

# **TEXAS**

# **HIGHWAY SAFETY IMPROVEMENT PROGRAM**

**2018 ANNUAL REPORT** 



Federal Highway Administration

Photo source: Federal Highway Administration

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#### **Disclaimer**

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

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

23 U.S.C. 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**

In the 2018 State fiscal year, Texas programmed 851 safety projects totaling \$395,088,543 and let to contract 582 safety projects totaling \$240,021,799. Those projects addressed the following types of work:



- \*Curve Improvements
- \*Grade Separations
- \*Intersection Improvements
- \*Off-System Improvements
- \*Pedestrian Improvements
- \*Rumble Strips
- \*Widening

#### 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.

The HSIP is administered by the Texas Department of Transportation, Traffic Operations Division (TRF). Each year, TRF issues a statewide program call for highway safety projects to all 25 TxDOT districts. Projects funded in the HSIP will be limited to improvements that address the serious crash types identified in the most current Strategic Highway Safety Plan (SHSP).

These projects may range from spot-safety improvements and upgrading of existing conditions to new roadway construction. Typically, highway safety projects are small in scope, low in cost, and can be let to contract within 3 years.

When a call for projects has been issued, TRF provides each district with crash data that identifies potential project locations that can be used to develop project proposals. District personnel works with area offices, local governments and MPO's to determine the appropriate countermeasures and submits all project proposals to TRF.

All eligible proposed highway safety projects are subjected to a benefit/cost analysis. The formula used for this purpose is the Safety Improvement Index (SII).

In its most basic form, the SII is the ratio of the cost of preventable crashes that have occurred at a location to the cost of constructing the proposed improvement. The SII incorporates adjustments to provide additional benefit for:

- Locations experiencing increasing traffic over the project life
- Improvements that will reduce maintenance cost
- Projects expected to have long service lives over which construction costs can be amortized.

Projects will be put into priority order based on the results of its benefit/cost analysis and placed in the HSIP according to priority and appropriated federal funding.

Where is HSIP staff located within the State DOT?

Operations

Enter additional comments here to clarify your response for this question or add supporting information.

HSIP staff are located in the Traffic Engineering section of the Traffic Operations Division.

How are HSIP funds allocated in a State?

Central Office via Statewide Competitive Application Process

Enter additional comments here to clarify your response for this question or add supporting information.

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

Local and tribal roads are evaluated and ranked along with on-system proposals using the same rules, guidelines, and requirements.

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

Traffic Engineering/Safety Design Planning Maintenance Operations Districts/Regions

Enter additional comments here to clarify your response for this question or add supporting information.

**Describe coordination with internal partners.** 

- 1. TRF (Traffic Engineering/Safety) Using the most current Strategic Highway Safety Plan (SHSP), the program safety emphasis areas are identified.
- 2. TRF (Traffic Engineering/Safety) Identifies potential project locations that qualify for improvements in the identified program emphasis area using the three most current years of crash data.
- 3. District (Design/Operations) Evaluates each identified location to determine if the project is feasible and to verify that appropriate countermeasures addressing the location's safety needs have not already been implemented or scheduled for construction.

- 2018 Texas Highway Safety Improvement Program
- 4. District (Design/Operations) Works with area offices and local governments to gather additional location information and to identify any potential locations that may have been excluded due to incomplete or inaccurate crash and roadway data.
- 5. District (Design/Operations) For projects determined to be feasible, conducts a field evaluation to determine the appropriate countermeasures and develop a detailed estimate.
- 6. District (Design/Operations) Completes and submits projects containing requested data to the Texas Department of Transportation (TxDOT) Traffic Operations Division (TRF) along with necessary backup data (typical sections, layouts, detailed estimates, etc.) in response to the program call.
- 7. TRF (Traffic Engineering/Safety) Analyzes the proposed highway safety projects for HSIP eligibility, data accuracy, and conformance to design standards.
- 8. TRF (Traffic Engineering/Safety) Analyzes each eligible project's Safety Improvement Index (SII), then puts the projects into priority order based on the results.
- 9. TRF (Traffic Engineering/Safety) Places projects in the HSIP according to priority and appropriated federal funding, then sends listing of highway safety projects selected for funding in the HSIP to the districts.
- 10. District (Planning) Sets projects up in the Design/Construction Information System (DCIS) in the assigned work program and may include qualifying projects in the Transportation Improvement Program (TIP) as appropriate.
- 11. District (Design/Operations) Notifies TRF of an overrun of a HSIP projects authorized funds prior to Plans, Specifications and Estimate (PS&E) submittal.
- 12. District (Design/Operations) Submits PS&E for HSIP projects to TRF in accordance with standard PS&E submission schedule.
- 13. TRF (Traffic Engineering/Safety) Handles overruns of project authorized funds at the divisional PS&E review stage in accordance with the current TxDOT policy.

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

Regional Planning Organizations (e.g. MPOs, RPOs, COGs) Local Government Agency

Enter additional comments here to clarify your response for this question or add supporting information.

#### Describe coordination with external partners.

TxDOT district offices will notify local municipalities within their district when a call for project proposals has been issued. The district will evaluate and consider the eligibility and viability of safety projects suggested by the local municipality. If the project proposal meets the requirements of the HSIP and is considered competitive by the district, it will be submitted to TRF for funding consideration.

2018 Texas Highway Safety Improve District personnel also work with the future projects.	ement Program  local MPOs to identify problem locations and to achieve buy-in for the
Have any program administration period?	practices used to implement the HSIP changed since the last reporting
No	
Are there any other aspects of HSI	P Administration on which the State would like to elaborate?
No	
Program Methodology	
Does the State have an HSIP manual and evaluation processes?	al or similar that clearly describes HSIP planning, implementation
Yes	
To upload a copy of the State proce	esses, attach files below.
File Name: hsi.pdf	
Select the programs that are admin	nistered under the HSIP.
HSIP (no subprograms)	
Enter additional comments here to	clarify your response for this question or add supporting information.
Program:	HSIP (no subprograms)
Date of Program Methodology:	2/27/2015
What is the justification for this pro	ogram? [Check all that apply]
Addresses SHSP priority or emphasis	s area
What is the funding approach for t	his program? [Check one]
Funding set-aside	
What data types were used in the p	rogram methodology? [Check all that apply]

2018 Texas Highway Safety Improvement Program Crashes Roadway **Exposure** Volume Fatal and serious injury crashes only What project identification methodology was used for this program? [Check all that apply] 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 Describe the methodology used to identify local road projects as part of this program. How are projects under this program advanced for implementation? Competitive application process 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: Available funding: 2 What percentage of HSIP funds address systemic improvements? 0 HSIP funds are used to address which of the following systemic improvements? Please check all that apply. Enter additional comments here to clarify your response for this question or add supporting information.

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What process is used to identify potential countermeasures? [Check all that apply]

2018 Texas Highway Safety Improvement Program Engineering Study Crash data analysis

Enter additional comments here to clarify your response for this question or add supporting information.

Does the State HSIP consider connected vehicles and ITS technologies?

No

Enter additional comments here to clarify your response for this question or add supporting information.

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.

TxDOT implemented Highway Safety Manual (HSM) methods and tools to perform network screening, diagnosis, and countermeasure selection for the Highway Safety Improvement Program (HSIP). With regard to network screening, TxDOT applied the sliding window method to calculate seven HSM performance measures: crash frequency, crash rate, critical rate, excess predicted average crash frequency using method of moments, excess predicted average crash frequency using Safety Performance Functions, probability of specific crash types exceeding threshold proportion, and excess proportion of specific crash types.

Further, TxDOT developed Crash Analysis and Visualization (CAVS) data to enhance the process of selecting safety projects to submit for HSIP funding consideration. Crash data and crash attributes for all Fatal (K) and Incapacitating Injury (A) crashes statewide were compiled into a spreadsheet. Each HSIP work code was analyzed for each crash to determine whether that crash could be prevented by the type of work. All of the K and A crashes were then mapped in Google Earth. The maps can be filtered to only show crashes that apply to a particular type of work. For example, all crashes that could be prevented with the addition of rumble strips can be mapped to help identify the best place to install the rumble strips. Master plans can also be added to the CAVS data. The master plans include the limits of completed projects, programmed projects and identified projects. The master plans along with the applicable crashes for each work type were displayed on a single map that identifies the projects with the highest potential benefit-cost ratio.

TxDOT Districts used the network screening process to select candidate HSIP projects.

Have any program methodology practices used to implement the HSIP changed since the last reporting period?

No

Are there any other aspects of the HSIP methodology on which the State would like to elaborate?

## **Project Implementation**

**Funds Programmed** 

Reporting period for HSIP funding.

State Fiscal Year

Enter additional comments here to clarify your response for this question or add supporting information.

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	\$395,088,543	\$182,107,419	46.09%
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$0	\$13,054	0%
Penalty Funds (23 U.S.C. 154)	\$0	\$0	0%
Penalty Funds (23 U.S.C. 164)	\$0	\$0	0%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	\$0	\$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	\$0	\$0	0%
State and Local Funds	\$0	\$0	0%
Totals	\$395,088,543	\$182,120,473	46.1%

Enter additional comments here to clarify your response for this question or add supporting information.

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

\$9,083,294

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

\$8,239,818

Enter additional comments here to clarify your response for this question or add supporting information.

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

\$0

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

\$6,000,000

Enter additional comments here to clarify your response for this question or add supporting information.

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

0%

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

0%

Enter additional comments here to clarify your response for this question or add supporting information.

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

We do not have any impediments to obligating our HSIP funds at this time. Our Administration is supportive of the program and provides us with appropriate obligation authority.

Does the State want to elaborate on any other aspects of it's progress in implementing HSIP projects?

No

## General Listing of Projects

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

													RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(656)HESG	Roadway	Rumble strips - center	8.3	Miles	\$41824	\$41824	HSIP (23 U.S.C. 148)	Rural Major Collector	707	65	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(135)HES	Roadway	Rumble strips - center	13.74	Miles	\$48699	\$48699	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,014	55	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - center	19.726	Miles	\$25843	\$25843	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	1,100	70	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - center	10.794	Miles	\$14142	\$14142	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,624	70	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(149)HES	Roadway	Rumble strips - center	9.565	Miles	\$32962	\$32962	HSIP (23 U.S.C. 148)	Rural Major Collector	1,061	60	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(139)HES	Roadway	Rumble strips - center	15.061	Miles	\$50691	\$50691	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,180	65	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(556)HES & STP 1802(557)HES	Interchange design	Convert at-grade intersection to interchange	1	Intersections	\$12220122	\$15437891	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	6,182	70	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2013(576)HES & STP 2018(755)HES	Interchange design	Convert at-grade intersection to interchange	1	Intersections	\$10406400	\$13881331	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	13,383	75	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(555)HESG	Roadway	Pavement surface - high friction surface	0.3	Miles	\$98557	\$98557	HSIP (23 U.S.C. 148)	Rural Minor Collector	163	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(555)HESG	Roadway	Pavement surface - high friction surface	0.406	Miles	\$97745	\$97745	HSIP (23 U.S.C. 148)	Rural Major Collector	407	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(555)HESG	Roadway	Pavement surface - high friction surface	0.4	Miles	\$94067	\$94067	HSIP (23 U.S.C. 148)	Rural Major Collector	161	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														crashing in adverse conditions
STP 2018(555)HESG	Roadway	Pavement surface - high friction surface	0.412	Miles	\$52710	\$52710	HSIP (23 U.S.C. 148)	Rural Major Collector	148	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(555)HESG	Roadway	Pavement surface - high friction surface	0.4	Miles	\$65573	\$65573	HSIP (23 U.S.C. 148)	Rural Major Collector	249	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(555)HESG	Roadway	Pavement surface - high friction surface	0.559	Miles	\$43706	\$43706	HSIP (23 U.S.C. 148)	Rural Major Collector	272	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(555)HESG	Roadway	Pavement surface - high friction surface	0.4	Miles	\$68418	\$68418	HSIP (23 U.S.C. 148)	Rural Major Collector	820	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(550)HESG	Roadway	Pavement surface - high friction surface	0.3	Miles	\$76817	\$76817	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	10,609	75	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 1802(608)HES	Roadway	Pavement surface - high friction surface	0.176	Miles	\$81279	\$248819	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other Freeways and Expressways	36,605	55	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(191)HES & STP 2018(192)HES	Roadside	Barrier - other	33.504	Miles	\$283820	\$283820	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,856	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(194)HES, STP 2018(190)HES & STP 2018(193)HES	Roadside	Barrier - other	33.205	Miles	\$667825	\$667825	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	11,083	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(878)HES	Roadside	Barrier - other	15.219	Miles	\$340160	\$340160	HSIP (23 U.S.C. 148)	Rural Major Collector	450	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(329)HES	Roadside	Barrier - other	7.722	Miles	\$233735	\$233735	HSIP (23 U.S.C. 148)	Rural Major Collector	798	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(813)HES	Roadside	Barrier - other	5.25	Miles	\$191921	\$191921	HSIP (23 U.S.C. 148)	Rural Major Collector	896	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														vehicles leaving the road
STP 2018(813)HES	Roadside	Barrier - other	8.787	Miles	\$79748	\$79748	HSIP (23 U.S.C. 148)	Rural Major Collector	1,178	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(813)HES	Roadside	Barrier - other	5.525	Miles	\$141461	\$141461	HSIP (23 U.S.C. 148)	Rural Major Collector	1,593	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(330)HES	Roadside	Barrier - other	8.827	Miles	\$282492	\$242492	HSIP (23 U.S.C. 148)	Rural Minor Collector	596	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(156)HES	Roadside	Barrier - other	8.54	Miles	\$427030	\$427030	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	3,947	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(157)HES	Roadside	Barrier - other	11.935	Miles	\$170861	\$170861	HSIP (23 U.S.C. 148)	Urban Minor Arterial	3,897	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(326)HES	Roadside	Barrier - other	13.304	Miles	\$519365	\$1401873	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	20,958	50	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(326)HES	Roadside	Barrier - other	13.128	Miles	\$218375	\$218375	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	9,127	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(471)HES	Roadside	Barrier - other	13.481	Miles	\$983692	\$983692	HSIP (23 U.S.C. 148)	Rural Minor Arterial	148	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(471)HES	Roadside	Barrier - other	13.077	Miles	\$185271	\$185271	HSIP (23 U.S.C. 148)	Rural Minor Arterial	303	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(471)HES	Roadside	Barrier - other	19.708	Miles	\$606497	\$606497	HSIP (23 U.S.C. 148)	Rural Major Collector	485	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(536)HES	Roadside	Barrier - other	0.34	Miles	\$143780	\$143780	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	16,276	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(534)HES	Roadside	Barrier - other	13.087	Miles	\$155950	\$155950	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	11,692	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road

													RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 1802(534)HES	Roadside	Barrier - other	4.539	Miles	\$465300	\$465300	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	7,974	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(542)HES	Roadside	Barrier - other	1.931	Miles	\$129485	\$129485	HSIP (23 U.S.C. 148)	Urban Minor Arterial	10,249	45	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(542)HES	Roadside	Barrier - other	12.021	Miles	\$24000	\$24000	HSIP (23 U.S.C. 148)	Rural Major Collector	1,398	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(534)HES	Roadside	Barrier - other	3.265	Miles	\$108037	\$108037	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	51,755	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(534)HES	Roadside	Barrier - other	4.184	Miles	\$298912	\$298812	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	37,352	50	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(538)HES	Roadside	Barrier - other	11.863	Miles	\$242688	\$242688	HSIP (23 U.S.C. 148)	Rural Minor Collector	1,057	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(543)HES	Roadside	Barrier - other	13.683	Miles	\$319712	\$319712	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	35,652	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(543)HES	Roadside	Barrier - other	13.832	Miles	\$579197	\$579197	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	10,534	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(538)HES	Roadside	Barrier - other	14.738	Miles	\$315473	\$315473	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,963	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(538)HES	Roadside	Barrier - other	12.208	Miles	\$230953	\$230953	HSIP (23 U.S.C. 148)	Rural Major Collector	3,969	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(538)HES	Roadside	Barrier - other	9.805	Miles	\$132454	\$132454	HSIP (23 U.S.C. 148)	Rural Major Collector	2,621	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(538)HES	Roadside	Barrier - other	5.988	Miles	\$75709	\$75709	HSIP (23 U.S.C. 148)	Rural Minor Arterial	7,445	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(543)HES	Roadside	Barrier - other	5.523	Miles	\$261038	\$261038	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	8,426	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of

		ovement Flogram											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														vehicles leaving the road
STP 1802(536)HES	Roadside	Barrier - other	13.46	Miles	\$1746615	\$1746615	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	3,463	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(536)HES	Roadside	Barrier - other	30.574	Miles	\$1091163	\$1091163	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,376	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(536)HES	Roadside	Barrier - other	17.02	Miles	\$529140	\$529140	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,538	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(536)HES	Roadside	Barrier - other	30.585	Miles	\$709674	\$709674	HSIP (23 U.S.C. 148)	Rural Major Collector	3,541	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(536)HES	Roadside	Barrier - other	11.716	Miles	\$461303	\$461303	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,303	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(976)HES	Roadside	Barrier - other	9.305	Miles	\$126077	\$126077	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	1,724	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(776)HES	Roadside	Barrier - other	15.478	Miles	\$394503	\$394503	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	10,353	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(784)HES	Roadside	Barrier - other	29.764	Miles	\$715145	\$715145	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,969	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(784)HES	Roadside	Barrier - other	17.789	Miles	\$420021	\$1296394	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	9,169	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(315)HES	Roadside	Barrier - other	0.576	Miles	\$166411	\$166411	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other Freeways and Expressways	59,526	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 802(315)HES	Roadside	Barrier - other	0.701	Miles	\$113750	\$188119	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	12,082	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(315)HES	Roadside	Barrier - other	3.133	Miles	\$170030	\$170030	HSIP (23 U.S.C. 148)	Rural Major Collector	3,190	50	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 1802(256)HES	Roadway	Superelevation / cross slope	1.2	Miles	\$1175289	\$1175289	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,201	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(810)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	1.81	Miles	\$309873	\$309873	HSIP (23 U.S.C. 148)	Urban Major Collector	1,759	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(813)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	18.047	Miles	\$669438	\$669438	HSIP (23 U.S.C. 148)	Rural Major Collector	2,160	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(812)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	22.378	Miles	\$1084003	\$1084003	HSIP (23 U.S.C. 148)	Rural Major Collector	1,450	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(328)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	4.954	Miles	\$533772	\$533772	HSIP (23 U.S.C. 148)	Urban Major Collector	3,708	45	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(155)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	3.325	Miles	\$460661	\$460661	HSIP (23 U.S.C. 148)	Rural Major Collector	1,850	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(934)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	8.447	Miles	\$871917	\$871917	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	2,407	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(366)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	21.783	Miles	\$1306803	\$1306803	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,129	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(154)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	9.786	Miles	\$657693	\$657693	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,464	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(605)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	0.484	Miles	\$290233	\$290233	HSIP (23 U.S.C. 148)	Rural Major Collector	4,455	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(470)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	5.759	Miles	\$566307	\$566307	HSIP (23 U.S.C. 148)	Rural Major Collector	286	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(813)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	12.495	Miles	\$806648	\$806648	HSIP (23 U.S.C. 148)	Rural Major Collector	991	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(810)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	11.533	Miles	\$429597	\$429597	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,952	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														vehicles leaving the road
STP 2018(366)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	2.05	Miles	\$271747	\$271747	HSIP (23 U.S.C. 148)	Rural Minor Arterial	422	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(397)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	12.354	Miles	\$272187	\$272187	HSIP (23 U.S.C. 148)	Rural Minor Arterial	10,762	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2017(648)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	5.599	Miles	\$403731	\$403731	HSIP (23 U.S.C. 148)	Rural Major Collector	128	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(436)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	19.348	Miles	\$695729	\$1064976	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,957	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1702(167)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	16.694	Miles	\$181257	\$181257	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,791	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(807)HES	Roadway	Install / remove / modify passing zone	4.12	Miles	\$846859	\$846859	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	3,031	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(470)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	12.079	Miles	\$682271	\$682271	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,287	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(128)HES	Roadside	Barrier - other	14.169	Miles	\$450552	\$450552	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	7,218	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(129)HES	Roadside	Barrier - other	6.1	Miles	\$1434199	\$1434199	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	5,241	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(966)HESG	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$203812	\$203812	HSIP (23 U.S.C. 148)	Urban Minor Arterial	28,900	40	County Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(360)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$89706	\$89706	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,737	30	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(869)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$313177	\$313177	HSIP (23 U.S.C. 148)	Urban Major Collector	12,272	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(085)HES	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	1	Intersections	\$219655	\$219655	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	19,435	60	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(081)HES & STP 2018(082)HES	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	3.622	Miles	\$167359	\$167359	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	13,667	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(079)HES & STP 2018(080)HES	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	5.134	Miles	\$296836	\$296836	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	25,570	50	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1702(446)HES	Pedestrians and bicyclists	Install new crosswalk	1	Intersections	\$308288	\$308288	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	21,352	40	State Highway Agency	Spot	Intersections	Improve pedestrian safety at intersections with high probability of crashes
STP 1802(247)HES	Pedestrians and bicyclists	Install new crosswalk	1	Intersections	\$216397	\$216397	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	16,175	55	State Highway Agency	Spot	Intersections	Improve pedestrian safety at intersections with high probability of crashes
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$98117	\$98117	HSIP (23 U.S.C. 148)	Urban Minor Arterial	3,637	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$73556	\$73556	HSIP (23 U.S.C. 148)	Urban Minor Arterial	11,246	40	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$72223	\$72223	HSIP (23 U.S.C. 148)	Urban Minor Arterial	8,881	40	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$76384	\$76384	HSIP (23 U.S.C. 148)	Urban Minor Arterial	8,375	35	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(739)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$252347	\$252347	HSIP (23 U.S.C. 148)	Urban Minor Arterial	28,900	40	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(739)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$313000	\$348108	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	26,500	45	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(739)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$284000	\$290896	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	22,600	45	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(739)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$246474	\$246474	HSIP (23 U.S.C. 148)	Urban Minor Arterial	22,300	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(739)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$202413	\$202413	HSIP (23 U.S.C. 148)	Urban Minor Arterial	17,300	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(836)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$196103	\$196103	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	10,261	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(836)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$120085	\$120085	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	17,804	30	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(121)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$152252	\$152252	HSIP (23 U.S.C. 148)	Urban Minor Arterial	24,000	40	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(122)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$187873	\$187873	HSIP (23 U.S.C. 148)	Urban Minor Arterial	19,600	40	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(120)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$309594	\$309594	HSIP (23 U.S.C. 148)	Urban Minor Arterial	32,500	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(123)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$212911	\$212911	HSIP (23 U.S.C. 148)	Urban Minor Arterial	38,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(124)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$205778	\$205778	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	22,600	45	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(125)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$185212	\$185212	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	25,600	40	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(126)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$224375	\$224375	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	13,900	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$109937	\$369018	HSIP (23 U.S.C. 148)	Urban Major Collector	3,484	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$321028	\$321028	HSIP (23 U.S.C. 148)	Urban Minor Arterial	9,031	30	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$117438	\$117438	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	4,562	50	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety

		ovement Program											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$125448	\$125448	HSIP (23 U.S.C. 148)	Urban Major Collector	269	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$82159	\$82159	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	4,562	50	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(815)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$233344	\$233344	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	8,596	30	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(654)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$98866	\$98866	HSIP (23 U.S.C. 148)	Urban Minor Arterial	11,375	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(654)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$109377	\$109377	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	8,513	50	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(654)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$105357	\$105357	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	30,704	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(654)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$111854	\$111854	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	24,544	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(654)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$434518	\$434518	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	23,707	40	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(654)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$105568	\$105568	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	10,961	35	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(663)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$231525	\$231525	HSIP (23 U.S.C. 148)	Urban Minor Arterial	8,731	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(661)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$138772	\$138772	HSIP (23 U.S.C. 148)	Urban Major Collector	9,561	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(660)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$238550	\$238550	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	23,161	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(662)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$192619	\$192619	HSIP (23 U.S.C. 148)	Urban Minor Arterial	20,163	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(808)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$22047	\$22047	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	5,444	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(808)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$38103	\$38103	HSIP (23 U.S.C. 148)	Urban Major Collector	7,358	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(613)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$324729	\$324729	HSIP (23 U.S.C. 148)	Urban Major Collector	12,182	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(613)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$329349	\$329349	HSIP (23 U.S.C. 148)	Urban Major Collector	12,159	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(508)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$235777	\$235777	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	21,678	50	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 1802(508)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$304238	\$304238	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	11,684	70	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(508)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1.284	Miles	\$408820	\$408820	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	15,583	30	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(305)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	4.6	Miles	\$399625	\$399625	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	26,820	50	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(577)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$223326	\$223326	HSIP (23 U.S.C. 148)	Urban Minor Arterial	16,200	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(277)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$152698	\$152698	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	16,012	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(277)HES	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	1	Intersections	\$257715	\$257715	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	3,709	70	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1702(447)HES	Pedestrians and bicyclists	Install new crosswalk	1	Intersections	\$127565	\$127565	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	21,352	40	State Highway Agency	Spot	Intersections	Improve pedestrian safety at intersections with high probability of crashes
STP 2016(710)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	0.25	Miles	\$278591	\$282997	HSIP (23 U.S.C. 148)	Urban Minor Arterial	15,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2016(711)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	0.75	Miles	\$375870	\$375870	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	23,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2016(712)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	3	Miles	\$371453	\$421256	HSIP (23 U.S.C. 148)	Urban Minor Arterial	12,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2016(713)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	0.5	Miles	\$185727	\$226873	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	12,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2016(714)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	0.75	Miles	\$257704	\$257704	HSIP (23 U.S.C. 148)	Urban Minor Arterial	13,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2016(715)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	1.25	Miles	\$464318	\$465524	HSIP (23 U.S.C. 148)	Urban Minor Arterial	13,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(727)HES & STP 2018(728)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	1.75	Miles	\$634633	\$634633	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	28,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2016(716)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	2.5	Miles	\$396203	\$421550	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	14,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2016(717)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	1	Miles	\$472962	\$472962	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	22,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2016(718)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	0.5	Miles	\$160796	\$160796	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	27,000	35	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(613)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	0.2	Miles	\$312966	\$312966	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	27,766	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 1802(247)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$98309	\$98309	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	18,451	60	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(247)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$258378	\$410954	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	17,374	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2017(228)HES	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	\$1661520	\$1801684	HSIP (23 U.S.C. 148)	Urban Local Road or Street	25,710	40	City of Municipal Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(316)HESG	Roadway	Superelevation / cross slope	5.54	Miles	\$2349138	\$2349138	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	40,890	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(501)HES	Roadway	Superelevation / cross slope	0.789	Miles	\$96210	\$96210	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	33,551	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(277)HES	Roadway signs and traffic control	Curve-related warning signs and flashers	0.956	Miles	\$25990	\$25990	HSIP (23 U.S.C. 148)	Rural Major Collector	185	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(277)HES	Roadway signs and traffic control	Curve-related warning signs and flashers	0.673	Miles	\$25990	\$25990	HSIP (23 U.S.C. 148)	Rural Major Collector	185	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(277)HES	Roadway signs and traffic control	Curve-related warning signs and flashers	0.581	Miles	\$25990	\$25990	HSIP (23 U.S.C. 148)	Rural Minor Collector	459	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(277)HES	Roadway signs and traffic control	Curve-related warning signs and flashers	1.18	Miles	\$50347	\$50347	HSIP (23 U.S.C. 148)	Rural Major Collector	227	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(578)HES	Intersection traffic control	Intersection flashers - add miscellaneous/other/unspecified	1	Intersections	\$36827	\$36827	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	19,763	35	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(352)HES	Intersection traffic control	Intersection flashers - add miscellaneous/other/unspecified	1	Intersections	\$37840	\$37840	HSIP (23 U.S.C. 148)	Urban Minor Arterial	5,166	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(352)HES	Intersection traffic control	Intersection flashers - add miscellaneous/other/unspecified	1	Intersections	\$137945	\$137945	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	20,856	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(078)HESG	Roadside	Removal of roadside objects (trees, poles, etc.)	4.315	Miles	\$1099115	\$1099115	HSIP (23 U.S.C. 148)	Rural Major Collector	2,007	30	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(808)HES	Intersection traffic control	Intersection flashers - add miscellaneous/other/unspecified	1	Intersections	\$20364	\$20364	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	7,147	50	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1702(185)HESG	Intersection traffic control	Intersection flashers - add miscellaneous/other/unspecified	1	Intersections	\$11752	\$11752	HSIP (23 U.S.C. 148)	Rural Major Collector	248	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(437)HES	Roadway signs and traffic control	Curve-related warning signs and flashers	0.769	Miles	\$29514	\$29514	HSIP (23 U.S.C. 148)	Urban Minor Arterial	8,194	45	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(070)HESG	Roadway signs and traffic control	Curve-related warning signs and flashers	0.399	Miles	\$17307	\$17307	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,348	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(566)HES	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	4.501	Miles	\$5234742	\$5234742	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,707	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(644)HESG	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	2.378	Miles	\$1149721	\$1149721	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	9,848	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(565)HES	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	6.162	Miles	\$6632538	\$6632538	HSIP (23 U.S.C. 148)	Rural Minor Arterial	8,065	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(751)HES	Roadside	Barrier - other	1	Miles	\$40000	\$40000	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	31,543	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(612)HES	Roadway	Rumble strips - center	1.537	Miles	\$13194	\$13194	HSIP (23 U.S.C. 148)	Urban Minor Arterial	6,373	45	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(358)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$159077	\$159077	HSIP (23 U.S.C. 148)	Rural Major Collector	29	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(354)HESG	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$57717	\$57717	HSIP (23 U.S.C. 148)	Urban Minor Arterial	4,542	70	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(314)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$25033	\$25033	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	7,343	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(083)HESG	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$61051	\$61051	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	7,860	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections

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STP 2018(808)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$41813	\$41813	HSIP (23 U.S.C. 148)	Rural Major Collector	1,317	65	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(808)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$38637	\$38637	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,240	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(808)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$39110	\$39110	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	5,791	70	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(507)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$77238	\$77238	HSIP (23 U.S.C. 148)	Urban Minor Arterial	3,175	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(579)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$69242	\$69242	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	12,365	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(579)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$72134	\$72134	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	10,329	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(277)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$56853	\$56853	HSIP (23 U.S.C. 148)	Rural Minor Arterial	859	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(580)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$78566	\$78566	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	8,257	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(314)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$38926	\$38926	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	9,244	70	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(314)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$137371	\$178248	HSIP (23 U.S.C. 148)	Urban Major Collector	740	45	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(314)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$72412	\$77682	HSIP (23 U.S.C. 148)	Rural Major Collector	309	45	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(314)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$114042	\$114042	HSIP (23 U.S.C. 148)	Urban Major Collector	829	45	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(579)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$76300	\$76300	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	4,414	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(437)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$28224	\$28224	HSIP (23 U.S.C. 148)	Rural Minor Arterial	879	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(472)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$35793	\$35793	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,045	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(579)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$49091	\$49091	HSIP (23 U.S.C. 148)	Urban Major Collector	691	50	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 1802(581)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$55478	\$55478	HSIP (23 U.S.C. 148)	Urban Minor Arterial	7,446	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(579)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$58018	\$58018	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	7,359	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(579)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$59940	\$59940	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	12,152	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(033)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$54736	\$54736	HSIP (23 U.S.C. 148)	Rural Major Collector	1,627	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(084)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$65145	\$65145	HSIP (23 U.S.C. 148)	Urban Minor Arterial	11,726	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(086)HESG	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$68851	\$68851	HSIP (23 U.S.C. 148)	Rural Major Collector	2,636	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(097)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$51044	\$51044	HSIP (23 U.S.C. 148)	Rural Minor Arterial	7,899	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(096)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$76271	\$76271	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	12,735	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(523)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$75139	\$75139	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	8,245	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(523)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$30769	\$30769	HSIP (23 U.S.C. 148)	Urban Major Collector	2,742	45	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(523)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$29924	\$29924	HSIP (23 U.S.C. 148)	Urban Major Collector	11,838	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(523)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$30100	\$30100	HSIP (23 U.S.C. 148)	Urban Minor Arterial	6,145	65	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(523)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$30482	\$30482	HSIP (23 U.S.C. 148)	Urban Minor Arterial	7,333	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(523)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$30677	\$30677	HSIP (23 U.S.C. 148)	Urban Minor Arterial	14,940	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(523)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$30103	\$30103	HSIP (23 U.S.C. 148)	Urban Major Collector	9,277	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1702(192)HESG	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$91176	\$91176	HSIP (23 U.S.C. 148)	Urban Minor Arterial	6,331	65	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections

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STP 2018(826)HES & STP 2018(883)HES	Roadside	Barrier - other	11.547	Miles	\$1353357	\$1353357	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	20,605	75	State Highway Agency	Spot	Lane Departure	Minimize the consequences of vehicles leaving the road
STP 2018(883)HES	Roadside	Barrier - other	7.537	Miles	\$1213991	\$1213991	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other Freeways and Expressways	46,494	55	State Highway Agency	Spot	Lane Departure	Minimize the consequences of vehicles leaving the road
STP 2018(883)HES	Roadside	Barrier - other	19.859	Miles	\$3675256	\$3675256	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	19,650	75	State Highway Agency	Spot	Lane Departure	Minimize the consequences of vehicles leaving the road
STP 1802(407)HES	Roadside	Barrier - other	0.7	Miles	\$126266	\$198039	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	30,173	50	State Highway Agency	Spot	Lane Departure	Minimize the consequences of vehicles leaving the road
STP 1802(749)HES	Roadside	Barrier - other	8.41	Miles	\$5260479	\$5260479	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	27,841	55	State Highway Agency	Spot	Lane Departure	Minimize the consequences of vehicles leaving the road
STP 2018(520)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$39724	\$164664	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	14,088	60	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(566)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$108366	\$108366	HSIP (23 U.S.C. 148)	Urban Minor Arterial	9,179	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(566)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$121570	\$121570	HSIP (23 U.S.C. 148)	Urban Minor Arterial	9,179	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(566)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$137627	\$137627	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	12,558	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(566)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$187171	\$187171	HSIP (23 U.S.C. 148)	Urban Minor Arterial	7,921	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(567)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$173314	\$173314	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	21,610	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving

		ovement Program											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														intersection safety
STP 1802(567)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$188377	\$188377	HSIP (23 U.S.C. 148)	Urban Minor Arterial	1,684	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(566)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$148444	\$148444	HSIP (23 U.S.C. 148)	Urban Minor Arterial	15,087	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(613)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$154336	\$154336	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	22,048	65	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(613)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$196498	\$196498	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	6,814	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(744)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$321352	\$321352	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	15,269	70	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(486)HESG	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$388060	\$388060	HSIP (23 U.S.C. 148)	Urban Major Collector	1,005	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(075)HESG	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$141803	\$141803	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	8,722	60	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(535)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$185631	\$185631	HSIP (23 U.S.C. 148)	Rural Major Collector	3,218	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(523)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$185558	\$185558	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	25,827	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														intersection safety
STP 2018(523)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$174114	\$174114	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	25,827	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1702(184)HESG	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$107433	\$186809	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	12,571	60	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(062)HESG	Roadway signs and traffic control	Roadway signs and traffic control - other	0.6	Miles	\$139638	\$139638	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	167,051	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(063)HESG	Roadway signs and traffic control	Roadway signs and traffic control - other	0.9	Miles	\$99802	\$99802	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	126,634	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(064)HESG	Roadway signs and traffic control	Roadway signs and traffic control - other	0.8	Miles	\$90246	\$90246	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	53,640	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(614)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$112482	\$112482	HSIP (23 U.S.C. 148)	Urban Major Collector	1,118	45	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$54319	\$54319	HSIP (23 U.S.C. 148)	Urban Minor Arterial	10,209	45	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$51574	\$51574	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	6,535	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$52834	\$52834	HSIP (23 U.S.C. 148)	Rural Major Collector	1,216	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$51577	\$51577	HSIP (23 U.S.C. 148)	Rural Major Collector	4,470	45	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$83361	\$83361	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	3,527	70	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$85446	\$85446	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,560	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$50890	\$50890	HSIP (23 U.S.C. 148)	Rural Major Collector	4,292	50	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections

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STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$55794	\$55794	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,155	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$51144	\$51144	HSIP (23 U.S.C. 148)	Urban Major Collector	5,504	70	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(614)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$249169	\$249169	HSIP (23 U.S.C. 148)	Rural Major Collector	1,547	45	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	Intersections	\$51272	\$51272	HSIP (23 U.S.C. 148)	Rural Major Collector	2,352	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(928)HESG	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$157748	\$157748	HSIP (23 U.S.C. 148)	Rural Minor Arterial	14,703	70	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(360)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	0.556	Miles	\$13564	\$13564	HSIP (23 U.S.C. 148)	Urban Minor Arterial	26,831	40	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(358)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	2.452	Miles	\$69865	\$69865	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	3,436	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(358)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	1.71	Miles	\$34030	\$34030	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	15,783	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(358)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	1.153	Miles	\$46894	\$46894	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	25,501	45	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 1802(437)HES	Intersection traffic control	Modify traffic signal timing - signal coordination	3.776	Miles	\$134267	\$134267	HSIP (23 U.S.C. 148)	Urban Major Collector	29,444	40	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(554)HESG	Roadway	Rumble strips - center	16.89	Miles	\$20248	\$20248	HSIP (23 U.S.C. 148)	Rural Minor Arterial	517	70	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(554)HESG	Roadway	Rumble strips - center	16.637	Miles	\$34431	\$34431	HSIP (23 U.S.C. 148)	Rural Major Collector	146	75	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - center	16.056	Miles	\$31904	\$31904	HSIP (23 U.S.C. 148)	Rural Minor Arterial	926	70	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(805)HES	Roadway	Rumble strips - center	13.942	Miles	\$62105	\$62105	HSIP (23 U.S.C. 148)	Rural Major Collector	420	70	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(805)HES	Roadway	Rumble strips - center	7.889	Miles	\$24366	\$24366	HSIP (23 U.S.C. 148)	Rural Major Collector	131	70	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(805)HES	Roadway	Rumble strips - center	19.495	Miles	\$48109	\$48109	HSIP (23 U.S.C. 148)	Rural Minor Arterial	194	75	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(938)HES	Roadway	Rumble strips - center	11.245	Miles	\$41300	\$41300	HSIP (23 U.S.C. 148)	Rural Major Collector	1,156	75	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - center	3.05	Miles	\$4983	\$4983	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	10,185	70	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - center	4.821	Miles	\$6316	\$6316	HSIP (23 U.S.C. 148)	Rural Major Collector	2,180	65	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - center	14.322	Miles	\$18764	\$18764	HSIP (23 U.S.C. 148)	Rural Major Collector	641	55	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(835)HESG	Roadway	Rumble strips - center	10.813	Miles	\$73351	\$73351	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	8,578	65	State Highway Agency	Spot	Lane Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	4.092	Miles	\$24772	\$24772	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,002	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(681)JES	Roadway	Rumble strips - edge or shoulder	3.965	Miles	\$26265	\$26265	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,430	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(681)HES	Roadway	Rumble strips - edge or shoulder	8.47	Miles	\$63478	\$63478	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,360	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching

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														on the roadside or opposite lane
STP 2018(549)HESG	Roadway	Rumble strips - edge or shoulder	10.894	Miles	\$15568	\$15568	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	22,770	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(160)HESG	Roadway	Rumble strips - edge or shoulder	6.939	Miles	\$32806	\$32806	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,176	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(172)HESG & STP 2018(173)HESG	Roadway	Rumble strips - edge or shoulder	22.32	Miles	\$153789	\$153789	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	3,627	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(163)HESG & STP 2018(165)HESG	Roadway	Rumble strips - edge or shoulder	15.035	Miles	\$80603	\$80603	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	2,792	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(165)HESG & STP 2018(166)HESG	Roadway	Rumble strips - edge or shoulder	29.47	Miles	\$148951	\$148951	HSIP (23 U.S.C. 148)	Rural Major Collector	1,557	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP2018(162)HESG & STP2018(167- 171)HESG	Roadway	Rumble strips - edge or shoulder	78.053	Miles	\$357013	\$357013	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,063	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(655)HESG	Roadway	Rumble strips - edge or shoulder	11.594	Miles	\$19476	\$19476	HSIP (23 U.S.C. 148)	Urban Minor Arterial	10,703	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(657)HESG	Roadway	Rumble strips - edge or shoulder	8.108	Miles	\$47214	\$47214	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	5,403	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(681)HES	Roadway	Rumble strips - edge or shoulder	5.614	Miles	\$45461	\$45461	HSIP (23 U.S.C. 148)	Rural Minor Arterial	9,755	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(176)HES	Roadway	Rumble strips - edge or shoulder	8.6	Miles	\$19978	\$19978	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,605	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(776)HES	Roadway	Rumble strips - edge or shoulder	15.478	Miles	\$58000	\$58000	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	10,353	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(805)HES	Roadway	Rumble strips - edge or shoulder	32.89	Miles	\$139017	\$139017	HSIP (23 U.S.C. 148)	Rural Major Collector	611	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane

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STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	16.54	Miles	\$46704	\$46704	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,230	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	10.569	Miles	\$29890	\$29890	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,925	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	10.747	Miles	\$30232	\$30232	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,618	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	11.43	Miles	\$32294	\$32294	HSIP (23 U.S.C. 148)	Rural Major Collector	1,026	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	11.8	Miles	\$33286	\$33286	HSIP (23 U.S.C. 148)	Rural Major Collector	1,037	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	11.482	Miles	\$32345	\$32345	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,865	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	17.465	Miles	\$49074	\$49074	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,185	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	15.986	Miles	\$45166	\$45166	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,219	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	20.079	Miles	\$55703	\$55703	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	1,114	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	9.993	Miles	\$28234	\$28234	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	1,748	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	21.394	Miles	\$60337	\$60337	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	1,607	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	6.469	Miles	\$18276	\$18276	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	4,182	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	10.885	Miles	\$30754	\$30754	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,624	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching

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														on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	21.032	Miles	\$169923	\$169923	HSIP (23 U.S.C. 148)	Rural Major Collector	1,393	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	10.673	Miles	\$30156	\$30156	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	2,059	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	37.144	Miles	\$104946	\$104946	HSIP (23 U.S.C. 148)	Rural Minor Arterial	535	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	7.548	Miles	\$21326	\$21326	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,393	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	18.416	Miles	\$128016	\$128016	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,568	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(976)HES	Roadway	Rumble strips - edge or shoulder	6.249	Miles	\$67288	\$67288	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	1,947	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(976)HES	Roadway	Rumble strips - edge or shoulder	9.305	Miles	\$95123	\$95123	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	1,724	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(202)HES	Roadway	Rumble strips - edge or shoulder	16.969	Miles	\$92792	\$92792	HSIP (23 U.S.C. 148)	Rural Major Collector	1,555	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(202)HES	Roadway	Rumble strips - edge or shoulder	17.282	Miles	\$100411	\$100411	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,456	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(202)HES	Roadway	Rumble strips - edge or shoulder	20.815	Miles	\$105708	\$105708	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,038	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(805)HES	Roadway	Rumble strips - edge or shoulder	8.873	Miles	\$32081	\$32081	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,656	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(805)HES	Roadway	Rumble strips - edge or shoulder	20.504	Miles	\$74851	\$74851	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,493	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane

5		ovement Frogram											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(938)HES	Roadway	Rumble strips - edge or shoulder	5.729	Miles	\$28910	\$28910	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,750	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(350)HES	Roadway	Rumble strips - edge or shoulder	6.467	Miles	\$54638	\$54638	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,250	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(938)HES	Roadway	Rumble strips - edge or shoulder	13.501	Miles	\$68117	\$68117	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,045	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(472)HES	Roadway	Rumble strips - edge or shoulder	13.58	Miles	\$77306	\$77306	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,055	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	6.614	Miles	\$26893	\$26893	HSIP (23 U.S.C. 148)	Rural Major Collector	486	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	24.309	Miles	\$100459	\$100459	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,146	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	11.164	Miles	\$46169	\$46169	HSIP (23 U.S.C. 148)	Rural Major Collector	899	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(948)HES	Roadway	Rumble strips - edge or shoulder	6.763	Miles	\$27970	\$27970	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,306	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(937)HESG	Roadway	Rumble strips - edge or shoulder	11.684	Miles	\$42249	\$42249	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,071	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(257)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	0.976	Miles	\$1305665	\$1305665	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	14,193	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(991)HES	Shoulder treatments	Widen shoulder - paved or other	3.307	Miles	\$1599661	\$1599661	HSIP (23 U.S.C. 148)	Rural Major Collector	1,156	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(756)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	4.853	Miles	\$539803	\$539803	HSIP (23 U.S.C. 148)	Rural Major Collector	3,066	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(358)HES	Intersection traffic control	Intersection flashers - modify existing	1	Intersections	\$48952	\$48952	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	5,177	70	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 1802(360)HES	Intersection traffic control	Intersection flashers - modify existing	1	Intersections	\$16584	\$16584	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,486	35	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(358)HES	Intersection traffic control	Intersection flashers - modify existing	1	Intersections	\$42639	\$42639	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	10,457	65	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(613)HES	Intersection traffic control	Intersection flashers - modify existing	1	Intersections	\$42002	\$42002	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	8,811	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 1802(247)HES	Intersection traffic control	Intersection flashers - modify existing	1	Intersections	\$146085	\$151876	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	3,597	65	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(681)HES	Roadway	Rumble strips - center	3.523	Miles	\$30659	\$30659	HSIP (23 U.S.C. 148)	Urban Major Collector	3,797	45	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(681)HES	Roadway	Rumble strips - center	3.843	Miles	\$29023	\$29023	HSIP (23 U.S.C. 148)	Urban Major Collector	2,127	45	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(049)HESG	Roadway	Rumble strips - center	6.699	Miles	\$44971	\$44971	HSIP (23 U.S.C. 148)	Rural Major Collector	806	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(048)HESG	Roadway	Rumble strips - center	8.871	Miles	\$46024	\$46024	HSIP (23 U.S.C. 148)	Rural Major Collector	450	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - center	6.556	Miles	\$42652	\$42652	HSIP (23 U.S.C. 148)	Rural Major Collector	499	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - center	5.528	Miles	\$47186	\$47186	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,297	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - center	7.7	Miles	\$45593	\$45593	HSIP (23 U.S.C. 148)	Rural Major Collector	2,546	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - center	12.3	Miles	\$52973	\$52973	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	2,131	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(001)HES	Roadway	Rumble strips - edge or shoulder	32.932	Miles	\$383466	\$383466	HSIP (23 U.S.C. 148)	Rural Major Collector	1,351	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(151)HES	Roadway	Rumble strips - edge or shoulder	13.813	Miles	\$93378	\$93378	HSIP (23 U.S.C. 148)	Rural Major Collector	3,209	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - edge or shoulder	4.949	Miles	\$98479	\$98479	HSIP (23 U.S.C. 148)	Rural Major Collector	448	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - edge or shoulder	3.567	Miles	\$58069	\$58069	HSIP (23 U.S.C. 148)	Rural Major Collector	604	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(047)HESG	Roadway	Rumble strips - edge or shoulder	4.083	Miles	\$67221	\$67221	HSIP (23 U.S.C. 148)	Rural Major Collector	1,612	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - edge or shoulder	3.788	Miles	\$62186	\$62186	HSIP (23 U.S.C. 148)	Rural Major Collector	588	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(051)HESG & STP 2018(050)HESG	Roadway	Rumble strips - edge or shoulder	4.082	Miles	\$69067	\$69067	HSIP (23 U.S.C. 148)	Rural Major Collector	1,024	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - edge or shoulder	3.984	Miles	\$70471	\$70471	HSIP (23 U.S.C. 148)	Urban Major Collector	2,805	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(436)HES	Roadway	Rumble strips - edge or shoulder	2.885	Miles	\$24351	\$24351	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,647	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - edge or shoulder	1.343	Miles	\$23491	\$23491	HSIP (23 U.S.C. 148)	Urban Major Collector	1,200	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(057)HESG, STP 2018(056)HESG, STP 2018(055)HESG & STP 2018(054)HESG	Roadway	Rumble strips - edge or shoulder	17.329	Miles	\$334501	\$334501	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,743	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(053)HESG & STP 2018(052)HESG	Roadway	Rumble strips - edge or shoulder	22.878	Miles	\$450421	\$450421	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,555	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - edge or shoulder	17.285	Miles	\$348892	\$348892	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,613	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	5.892	Miles	\$39987	\$39987	HSIP (23 U.S.C. 148)	Rural Major Collector	250	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	15.494	Miles	\$103527	\$103527	HSIP (23 U.S.C. 148)	Rural Major Collector	1,516	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	13.72	Miles	\$82372	\$82372	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,487	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	15.136	Miles	\$77685	\$77685	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,855	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	12.326	Miles	\$71253	\$71253	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,094	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	8.003	Miles	\$47849	\$47849	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,560	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	14.501	Miles	\$84535	\$84535	HSIP (23 U.S.C. 148)	Rural Major Collector	493	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(161)HESG	Roadway	Rumble strips - edge or shoulder	7.967	Miles	\$37189	\$37189	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,250	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - edge or shoulder	7.715	Miles	\$66657	\$66657	HSIP (23 U.S.C. 148)	Rural Major Collector	650	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(788)HESG	Roadway	Rumble strips - edge or shoulder	12.3	Miles	\$141610	\$141610	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	2,131	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(681)HES	Roadway	Rumble strips - edge or shoulder	1.787	Miles	\$13501	\$13501	HSIP (23 U.S.C. 148)	Rural Major Collector	936	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(681)HES	Roadway	Rumble strips - edge or shoulder	6.484	Miles	\$48910	\$48910	HSIP (23 U.S.C. 148)	Rural Major Collector	397	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(681)HES	Roadway	Rumble strips - edge or shoulder	1.52	Miles	\$13335	\$13335	HSIP (23 U.S.C. 148)	Rural Major Collector	1,850	45	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching

3		ovement Frogram											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														on the roadside or opposite lane
STP 2018(681)HES	Roadway	Rumble strips - edge or shoulder	1.814	Miles	\$12524	\$12524	HSIP (23 U.S.C. 148)	Urban Major Collector	1,759	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(681)HES	Roadway	Rumble strips - edge or shoulder	1.499	Miles	\$11661	\$11661	HSIP (23 U.S.C. 148)	Rural Minor Collector	221	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(183)HESG	Roadway	Rumble strips - edge or shoulder	4.567	Miles	\$34949	\$34949	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	3,938	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(501)HES	Roadway	Rumble strips - edge or shoulder	5.06	Miles	\$32060	\$32060	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	33,551	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	8.784	Miles	\$52654	\$52654	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	23,574	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(136)HES	Roadway	Rumble strips - edge or shoulder	17.439	Miles	\$97238	\$97238	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,065	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(137)HES & STP 2018(138)HES	Roadway	Rumble strips - edge or shoulder	29.536	Miles	\$173665	\$173665	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,226	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	13.836	Miles	\$96802	\$96802	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,646	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	10.554	Miles	\$74153	\$74153	HSIP (23 U.S.C. 148)	Rural Minor Arterial	820	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	11.294	Miles	\$76937	\$76937	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,333	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(044)HESG, STP 2018(045)HESG & STP 2018(046)HESG	Roadway	Rumble strips - edge or shoulder	5.931	Miles	\$93416	\$93416	HSIP (23 U.S.C. 148)	Rural Major Collector	2,104	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(043)HESG	Roadway	Rumble strips - edge or shoulder	6.003	Miles	\$95419	\$95419	HSIP (23 U.S.C. 148)	Rural Major Collector	929	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching

5		ovement Program											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														on the roadside or opposite lane
STP 2018(037)HESG	Roadway	Rumble strips - edge or shoulder	6.795	Miles	\$124043	\$124043	HSIP (23 U.S.C. 148)	Rural Major Collector	1,521	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(248)HES, STP 1802(249)HES, STP 1802(250)HES & STP 1802(251)HES	Roadway	Rumble strips - edge or shoulder	35.934	Miles	\$701786	\$2395355	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,217	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(337)HESG	Roadway	Rumble strips - edge or shoulder	3.71	Miles	\$51437	\$51437	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	10,683	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(337)HESG	Roadway	Rumble strips - edge or shoulder	5.537	Miles	\$78380	\$78380	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	23,114	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(186)HESG	Roadway	Rumble strips - edge or shoulder	1.975	Miles	\$27715	\$27715	HSIP (23 U.S.C. 148)	Rural Major Collector	3,113	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(072)HESG	Roadway	Rumble strips - edge or shoulder	1.358	Miles	\$20665	\$20665	HSIP (23 U.S.C. 148)	Rural Major Collector	3,182	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(182)HESG	Roadway	Rumble strips - edge or shoulder	6.534	Miles	\$58646	\$58646	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,468	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(181)HESG	Roadway	Rumble strips - edge or shoulder	9.729	Miles	\$93085	\$93085	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	5,840	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(071)HESG	Roadway	Rumble strips - edge or shoulder	9.929	Miles	\$146084	\$146084	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	8,290	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	2	Miles	\$15924	\$15924	HSIP (23 U.S.C. 148)	Rural Major Collector	803	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	12.108	Miles	\$104962	\$104962	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	6,403	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	3.076	Miles	\$25093	\$25093	HSIP (23 U.S.C. 148)	Rural Major Collector	2,775	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	3.344	Miles	\$27337	\$27337	HSIP (23 U.S.C. 148)	Rural Major Collector	3,384	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	4.854	Miles	\$36971	\$36971	HSIP (23 U.S.C. 148)	Rural Major Collector	4,858	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	5.718	Miles	\$53712	\$53712	HSIP (23 U.S.C. 148)	Rural Major Collector	1,521	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	7.197	Miles	\$70175	\$70175	HSIP (23 U.S.C. 148)	Rural Major Collector	679	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	21.307	Miles	\$214950	\$214950	HSIP (23 U.S.C. 148)	Rural Major Collector	812	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	12.781	Miles	\$117994	\$117994	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,134	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	7.706	Miles	\$71643	\$71643	HSIP (23 U.S.C. 148)	Rural Major Collector	5,875	45	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	1.012	Miles	\$7920	\$7920	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	9,134	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	5.388	Miles	\$35896	\$35896	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	2,736	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	5.474	Miles	\$50677	\$50677	HSIP (23 U.S.C. 148)	Urban Major Collector	2,898	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	2.256	Miles	\$13175	\$13175	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	4,877	45	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(612)HES	Roadway	Rumble strips - edge or shoulder	9.715	Miles	\$105612	\$105612	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	22,001	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(377)HESG	Shoulder treatments	Widen shoulder - paved or other	5.551	Miles	\$5152892	\$5152892	HSIP (23 U.S.C. 148)	Rural Major Collector	1,860	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														on the roadside or opposite lane
STP 2018(336)HES	Roadway	Rumble strips - edge or shoulder	4.125	Miles	\$41742	\$41742	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,605	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(336)HES	Roadway	Rumble strips - edge or shoulder	3.709	Miles	\$37447	\$37447	HSIP (23 U.S.C. 148)	Urban Minor Arterial	4,682	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(336)HES	Roadway	Rumble strips - edge or shoulder	24.905	Miles	\$219212	\$219212	HSIP (23 U.S.C. 148)	Rural Minor Arterial	782	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(758)HES	Shoulder treatments	Widen shoulder - paved or other	0.6	Miles	\$328471	\$328471	HSIP (23 U.S.C. 148)	Rural Minor Collector	583	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(759)HES	Shoulder treatments	Widen shoulder - paved or other	2	Miles	\$509224	\$509224	HSIP (23 U.S.C. 148)	Rural Major Collector	516	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(373)HES	Shoulder treatments	Widen shoulder - paved or other	2.863	Miles	\$529879	\$529879	HSIP (23 U.S.C. 148)	Rural Minor Collector	622	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(748)HES	Shoulder treatments	Widen shoulder - paved or other	2.191	Miles	\$537375	\$537375	HSIP (23 U.S.C. 148)	Rural Major Collector	1,448	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(750)HES	Shoulder treatments	Widen shoulder - paved or other	1.966	Miles	\$547019	\$547019	HSIP (23 U.S.C. 148)	Rural Minor Collector	750	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(254)HES	Shoulder treatments	Widen shoulder - paved or other	0.659	Miles	\$459200	\$459200	HSIP (23 U.S.C. 148)	Urban Major Collector	3,450	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(388)HES	Shoulder treatments	Widen shoulder - paved or other	1.1	Miles	\$783134	\$783134	HSIP (23 U.S.C. 148)	Rural Minor Collector	921	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	23.432	Miles	\$197853	\$197853	HSIP (23 U.S.C. 148)	Rural Major Collector	938	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	9.413	Miles	\$63483	\$63483	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other Freeways and Expressways	4,867	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 1802(613)HES	Intersection traffic control	Intersection traffic control - other	1	Intersections	\$133116	\$133116	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	9,140	55	State Highway Agency	Spot	Intersections	Consider alternative design strategies for improving intersection safety
STP 2018(076)HESG	Shoulder treatments	Widen shoulder - paved or other	0.2	Miles	\$108424	\$108424	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	7,485	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(782)HES	Lighting	Continuous roadway lighting	0.29	Miles	\$35029	\$58554	HSIP (23 U.S.C. 148)	Rural Major Collector	2,346	60	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(782)HES	Lighting	Continuous roadway lighting	1.389	Miles	\$92742	\$137748	HSIP (23 U.S.C. 148)	Rural Major Collector	3,709	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(782)HES	Lighting	Continuous roadway lighting	1.208	Miles	\$46826	\$64995	HSIP (23 U.S.C. 148)	Rural Major Collector	2,117	60	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood o crashing ir adverse conditions
STP 2018(782)HES	Lighting	Continuous roadway lighting	0.948	Miles	\$199261	\$199261	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	13,707	75	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood o crashing ir adverse conditions
STP 2018(782)HES	Lighting	Continuous roadway lighting	1.6	Miles	\$139029	\$245559	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	13,779	55	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood o crashing ir adverse conditions
STP 2018(893)HES	Lighting	Continuous roadway lighting	2.063	Miles	\$459534	\$459534	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	50,676	65	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood o crashing ir adverse conditions
STP 2017(639)HES	Lighting	Continuous roadway lighting	2.648	Miles	\$2492972	\$2492972	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	36,890	55	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood o crashing ir adverse conditions
IM 0108(181)	Lighting	Continuous roadway lighting	5.201	Miles	\$5562295	\$5562295	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	76,852	75	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood o crashing ir adverse conditions
NH 2013(565)	Lighting	Continuous roadway lighting	5.7	Miles	\$3742215	\$3742215	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other Freeways and Expressways	57,682	60	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														adverse conditions
NH 2013(563) & STP 1802(597)HES	Lighting	Continuous roadway lighting	3.444	Miles	\$3054608	\$3054608	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other Freeways and Expressways	43,225	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(100)HES	Lighting	Continuous roadway lighting	0.732	Miles	\$463112	\$463112	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	42,935	75	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(098)HES	Lighting	Continuous roadway lighting	6.299	Miles	\$214489	\$214489	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	13,162	75	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(099)HES	Lighting	Continuous roadway lighting	3.006	Miles	\$1791630	\$1791630	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other Freeways and Expressways	47,277	75	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(523)HES	Lighting	Continuous roadway lighting	0.51	Miles	\$87470	\$87470	HSIP (23 U.S.C. 148)	Rural Major Collector	3,978	45	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(523)HES	Lighting	Continuous roadway lighting	0.326	Miles	\$47091	\$47091	HSIP (23 U.S.C. 148)	Urban Major Collector	16,093	55	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(523)HES	Lighting	Continuous roadway lighting	0.39	Miles	\$61968	\$61968	HSIP (23 U.S.C. 148)	Urban Major Collector	2,356	55	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(523)HES	Lighting	Continuous roadway lighting	0.4	Miles	\$71449	\$71449	HSIP (23 U.S.C. 148)	Urban Major Collector	1,685	55	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(523)HES	Lighting	Continuous roadway lighting	0.603	Miles	\$84147	\$87147	HSIP (23 U.S.C. 148)	Rural Minor Arterial	973	75	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(523)HES	Lighting	Continuous roadway lighting	0.796	Miles	\$122330	\$122330	HSIP (23 U.S.C. 148)	Rural Minor Arterial	671	75	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 1802(576)HES	Lighting	Continuous roadway lighting	4.586	Miles	\$104415	\$104415	HSIP (23 U.S.C. 148)	Urban Minor Arterial	4,382	45	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 1802(576)HES	Lighting	Continuous roadway lighting	9.706	Miles	\$86857	\$86857	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	20,693	65	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 1802(576)HES	Lighting	Continuous roadway lighting	7.785	Miles	\$264699	\$264699	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	24,105	65	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 1802(576)HES	Lighting	Continuous roadway lighting	21.629	Miles	\$95297	\$95297	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	16,748	55	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 1802(576)HES	Lighting	Continuous roadway lighting	11.369	Miles	\$23543	\$23543	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	12,219	70	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 1802(400)HES	Lighting	Continuous roadway lighting	0.939	Miles	\$199994	\$199994	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	26,331	50	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
IM 0108(179)	Lighting	Continuous roadway lighting	1.434	Miles	\$1274449	\$1274449	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	110,962	65	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
IM 0108(180)	Lighting	Continuous roadway lighting	2.861	Miles	\$1449881	\$1449881	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	89,368	60	State Highway Agency	Spot	Roadway Departure	Minimize the likelihood of crashing in adverse conditions
STP 2018(351)HES	Lighting	Intersection lighting	1	Intersections	\$44105	\$44105	HSIP (23 U.S.C. 148)	Urban Major Collector	3,756	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(351)HES	Lighting	Intersection lighting	1	Intersections	\$96018	\$96018	HSIP (23 U.S.C. 148)	Urban Minor Arterial	4,223	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(351)HES	Lighting	Intersection lighting	1	Intersections	\$30851	\$30851	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,681	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(351)HES	Lighting	Intersection lighting	1	Intersections	\$33211	\$33211	HSIP (23 U.S.C. 148)	Rural Minor Arterial	6,466	70	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(351)HES	Lighting	Intersection lighting	1	Intersections	\$56001	\$56001	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	7,197	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(277)HES	Lighting	Intersection lighting	1	Intersections	\$62683	\$62683	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,109	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(198)HES	Lighting	Intersection lighting	1	Intersections	\$25767	\$25767	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,342	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(195)HES	Lighting	Intersection lighting	1	Intersections	\$32570	\$32570	HSIP (23 U.S.C. 148)	Rural Major Collector	1,247	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(200)HES	Lighting	Intersection lighting	1	Intersections	\$27095	\$27095	HSIP (23 U.S.C. 148)	Rural Major Collector	580	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(199)HES	Lighting	Intersection lighting	1	Intersections	\$23852	\$23852	HSIP (23 U.S.C. 148)	Rural Major Collector	1,364	60	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(197)HES	Lighting	Intersection lighting	1	Intersections	\$23875	\$23875	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	14,982	70	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(196)HES	Lighting	Intersection lighting	1	Intersections	\$26845	\$26845	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	5,022	70	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(035)HES	Lighting	Intersection lighting	1	Intersections	\$37333	\$37333	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	12,242	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(034)HES	Lighting	Intersection lighting	1	Intersections	\$36547	\$36547	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	21,876	75	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(036)HES	Lighting	Intersection lighting	1	Intersections	\$18085	\$18085	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,469	55	State Highway Agency	Spot	Intersections	Increase driver awareness of intersections
STP 2018(752)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	3.203	Miles	\$323408	\$323408	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	8,851	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(768)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	11.13	Miles	\$250586	\$250586	HSIP (23 U.S.C. 148)	Rural Major Collector	331	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(768)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	6.415	Miles	\$540031	\$621072	HSIP (23 U.S.C. 148)	Rural Major Collector	635	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(768)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	2.63	Miles	\$152678	\$152678	HSIP (23 U.S.C. 148)	Rural Major Collector	1,272	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road

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STP 2018(418)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	3.911	Miles	\$438751	\$438751	HSIP (23 U.S.C. 148)	Rural Major Collector	5,619	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(810)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	1.78	Miles	\$138288	\$138288	HSIP (23 U.S.C. 148)	Rural Major Collector	936	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(493)HESG	Roadside	Removal of roadside objects (trees, poles, etc.)	5.25	Miles	\$485157	\$485157	HSIP (23 U.S.C. 148)	Urban Minor Arterial	5,838	50	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(770)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	10.529	Miles	\$736907	\$920289	HSIP (23 U.S.C. 148)	Rural Minor Collector	604	45	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(770)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	2.02	Miles	\$251822	\$251822	HSIP (23 U.S.C. 148)	Rural Minor Collector	337	20	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(770)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	5.677	Miles	\$611916	\$611916	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,002	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(979)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	14	Miles	\$761907	\$761907	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,545	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(979)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	7.3	Miles	\$482828	\$482828	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,772	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(610)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	11.624	Miles	\$762728	\$762728	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,445	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(489)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	2.954	Miles	\$317399	\$317399	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	6,809	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(489)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	11.833	Miles	\$1654829	\$1654829	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	4,294	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(488)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	12.572	Miles	\$1489216	\$1489216	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	19,292	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(251)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	7.611	Miles	\$1063872	\$1063872	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) -	52,843	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of

		ovement i rogram											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
								Other Freeways and Expressways						vehicles leaving the road
STP 1802(396)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	6.875	Miles	\$236806	\$236806	HSIP (23 U.S.C. 148)	Rural Major Collector	544	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(396)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	15.226	Miles	\$1173140	\$1173140	HSIP (23 U.S.C. 148)	Rural Major Collector	1,609	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(256)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	15.174	Miles	\$856904	\$856904	HSIP (23 U.S.C. 148)	Rural Major Collector	1,713	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(356)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	3.558	Miles	\$332200	\$332200	HSIP (23 U.S.C. 148)	Rural Major Collector	2,448	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(459)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	6.117	Miles	\$686181	\$686181	HSIP (23 U.S.C. 148)	Rural Major Collector	1,394	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(356)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	5.16	Miles	\$376646	\$376646	HSIP (23 U.S.C. 148)	Rural Major Collector	1,236	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(397)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	8.679	Miles	\$875509	\$875509	HSIP (23 U.S.C. 148)	Rural Major Collector	644	45	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(356)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	9.05	Miles	\$340788	\$340788	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	6,200	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(750)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	14.572	Miles	\$941341	\$941341	HSIP (23 U.S.C. 148)	Rural Major Collector	2,469	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(605)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	4.487	Miles	\$443823	\$443823	HSIP (23 U.S.C. 148)	Rural Major Collector	3,270	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(605)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	7.502	Miles	\$1037116	\$1037116	HSIP (23 U.S.C. 148)	Rural Major Collector	4,987	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(355)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	1.366	Miles	\$391888	\$391888	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,057	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road

		ovement Program											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(605)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	2.548	Miles	\$311781	\$311781	HSIP (23 U.S.C. 148)	Rural Minor Arterial	7,009	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(240)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	8.681	Miles	\$99411	\$99411	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,970	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(241)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	13.618	Miles	\$128945	\$128945	HSIP (23 U.S.C. 148)	Rural Major Collector	355	50	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1702(303)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	6.112	Miles	\$777557	\$777557	HSIP (23 U.S.C. 148)	Rural Major Collector	485	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(591)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	4.989	Miles	\$698267	\$698267	HSIP (23 U.S.C. 148)	Rural Major Collector	152	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2017(896)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	10.876	Miles	\$1258844	\$1258844	HSIP (23 U.S.C. 148)	Rural Major Collector	1,149	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(589)HES & STP 2018(590)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	10.211	Miles	\$1033599	\$1033599	HSIP (23 U.S.C. 148)	Rural Major Collector	4,100	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(750)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	6.879	Miles	\$360235	\$360235	HSIP (23 U.S.C. 148)	Rural Minor Collector	1,284	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(494)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	16.514	Miles	\$2179040	\$2179040	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,857	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(396)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	2.141	Miles	\$79425	\$79425	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	11,644	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(670)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	7.604	Miles	\$239566	\$239566	HSIP (23 U.S.C. 148)	Rural Major Collector	532	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(671)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	7.829	Miles	\$116617	\$116617	HSIP (23 U.S.C. 148)	Rural Major Collector	552	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(672)HES & STP 2018(673)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	14.058	Miles	\$361675	\$361675	HSIP (23 U.S.C. 148)	Rural Major Collector	646	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														vehicles leaving the road
STP 2018(645)HES & STP 2018(669)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	8.691	Miles	\$242740	\$242740	HSIP (23 U.S.C. 148)	Rural Major Collector	1,367	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(674)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	3.297	Miles	\$66376	\$66376	HSIP (23 U.S.C. 148)	Rural Major Collector	474	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(675)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	3.673	Miles	\$144874	\$144874	HSIP (23 U.S.C. 148)	Rural Minor Collector	1,744	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(676)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	7.736	Miles	\$57279	\$57279	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,802	50	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(677)HES & STP 2018(678)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	8.9	Miles	\$234420	\$234420	HSIP (23 U.S.C. 148)	Rural Major Collector	1,894	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(751)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	32.098	Miles	\$955645	\$955645	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	30,099	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(751)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	28.554	Miles	\$1054129	\$1054129	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	33,524	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(751)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	18.518	Miles	\$404219	\$404219	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	34,539	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(751)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	32.952	Miles	\$1139933	\$1139933	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Interstate	44,968	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(069)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	22.136	Miles	\$763279	\$763279	HSIP (23 U.S.C. 148)	Rural Major Collector	1,173	55	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(601)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	11.685	Miles	\$104150	\$104150	HSIP (23 U.S.C. 148)	Rural Minor Arterial	6,675	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(066)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	9.134	Miles	\$218399	\$218399	HSIP (23 U.S.C. 148)	Rural Minor Arterial	4,738	50	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road

													RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(067)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	12.022	Miles	\$280272	\$280272	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	3,202	75	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(068)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	8.992	Miles	\$210319	\$210319	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	2,698	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(396)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	2.6	Miles	\$268108	\$268108	HSIP (23 U.S.C. 148)	Rural Minor Collector	287	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(396)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	3.44	Miles	\$340659	\$340659	HSIP (23 U.S.C. 148)	Rural Major Collector	2,646	60	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 1802(533)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	6.467	Miles	\$125595	\$125595	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,250	65	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(940)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	13.58	Miles	\$243146	\$243146	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,055	70	State Highway Agency	Spot	Roadway Departure	Minimize the consequences of vehicles leaving the road
STP 2018(890)HES	Shoulder treatments	Widen shoulder - paved or other	0.968	Miles	\$1003410	\$1003410	HSIP (23 U.S.C. 148)	Urban Major Collector	4,873	45	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(390)HES	Shoulder treatments	Widen shoulder - paved or other	6.827	Miles	\$3403640	\$3403640	HSIP (23 U.S.C. 148)	Rural Minor Collector	166	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite land
STP 2018(390)HES	Shoulder treatments	Widen shoulder - paved or other	5.414	Miles	\$2690200	\$2690200	HSIP (23 U.S.C. 148)	Rural Minor Collector	461	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(459)HES	Shoulder treatments	Widen shoulder - paved or other	8.112	Miles	\$3901778	\$3901778	HSIP (23 U.S.C. 148)	Rural Major Collector	578	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(814)HES	Shoulder treatments	Widen shoulder - paved or other	4.213	Miles	\$2498804	\$2498804	HSIP (23 U.S.C. 148)	Urban Major Collector	2,237	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(562)HES	Shoulder treatments	Widen shoulder - paved or other	10.204	Miles	\$7676966	\$7676966	HSIP (23 U.S.C. 148)	Rural Major Collector	657	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite land
STP 1802(253)HES	Shoulder treatments	Widen shoulder - paved or other	10.94	Miles	\$5646361	\$5646361	HSIP (23 U.S.C. 148)	Rural Major Collector	796	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles

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PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														on the roadside or opposite lane
STP 2018(825)HES	Shoulder treatments	Widen shoulder - paved or other	4.409	Miles	\$1539331	\$1539331	HSIP (23 U.S.C. 148)	Rural Major Collector	1,293	45	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(074)HES	Shoulder treatments	Widen shoulder - paved or other	0.4	Miles	\$431702	\$431702	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	8,722	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(979)HES	Roadside	Removal of roadside objects (trees, poles, etc.)	17.2	Miles	\$1717153	\$1717153	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,587	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(978)HES	Roadway	Roadway widening - travel lanes	2.978	Miles	\$1123433	\$1520495	HSIP (23 U.S.C. 148)	Rural Major Collector	715	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	2.826	Miles	\$24056	\$24056	HSIP (23 U.S.C. 148)	Rural Major Collector	1,638	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	3.035	Miles	\$20381	\$20381	HSIP (23 U.S.C. 148)	Rural Major Collector	411	45	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	7.951	Miles	\$49669	\$49669	HSIP (23 U.S.C. 148)	Rural Major Collector	430	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	3.821	Miles	\$22056	\$22056	HSIP (23 U.S.C. 148)	Rural Major Collector	176	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	9.531	Miles	\$58353	\$58353	HSIP (23 U.S.C. 148)	Rural Major Collector	605	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	2.586	Miles	\$19926	\$19926	HSIP (23 U.S.C. 148)	Rural Major Collector	282	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	19.689	Miles	\$115976	\$115976	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,239	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	7.965	Miles	\$48802	\$48802	HSIP (23 U.S.C. 148)	Rural Major Collector	546	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane

													RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	6.505	Miles	\$41209	\$41209	HSIP (23 U.S.C. 148)	Rural Major Collector	442	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	6.499	Miles	\$40464	\$40464	HSIP (23 U.S.C. 148)	Rural Major Collector	1,235	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	10.204	Miles	\$60027	\$60027	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,316	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(549)HESG	Roadway	Rumble strips - edge or shoulder	6.459	Miles	\$69915	\$69915	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	12,437	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(526)HES	Roadway	Rumble strips - edge or shoulder	3.902	Miles	\$37806	\$37806	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	2,391	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	32.455	Miles	\$128756	\$128756	HSIP (23 U.S.C. 148)	Rural Major Collector	2,675	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	6.819	Miles	\$29921	\$29921	HSIP (23 U.S.C. 148)	Rural Major Collector	1,506	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	12.809	Miles	\$55404	\$55404	HSIP (23 U.S.C. 148)	Rural Major Collector	854	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	16.836	Miles	\$74479	\$74479	HSIP (23 U.S.C. 148)	Rural Major Collector	2,769	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	17.892	Miles	\$77176	\$77176	HSIP (23 U.S.C. 148)	Rural Major Collector	1,067	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	28.146	Miles	\$119334	\$119334	HSIP (23 U.S.C. 148)	Rural Major Collector	894	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	13.246	Miles	\$39621	\$39621	HSIP (23 U.S.C. 148)	Rural Minor Collector	197	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	23.542	Miles	\$102944	\$102944	HSIP (23 U.S.C. 148)	Rural Major Collector	701	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching

5		Svement Frogram											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	29.693	Miles	\$116169	\$116169	HSIP (23 U.S.C. 148)	Rural Major Collector	400	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	8.912	Miles	\$38210	\$38210	HSIP (23 U.S.C. 148)	Rural Major Collector	1,186	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	14.749	Miles	\$64712	\$64712	HSIP (23 U.S.C. 148)	Rural Major Collector	646	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	17.908	Miles	\$74298	\$74298	HSIP (23 U.S.C. 148)	Rural Major Collector	1,301	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	15.59	Miles	\$68087	\$68087	HSIP (23 U.S.C. 148)	Rural Major Collector	969	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(491)HESG	Roadway	Rumble strips - edge or shoulder	7.76	Miles	\$33635	\$33635	HSIP (23 U.S.C. 148)	Rural Major Collector	707	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(833)HESG	Roadway	Rumble strips - edge or shoulder	7.375	Miles	\$74857	\$74857	HSIP (23 U.S.C. 148)	Urban Major Collector	6,977	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(832)HESG	Roadway	Rumble strips - edge or shoulder	4.719	Miles	\$57625	\$57625	HSIP (23 U.S.C. 148)	Rural Major Collector	1,218	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(834)HESG	Roadway	Rumble strips - edge or shoulder	4.786	Miles	\$40930	\$40930	HSIP (23 U.S.C. 148)	Urban Major Collector	7,398	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(831)HESG	Roadway	Rumble strips - edge or shoulder	8.736	Miles	\$106686	\$106686	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	7,333	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1702(734)HRR	Roadway	Rumble strips - edge or shoulder	8.055	Miles	\$42434	\$42434	HSIP (23 U.S.C. 148)	Rural Major Collector	1,973	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(038)HESG	Roadway	Rumble strips - edge or shoulder	5.735	Miles	\$103504	\$103504	HSIP (23 U.S.C. 148)	Urban Minor Arterial	7,266	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane

		ovement Program											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(041)HESG	Roadway	Rumble strips - edge or shoulder	6.538	Miles	\$118722	\$118722	HSIP (23 U.S.C. 148)	Urban Major Collector	1,913	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(648)HES	Roadway	Rumble strips - edge or shoulder	11.621	Miles	\$318167	\$318167	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,888	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(040)HESG	Roadway	Rumble strips - edge or shoulder	18.46	Miles	\$325320	\$325320	HSIP (23 U.S.C. 148)	Rural Major Collector	1,196	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(039)HESG	Roadway	Rumble strips - edge or shoulder	9.217	Miles	\$153949	\$153949	HSIP (23 U.S.C. 148)	Rural Major Collector	1,036	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(042)HESG	Roadway	Rumble strips - edge or shoulder	13.212	Miles	\$255857	\$255857	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,688	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(142)HES	Roadway	Rumble strips - edge or shoulder	16.419	Miles	\$37512	\$37512	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	6,214	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	5.969	Miles	\$31627	\$31627	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,147	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	14.222	Miles	\$80899	\$80899	HSIP (23 U.S.C. 148)	Rural Minor Arterial	926	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	14.654	Miles	\$83432	\$83432	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,133	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(148)HES	Roadway	Rumble strips - edge or shoulder	14.936	Miles	\$76640	\$76640	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,686	71	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(152)HES & STP 2018(153)HES	Roadway	Rumble strips - edge or shoulder	12.212	Miles	\$58002	\$58002	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	20,368	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(147)HES	Roadway	Rumble strips - edge or shoulder	4.668	Miles	\$22094	\$22094	HSIP (23 U.S.C. 148)	Rural Minor Arterial	12,360	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(131)HES & STP 2018(134)HES	Roadway	Rumble strips - edge or shoulder	5.618	Miles	\$14459	\$14459	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,126	50	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching

		J											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
														on the roadside or opposite lane
STP 2018(146)HES	Roadway	Rumble strips - edge or shoulder	7.645	Miles	\$25868	\$25868	HSIP (23 U.S.C. 148)	Rural Major Collector	2,667	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(145)HES	Roadway	Rumble strips - edge or shoulder	8.906	Miles	\$28929	\$28929	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,054	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(144)HES	Roadway	Rumble strips - edge or shoulder	11.847	Miles	\$48419	\$48419	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	9,352	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(143)HES	Roadway	Rumble strips - edge or shoulder	9.078	Miles	\$31263	\$31263	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,721	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(140)HES & STP 2018(141)HES	Roadway	Rumble strips - edge or shoulder	8.26	Miles	\$31807	\$31807	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	7,428	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(132)HES & STP 2018(133)HES	Roadway	Rumble strips - edge or shoulder	22.558	Miles	\$47209	\$47209	HSIP (23 U.S.C. 148)	Rural Minor Arterial	5,014	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(522)HES	Roadway	Rumble strips - edge or shoulder	17.708	Miles	\$125613	\$125613	HSIP (23 U.S.C. 148)	Rural Major Collector	4,536	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(522)HES	Roadway	Rumble strips - edge or shoulder	11.042	Miles	\$56827	\$56827	HSIP (23 U.S.C. 148)	Rural Major Collector	1,559	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(522)HES	Roadway	Rumble strips - edge or shoulder	4.324	Miles	\$48920	\$48920	HSIP (23 U.S.C. 148)	Rural Major Collector	423	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(522)HES	Roadway	Rumble strips - edge or shoulder	29.635	Miles	\$161137	\$161137	HSIP (23 U.S.C. 148)	Rural Major Collector	1,919	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(522)HES	Roadway	Rumble strips - edge or shoulder	28.167	Miles	\$193639	\$193639	HSIP (23 U.S.C. 148)	Rural Major Collector	1,466	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(522)HES	Roadway	Rumble strips - edge or shoulder	13.836	Miles	\$148320	\$148320	HSIP (23 U.S.C. 148)	Rural Minor Arterial	3,341	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane

	, , ,	ovement Program											RELATIONS	HIP TO SHSP
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST(\$)	TOTAL PROJECT COST(\$)	FUNDING CATEGORY	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	EMPHASIS AREA	STRATEGY
STP 2018(522)HES	Roadway	Rumble strips - edge or shoulder	23.6	Miles	\$124250	\$124250	HSIP (23 U.S.C. 148)	Rural Minor Arterial	2,682	65	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(748)HES	Roadway	Rumble strips - edge or shoulder	10.52	Miles	\$72112	\$72112	HSIP (23 U.S.C. 148)	Rural Major Collector	5,198	40	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	16.668	Miles	\$57653	\$57653	HSIP (23 U.S.C. 148)	Rural Major Collector	146	75	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(554)HESG	Roadway	Rumble strips - edge or shoulder	26.373	Miles	\$99287	\$99287	HSIP (23 U.S.C. 148)	Rural Minor Arterial	1,038	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(355)HES	Roadway	Roadway - other	0.1	Miles	\$287613	\$287613	HSIP (23 U.S.C. 148)	Rural Minor Collector	254	60	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(504)HES	Roadway	Roadway widening - travel lanes	12.283	Miles	\$3718619	\$3718619	HSIP (23 U.S.C. 148)	Rural Major Collector	1,267	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(505)HES	Roadway	Roadway widening - travel lanes	4.575	Miles	\$3443262	\$3443262	HSIP (23 U.S.C. 148)	Rural Major Collector	1,119	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(504)HES	Roadway	Roadway widening - travel lanes	20.165	Miles	\$10115073	\$10115073	HSIP (23 U.S.C. 148)	Rural Major Collector	582	70	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 2018(757)HES	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	1.4	Miles	\$1109179	\$1709304	HSIP (23 U.S.C. 148)	Urban Major Collector	4,711	55	State Highway Agency	Spot	Roadway Departure	Keep vehicles from encroaching on the roadside or opposite lane
STP 1802(438)HES	Advanced technology and ITS	Advanced technology and ITS - other	8.927	Miles	\$247299	\$247299	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	155,287	60	State Highway Agency	Spot	Older Drivers	Reduce wrong way crashes
STP 1802(583)HES	Roadway signs and traffic control	Roadway signs and traffic control - other	12.599	Miles	\$62228	\$62228	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other Freeways and Expressways	41,351	70	State Highway Agency	Spot	Older Drivers	Reduce wrong way crashes

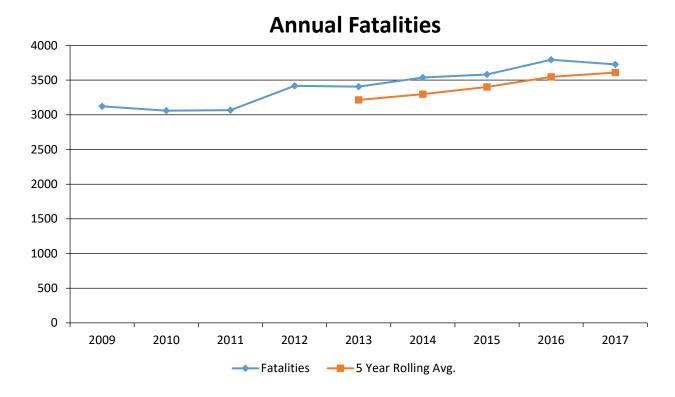
Enter additional comments here to clarify your response for this question or add supporting information.

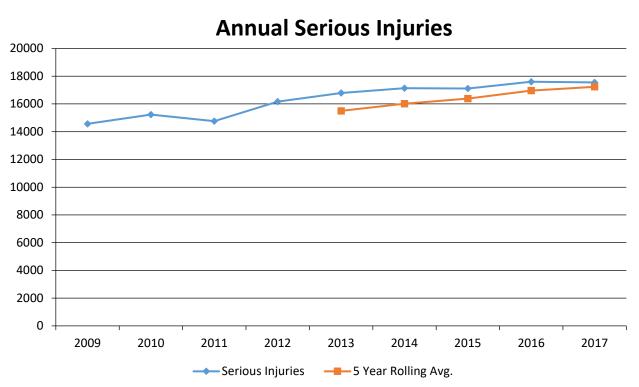
### **Safety Performance**

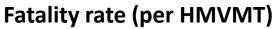
### General Highway Safety Trends

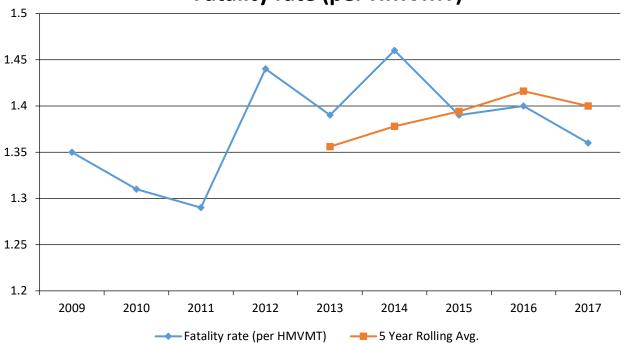
Present data showing the general highway safety trends in the State for the past five years.

PERFORMANCE MEASURES	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fatalities	3,122	3,060	3,068	3,417	3,407	3,538	3,582	3,794	3,726
Serious Injuries	14,568	15,232	14,761	16,168	16,785	17,134	17,110	17,602	17,546
Fatality rate (per HMVMT)	1.350	1.310	1.290	1.440	1.390	1.460	1.390	1.400	1.360
Serious injury rate (per HMVMT)	6.280	6.500	6.220	6.800	6.860	7.050	6.630	6.490	6.390
Number non-motorized fatalities	405	400	472	544	542	538	613	746	670
Number of non-motorized serious injuries	1,136	1,147	1,148	1,257	1,323	1,364	1,435	1,564	1,478

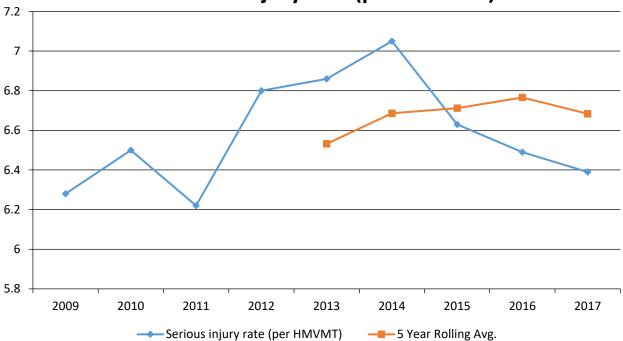


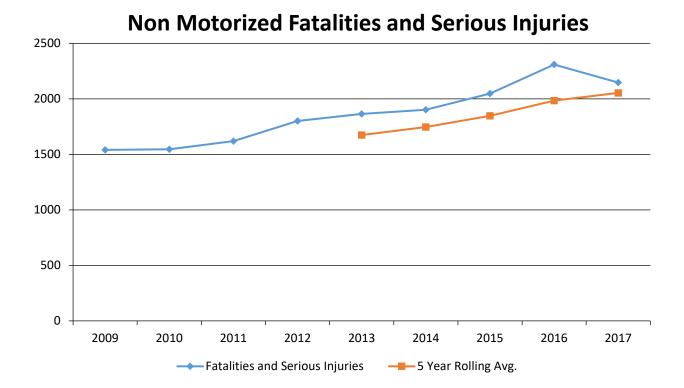






## Serious injury rate (per HMVMT)





Enter additional comments here to clarify your response for this question or add supporting information.

Describe fatality data source.

State Motor Vehicle Crash Database

Enter additional comments here to clarify your response for this question or add supporting information.

FARS data is used to present the fatality data for drivers and pedestrians over the age of 65 (Applicability of Special Rules) and required performance measures. For all other questions that require fatality data, the state motor vehicle crash database is used.

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

**Year 2017** 

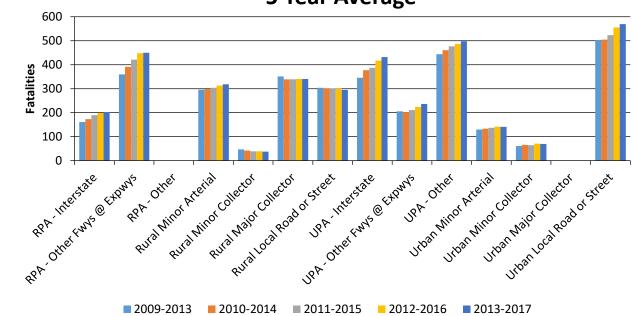
Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)	
Rural Principal Arterial (RPA) - Interstate	202.4	576.2	1.18	3.36	
Rural Principal Arterial (RPA) - Other Freeways and Expressways	449.8	1,387.8	2.02	6.23	
Rural Principal Arterial (RPA) - Other	0	0	0	0	

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 Arterial	318.6	951.6	2.7	8.06
Rural Minor Collector	37.6	149.4	1.94	7.68
Rural Major Collector	340.4	1,189.2	2.64	9.23
Rural Local Road or Street	295.2	1,501.2	6.33	32.28
Urban Principal Arterial (UPA) - Interstate	431.6	1,714.6	0.9	3.55
Urban Principal Arterial (UPA) - Other Freeways and Expressways	236.6	1,014.2	0.74	3.2
Urban Principal Arterial (UPA) - Other	497.8	2,603.6	1.23	6.45
Urban Minor Arterial	140.8	720.8	0.46	2.35
Urban Minor Collector	69.8	299.4	0.27	1.17
Urban Major Collector	0	0	0	0
Urban Local Road or Street	569.4	4,629.4	5.38	43.99

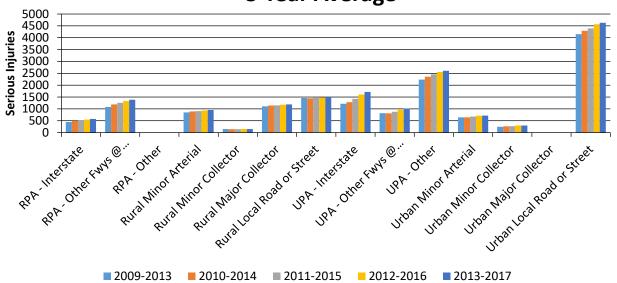
### **Year 2017**

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	0	0	0	0
County Highway Agency	0	0	0	0
Town or Township Highway Agency	0	0	0	0
City of Municipal Highway Agency	0	0	0	0
State Park, Forest, or Reservation Agency	0	0	0	0
Local Park, Forest or Reservation Agency	0	0	0	0
Other State Agency	0	0	0	0
Other Local Agency	0	0	0	0
Private (Other than Railroad)	0	0	0	0
Railroad	0	0	0	0
State Toll Authority	0	0	0	0
Local Toll Authority	0	0	0	0
Other Public Instrumentality (e.g. Airport, School, University)	0	0	0	0
Indian Tribe Nation	0	0	0	0

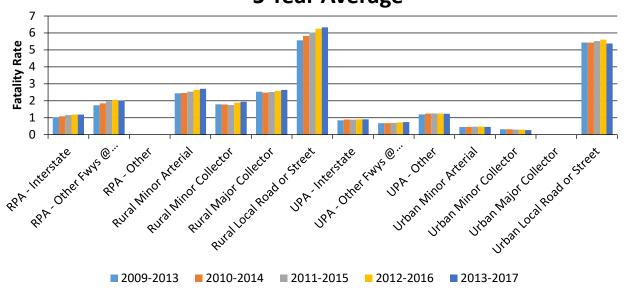
## Number of Fatalities by Functional Classification 5 Year Average



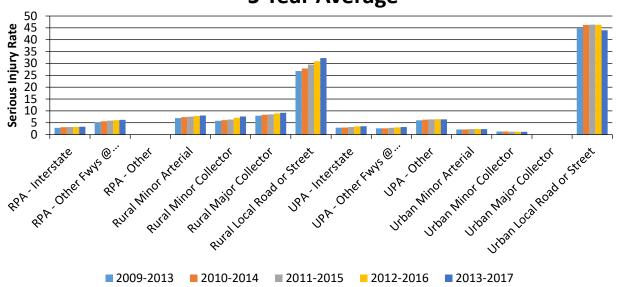
## Number of Serious Injuries by Functional Classification 5 Year Average



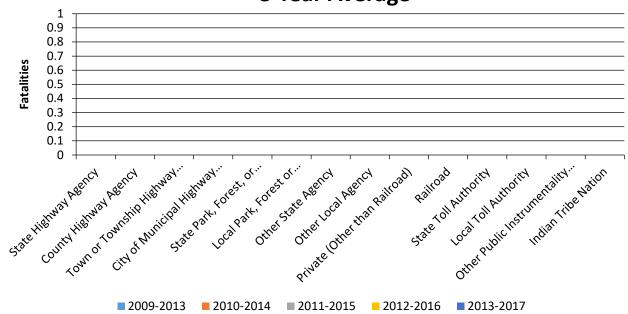
# Fatality Rate (per HMVMT) by Functional Classification 5 Year Average



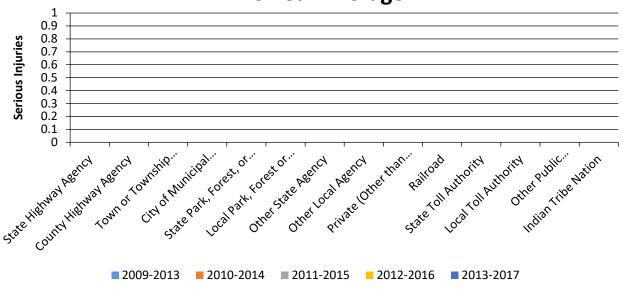
# Serious Injury Rate (per HMVMT) by Functional Classification 5 Year Average



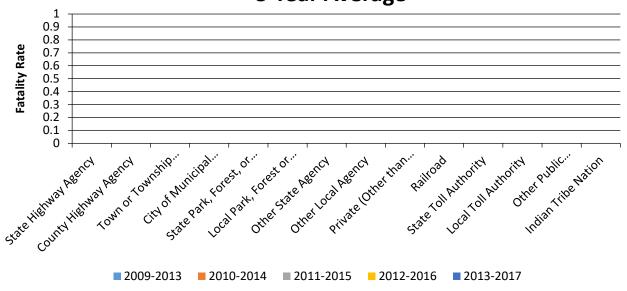
## Number of Fatalities by Roadway Ownership 5 Year Average



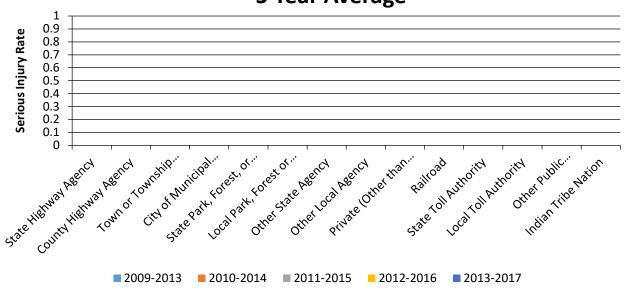
# Number of Serious Injuries by Roadway Ownership 5 Year Average



# Fatality Rate (per HMVMT) by Roadway Ownership 5 Year Average



# Serious Injury Rate (per HMVMT) by Roadway Ownership 5 Year Average



Enter additional comments here to clarify your response for this question or add supporting information.

We calculate Rural Principal Arterial - Other Freeways and Expressways & Rural Principal Arterial - Other as one using Rural Principal Arterial.

We calculate Urban Minor Collector & Urban Major Collector as one using Urban Collector.

We do not collect Roadway Ownership.

Are there any other aspects of the general highway safety trends on which the State would like to elaborate?

No

Safety Performance Targets
Safety Performance Targets

Calendar Year 2019 Targets \*

**Number of Fatalities** 

3791.0

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

TxDOT uses a linear trend analysis to establish target(s), and analyzed the linear trend analysis of different data sets including three to five years of raw data as well as the moving averages for those data sets. The "R" Values are contained on the charts within each problem identification. While utilizing the linear trend analysis projections, the slope is determined to be a positive factor or negative factor. The short-term (2019) and long-term (2021) targets are consistent with the methodology used to establish State Highway Safety Plan (SHSP) targets, and therefore the shortterm targets are identical to the Highway Safety Improvement Plan (HSIP) targets. TxDOT established its 2019 HSP performance targets based on data projections using the 2017-2022 SHSP which included 2011-2015 FARS data or 2012-2016 CRIS data. Also included was discussion of other relevant factors including the availability of funds, the State's improved economic conditions, oil and gas industry-related population growth in the entire State, gas prices, increases in non-motorized modes of transportation, and expected increases in miles driven and speed. TxDOT uses a comprehensive review of general trends statewide, and then drills down to the county and local detail level to determine the best use of available resources. The SHSP uses a data-driven, multi-year collaborative process to establish safety targets. The consensus of the SHSP stakeholder and executive teams is to utilize a methodology of establishing targets that would result in a 2% reduction from the original trend line projection in 2022. The proposed reduction of 2% by 2022, which only applies to positive slope projection trends, would be achieved by reducing each intermediate year by the following reduction percentages: Year Reduction 2017 0.0% 2018 0.4% 2019 0.8% 2020 1.2% 2021 1.6% 2022 2.0% When the slope analysis projects a negative slope, the target set will mirror the projection determined by the slope. The 2019 Target expressed as a 5-year average would be as follows: Year Target or Actual Data Source 2015 3,582 FARS 2016 3,776 ARF 2017 3,726 CRIS 2018 3,891 Target 2019 3,980 Target 2019 Target expressed as 5-year average: 3,791.0

**Number of Serious Injuries** 

17751.0

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

TxDOT uses a linear trend analysis to establish target(s), and analyzed the linear trend analysis of different data sets including three to five years of raw data as well as the moving averages for those data sets. The "R" Values are contained on the charts within each problem identification. While utilizing the linear trend analysis projections, the slope is determined to be a positive factor or negative factor. The short-term (2019) and long-term (2021) targets are consistent with the methodology used to establish State Highway Safety Plan (SHSP) targets, and therefore the shortterm targets are identical to the Highway Safety Improvement Plan (HSIP) targets. TxDOT established its 2019 HSP performance targets based on data projections using the 2017-2022 SHSP which included 2011-2015 FARS data or 2012-2016 CRIS data. Also included was discussion of other relevant factors including the availability of funds, the State's improved economic conditions, oil and gas industry-related population growth in the entire State, gas prices, increases in non-motorized modes of transportation, and expected increases in miles driven and speed. TxDOT uses a comprehensive review of general trends statewide, and then drills down to the county and local detail level to determine the best use of available resources. The SHSP uses a data-driven, multi-year collaborative process to establish safety targets. The consensus

of the SHSP stakeholder and executive teams is to utilize a methodology of establishing targets that would result in a 2% reduction from the original trend line projection in 2022. The proposed reduction of 2% by 2022, which only applies to positive slope projection trends, would be achieved by reducing each intermediate year by the following reduction percentages: Year Reduction 2017 0.0% 2018 0.4% 2019 0.8% 2020 1.2% 2021 1.6% 2022 2.0% When the slope analysis projects a negative slope, the target set will mirror the projection determined by the slope. The 2019 Target expressed as a 5-year average would be as follows: Year Target or Actual Data Source 2015 17,110 CRIS 2016 17,602 CRIS 2017 17,546 CRIS 2018 18,130 Target 2019 18,367 Target 2019 Target expressed as 5-year average: 17,751.0

**Fatality Rate** 

1.414

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

TxDOT uses a linear trend analysis to establish target(s), and analyzed the linear trend analysis of different data sets including three to five years of raw data as well as the moving averages for those data sets. The "R" Values are contained on the charts within each problem identification. While utilizing the linear trend analysis projections, the slope is determined to be a positive factor or negative factor. The short-term (2019) and long-term (2021) targets are consistent with the methodology used to establish State Highway Safety Plan (SHSP) targets, and therefore the shortterm targets are identical to the Highway Safety Improvement Plan (HSIP) targets. TxDOT established its 2019 HSP performance targets based on data projections using the 2017-2022 SHSP which included 2011-2015 FARS data or 2012-2016 CRIS data. Also included was discussion of other relevant factors including the availability of funds, the State's improved economic conditions, oil and gas industry-related population growth in the entire State, gas prices, increases in non-motorized modes of transportation, and expected increases in miles driven and speed. TxDOT uses a comprehensive review of general trends statewide, and then drills down to the county and local detail level to determine the best use of available resources. The SHSP uses a data-driven, multi-year collaborative process to establish safety targets. The consensus of the SHSP stakeholder and executive teams is to utilize a methodology of establishing targets that would result in a 2% reduction from the original trend line projection in 2022. The proposed reduction of 2% by 2022, which only applies to positive slope projection trends, would be achieved by reducing each intermediate year by the following reduction percentages: Year Reduction 2017 0.0% 2018 0.4% 2019 0.8% 2020 1.2% 2021 1.6% 2022 2.0% When the slope analysis projects a negative slope, the target set will mirror the projection determined by the slope. The 2019 Target expressed as a 5-year average would be as follows: Year Target or Actual Data Source 2015 1.39 FARS 2016 1.39 ARF 2017 1.36 CRIS 2018 1.46 Target 2019 1.47 Target 2019 Target expressed as 5-year average: 1.414

**Serious Injury Rate** 

6.550

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

TxDOT uses a linear trend analysis to establish target(s), and analyzed the linear trend analysis of different data sets including three to five years of raw data as well as the

moving averages for those data sets. The "R" Values are contained on the charts within each problem identification. While utilizing the linear trend analysis projections, the slope is determined to be a positive factor or negative factor. The short-term (2019) and long-term (2021) targets are consistent with the methodology used to establish State Highway Safety Plan (SHSP) targets, and therefore the shortterm targets are identical to the Highway Safety Improvement Plan (HSIP) targets. TxDOT established its 2019 HSP performance targets based on data projections using the 2017-2022 SHSP which included 2011-2015 FARS data or 2012-2016 CRIS data. Also included was discussion of other relevant factors including the availability of funds, the State's improved economic conditions, oil and gas industry-related population growth in the entire State, gas prices, increases in non-motorized modes of transportation, and expected increases in miles driven and speed. TxDOT uses a comprehensive review of general trends statewide, and then drills down to the county and local detail level to determine the best use of available resources. The SHSP uses a data-driven, multi-year collaborative process to establish safety targets. The consensus of the SHSP stakeholder and executive teams is to utilize a methodology of establishing targets that would result in a 2% reduction from the original trend line projection in 2022. The proposed reduction of 2% by 2022, which only applies to positive slope projection trends, would be achieved by reducing each intermediate year by the following reduction percentages: Year Reduction 2017 0.0% 2018 0.4% 2019 0.8% 2020 1.2% 2021 1.6% 2022 2.0% When the slope analysis projects a negative slope, the target set will mirror the projection determined by the slope. The 2019 Target expressed as a 5-year average would be as follows: Year Target or Actual Data Source 2015 6.63 CRIS 2016 6.49 CRIS 2017 6.39 CRIS 2018 6.64 Target 2019 6.60 Target 2019 Target expressed as 5-year average: 6.550

Total Number of Non-Motorized Fatalities and Serious Injuries

2237.6

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

TxDOT uses a linear trend analysis to establish target(s), and analyzed the linear trend analysis of different data sets including three to five years of raw data as well as the moving averages for those data sets. The "R" Values are contained on the charts within each problem identification. While utilizing the linear trend analysis projections, the slope is determined to be a positive factor or negative factor. The short-term (2019) and long-term (2021) targets are consistent with the methodology used to establish State Highway Safety Plan (SHSP) targets, and therefore the shortterm targets are identical to the Highway Safety Improvement Plan (HSIP) targets. TxDOT established its 2019 HSP performance targets based on data projections using the 2017-2022 SHSP which included 2011-2015 FARS data or 2012-2016 CRIS data. Also included was discussion of other relevant factors including the availability of funds, the State's improved economic conditions, oil and gas industry-related population growth in the entire State, gas prices, increases in non-motorized modes of transportation, and expected increases in miles driven and speed. TxDOT uses a comprehensive review of general trends statewide, and then drills down to the county and local detail level to determine the best use of available resources. The SHSP uses a data-driven, multi-year collaborative process to establish safety targets. The consensus of the SHSP stakeholder and executive teams is to utilize a methodology of

establishing targets that would result in a 2% reduction from the original trend line projection in 2022. The proposed reduction of 2% by 2022, which only applies to positive slope projection trends, would be achieved by reducing each intermediate year by the following reduction percentages: Year Reduction 2017 0.0% 2018 0.4% 2019 0.8% 2020 1.2% 2021 1.6% 2022 2.0% When the slope analysis projects a negative slope, the target set will mirror the projection determined by the slope. The 2019 Target expressed as a 5-year average would be as follows: Year Target or Actual Data Source 2015 2,036 FARS-CRIS 2016 2,301 ARF-CRIS 2017 2,148 CRIS 2018 2,309 Target 2019 2,394 Target 2019 Target expressed as 5-year average: 2,237.6

Enter additional comments here to clarify your response for this question or add supporting information.

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

TxDOT is not only responsible for preparing, maintaining, and striving to reach goals of the Highway Safety Improvement Program, but also the Strategic Highway Safety Plan (SHSP), and the Highway Safety Plan (HSP). The SHSP process is maintained through Texas A&M University's Texas Transportation Institute (TTI).

TxDOT remains in contact and coordinates with TTI and other partners and stakeholders to update the SHSP and work toward targets identified in the SHSP. When targets are set in the SHSP (especially the Five Core Measures: Fatalities, Fatality Rate, Serious Injuries, Serious Injuries Rate, And Non-Motorized Fatalities & Serious Injuries) the HSIP targets are also set using the same methodology in effort to maintain consistency across the respective plans.

As a result, the three coordinated plans have synced methodologies and strive to ensure a common vision and direction. Charts containing data for the 5 Core Measures are synced with those contained in the SHSP.

In addition, both the Traffic Safety Section and the Engineering Section, both of the TxDOT Traffic Operations Division, have collaborated on coordinating the generation of the SHSP and the HSP. Meetings, exchange of ideas, coordination of projects, data analysis, and a constant flow of communication ensures that these projects work together towards common targets and objectives.

The SHSP update process was guided by an Executive Committee (EC) and a Stakeholder Group (SG) representing a diverse assembly of road safety agencies, organizations, advocates, and experts. After these teams determined priorities based on data and discussion, seven Emphasis Area Teams were formed to develop the content. The development process was supported by the Management Team, which included representatives from TxDOT, FHWA, and a TTI support group.

The EC consisted of representatives of TxDOT, FHWA, the National Highway Traffic Safety Administration (NHTSA), metropolitan planning organizations (MPOs), cities that have adopted Vision Zero, state and local law enforcement agencies, transit agencies, trucking and railroad agencies and organizations, the Texas Department of Motor Vehicles, the Texas Department of Public Safety, county transportation officials, bicycle and pedestrian advocates, the Texas Department of State Health Services, the judiciary, the Texas Alcohol Beverage Commission,

Does the State want to report additional optional targets?

Enter additional comments here to clarify your response for this question or add supporting information.

#### Applicability of Special Rules

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

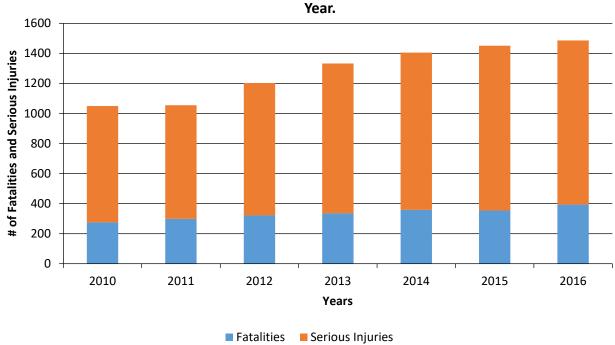
No

Enter additional comments here to clarify your response for this question or add supporting information.

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	2010	2011	2012	2013	2014	2015	2016
Number of Older Driver and Pedestrian Fatalities	275	299	321	335	358	354	394
Number of Older Driver and Pedestrian Serious Injuries	775	756	882	998	1,047	1,097	1,092

### Number of Older Driver and Pedestrian Fatalities and Serious Injuries by



Enter additional comments here to clarify your response for this question or add supporting information.

#### **Evaluation**

**Program Effectiveness** 

How does the State measure effectiveness of the HSIP?

Change in fatalities and serious injuries

Enter additional comments here to clarify your response for this question or add supporting information.

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

A program level evaluation was not conducted over this reporting period, however, we've monitored our projected trend line for fatalities and fatality rates statewide and determined that the overall 2017 fatalities and fatality rates are below the projected trend line.

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

# miles improved by HSIP

Enter additional comments here to clarify your response for this question or add supporting information.

Are there any significant programmatic changes that have occurred since the last reporting period?

No

Effectiveness of Groupings or Similar Types of Improvements

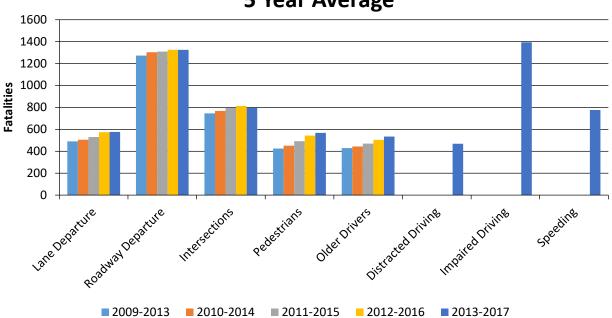
Present and describe trends in SHSP emphasis area performance measures.

### Year 2017

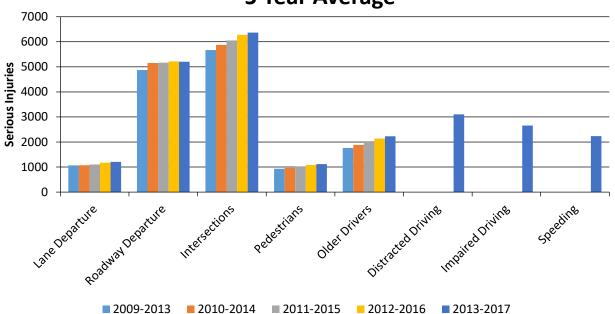
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)	Other 1	Other 2	Other 3
Lane Departure	Head on	577.2	1,207.4	0.23	0.47	0	0	0
Roadway Departure	Run-off-road	1,325	5,205.8	0.51	2.02	0	0	0

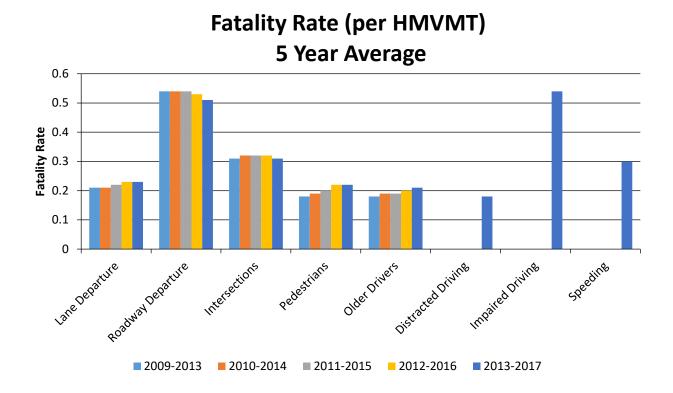
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)	Other 1	Other 2	Other 3
Intersections	Intersections	797.6	6,365.8	0.31	2.47	0	0	0
Pedestrians	Vehicle/pedestrian	567.2	1,117.8	0.22	0.43	0	0	0
Older Drivers	Driver 65 years & older	533.8	2,230.2	0.21	0.86	0	0	0
Distracted Driving	Distracted driver	468	3,104	0.18	1.21	0	0	0
Impaired Driving	DUI	1,394	2,654	0.54	1.03	0	0	0
Speeding	Speed-related	776	2,237	0.3	0.87	0	0	0

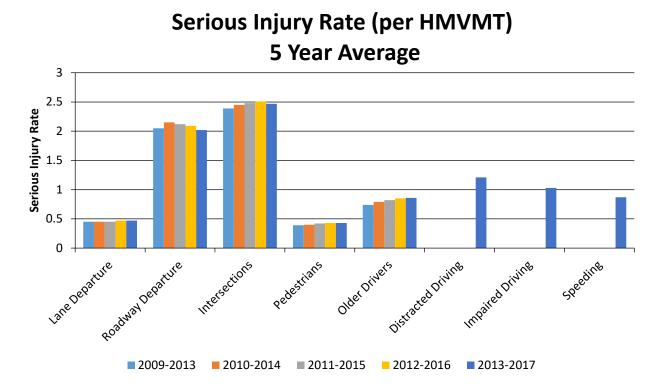
## Number of Fatalities 5 Year Average



# Number of Serious Injuries 5 Year Average







Enter additional comments here to clarify your response for this question or add supporting information.

Older Drivers are defined as Age 65 and Over.

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

Enter additional comments here to clarify your response for this question or add supporting information

No

#### 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)
N/A														

Enter additional comments here to clarify your response for this question or add supporting information.

Are there any other aspects of the overall HSIP effectiveness on which the State would like to elaborate?

No

## **Compliance Assessment**

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

07/26/2017

What are the years being covered by the current SHSP?

From: 2017 To: 2022

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

2022

Enter additional comments here to clarify your response for this question or add supporting information.

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

	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAV	/ED ROADS	UNPAVED ROADS		
MIRE NAME (MIRE NO.)	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
ROADWAY SEGMENT	ROADWAY SEGMENT										
Segment Identifier (12)	0	0					0	0	0	0	
Route Number (8)	100	100									
Route/Street Name (9)	100	100									
Federal Aid/Route Type (21)	100	100									
Rural/Urban Designation (20)	100	100					100	100			
Surface Type (23)	100	100					100	0			
Begin Point Segment Descriptor (10)	0	0					0	0	0	0	
End Point Segment Descriptor (11)	0	0					0	0	0	0	
Segment Length (13)	0	0									
Direction of Inventory (18)	100	100									
Functional Class (19)	100	100					100	100	100	100	
Median Type (54)	100	0									
Access Control (22)	100	100									

	NON LOCAL PAVED ROADS - SEGMENT		NON LOCA ROADS - INT	AL PAVED ERSECTION	NON LOCA ROADS -	AL PAVED RAMPS	LOCAL PAV	ED ROADS	UNPAVE	O ROADS
MIRE NAME (MIRE NO.)	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
One/Two Way Operations (91)	100	100								
Number of Through Lanes (31)	100	100					100	100		
Average Annual Daily Traffic (79)	100	100					100	100		
AADT Year (80)	100	100								
Type of Governmental Ownership (4)	100	100					100	100	100	100
INTERSECTION										
Unique Junction Identifier (120)			0	0						
Location Identifier for Road 1 Crossing Point (122)			0	0						
Location Identifier for Road 2 Crossing Point (123)			0	0						
Intersection/Junction Geometry (126)			0	0						
Intersection/Junction Traffic Control (131)			0	0						
AADT for Each Intersecting Road (79)			0	0						
AADT Year (80)			0	0						
Unique Approach Identifier (139)			0	0						
INTERCHANGE/RAMP										
Unique Interchange Identifier (178)					0	0				
Location Identifier for Roadway at Beginning of Ramp Terminal (197)					0	0				
Location Identifier for Roadway at Ending Ramp Terminal (201)					0	0				
Ramp Length (187)					0	0				
Roadway Type at Beginning of Ramp Terminal (195)					0	0				
Roadway Type at End Ramp Terminal (199)					0	0				

	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
MIRE NAME (MIRE NO.)	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
Interchange Type (182)					0	0				
Ramp AADT (191)					0	0				
Year of Ramp AADT (192)					0	0				
Functional Class (19)					0	0				
Type of Governmental Ownership (4)					0	0				
Totals (Average Percent Complete):	77.78	72.22	0.00	0.00	0.00	0.00	66.67	55.56	40.00	40.00

<sup>\*</sup>Based on Functional Classification

Enter additional comments here to clarify your response for this question or add supporting information.

The concept of a 'segment', 'intersection', and 'interchange/ramp' has not yet been defined.

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 state will continue to canvass other states to identify best practices in terms of the intersection data models, data creation, data maintenance, and integration with roadway inventory data. The state will define the concepts of intersections and interchanges. The state will explore various tools to help automate the creation of intersections and interchanges.

Provide the suspected serious injury identifier, definition and attributes used by the State for both the crash report form and the crash database using the table below. Please also indicate whether or not these elements are compliant with the MMUCC 4th edition criteria for data element P5. Injury Status, suspected serious injury.

CRITERIA	SUSPECTED SERIOUS INJURY IDENTIFIER(NAME)	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY DEFINITION	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY ATTRIBUTES(DESCRIPTORS)	MMUCC 4TH EDITION COMPLIANT *
Crash Report Form	A = Suspected Serious Injury	Yes	N/A	N/A	N/A	N/A
Crash Report Form Instruction Manual	A = Suspected Serious Injury	Yes	Severe Injury that prevents continuation of normal activities.	No	Please see attachment.	Yes
Crash Database	A = Suspected Serious Injury	Yes	N/A	N/A	N/A	N/A
Crash Database Data Dictionary	A = Suspected Serious Injury	Yes	Please see attachment.	No	Please see attachment.	No

Please describe the actions the State is taking to become compliant by April 15, 2019.

Please see attachment.

Enter additional comments here to clarify your response for this question or add supporting information.

Did the State conduct an HSIP program assessment during the reporting period?

Describe the purpose and outcomes of the State's HSIP program assessment.

The purpose of the program assessment was to ensure TxDOT was compliant with updated Federal guidance for HSIP and to recommend general process improvements for overall program effectiveness and efficiency. The assessment focused on the HSIP project prioritization and selection processes within the overall HSIP. The recommendations to help improve the program included revising and updating the HSIP Manual; creating stronger links between the SHSP priorities and HSIP projects, and creating new ways to ensure projects are distributed geographically and programmatically to the greatest safety needs of the state.

#### **Optional Attachments**

Compliance Assessment:

Program Structure:

hsi.pdf

Project Implementation:

Safety Performance:

Evaluation:

Revised-2018 HSIP Report - Q50 (3) (2).docx

## 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.
<b>Programmed funds</b>	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.