spot	Intersection s	Construct a green t intersection to reduce angle crashes
109613 - WAR CR 21 0.23	Access management	Change in access - close or restrict existing access	0.2	Miles	\$172159.47	\$172159.47	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	39,643	35	County Highway Agency	Spot	Intersection s	Access management improvements to reduce rear end crashes
109637 - OTT SR 163 33.85 Roundabout	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$55567.8	\$61742	HSIP (23 U.S.C. 148)	Urban	Minor Collector	8,217	55	State Highway Agency	Spot	Intersection s	Construct roundabout to reduce fixed object crashes
109640 - LUC SR 295 6.65 Roundabout	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$150459.3	\$167177	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,372	50	State Highway Agency	Spot	Intersection s	Construct roundabout to

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															reduce angle crashes
109641 - HEN SR 109 21.06 RRFB Libry Cntr	Pedestrians and bicyclists	Pedestrian signal	1	Intersection s	\$27829	\$27829	HSIP (23 U.S.C. 148)	Rural	Minor Collector	3,672	35	State Highway Agency	Spot	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
109692 - TUS CR 103 0.00	Shoulder treatments	Widen shoulder - paved or other	1.89	Miles	\$495300	\$495300	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,617	0	County Highway Agency	Spot	Roadway Departure	Widen shoulders to reduce fixed object crashes
109892 - STW Multi-Modal Design Guide	Non- infrastructure	Transportation safety planning	1	Study	\$598778.1	\$665309	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
109917 - SCI US 23 5.49 Safety	Intersection geometry	Intersection geometry - other	1	Intersection s	\$132109.2	\$132109.2	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	19,696	55	State Highway Agency	Spot	Intersection s	Intersection improvements to reduce rear end crashes
110124 - STW ATA FY2020	Non- infrastructure	Training and workforce development	1	Training	\$90000	\$110000	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety course development for career professionals related to active transportation facility design
110189 - HOL Tree Cutting Phase 1	Roadside	Removal of roadside objects (trees, poles, etc.)	3312	Numbers	\$3703.87	\$3703.87	State and Local Funds	Rural	Minor Collector	376	45	County Highway Agency	Systemic	Roadway Departure	Removal of trees to reduce fixed object crashes
110203 - PAU Auglaize Twp Sign Grant	Roadway signs and traffic control		1	Township	\$631	\$784.03	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway

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110204 - SEN Scipio Twp Sign Grant	Roadway signs and traffic control		1	Township	\$20791	\$22691.16	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110205 - SAN Woodville Twp Sign Grant	Roadway signs and traffic control		1	Township	\$43452	\$44694.87	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110207 - HUR Wakeman Twp Sign Grant	Roadway signs and traffic control		1	Township	\$16013	\$16719.03	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110208 - SEN Eden Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$26352	\$27461.95	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110211 - FUL Clinton Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$10712	\$11383.09	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	1,376	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110213 - BUT SR 747 1.01/2.07	Intersection traffic control	Modify traffic signal - modernization/replacement	2	Intersection s	\$458390	\$458390	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	29,594	45	State Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end crashes

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110214 - BUT SR 747 0.28	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	9	Intersection s	\$172720	\$176848.95	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	29,594	55	State Highway Agency	Systemic	Intersection s	Install flashing yellow arrow to reduce rear end crashes
110250 - LOR Henrietta Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$15364	\$16544.85	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110278 - POR Atwater Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$13968	\$14637.38	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	0	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110279 - HAM US 27 11.03 TSMO Pilot	Intersection traffic control	Modify traffic signal - add long vehicle detection	22	Intersection s	\$481390	\$481390	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	34,352	35	State Highway Agency	Systemic	Intersection s	Install advanced signal detection throughout corridor to reduce rear end crashes
110280 - HAM North College Hill Retiming		Modify traffic signal timing - general retiming	2	Intersection s	\$32013.7	\$32013.7	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	33,790	25	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
110298 - LAK IR 090 13.63 VSL Upgrade	Advanced technology and ITS	Advanced technology and ITS - other	14	Miles	\$1295992	\$1472722	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	53,971	70	State Highway Agency	Systemic	Roadway Departure	Install variable speed limit corridor to reduce snow squall related crashes
110339 - STW District Workshops OH USBR	Non- infrastructure	Training and workforce development	1	Training	\$55880.1	\$62089	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Bicyclists	Safety course development for career professionals related to bicycle facilities

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110463 - MAH US 0224 Safety Study	Non- infrastructure	Transportation safety planning	1	Study	\$202500	\$227276	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	32,979	45	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
110467 - BUT SR 73 18.08	Access management	Change in access - close or restrict existing access	0.3	Miles	\$44382.6	\$80567	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	13,589	45	State Highway Agency	Spot	Intersection s	Access management improvements to reduce angle crashes
110481 - HOL US 62 19.650	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersection s	\$36784	\$63531	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	12,694	35	State Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end, sideswipe- passing, and angle crashes
110485 - SHE- CR25A-9.77	Shoulder treatments	Widen shoulder - paved or other	3.93	Miles	\$500000	\$500000	State and Local Funds	Urban	Minor Collector	6,119	45	County Highway Agency	Spot	Roadway Departure	Widen shoulders to reduce fixed object crashes
110580 - MRW Congress Township Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$15471	\$16209.4	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	395	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110605 - ERI Vermilion TWP Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$8731	\$8957.43	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	11,676	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110620 - MED Wadsworth Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$13824	\$14625.13	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	2,739	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection

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															crashes along roadway
110621 - COS Tuscarawas Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$5127	\$5520.05	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	3,239	35	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110624 - WAY Sugar Creek Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$22958	\$23851.12	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110627 - TRU Southington Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$5543	\$6623.02	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110651 - WAY Salt Creek Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$34333	\$36596.62	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110653 - LAK Cty Perry Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$28106	\$29382.13	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110654 - HUR Cty New London Twp Sign Gran	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$12983	\$14309.59	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	340	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and

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															intersection crashes along roadway
110657 - POR Nelson Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$11732	\$12334.69	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110658 - ASD Cty Milton Twp Sign Grant	Roadway signs and traffic control		1	Township	\$20589	\$21472.11	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110659 - MED Cty Litchfield Twp Sign Gran	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$9357	\$9806.76	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	3,489	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110661 - ASD Green Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$32088	\$33325	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110662 - OTT Danbury Twp Sign Grant	Roadway signs and traffic control		1	Township	\$16163	\$17004.28	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	3,027	40	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110688 - WAS Adams Twp Sign Grant	Roadway signs and traffic control		1	Township	\$2267	\$2267	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	319	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway

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															departure and intersection crashes along roadway
110728 - BUT West Chester Twp Sign Grant	Roadway signs and traffic control		1	Township	\$49117	\$50620.37	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	12,257	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110730 - PIC Washington Twp Sign Grant	Roadway signs and traffic control		1	Township	\$2226	\$2627.36	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	1,638	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110732 - CLE Williamsburg Twp Sign Grant	Roadway signs and traffic control		1	Township	\$21142	\$22197.89	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110735 - CLI Vernon Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$17828	\$18467.74	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110747 - DEL Scioto Twp Sign Grant	Roadway signs and traffic control		1	Township	\$42140	\$43399.94	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110748 - PER Pike Twp Sign Grant	Roadway signs and traffic control		1	Township	\$26135	\$27283.83	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township	Systemic	Roadway Departure	Township sign grant program to reduce

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												Highway Agency			roadway departure and intersection crashes along roadway
110749 - PIK Pee Pee Twp Sign Grant	Roadway signs and traffic control		1	Township	\$25409	\$26501.59	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110750 - CLE Monroe Twp Sign Grant	Roadway signs and traffic control		1	Township	\$11768	\$12412.98	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	62	55	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110751 - ATB Morgan Twp Sign Grant	Roadway signs and traffic control		1	Township	\$20811	\$21837.43	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110752 - FRA Mifflin Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$13713	\$14989.21	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	650	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110756 - LOR US 0020 15.84 IOS	Non- infrastructure	Transportation safety planning	1	Study	\$15860.7	\$17459.7	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	32,038	65	State Highway Agency	Study	Intersection s	Safety study to identify contributing factors leading to crashes
110757 - RIC US 0030 03.92 IOS	Non- infrastructure	Transportation safety planning	1	Study	\$16675.2	\$18528	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	20,707	70	State Highway Agency	Study	Intersection s	Safety study to identify contributing factors

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															leading to crashes
110765 - CLE Jackson Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$4910	\$5510.66	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	419	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110774 - DEL Delaware Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$11855	\$12434.73	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	1,466	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110776 - PIC Darby Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$14565	\$15158.15	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	837	0	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110778 - FAI Amanda Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$29173	\$30555.59	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110785 - CLI Green Twp Sign Grant	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$17966	\$18784.85	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	235	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
110822 - TRU SR 0046 05.98 Signal Study	Intersection traffic control	Modify traffic signal timing - general retiming	7	Intersection s	\$38056.29	\$38056.29	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	18,458	40	City or Municipal Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
															related crashes
110840 - HAS Country Club Rd Sidewalks	Pedestrians and bicyclists	Install sidewalk	0.36	Miles	\$81778	\$81778	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	0	City or Municipal Highway Agency	Spot	Pedestrians	Install sidewalks to reduce pedestrian crashes
110853 - ASD US 0030 10.28	Intersection geometry	Intersection geometry - other	1	Intersection s	\$12500	\$12500	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	14,287	60	State Highway Agency	Spot	Intersection s	Construct restricted crossing u turns to reduce angle crashes
110861 - LIC US 62 03.64	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	0.3	Miles	\$138624.3	\$346449	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	16,759	35	State Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes
110862 - FAI CR 7 01.94	Intersection geometry	Auxiliary lanes - add left-turn lane	3	Intersection s	\$308691	\$308691	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0	0	County Highway Agency	Spot	Intersection s	Construct right turn lanes to reduce rear end crashes
110864 - LIC/KNO FY 20 Guardrail	Roadside	Barrier end treatments (crash cushions, terminals)	32	Numbers	\$138005.99	\$139401.75	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	37,603	60	State Highway Agency	Systemic	Roadway Departure	Replacement of Type A guardrail end treatments to reduce fixed object crashes
110866 - HEN US 24 0.43 CR- 17D Interchng	Interchange design	Convert at-grade intersection to interchange	4	Intersection s	\$444097.8	\$444097.8	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	24,090	65	County Highway Agency	Spot	Intersection s	Construct Interchange and close median access points for 3 other location to reduce angle and left turn crashes
110867 - HEN SR 108 17.40 Roundabout		Modify control - two-way stop to roundabout	1	Intersection s	\$94895.1	\$94895.1	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	8,047	50	State Highway Agency	Spot	Intersection s	Construct roundabout to reduce rear end crashes

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110876 - WAY US 0030 20.15	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Intersection s	\$202500	\$202500	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	22,773	55	State Highway Agency	Spot	Intersection s	Construct right turn lanes to reduce rear end crashes
110877 - LAK US 020 11.12 Signal Timing	Intersection traffic control	Modify traffic signal timing - general retiming	8	Intersection s	\$38797	\$38797	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	23,205	35	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
110898 - ERI SR 0004 04.65	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$225135.9	\$250151	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	12,697	55	State Highway Agency	Spot	Intersection s	Construct roundabout to reduce rear end crashes
110944 - D03 SAFETY TSG FY2020	Intersection traffic control	Modify traffic signal - add long vehicle detection	3	Intersection s	\$155136	\$190393	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	10,086	60	State Highway Agency	Systemic	Intersection s	Install advanced signal detection throughout corridor to reduce rear end crashes
110968 - HAM SR 561- Safety Study LSA	Non- infrastructure	Transportation safety planning	1	Study	\$26939.7	\$29933	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	11,878	35	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
110972 - SUM CR 111 Safety Study LSA	Non- infrastructure	Road safety audits	1	Study	\$39715	\$39715	HSIP (23 U.S.C. 148)	Urban	Minor Collector	14,307	0	State Highway Agency	Study	Data	Road Safety Audit to identify contributing factors leading to crashes
110982 - STW SHSP Update and Implement	Non- infrastructure	Transportation safety planning	1	Study	\$171080.1	\$190089	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Strategic Highway Safety Plan to identify statewide safety priorities and action steps
110995 - BUT GMRT Extension	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersection s	\$148089.6	\$148089.6	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	25,755	55	City or Municipal	Spot	Bicyclists	Extend bicycle path to

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												Highway Agency			reduce bicycle crashes
111017 - STW AT Planning Guidance	Non- infrastructure	Transportation safety planning	1	Study	\$20382.3	\$22647	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Strategic Highway Safety Plan Active Transportatio n Plan
111065 - ATB/TRU US 20/SR 45 Signal Study	Intersection traffic control	Modify traffic signal timing - general retiming	12	Intersection s	\$62069.43	\$62069.43	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	17,271	45	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
111066 - DEL- Manning/Olen Bike/Ped	Pedestrians and bicyclists	Install new crosswalk	1	Crosswalks	\$45000	\$50000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	25,432	45	State Highway Agency	Spot	Pedestrians	Install a pedestrian and bicycle crossing to reduce pedestrian and bicycle crashes
111086 - STW Work Zone Safety	Non- infrastructure	Enforcement	10	Locations	\$100000	\$100000	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Spot	Work Zones	ODPS improving work zone safety to reduce work zone crashes
111087 - BUT SR 73 13.05 DEMO	Intersection traffic control	Modify control - traffic signal to roundabout	1	Intersection s	\$130680	\$130680	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	6,363	55	State Highway Agency	Spot	Intersection s	Construct roundabout to reduce angle crashes
111114 - MOT- CR-74-6.05/7.39	Non- infrastructure	Transportation safety planning	1	Study	\$41997	\$41997	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	29,400	45	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111120 - AUG- 33/75 Feasibility Study		Transportation safety planning	1	Study	\$104167.8	\$115742	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	40,403	70	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes

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111150 - MED SR 0303 04.85	Non- infrastructure	Transportation safety planning	1	Study	\$115841.7	\$128713	HSIP (23 U.S.C. 148)	Rural	Minor Collector	5,947	55	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111151 - FRA- 674-3.14 (Gender Study)	Intersection traffic control	Modify traffic signal timing - general retiming	7	Intersection s	\$53575.73	\$53575.73	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	10,694	45	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
111194 - POR SR 0014 06.25	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$36000	\$40000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	21,033	55	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
111198 - BUT Hamilton City AT Plan	Non- infrastructure	Transportation safety planning	1	Study	\$39621.6	\$44024	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Develop an active transportation plan to reduce pedestrian and bicycle crashes
111205 - CLE Loveland Sign FY20	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	City	\$50000	\$56500	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0	0	City or Municipal Highway Agency	Systemic	Roadway Departure	Install and upgrade signs to reduce roadway departure crashes
111210 - MOT Market St RSA	Non- infrastructure	Road safety audits	1	Study	\$16954	\$16954	HSIP (23 U.S.C. 148)	Urban	Minor Collector	7,837	35	State Highway Agency	Study	Data	Road Safety Audit to identify contributing factors leading to crashes
111215 - ATH US 33 19.300	Roadway	Rumble strips - center	8.91	Miles	\$113120	\$113120	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	6,780	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble stripes to reduce head on crashes

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111291 - MOT SR 49 6.410 RSA	Non- infrastructure	Road safety audits	1	Study	\$15258.6	\$16954	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	13,941	50	State Highway Agency	Study	Data	Road Safety Audit to identify contributing factors leading to crashes
111293 - COS Systemic Safety Analysis LSA	Non- infrastructure	Transportation safety planning	1	Study	\$76039.2	\$84488	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111294 - MAR Marion- Williamsport/Mai n SS	Non- infrastructure	Transportation safety planning	1	Study	\$23598.9	\$26221	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	4,459	40	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111295 - STW PSIP Phase 1 (Planning)	Non- infrastructure	Transportation safety planning	1	Study	\$62982	\$69980	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111325 - ASD SR 0096 Signal Timing	Intersection traffic control	Modify traffic signal timing - general retiming	7	Intersection s	\$36557	\$36557	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	23,205	35	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
	Intersection traffic control	Modify traffic signal timing - general retiming	9	Intersection s	\$43623	\$43623	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	27,679	40	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
111379 - HAN SR 15/CR 180 19.56/0.21	Access management	Change in access - close or restrict existing access	1	Intersection s	\$195662.7	\$217403	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	13,401	65	County Highway Agency	Spot	Intersection s	Remove at grade intersection to reduce angle crashes
111387 - HAM CR 457 Ped Safety Study	Non- infrastructure	Transportation safety planning	1	Study	\$35714	\$35714	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	15,415	35	State Highway Agency	Study	Data	Safety study to identify contributing factors

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															leading to crashes
111406 - HAM CR 716 Safety Study LSA	Non- infrastructure	Transportation safety planning	1	Study	\$28325	\$28325	HSIP (23 U.S.C. 148)	Urban	Minor Collector	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111408 - HAM CR 646 Safety Study LSA	Non- infrastructure	Transportation safety planning	1	Study	\$31201	\$31201	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	15,415	35	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111410 - HUR US 224 Safety Study LSA	Non- infrastructure	Transportation safety planning	1	Study	\$36027	\$40030	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	9,461	35	State Highway Agency	Study	Data	Install centerline rumble stripes to reduce head on crashes
111460 - FRA/FAI US 33 SE Study	Non- infrastructure	Transportation safety planning	1	Study	\$495000	\$529065	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	56,687	60	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111490 - GAL County Safety Plan	Non- infrastructure	Transportation safety planning	1	Study	\$80283.6	\$89204	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111491 - HAM Wasson Way Phase 3	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1.62	Miles	\$204182.01	\$1083604.21	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	24,087	25	City or Municipal Highway Agency	Spot	Bicyclists	Improve pedestrian and bicycle facilities to reduce pedestrian and bicycle crashes
111591 - FRA 270/71 N Side Safety Study		Transportation safety planning	4	Study	\$65490.3	\$72767	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	172,99 5	65	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes

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111634 - TUS CR 82 3.330	Intersection geometry	Intersection geometry - other	1	Intersection s	\$167646.31	\$167646.31	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural	Minor Collector	913	0	County Highway Agency	Spot	Intersection s	Reconstruct intersection profile to improve visibility and reduce angle crashes
111642 - ALL Thayer Road Safety Study	Non- infrastructure	Transportation safety planning	1	Study	\$52810	\$52810	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	1,967	45	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111657 - GRE- 68-13.51	Intersection traffic control	Modify control - all-way stop to roundabout	1	Intersection s	\$121359	\$121359	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	9,057	55	State Highway Agency	Spot	Intersection s	Construct roundabout to reduce Rear end crashes
111658 - HAM IR 75 16.77	Non- infrastructure	Transportation safety planning	1	Study	\$92172.6	\$102414	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	150,45 4	65	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
111728 - SUM CR 0029 05.72 (Fishcreek)		Modify traffic signal - modernization/replacement	1	Intersection s	\$152854.2	\$152854.2	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	14,999	0	City or Municipal Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce angle and rear end crashes
111842 - HAM CR 101 13.63	Intersection traffic control	Modify control - traffic signal to roundabout	1	Intersection s	\$119886	\$119886	HSIP (23 U.S.C. 148)	Urban	Minor Collector	0	0	City or Municipal Highway Agency	Spot	Intersection s	Construct roundabout to reduce angle crashes
111942 - BEL SR 7 8.140	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecifie d	1	Intersection s	\$173176.1	\$173176.1	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	15,755	55	State Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce angle crashes
112026 - POR SR 0059 02.14 (E Main St)		Modify control - traffic signal to roundabout	2	Intersection s	\$578433.6	\$578433.6	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	26,010	35	City or Municipal Highway Agency	Spot	Intersection s	Construct roundabouts to reduce angle and left turn crashes

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112038 - GRE SR 72 8.71	Roadway	Rumble strips - edge or shoulder	5.77	Miles	\$474363	\$527070	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural	Minor Collector	3,806	55	State Highway Agency	Systemic	Roadway Departure	Install centerline and edgeline rumble stripes to reduce fixed object crashes
112125 - SEN SR 100 9.30 Corridor Study	Intersection traffic control	Modify traffic signal timing - general retiming	7	Intersection s	\$25649	\$25649	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	27,679	40	City or Municipal Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
112126 - SEN SR 18 12.06 Corridor Study	Intersection traffic control	Modify traffic signal timing - general retiming	6	Intersection s	\$25904	\$25904	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	27,679	40	City or Municipal Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
112179 - SHE- 47-13.97	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Intersection s	\$68456.83	\$92046.6	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	18,923	35	City or Municipal Highway Agency	Spot	Intersection s	Construct right turn lane to reduce angle and rear end crashes
112258 - HAM US-42 8.49	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Lanes	\$96764.4	\$107516	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	16,827	35	State Highway Agency	Spot	Bicyclists	Construct bicycle lanes to reduce bicycle crashes
112274 - HAM Cinci STP	Non- infrastructure	Transportation safety planning	1	Study	\$91307.7	\$101453	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
112328 - JAC-35 (1.79-2.75) Rest Stop	Access management	Change in access - close or restrict existing access	0.96	Miles	\$239146.2	\$265718	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	17,122	60	State Highway Agency	Spot	Roadway Departure	Consolidate access points to reduce severe injury crashes
112329 - SCI-SR 73-21.00 Safety	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	0.9	Miles	\$258419.7	\$287133	HSIP (23 U.S.C. 148)	Urban	Minor Collector	8,498	55	State Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes

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112338 - FUL TR 24 0.00 Sign Purchase	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	Township	\$11900	\$11900	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	1,896	45	Town or Township Highway Agency	Systemic	Roadway Departure	Township sign grant program to reduce roadway departure and intersection crashes along roadway
112430 - MOT- 725/741 13.99/1.52	Non- infrastructure	Transportation safety planning	31	Intersection s	\$105381	\$105381	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	26,349	55	City or Municipal Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
112432 - STW Safety Analysis 2020	Non- infrastructure	Transportation safety planning	1	Study	\$415800	\$462000	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
112480 - D04 2018 HSIP Studies	Non- infrastructure	Transportation safety planning	3	Study	\$130347	\$144830	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	19,805	55	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
112557 - CUY SR 010 11.94 Study	Non- infrastructure	Transportation safety planning	1	Study	\$7883	\$7883	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	13,156	25	State Highway Agency	Study	Intersection s	Safety study to identify contributing factors leading to crashes
112617 - STW Safety Studies Admin 4	Non- infrastructure	Transportation safety planning	1	Study	\$29940.3	\$33267	HSIP (23 U.S.C. 148)	N/A	N/A	15,415	35	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
112619 - ROS CR 608 Safety Study	Non- infrastructure	Transportation safety planning	1	Study	\$19596	\$19596	HSIP (23 U.S.C. 148)	Urban	Minor Collector	12,348	55	State Highway Agency	Study	Intersection s	Safety study to identify contributing factors leading to crashes

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112621 - WYA SR 199 Safety Study LSA	Non- infrastructure	Transportation safety planning	1	Study	\$20550.6	\$22834	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	5,391	50	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
112630 - MIA Troy Signal Timing	Intersection traffic control	Modify traffic signal timing - general retiming	5	Intersection s	\$25800	\$25800	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	27,679	40	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
112641 - SUSBR Systemic Analysis	Non- infrastructure	Transportation safety planning	1	Study	\$67412.7	\$74903	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
112643 - MVRPC Ped Systemic Analysis	Non- infrastructure	Transportation safety planning	1	Study	\$32601.6	\$36224	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
112644 - STW Safety Plan Admin 3	Non- infrastructure	Transportation safety planning	1	Study	\$28694.7	\$31883	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Local road safety plan to identify regional safety priorities and action steps
112779 - RIC US 0042 Signal Timing	Intersection traffic control	Modify traffic signal timing - general retiming	7	Intersection s	\$38554.74	\$38554.74	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	23,205	35	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
112835 - STW Safety Planning Tools		Transportation safety planning	1	Study	\$78268.5	\$86965	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
112851 - CHP CR 85 Safety Study	Non- infrastructure	Transportation safety planning	1	Study	\$19167	\$19167	HSIP (23 U.S.C. 148)	Rural	Minor Collector	908	45	State Highway Agency	Study	Data	Safety study to identify contributing

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															factors leading to crashes
113013 - ROS- 159-0.41 Bridge St Safety	Roadway	Roadway widening - add lane(s) along segment	0.4	Miles	\$26236.8	\$90559	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	27,679	40	State Highway Agency	Spot	Intersection s	Improve lane continuity through the corridor to reduce rear end and sideswipe crashes
113068 - Lancaster Street RSA	Non- infrastructure	Road safety audits	1	Study	\$25073	\$25073	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	4,318	55	State Highway Agency	Study	Data	Road Safety Audit to identify contributing factors leading to crashes
113069 - Jefferson Street Safety Study	Non- infrastructure	Transportation safety planning	1	Study	\$44616	\$44616	HSIP (23 U.S.C. 148)	N/A	N/A	29,400	45	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
113139 - SUM-8 Safety Study (Macedonia)	Non- infrastructure	Transportation safety planning	1	Study	\$45176	\$45176	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	29,400	45	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
113144 - CUY Euclid Ave Ped Study	Non- infrastructure	Road safety audits	1	Study	\$85745.15	\$95272.39	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	24,620	35	State Highway Agency	Study	Data	Pedestrian Road Safety Audit to identify contributing factors leading to crashes
113189 - NOB SR 78 7.180 Study	Non- infrastructure	Road safety audits	1	Study	\$29698.32	\$32998.13	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	7,753	45	State Highway Agency	Study	Data	Road Safety Audit to identify contributing factors leading to crashes

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113223 - ROS- 159 Signal Timing 2020	Intersection traffic control	Modify traffic signal timing - general retiming	9	Intersection s	\$58706.72	\$58706.72	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	27,679	40	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
113247 - STW Annual Safety Study 1	Non- infrastructure	Transportation safety planning	1	Study	\$314269.2	\$349188	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	122,74 1	60	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
113248 - STW Annual Safety Study 2	Non- infrastructure	Transportation safety planning	1	Study	\$286483.5	\$409957	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	49,500	55	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
113269 - LUC Toledo Ped Safety Impv	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	70	Intersection s	\$151852	\$151852	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	27,554	45	State Highway Agency	Systemic	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
113274 - MOT- Dayton-PSIP- FY2021	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersection s	\$117567	\$117567	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	34,873	55	State Highway Agency	Systemic	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
113278 - D04 PSIP Phase 2	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	3	Intersection s	\$247716	\$247716	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	26,939	65	State Highway Agency	Systemic	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
113291 - STW Safety Design Admin 2	Non- infrastructure	Transportation safety planning	8	Study	\$6329	\$6329	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
113293 - FRA- Columbus-PSIP- FY2021	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	Intersection s	\$187048	\$187048	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	24,146	35	State Highway Agency	Systemic	Pedestrians	Improve pedestrian facilities to reduce

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															pedestrian crashes
113330 - CUY Cleveland PSIP	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	62	Intersection s	\$266911	\$266911	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	35,500	35	State Highway Agency	Systemic	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes
113366 - LUC-20 Signal Timing Analysis	Intersection traffic control	Modify traffic signal timing - general retiming	12	Intersection s	\$42100	\$42100	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	27,679	40	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
113389 - BRO-32 & Eastwood Rd- Safety	Non- infrastructure	Transportation safety planning	1	Study	\$16266.6	\$18074	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	23,444	60	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
113390 - JAC-32 & 139-Safety Study		Transportation safety planning	1	Study	\$25178.4	\$27976	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	9,554	60	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
113395 - Piqua - Main St. Signal Timing	Intersection traffic control	Modify traffic signal timing - general retiming	9	Intersection S	\$32200	\$32200	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	23,205	35	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
113502 - OMEGA Regional Safety Plan	Non- infrastructure	Transportation safety planning	1	Study	\$161491.5	\$179435	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Local road safety plan to identify regional safety priorities and action steps
113528 - HAM Cincinnati PSIP FY21		Miscellaneous pedestrians and bicyclists	1	Intersection s	\$231431	\$231431	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	32,467	35	State Highway Agency	Systemic	Pedestrians	Improve pedestrian facilities to reduce pedestrian crashes

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113578 - Breiel Road Signal Timing Study	Intersection traffic control	Modify traffic signal timing - general retiming	9	Intersection s	\$45268.39	\$45268.39	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	10,449	35	State Highway Agency	Systemic	Intersection s	Signal timing modifications to reduce intersection related crashes
113586 - Safety Studies Admin 2	Non- infrastructure	Transportation safety planning	10	Study	\$14618	\$14618	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
77529 - HUR US 0020 10.76	Roadway delineation	Improve retroreflectivity	5.5	Miles	\$248336	\$7421550.93	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	11,348	60	State Highway Agency	Systemic	Roadway Departure	Install wet reflective pavement markings to reduce rear end crashes
84546 - POR East Summit Street	Intersection traffic control	Modify traffic signal - modernization/replacement	7	Intersection s	\$254628.46	\$680236.69	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	13,197	45	City or Municipal Highway Agency	Spot	Intersection s	Construct corridor improvements to reduce rear end crashes
84594 - WAS SR 339 0.000	Roadway	Rumble strips - center	4.38	Miles	\$26546.2	\$2398582.47	State and Local Funds	Urban	Principal Arterial- Other	8,708	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble strips to reduce head on crashes
85360 - CUY SR 043 10.61	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	3.627	Miles	\$3908826	\$5998755.4	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	14,171	35	City or Municipal Highway Agency	Spot	Bicyclists	Perform a road diet to reduce bicycle crashes
87728 - RIC US 0030 04.07	Roadway	Pavement surface - high friction surface	5.19	Miles	\$50390	\$3354504.17	State and Local Funds	Urban	Principal Arterial- Other Freeways & Expressways	35,799	70	State Highway Agency	Spot	Roadway Departure	Install high friction resurface treatment to reduce fixed object crashes
89113 - SUM SR 91/US 224/Canton Road	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	0.9	Miles	\$3420	\$87837.31	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	21,528	55	State Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes

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90415 - SUM SR 0241 04.10	Intersection traffic control	Modify control - traffic signal to roundabout	3	Intersection s	\$1100807.4	\$4660767.4	State and Local Funds	Urban	Principal Arterial- Other	26,585	45	City or Municipal Highway Agency	Spot	Intersection s	Construct roundabouts to reduce angle and left turn crashes
90949 - ALL Lima Wayne/High Streets	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	3	Intersection s	\$1905000	\$2616307	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	5,574	25	City or Municipal Highway Agency	Spot	Pedestrians	Signal head and pedestrian improvements to reduce pedestrian crashes
92126 - FUL 20A/66 3.01/7.09 Resrf/Clvrt	Roadway	Rumble strips - center	1.64	Miles	\$9000	\$9574.29	State and Local Funds	Urban	Minor Arterial	10,216	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble strips to reduce head on crashes
92836 - LOR SR 0082 08.98 (Boone Rd)	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersection s	\$80645.4	\$80645.4	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	13,468	55	State Highway Agency	Spot	Intersection s	Construct left turn lanes to reduce left turn, angle and rear end crashes
92953 - MED SR 0018 12.99	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	2.1	Miles	\$17946	\$5856448.88	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	27,350	40	State Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes
93433 - SUM SR 0091 01.75	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$35318.7	\$415318.7	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	17,476	35	City or Municipal Highway Agency	Spot	Intersection s	Construct roundabout to reduce left turn and rear end crashes
93455 - RIC US 0030 09.26	Interchange design	Ramp closure	5	Ramps	\$6589800	\$63282142.1 9	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other Freeways & Expressways	39,479	60	State Highway Agency	Spot	Roadway Departure	Interchange improvements and ramp removals to reduce rear end crashes
93593 - BUT SR 129 13.65	Intersection geometry	Intersection geometrics - realignment to align offset cross streets	2	Intersection s	\$9218.38	\$9218.38	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	18,294	35	City or Municipal Highway Agency	Spot	Intersection s	Intersection realignment to reduce rear end crashes

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93744 - ROS SR 207 0.00	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersection s	\$1290200	\$7082560.71	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Collector	7,746	45	State Highway Agency	Spot	Intersection s	Construct roundabout to reduce rear end crashes
94123 - SUM/WAY SR 21/585 0.00/VAR	Intersection geometry	Intersection geometry - other	1	Intersection s	\$1393776	\$6444649.02	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Interstate	62,621	65	State Highway Agency	Spot	Intersection s	Install RCUT (among other improvements ) to reduce rear end crashes
94132 - MAH US 0224 13.64	Roadway	Pavement surface - miscellaneous	6.5	Miles	\$498096.35	\$9182651.98	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	33,502	45	State Highway Agency	Spot	Roadway Departure	Install high friction resurface treatment to reduce rear end crashes
94140 - MAH 76/VAR 1.30/VAR	Roadside	Barrier - cable	8	Miles	\$1314720	\$3928393.28	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Interstate	51,105	70	State Highway Agency	Systemic	Roadway Departure	Install cable median barrier to reduce cross median crashes
94214 - ALL IR 75 15.80	Roadway	Pavement surface - high friction surface	13.2	Miles	\$1051003.8	\$21070691.1 1	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural	Principal Arterial- Interstate	35,913	70	State Highway Agency	Systemic	Roadway Departure	Upgrade surface treatment to reduce fixed object crashes
94393 - ERI SR 0113 06.84	Shoulder treatments	Widen shoulder - paved or other	1.05	Miles	\$420246.9	\$420246.9	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Collector	7,296	55	State Highway Agency	Spot	Bicyclists	Widen shoulders to provide bike lanes
94741 - HAM IR 71 6.86	Roadway	Roadway widening - add lane(s) along segment	3.14	Miles	\$73566	\$119972	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Interstate	128,80 2	65	State Highway Agency	Spot	Roadway Departure	Improve lane continuity through the corridor to reduce rear end and sideswipe crashes
95446 - MAH CR 0151 03.57 (South Ave.)	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	3	Intersection s	\$1330953	\$2860650.45	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	12,075	0	County Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce

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															rear end crashes
95570 - FRA SR 317 10.63	Pedestrians and bicyclists	Install sidewalk	5	Miles	\$1824000	\$15486141.3 2	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	36,283	50	City or Municipal Highway Agency	Spot	Pedestrians	Install sidewalks to reduce pedestrian crashes
95722 - WOO SR 25 15.82 Resurf	Roadway	Rumble strips - center	4.43	Miles	\$58491	\$1870882.82	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	14,587	60	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble strips to reduce head on crashes
95963 - MUS SR 146 02.21	Roadway	Rumble strips - center	9.09	Miles	\$10546.65	\$11382.84	State and Local Funds	Urban	Minor Arterial	10,736	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble strips to reduce head on crashes
96295 - LUC SR 2 21.24 Safety	Intersection geometry	Intersection geometry - other	6	Intersection s	\$81708.57	\$81708.57	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	28,907	35	City or Municipal Highway Agency	Spot	Intersection s	Intersection improvements to reduce rear end crashes
96407 - LIC US 62 04.17	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	0.5	Miles	\$15300	\$453122.26	HSIP (23 U.S.C. 148)	Rural	Principal Arterial- Other	16,759	35	City or Municipal Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes
96533 - BUT/PRE GPS FY2019	Roadway	Rumble strips - center	7.18	Miles	\$23462.39	\$25894.31	State and Local Funds	Urban	Principal Arterial- Other	4,717	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble strips to reduce head on crashes
96671 - STA US 250/VAR 0.00/VAR	Roadway	Rumble strips - edge or shoulder	6	Miles	\$8000	\$2919937.53	State and Local Funds	Urban	Principal Arterial- Other	6,787	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble stripes to reduce head on crashes
97444 - WAY CR 0006 01.21 Roundabout	Intersection traffic control	Modify control - traffic signal to roundabout	1	Intersection s	\$100000	\$100000	State and Local Funds	Urban	Minor Arterial	3,764	45	County Highway Agency	Spot	Intersection s	construct roundabout to reduce rear end crashes

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97638 - SUM Cleveland Mass. Phase 2/3	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	0.7	Miles	\$5400	\$145078.89	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	16,087	25	City or Municipal Highway Agency	Spot	Intersection s	Construct two way left turn lane to reduce rear end crashes
98383 - STA SR 43/VAR 12.70/VAR	Roadway	Rumble strips - center	6.66	Miles	\$11050	\$2403305.6	State and Local Funds	Urban	Principal Arterial- Interstate	93,915	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble strips to reduce head on crashes
98386 - STA SR 0043 00.00	Roadway	Rumble strips - center	9.03	Miles	\$45000	\$115664.52	State and Local Funds	Urban	Principal Arterial- Other	10,657	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble stripes to reduce head on crashes
98390 - ATB US 6/VAR 25.18/VAR	Roadway	Rumble strips - edge or shoulder	11.68	Miles	\$79670	\$1942302.24	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Minor Arterial	6,062	55	State Highway Agency	Systemic	Roadway Departure	Install edgeline rumble stripes to reduce fixed object crashes
98469 - PUT/HAN/HAR US 224/SR 31/65-Var.	Roadway	Rumble strips - center	24.5	Miles	\$52029	\$2136609.65	State and Local Funds	Urban	Minor Arterial	6,616	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble stripes to reduce head on crashes
98509 - TRU SR 45/VAR 10.66/VAR	Roadway	Rumble strips - center	5.9	Miles	\$3200	\$1667247.64	State and Local Funds	Urban	Minor Arterial	12,047	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble strips to reduce head on crashes
98585 - POR Tallmadge Rd (CR 18)	Interchange design	Interchange design - other	1	Interchange s	\$99796.4	\$177438.51	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Interstate	59,899	65	County Highway Agency	Spot	Intersection s	Interchange improvements to reduce angle and rear end crashes
99420 - FRA CR 505 02.65	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersection s	\$409286.03	\$409286.03	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	26,796	40	City or Municipal Highway Agency	Spot	Intersection s	Modify lane assignments and reconstruct traffic signal to

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															reduce rear end crashes
99681 - GEA SR 044 13.15	Roadway	Rumble strips - center	3.42	Miles	\$189	\$43323.88	State and Local Funds	Urban	Principal Arterial- Other	10,004	55	State Highway Agency	Systemic	Roadway Departure	Install centerline rumble stripes to reduce head on crashes
99879 - POR Streetsboro Signals	Intersection traffic control	Modify traffic signal - modernization/replacement	6	Intersection s	\$466714.35	\$466714.35	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban	Principal Arterial- Other	30,817	50	City or Municipal Highway Agency	Spot	Intersection s	Upgrade existing signal hardware to reduce rear end crashes
99885 - FRA 104 7.570	Intersection geometry	Intersection geometrics - realignment to align offset cross streets	1	Intersection s	\$551700	\$4499792.64	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	41,980	55	State Highway Agency	Spot	Intersection s	Separation of a braided ramp with local road to reduce high speed angle and wrong way crashes
92789 - HIG CR 5 14.29 & SR 73 15.15	Roadway	Roadway widening - travel lanes	4.48	Miles	\$17441.46	\$229145.81	HSIP (23 U.S.C. 148)	Rural	Minor Collector	3,117	55	County Highway Agency	Spot	Roadway Departure	Widening roadway to reduce rear end and intersection related crashes
98784 - BUT CR 18 2.55 Princeton Rd	Roadway	Rumble strips - edge or shoulder	1.95	Miles	\$163236.94	\$163236.94	HSIP (23 U.S.C. 148)	Urban	Minor Collector	10,407	45	County Highway Agency	Systemic	Roadway Departure	Install edgeline rumble stripes to reduce fixed object crashes
99192 - HIG CR4/VAR Guardrail FY20	Roadside	Barrier- metal	2.44	Miles	\$382180	\$382180	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	211	0	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
99193 - HIG CR3 Various PM FY 2020	Roadway delineation	Longitudinal pavement markings - remarking	212.75	Miles	\$344300	\$344300	HSIP (23 U.S.C. 148)	Urban	Minor Collector	2,271	0	County Highway Agency	Systemic	Roadway Departure	Reinstall pavement markings to reduce fixed object crashes

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99194 - PIK CR 5/VAR Guardrail FY 2020	Roadside	Barrier- metal	3.72	Miles	\$607720	\$607720	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	487	0	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
99195 - ROS CR127/ VAR Guardrail FY 2020	Roadside	Barrier- metal	2.01	Miles	\$296420	\$296420	HSIP (23 U.S.C. 148)	Urban	Major Collector	1,464	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
99196 - SCI CR VAR Guardrail FY 2020	Roadside	Barrier- metal	30.93	Miles	\$327990	\$327990	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,409	0	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
99204 - PIK CR 66 4.36	Roadside	Barrier- metal	0.89	Miles	\$15926.08	\$18921.46	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,115	0	County Highway Agency	Spot	Roadway Departure	Install guardrail to reduce fixed object crashes
99208 - DEF CR VAR PM FY20	Roadway delineation	Improve retroreflectivity	31.9	Miles	\$100000	\$100000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	2,139	55	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
99488 - CAR VAR GR Phase 2	Roadside	Barrier- metal	1	RTPO	\$1114	\$1114	HSIP (23 U.S.C. 148)	Rural	N/A	0	0	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
99498 - FAI CR 154 00.70	Roadside	Barrier- metal	0.1	Miles	\$220340.64	\$220340.64	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	5,683	0	County Highway Agency	Spot	Roadway Departure	Guardrail replacements to reduce fixed object crashes
99503 - LIC GR 2020	Roadside	Barrier- metal	2.51	Miles	\$244626.36	\$244626.36	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,062	0	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
99572 - HUR CR VAR PM FY2020	Roadway delineation	Improve retroreflectivity	68.89	Miles	\$142997.46	\$157297.46	HSIP (23 U.S.C. 148)	Urban	Minor Collector	2,277	0	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
															object crashes
99573 - MED CR VAR PM FY2020	Roadway delineation	Improve retroreflectivity	21.66	Miles	\$176256.67	\$176256.67	HSIP (23 U.S.C. 148)	Urban	Minor Collector	10,029	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
99576 - RIC CR VAR GR FY2020	Roadside	Barrier- metal	0.17	Miles	\$150000	\$150000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	1,557	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
99580 - LOR CR 0032 02.92 (Middle Rdg)	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersection s	\$454809.44	\$454809.44	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0	35	County Highway Agency	Spot	Intersection s	Install turn lanes and signals to reduce rear end crashes
99591 - RIC CR VAR PM FY2020	Roadway delineation	Improve retroreflectivity	21.25	Miles	\$150000	\$150000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	1,149	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
99669 - MER CR 22 1.50	Alignment	Horizontal and vertical alignment	1	Intersection s	\$618365.2	\$618365.2	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	799	45	County Highway Agency	Spot	Intersection s	Improve sight distance by realigning roadway to reduce rear end and angle crashes
99948 - STA Perry Dr/Jackson Ave		Modify traffic signal - modernization/replacement	1	Intersection s	\$46222.18	\$1098399.26	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	6,943	0	County Highway Agency	Spot	Intersection s	Install traffic signal to reduce rear end crashes
100385 - SAN US 20I 0.00 Interchange conn		Installation of new lane on ramp	1	Ramps	\$31500	\$31500	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	7,106	60	State Highway Agency	Spot	Intersection s	Build connector ramp at interchange to reduce sideswipe passing crashes

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100543 - CHP CR VAR PM FY19	Roadway delineation	Improve retroreflectivity	79.53	Miles	\$1793.86	\$1793.86	HSIP (23 U.S.C. 148)	Urban	Minor Collector	5,812	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
101735 - MRG CR 2/39/47/56 GR FY20	Roadside	Barrier- metal	1.75	Miles	\$251580	\$251580	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,184	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
101829 - MEG CR VAR PM FY2019	Roadway delineation	Longitudinal pavement markings - remarking	101.67	Miles	\$142488.25	\$142488.25	HSIP (23 U.S.C. 148)	Rural	Minor Collector	166	0	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
101880 - SCI CR VAR Guardrail FY 2021	Roadside	Barrier- metal	18.82	Miles	\$382882.5	\$382882.5	HSIP (23 U.S.C. 148)	Urban	Major Collector	1,049	35	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
102325 - MER- CR VAR PM FY 2021	Roadway delineation	Improve retroreflectivity	377.69	Miles	\$190528.03	\$190528.03	HSIP (23 U.S.C. 148)	Urban	Minor Collector	2,638	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
102915 - HUR CR 0060 00.00(Ftchvle Rvr)		Rumble strips - edge or shoulder	0.9	Miles	\$941259.31	\$941259.31	HSIP (23 U.S.C. 148)	Rural	Major Collector	825	0	County Highway Agency	Spot	Roadway Departure	Rumble strips and paving to reduce to fixed object crashes
103364 - CAR VAR PM Phase 1	Roadway delineation	Longitudinal pavement markings - remarking	1	County	\$2653.1	\$2653.1	HSIP (23 U.S.C. 148)	Rural	N/A	0	0	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
103690 - CLI VAR Guardrail FY 20	Roadside	Barrier- metal	6.86	Miles	\$299220	\$299220	HSIP (23 U.S.C. 148)	Urban	Minor Collector	1,527	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
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103973 - PRE VAR Pavement Markings FY 20	Roadway delineation	Longitudinal pavement markings - new	11.07	Miles	\$150000	\$150000	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	530	0	County Highway Agency	Systemic	Roadway Departure	Install pavement markings to reduce fixed object crashes
104014 - PRE VAR RPM FY 21	Roadway delineation	Raised pavement markers	3.8	Miles	\$36611.6	\$36611.6	HSIP (23 U.S.C. 148)	Urban	Minor Collector	1,959	0	County Highway Agency	Spot	Roadway Departure	Install raised pavement markers to reduce fixed object crashes
104032 - MEG CR VAR GR FY2020	Roadside	Barrier- metal	0.84	Miles	\$136240	\$136240	HSIP (23 U.S.C. 148)	Urban	Minor Collector	3,158	55	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
104047 - HOL VAR GR Phase 10	Roadside	Barrier- metal	6.99	Miles	\$274968.3	\$286468.3	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,786	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
104050 - HOL VAR PM Phase 3	Roadway delineation	Longitudinal pavement markings - remarking	22.65	Miles	\$219939.81	\$219939.81	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	201	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
104067 - ATH CR VAR GR FY2019	Roadside	Barrier- metal	13.2	Miles	\$191220	\$191220	HSIP (23 U.S.C. 148)	Urban	Minor Collector	3,593	55	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
104098 - ATH CR VAR PM FY2020	Roadway delineation	Longitudinal pavement markings - remarking	214.69	Miles	\$198360	\$198360	HSIP (23 U.S.C. 148)	Urban	Minor Collector	4,246	55	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
104113 - STA Guardrail FY2020	Roadside	Barrier- metal	31.75	Miles	\$250000	\$250000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other Freeways & Expressways	19,722	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
104266 - TRU GR FY2020	Roadside	Barrier- metal	7.08	Miles	\$300000	\$301078.57	HSIP (23 U.S.C. 148)	Urban	Minor Collector	3,839	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
104763 - BEL VAR PM Phase 4	Roadway delineation	Longitudinal pavement markings - remarking	5.49	Miles	\$176000	\$176000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	489	0	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
105396 - STA Pavement Marking 2020	Roadway delineation	Longitudinal pavement markings - remarking	75	Miles	\$150000	\$150000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	29,663	45	County Highway Agency	Systemic	Roadway Departure	Install pavement markings to reduce fixed object crashes
105602 - MER CR 80 9.21	Roadway delineation	Longitudinal pavement markings - new	3.02	Miles	\$996243.58	\$996243.58	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	305	45	County Highway Agency	Systemic	Roadway Departure	Repave and replace pavement markings to reduce fixed object crashes
105979 - WOO- GR FY2019 County Grail repl	Roadside	Barrier- metal	1.01	Miles	\$219933.25	\$219933.25	HSIP (23 U.S.C. 148)	Rural	Major Collector	402	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
106717 - LUC CR 86 1.48 Albon Rndbt	Intersection traffic control	Modify control - traffic signal to roundabout	1	Intersection s	\$629871.65	\$629871.65	HSIP (23 U.S.C. 148)	Urban	Minor Collector	5,735	0	County Highway Agency	Spot	Intersection s	Install roundabout to reduce rear end crashes
106839 - CLA CR VAR GR FY2019	Roadside	Barrier- metal	1.68	Miles	\$38384	\$38384	HSIP (23 U.S.C. 148)	Urban	Minor Collector	3,556	55	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
107076 - PIK CR4/VAR PM FY20	Roadway delineation	Longitudinal pavement markings - remarking	70.18	Miles	\$52780	\$52780	HSIP (23 U.S.C. 148)	Urban	Minor Collector	1,400	0	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
107330 - SAN GR FY2020	Roadside	Barrier- metal	0.22	Miles	\$260642	\$260642	HSIP (23 U.S.C. 148)	Urban	Minor Collector	3,102	0	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
107377 - COL VAR GR Phase 3	Roadside	Barrier- metal	8.6	Miles	\$282282	\$282282	HSIP (23 U.S.C. 148)	Urban	Minor Collector	2,979	0	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
107431 - MER CR 10 7.26 (Watkins Road)	Roadway	Roadway widening - travel lanes	1.1	Miles	\$1891.1	\$1891.1	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	269	45	County Highway Agency	Spot	Roadway Departure	Widen travel lanes to reduce fixed object crashes
108474 - STW CEAO Safety Studies FY 2019	Non- infrastructure	Transportation safety planning	1	Study	\$612002.45	\$9450000	HSIP (23 U.S.C. 148)	Rural	N/A	0	0	State Highway Agency	Study	Data	Safety study to identify contributing factors leading to crashes
108878 - UNI CR PM FY2020	Roadway delineation	Improve retroreflectivity	25.86	Miles	\$150000	\$150000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	8,453	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
108976 - WIL CR-Var PM FY2020	Roadway delineation	Longitudinal pavement markings - remarking	37.59	Miles	\$100000	\$100000	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,079	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
108977 - WOO CR-Var PM FY2020	Roadway delineation	Longitudinal pavement markings - remarking	33.87	Miles	\$53888.03	\$53888.03	HSIP (23 U.S.C. 148)	Urban	Minor Collector	2,229	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
109125 - LIC - 2019 Curve Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$12357	\$12357	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	178	0	County Highway Agency	Systemic	Roadway Departure	Upgrade curve signage to reduce fixed object crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
109127 - PUT - 2019 Curve Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$2235	\$2235	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	0	45	County Highway Agency	Systemic	Roadway Departure	Upgrade curve signage to reduce fixed object crashes
109141 - ATH - 2019 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$29600	\$29600	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	3,376	0	County Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
109160 - LIC - 2019 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$3600	\$3600	HSIP (23 U.S.C. 148)	Urban	Minor Collector	2,784	0	County Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
109162 - LUC - 2019 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$50000	\$50000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	2,384	45	County Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
109166 - MAD - 2019 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$50000	\$50000	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	1,031	55	County Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
109168 - FAI CR 33A 03.26	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersection s	\$346744.36	\$346744.36	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	12,072	50	County Highway Agency	Spot	Intersection s	Install turn lanes and signals to reduce rear end crashes
109170 - GRE VAR Guardrail FY 20	Roadside	Barrier- metal	14.43	Miles	\$300000	\$300000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	5,600	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
109176 - NOB - 2019 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$16000	\$16000	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	0	0	County Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
109179 - PIK - 2019 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$50000	\$50000	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	267	55	County Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
109180 - PUT - 2019 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$26400	\$26400	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	0	45	County Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
109311 - HAS VAR PM Phase 2	Roadway delineation	Longitudinal pavement markings - remarking	7.1	Miles	\$195233	\$195233	HSIP (23 U.S.C. 148)	Rural	Major Collector	85	0	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
109421 - GEA CR-GR FY2020	Roadside	Barrier- metal	249.78	Miles	\$744946.8	\$744946.8	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	11,150	45	County Highway Agency	Systemic	Roadway Departure	Guardrail replacements to reduce fixed object crashes
109426 - GEA CR-PM FY2020	Roadway delineation	Improve retroreflectivity	249.78	Miles	\$373976.72	\$373976.72	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	11,150	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
110922 - DEL- 605-0.31 (at Fancher Rd)	Intersection traffic control	Modify control - traffic signal to roundabout	1	Intersection s	\$150000	\$150000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	4,581	55	State Highway Agency	Spot	Intersection s	Install modern roundabout to reduce rear end crashes
111031 - ATH 2020 Sign UPgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$20000	\$20000	HSIP (23 U.S.C. 148)	Urban	Minor Collector	7,919	55	State Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
111034 - DAR 2020 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$43840	\$43840	HSIP (23 U.S.C. 148)	Rural	Minor Collector	1,948	0	State Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
111039 - GAL 2020 Sign Upgrade	Roadway signs and traffic control		1	County	\$20000	\$20000	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	185	45	State Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
111046 - LOR 2020 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$16528	\$16528	HSIP (23 U.S.C. 148)	Rural	Major Collector	0	0	State Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
															object crashes
111053 - MER 2020 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$16000	\$16000	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	1,003	45	State Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
111055 - NOB 2020 Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$24000	\$24000	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	0	0	State Highway Agency	Systemic	Roadway Departure	Upgrade signage to reduce fixed object crashes
111056 - OTT Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$10696	\$10696	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,963	40	State Highway Agency	Systemic	Roadway Departure	Upgrade curve signage to reduce fixed object crashes
111058 - DAR 2020 Curve Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$7755	\$7755	HSIP (23 U.S.C. 148)	Rural	Major Collector	179	0	State Highway Agency	Systemic	Roadway Departure	Upgrade curve signage to reduce fixed object crashes
111060 - FAI Curve Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$12000	\$12000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,142	45	State Highway Agency	Systemic	Roadway Departure	Upgrade curve signage to reduce fixed object crashes
111061 - MOE Curve Sign Upgrade	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	County	\$1375	\$1375	HSIP (23 U.S.C. 148)	Rural	Major Collector	470	0	State Highway Agency	Systemic	Roadway Departure	Upgrade curve signage to reduce fixed object crashes
111062 - OTT Curve Sign Upgrade	Roadway signs and traffic control		1	County	\$2700	\$2700	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,501	40	State Highway Agency	Systemic	Roadway Departure	Upgrade curve signage to reduce fixed object crashes
111063 - WAY Curve Sign Upgrade	Roadway signs and traffic control		1	County	\$3700	\$3700	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,348	45	State Highway Agency	Systemic	Roadway Departure	Upgrade curve signage to reduce fixed object crashes
111495 - MEG CR VAR PM FY2020	Roadway delineation	Longitudinal pavement markings - remarking	173	Miles	\$150000	\$150000	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	0	0	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to

PROJECT NAME	IMPROVEMEN T CATEGORY	SUBCATEGORY	OUTPUT S	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGOR Y	LAND USE/ARE A TYPE	FUNCTIONAL CLASSIFICATIO N	AADT	SPEE D	OWNERSHI P	METHOD FOR SITE SELECTIO N	SHSP EMPHASIS AREA	SHSP STRATEGY
															reduce fixed object crashes
111649 - CLE VAR Pavement Markings FY 20	Roadway delineation	Longitudinal pavement markings - remarking	20	Miles	\$132151.85	\$137437.85	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	13,132	45	County Highway Agency	Systemic	Roadway Departure	Upgrade pavement markings to reduce fixed object crashes
111841 - CLI US 68 14.97	Intersection traffic control	Modify traffic signal timing - signal coordination	1	Intersection s	\$4103.1	\$4103.1	HSIP (23 U.S.C. 148)	Urban	Principal Arterial- Other	8,447	35	City or Municipal Highway Agency	Spot	Intersection s	Signal upgrade and retiming to reduce rear end crashes

# Safety Performance

# General Highway Safety Trends

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

PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017	2018	2019
Fatalities	1,017	1,121	989	1,006	1,110	1,132	1,179	1,068	1,155
Serious Injuries	9,654	9,780	9,231	8,785	9,079	9,207	8,763	7,627	7,495
Fatality rate (per HMVMT)	0.910	0.990	0.880	0.890	0.980	0.950	0.990	0.930	1.010
Serious injury rate (per HMVMT)	8.620	8.680	8.190	7.790	7.990	7.760	7.330	6.660	6.530
Number non-motorized fatalities	123	131	107	102	143	159	163	155	143
Number of non- motorized serious injuries	697	773	751	682	700	725	726	675	635





# **Annual Serious Injuries**



# Serious injury rate (per HMVMT)



## Page 82 of 102



## Non Motorized Fatalities and Serious Injuries

## Describe fatality data source. FARS

FARS and HPMS were used for the values prior to 2019 and State data was used for 2019 data and all serious injury data.

## 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	32.4	173.8	0.37	1.99							
Rural Principal Arterial (RPA) - Other Freeways and Expressways	9	40.8	0.47	2.15							
Rural Principal Arterial (RPA) - Other	65.8	337	1.46	7.51							
Rural Minor Arterial	79	434.4	1.85	10.16							

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 Minor Collector	43.6	251.8	2.57	14.82
Rural Major Collector	180.6	1,030.2	2.3	13.13
Rural Local Road or Street	96.2	604.8	1.69	10.59
Urban Principal Arterial (UPA) - Interstate	92.2	677.6	0.37	2.73
Urban Principal Arterial (UPA) - Other Freeways and Expressways	29.8	191.4	0.47	3
Urban Principal Arterial (UPA) - Other	151.2	1,446	1.09	10.48
Urban Minor Arterial	156.8	1,478	1.13	10.62
Urban Minor Collector	4.8	48	0.96	9.75
Urban Major Collector	102.8	856.6	1.04	8.67
Urban Local Road or Street	68.6	635.4	0.58	5.31

Roadways	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)
State Highway Agency	510.2	3,119.4		
County Highway Agency	191	1,265		
Town or Township Highway Agency	66.6	434.2		
City or Municipal Highway Agency	336.8	3,381.8		
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	10.4	49		
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				

## Year 2019

## Safety Performance Targets

## Safety Performance Targets

## Calendar Year 2021 Targets \*

## Number of Fatalities:1084.0

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

## Number of Serious Injuries:8101.0

**Describe the basis for established target, including how it supports SHSP goals.** See additional comments.

## Fatality Rate:0.930

**Describe the basis for established target, including how it supports SHSP goals.** See additional comments.

## Serious Injury Rate:6.970

**Describe the basis for established target, including how it supports SHSP goals.** See additional comments.

## Total Number of Non-Motorized Fatalities and Serious Injuries:811.0

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

See additional comments.

After reviewing historical crash trends, external factors and through consultation with ODOT's partners, the Strategic Highway Safety Plan Steering Committee recommended that Ohio move to a 2 percent annual reduction target across all five categories.

Although the 2% annual target will be difficult to achieve across all five categories, the SHSP Steering Committee feels it's an aspirational target, but achievable. Therefore, the target that Ohio has set forth for each of the performance measures is a 2% reduction from the 2015-2019 baseline.

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

ODOT has established a replicable annual process to review the previous year's targets and establish new targets. This process is outlined in an annual letter to our partners, which includes the SHSP Steering Committee, The Ohio Department of Public Safety (HSP), MPOs and RTPOs. We also conduct meetings and discussions with various partners to set both state and regional targets for the year. ODOT has developed an automated spreadsheet tool that allows MPO's and RTPO's to analyze regional crash data and explore their own performance targets.

### 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	1062.0	1128.8

Number of Serious Injuries	8834.0	8434.2
Fatality Rate	0.910	0.972
Serious Injury Rate	7.600	7.254
Non-Motorized Fatalities and Serious Injuries	836.0	844.8

Goals and Targets below are based on the five-year rolling average.

#### Number of Fatalities

2019 Target: 1,062.0 2019 Actual: 1,128.8

State did not meet target. While there was a decrease in fatalities in 2018, the number of fatalities increased to similar levels prior to 2018 in 2019.

#### Number of Serious Injuries

2019 Target: 8,834.0 2019 Actual: 8,434.2

State met target.

#### Fatality Rate

2019 Target: 0.910 2019 Actual:0.972

State did not meet target. This is due to the increase in fatalities and although VMT has increased, the rates at which they have increased has been less than the fatalities.

#### **Serious Injury Rate**

2019 Target: 7.60 2019 Actual: 7.254

State met target.

#### Number of non-motorized fatalities and serious injuries

2019 Target: 836 2019 Actual: 844.8

State did not meet target but made significant progress towards the target. 2019 was the second consecutive year of decline for pedestrian fatalities since 2014.

## Applicability of Special Rules

Does the HRRR special rule apply to the State for this reporting period?  $\ensuremath{\mathsf{No}}$ 

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

PERFORMANCE MEASURES	2013	2014	2015	2016	2017	2018	2019
Number of Older Driver and Pedestrian Fatalities	123	154	177	166	178	158	190
Number of Older Driver and Pedestrian Serious Injuries	763	796	790	861	821	772	712

# Evaluation

## Program Effectiveness

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

- Benefit/Cost Ratio
- Change in fatalities and serious injuries

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

Ohio routinely evaluates crash trends, quarterly and annually, to determine the effectiveness of its Highway Safety Improvement Program. In 2019, Ohio had 1,155 traffic deaths, representing a 8% increase and 7,495 serious injuries, representing a 1.7% decrease respectively compared to 2018. 2018 represented the first year of declining fatalities in since 2013 when Ohio had its lowest number of fatalities. This was also reflected in the trend for pedestrian fatalities. Ohio saw its first year of declining pedestrian fatalities since 2013.

Based on the evaluation of projects constructed in 2015 and 2016 our estimated safety benefits are \$97 Million with a cost of \$41 Million. The ratio of the safety benefits and project cost equates to a benefit-cost ratio of 2.34, thus showing a net benefit in safety projects.

We also track our statewide progress in implementing systematic safety treatments that target serious crash types and roadway features that can potentially increase the likelihood of crashes. This program element has been successful in reducing crashes based on the naïve before-and-after results for the different systematic treatments. In addition, we have increased our efforts to complete systematic projects on locally maintained roads by working with MPOs, County Engineers and LTAP to provide technical assistance and funding for local road safety improvements.

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

- # RSAs completed
- Increased awareness of safety and data-driven process
- Increased focus on local road safety

## Effectiveness of Groupings or Similar Types of Improvements

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

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	Roadway Departure	619	3,496.2	0.53	2.97
Intersections	Intersections	255	3,474.8	0.24	2.97

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)
Pedestrians	Vehicle/pedestrian	131	533.8	0.11	0.46
Bicyclists	Vehicle/bicycle	21.2	150.8	0.02	0.13
Older Drivers	Older Drivers	258.4	1,565.2	0.22	1.34
Motorcyclists	Motorcycles	167.2	928	0.14	0.78
Work Zones	Work Zones	21.4	145.4	0.02	0.12









# 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)
76374 - WAR SR 122 4.52	Urban Minor Arterial	Intersection geometry	Intersection geometrics - realignment to increase cross street offset	12.84	12.84			0.33	0.33	4.61	4.33	17.78	17.51	64.47
76437 - SUM SR 0093 06.92		Roadway	Roadway - other	9.18	8.33			0.73	0.33	3.30	2.33	13.21	10.99	3.26
79864 - MAH US 0224 19.53	Urban Principal Arterial (UPA) - Other	Interchange design	Interchange design - other	22.27	35.67			0.27	1.00	8.75	12.00	31.29	48.67	-1.1
80912 - HOC US 33 7.740	Urban Minor Arterial	Interchange design	Interchange design - other	7.66	4.33					1.83		9.49	4.33	3.17
81425 - CLE SR 125 0.40	Urban Principal Arterial (UPA) - Other	Roadway	Roadway widening - travel lanes	94.46	92.67			0.48	0.67	25.46	23.33	120.40	116.67	2.29
81541 - SCI SR 140 4.94 Safety		Alignment	Horizontal curve realignment	0.95	0.33					0.63	0.33	1.58	0.66	4.31
82092 - STA SR 0183 18.84		Alignment	Vertical alignment or elevation change	16.67	11.33			0.34		2.04	0.33	19.05	11.66	10.84
83018 - FRA US 40 6.31	Urban Principal Arterial (UPA) - Other	Roadway	Roadway widening - add lane(s) along segment	45.05	31.00	0.45			1.33	17.39	14.33	62.89	46.66	0.26
83078 - HAM US 27 18.32	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify control - no control to two-way stop	6.22	4.33				0.33	2.18	1.00	8.39	5.67	4.98
83600 - TRU CR 0142 04.68		Roadway	Pavement surface - high friction surface	8.40	11.00					4.55	3.00	12.95	14.00	3.2
85233 - CLE SR 125 6.90	Urban Principal	Intersection geometry	Auxiliary lanes - add left-turn lane	7.13	4.67		0.33		1.00	3.74	2.66	10.87	8.66	-0.2

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)
	Arterial (UPA) - Other													
85288 - LUC IR 475 4.51 Ramps @ SR- 2	Urban Principal Arterial (UPA) - Interstate	Roadway	Pavement surface - miscellaneous	4.60	0.33					1.77	0.33	6.37	0.66	0.11
85297 - CUY CLEMENS ROAD	Urban Minor Arterial	Roadway	Roadway - other	22.34	17.33			0.64		3.55	4.00	26.53	21.33	1.61
86797 - HAM US 127 15.16	Urban Principal Arterial (UPA) - Other	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	4.85	3.33			0.75			1.33	5.60	4.67	1.88
86852 - CUY SUPERIOR RD/NOBLE RD	Urban Minor Arterial	Intersection traffic control	Modify traffic signal - modernization/replacement	10.33	10.33			1.00	0.33	5.02	3.67	16.36	14.33	0.29
86867 - ROS US 50 23.37 Safety/Paving	Urban Minor Arterial	Intersection geometry	Auxiliary lanes - add left-turn lane	31.12	43.00			1.53	2.33	10.68	15.33	43.33	60.66	-0.39
87098 - BUT/HAM SR 747/SR 126 0.03/Var.	Urban Principal Arterial (UPA) - Other Freeways and Expressways	Intersection geometry	Auxiliary lanes - add right-turn lane	213.03	186.00	0.67	1.33	6.72	6.00	84.34	57.67	304.76	251.00	0.45
87541 - MUS SR 146 20.92/27.39	Rural Major Collector	Interchange design	Interchange design - other		1.33				0.33				1.67	-1.47
87902 - D05 GR FY2014	Rural Minor Collector	Roadside	Barrier- metal	37.44	25.00	0.69		1.37	2.33	14.43	7.67	53.93	35.00	0.08
88276 - D12 TSG FY2013	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	69.16	54.00			1.09	0.67	25.12	20.67	95.37	75.33	0.15
89193 - MAR SR 423 4.210	Urban Major Collector	Intersection geometry	Intersection geometrics - modify skew angle	1.74	1.33			0.69		0.34	1.33	2.77	2.66	0.59
90948 - ALL Lima Elizabeth/West Streets	Urban Major Collector	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	1.83	0.67					1.83	1.00	3.66	1.67	1.44

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)
91127 - COL SR 45 16.27	Urban Minor Arterial	Pedestrians and bicyclists	Pedestrian signal - audible device	2.37	2.00						0.33	2.37	2.33	-0.9
91466 - HAM IR 275 32.20	Urban Principal Arterial (UPA) - Interstate	Interchange design	Ramp closure	52.38	22.33					7.01	1.67	59.39	24.00	0.03
91544 - WOO US 20 4.71 LT lane add.	Urban Principal Arterial (UPA) - Other	Intersection geometry	Auxiliary lanes - add left-turn lane	7.42	2.00					2.97	0.66	10.39	2.66	0.83
91593 - WOO SR 64 0.00 BG signal upgrade		Intersection traffic control	Modify traffic signal - add backplates	73.83	58.00			3.55	1.67	20.23	15.33	97.62	75.00	0.01
91596 - LUC Sylvania- Meta/Mitchaw Rndabt	Urban Local Road or Street	Intersection traffic control	Modify control - all-way stop to roundabout	1.13	1.67			0.38		0.38	0.67	1.88	2.33	0.79
91655 - CUY IR 090 00.95	Urban Principal Arterial (UPA) - Interstate	Interchange design	Acceleration / deceleration / merge lane	0.46	0.33						0.33	0.46	0.66	-3.99
92452 - HAN US 224 15.67	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal timing - general retiming	64.84	62.66			0.70	1.33	19.03	9.00	84.57	72.99	0.09
92502 - CLE CR 341 0.17	Urban Major Collector	Interchange design	Interchange design - other	9.39	13.00					7.43	1.67	16.83	14.67	3.22
92731 - WOO 20/25 0.0/21.81 Sfty/UrbPv	Urban Principal Arterial (UPA) - Other	Roadway	Pavement surface - miscellaneous	39.64	44.33				1.00	9.71	12.00	49.35	57.33	-0.4
92897 - ASD SR 0096 06.21 (Signals)	Urban Principal Arterial (UPA) - Other	Roadway	Roadway widening - add lane(s) along segment	2.73	2.67					1.09	1.00	3.82	3.67	0.54
93030 - FRA IR 71 19.430 (Lighting)		Lighting	Lighting - other	6.63	5.00					3.68	2.66	10.31	7.66	0.57
93304 - MAH/POR TSG FY2014 (UPS)	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	410.74	442.33	0.33	0.33	13.02	10.67	189.34	172.67	613.43	626.00	0.03

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)
93518 - D12 GR FY2014(B)	Urban Major Collector	Roadside	Barrier- metal	45.91	46.00		0.33	1.47	1.00	14.32	12.67	61.70	60.00	-0.04
93543 - SHE SR 47 13.45	Urban Minor Arterial	Access management	Change in access - miscellaneous/unspecified	9.53	6.67	0.66		0.33		3.29	0.67	13.80	7.33	0.01
93623 - MEG US 33 3.090	Rural Principal Arterial (RPA) - Other	Roadway	Roadway widening - add lane(s) along segment	0.75	1.00						1.00	0.75	2.00	-0.58
93791 - HAM CR 163 4.69	Urban Minor Arterial	Roadway	Pavement surface - miscellaneous	35.94	20.00			3.08	0.33	13.69	7.67	52.71	28.00	0.66
93938 - WAR IR 71 0.07	Urban Principal Arterial (UPA) - Interstate	Intersection geometry	Auxiliary lanes - add right-turn lane	29.16	16.33			0.37		5.23	2.66	34.76	18.99	0.43
94564 - CHP US 68 3.45	Rural Principal Arterial (RPA) - Other	Intersection geometry	Auxiliary lanes - add left-turn lane	3.28	1.66			0.36	0.66	0.36		4.00	2.32	-2.87
94628 - HAM IR 71 14.33	Urban Principal Arterial (UPA) - Interstate	Roadway	Roadway widening - add lane(s) along segment	32.26	56.33			1.68	0.33	14.45	17.00	48.39	73.67	-1.26
94639 - CLA SR 41/235 30.79/8.65	Rural Major Collector	Intersection traffic control	Modify control - all-way stop to roundabout	0.66	2.67					0.33	0.67	0.99	3.33	-1.96
95064 - DEL SR 750 5.880	Urban Principal Arterial (UPA) - Other	Intersection geometry	Auxiliary lanes - add right-turn lane	14.73	17.33			0.64	0.33	9.61	10.67	24.98	28.33	-1.22
95547 - LIC Newark Signal Upgrade	Urban Principal Arterial (UPA) - Other Freeways and Expressways	Intersection traffic control	Modify traffic signal - add backplates	16.53	16.00			0.32	0.33	4.21	0.33	21.07	16.67	0.3
96444 - D08 Wet Crash Locations	Urban Major Collector	Roadway	Pavement surface - high friction surface	98.21	112.33		0.33	1.54	3.00	24.26	31.00	124.01	146.67	-0.26
96890 - TRU SR 5/82 06.60/14.08	Urban Principal Arterial (UPA) - Other Freeways and Expressways	Roadside	Barrier - cable	52.66	91.00	0.36		1.08	1.67	15.51	21.33	69.62	114.00	-2.15

Many of the projects listed were scored and awarded funding prior to the implementation of the Highway Safety Manual (HSM). Therefore, the calculated benefits based on the HSM methodology may be lower than when the project was awarded funding. This impacts the final benefit-cost ratio evaluation.

# **Compliance Assessment**

# What date was the State's current SHSP approved by the Governor or designated State representative?

11/04/2015

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

From: 2014 To: 2019

## When does the State anticipate completing it's next SHSP update?

2020

The SHSP update is on schedule and will be completed by November 2020.

## 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		NON LOCAL PAVE ROADS - SEGMEN		NON LOCAL PAVE ROADS - INTERSE		NON LOCAL PAVE ROADS - RAMPS	D	LOCAL PAVED RO	ADS	UNPAVED ROADS	
	NO.)	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT	Segment Identifier (12) [12]	100	95					100	95	100	95
	Route Number (8) [8]	100	95								
	Route/Street Name (9) [9]	100	95								
	Federal Aid/Route Type (21) [21]	100	95								
	Rural/Urban Designation (20) [20]	100	95					100	95		
	Surface Type (23) [24]	100	95					100	95		
	Begin Point Segment Descriptor (10) [10]	100	95					100	95	100	95
	End Point Segment Descriptor (11) [11]	100	95					100	95	100	95
	Segment Length (13) [13]	100	95								
	Direction of Inventory (18) [18]	100	95								
	Functional Class (19) [19]	100	95					100	95	100	95

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAV ROADS - SEGME	ED NT	NON LOCAL PAV ROADS - INTERS		NON LOCAL PAV ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	NO.)	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	100	95								
	Access Control (22) [23]	100	95								
	One/Two Way Operations (91) [93]	100	95								
	Number of Through Lanes (31) [32]	100	95					100	95		
	Average Annual Daily Traffic (79) [81]	100	95					100	95		
	AADT Year (80) [82]	100	95								
	Type of Governmental Ownership (4) [4]	100	95					100	95	100	95
NTERSECTION	Unique Junction Identifier (120) [110]			100	95						
	Location Identifier for Road 1 Crossing Point (122) [112]			100	95						
	Location Identifier for Road 2 Crossing Point (123) [113]			100	95						
	Intersection/Junction Geometry (126) [116]			100	95						
	Intersection/Junction Traffic Control (131) [131]			100	95						
	AADT for Each Intersecting Road (79) [81]			100	95						
	AADT Year (80) [82]			100	95						
	Unique Approach Identifier (139) [129]			100	95						
NTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					100	100				
	Location Identifier for Roadway at					100	100				

ROAD TYPE	*MIRE NAME (MIRE	NON LOCAL P ROADS - SEGI		NON LOCAL I ROADS - INTE		NON LOCAL ROADS - RAN		LOCAL PAVE	D ROADS	UNPAVED RO	DADS
	NO.)	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	100				
	Ramp Length (187) [177]					100	100				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100	100				
	Roadway Type at End Ramp Terminal (199) [189]					100	100				
	Interchange Type (182) [172]					100	100				
	Ramp AADT (191) [181]					100	100				
	Year of Ramp AADT (192) [182]					100	100				
	Functional Class (19) [19]					100	100				
	Type of Governmental Ownership (4) [4]					100	100				
Fotals (Average Perce	nt Complete):	100.00	95.00	100.00	95.00	100.00	100.00	100.00	95.00	100.00	95.00

\*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.

The Location Based Response System (LBRS) is an initiative of the Geographically Referenced Information Program (OGRIP). The LBRS establishes partnerships between State and County government for the creation of spatially accurate street centerlines with address ranges and field verified site specific address locations. A project is underway to collect missing LBRS data, verify/update current LBRS datasets and incorporate LBRS data into the official ODOT Road Inventory (RIMS).

With the ultimate goal of reducing fatalities, injuries and traffic crashes statewide, the LBRS projects' accurate, timely, reliable road inventory data as well as seamless integration among all highway safety stakeholders will make traffic crash analysis and emergency response more effective and efficient.

With the nearing completion of the LBRS data collection, ODOT has began a project to more accurately identify intersection traffic control by approach. This will improve the AADT estimate on all public roadways by integrating this information into ODOT's transportation demand model. This project is funded by a grant through Ohio's Traffic Records Coordinating Committee (TRCC). Intersection safety is a priority of the Ohio Governor, and the improved data will enable ODOT to better prioritize safety investments.

# **Optional Attachments**

Program Structure:

HSIP Procedures Manual.pdf Safety\_Analysis\_Guidelines.pdf Highway Safety Improvement Program Guidance.pdf Project Implementation:

Safety Performance:

Evaluation:

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.