

Highway Safety Improvement Program (HSIP)

Navajo Partnership Meeting
June 18, 2013

U.S. Department of Transportation
Federal Highway Administration

Safe Roads for a Safer Future
Investment in roadway safety saves lives.
<http://safety.fhwa.dot.gov>

Purpose of the HSIP

To achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety that focuses on performance.

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Safe Roads for a Safer Future
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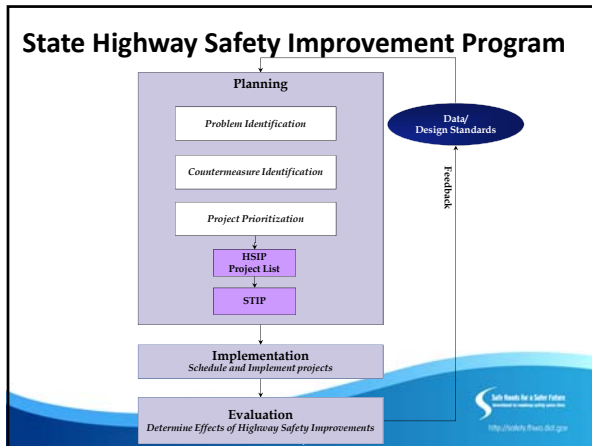
Legislative References

- United States Code
 - 23 U.S.C. 148: Highway Safety Improvement Program
- Federal Regulation
 - 23 CFR 924: Highway Safety Improvement Program

“States shall fund safety projects or activities that are most likely to reduce the number of, or potential for, fatalities and serious injuries.”

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Planning Process Step 1: Project Identification

- Data Collection
 - Crash Data
 - Traffic Volumes
 - Roadway Inventory Data
 - RSAs
- Network Screening Process

The slide includes a pie chart with four segments of different colors (orange, purple, white, and grey) and four arrows pointing outwards from the chart. The logo 'Safe Roads for a Safer Future' and the website 'http://dotdhs.gov' are visible at the bottom right.

Network Screening



- Identify Sites for Potential Safety Improvement
 - Intersections
 - Segments
- Identify Systemic Safety Improvements
 - Based on SHSP Emphasis Areas & Strategies
 - Identify key crash types and patterns to address

The logo 'Safe Roads for a Safer Future' and the website 'http://dotdhs.gov' are visible at the bottom right.

Planning Process Step 2: Countermeasure Identification

Four essential steps:

1. Analyze the Data
2. Conduct Field Review
3. Identify Countermeasures
4. Assess Countermeasure Effectiveness



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Countermeasure Resources



- Crash Modification Factor Clearinghouse
www.CMFClearinghouse.org/
- Highway Safety Manual – Part D
www.highwaysafetymanual.org/
- NCHRP Report 500 Series
www.trb.org/
- NHI Training
www.nhi.fhwa.dot.gov/



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Planning Process Step 3: Project Prioritization

- Objective Approach (e.g. Benefit/Cost Ratio)
- Project Prioritization
- Balance of Projects
- Approaches Addressing Current & Future Safety Problems



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Prioritization Considerations

- Potential reduction in # fatalities and serious injuries
- SHSP Priorities
- Cost effectiveness of projects and resources available
- Correction and prevention of hazardous locations
- Other safety data-driven criteria
- Integration with statewide/metropolitan transportation planning process and S/TIP



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Implementation & Evaluation

Implementation

- Eligibility Approval
- Funding
- Project Administration

Evaluation

- Before and After data (crashes, speeding)
- Create new standards
- Feedback to Future Planning



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Systemic Project Development

<http://safety.fhwa.dot.gov/systemic/>



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Systemic Improvements

- Low-cost, efficient to implement
- Do not require lengthy environmental review
- Many qualify for Group 1 or Condensed Group 2 Categorical Exclusions (no or minor ground disturbance)
- Usually no additional right-of-way and no utility coordination or adjustments



Arizona HSIP Manual

ADOT HSIP Manual

<http://azdot.gov/Highways/Traffic/9620.asp>

FHWA HSIP Website

<http://safety.fhwa.dot.gov/hsip/>



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Examples of Eligible Projects for HSIP

- Eliminate roadside obstacles or hazards
- Upgrade signage
- Upgrade pavement markings
- Rumble strips
- Upgrade guardrail end treatments
- Improvements on high risk rural roads
- Streetlighting




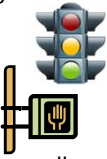
Examples of Eligible Projects for HSIP

At Intersections:

- Converting from 8-inch to 12-inch signals
- Roundabouts
- Advance street name signing



For Pedestrians:

- Pedestrian countdown signals
- Install new or upgrade pedestrian crosswalk pavement markings



Arizona HSIP Funding

- Statewide HSIP (approx. \$32 million/year)
- Local Government HSIP (approx. \$6 million/year to MPOs & COGs)
- High Risk Rural Roads Program (HRRRP)
- Railway-Highway Grade Crossing Program (RHGCP)
- Road Safety Assessment (RSA) Program



Local Match Requirements

- 5.7% for most major projects
- No match required per 23 U.S.C. 120 (c) for:
 - Roundabouts
 - Traffic Signals
 - Pavement markings
 - Signs
 - Streetlighting
 - Guardrail
 - Rumble Strips



Important HSIP Requirements

- Based on SHSP Emphasis Areas & Strategies
- Focused on reducing fatalities and serious injury crashes
- Addresses an identified highway safety problem
- Identified through a data-driven process

Safety Needs for a Safer Future
http://dotdohility.fhwa.dot.gov

HSIP Application Process

- Submit through local COG/MPO for Local Government HSIP
- Submit through ADOT Traffic Safety Section for State-managed HSIP
- Must be identified in TIP/STIP
- Must get eligibility approval from ADOT/FHWA
- Then get Funding Authorization. **Any work performed prior to Funding Authorization is not eligible for reimbursement**

Safety Needs for a Safer Future
http://dotdohility.fhwa.dot.gov

New in MAP-21

MAP-21 Section 1112:

- Strategic Highway Safety Plans (SHSP) must have regular updates
- Retroreflectivity Projects for maintenance
- Non-infrastructure Projects
- Performance Measures and Reporting requirements

<http://www.fhwa.dot.gov/map21/>

Safety Needs for a Safer Future
http://dotdohility.fhwa.dot.gov

New in MAP-21

- Special Rules for High Risk Rural Roads (HRRR) and Older Drivers & Pedestrians. HRRRP no longer a set-aside
- Safe Routes to School (SRTS) no longer a set-aside, combined into new Transportation Alternatives Program (TAP)
- Railway-highway crossing program still set-aside
- Tribal Safety Plans

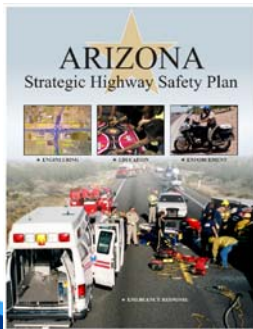


Strategic Highway Safety Plans (SHSP)

- Data-driven, statewide plan of strategies that provide a framework for reducing highway fatalities and serious injuries
- Developed through a collaborative process with safety stakeholders
- Integrates the 4Es – Engineering, Education, Enforcement, and Emergency services
- Considers the safety needs of all public roads
- Guides investment decisions



Strategic Highway Safety Plans (SHSP)



<http://azdot.gov/Highways/Traffic/9620.asp>

Adopted in August, 2007

Arizona SHSP Emphasis Areas:

1. Restraint Usage
2. Young Drivers
3. Speeding
4. Impaired Driving
5. Roadway/Roadside
6. Data Improvement



ADOT HSIP Contacts

ADOT Traffic Safety Section
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Tribal Safety Plans



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<http://safety.fhwa.dot.gov>

Tribal Safety Management System (SMS)

- Federal Lands Highway Tribal Transportation Program
- Two Safety Management Plans:
 - Strategic Plan
 - Implementation Plan
- Partners included FHWA, BIA, NHTSA, IHS, and Tribal representatives

<http://flh.fhwa.dot.gov/programs/ttp/safety/>



SHSP for Indian Lands

Strategic Plan Emphasis Areas:

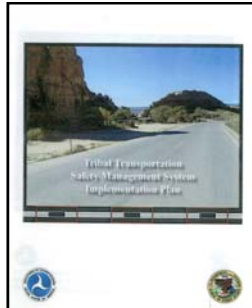
1. Decision Making Process
2. Data Collection
3. Run off the Road Crashes
4. Occupant Protection/Child Restraint
5. Alcohol/Drug Impaired Driving
6. Other Driver Behavior and Awareness
7. Drivers Under 35
8. Pedestrian Safety



<http://flh.fhwa.dot.gov/programs/irr/safety/sms.htm>

Tribal Safety Implementation Plan

- Guide for tribal safety
- Encourages 4 E's:
 - Engineering,
 - Education,
 - Enforcement,
 - Emergency Services
- Safety set aside



<http://flh.fhwa.dot.gov/programs/irr/safety/sms.htm>

MAP-21 Tribal Transportation Safety Program Funding



MAP-21 Section 1119

- Authorizes the establishment of the tribal safety program by setting aside 2% of the funds under the tribal transportation program for each fiscal year. Funds are allocated based on identification and analysis of highway safety issues on tribal lands.
- Approximately \$9,000,000 total for United States



Tribal Safety Program— Eligible Activities

- Managed by FHWA Federal Lands Highways
- Funding goals for each category:
 1. Tribal Safety Plans
 2. Enforcement and EMS
 3. Education Programs
 4. Engineering Improvements



1. Tribal Safety Plans

- Funding goal of 40% in first year
- Allow for all tribes to develop a safety plan to identify and prioritize needs
- Intent is to meet all requests if tribe has no existing plan
- Maximum funding of \$10,000
- Can apply to update an existing plan at a reduced amount



1. Tribal Safety Plans (con't)

Needed Safety Planning Activities

- Data Collection
- Data Analysis and Improvement
- Road Safety Assessment
- Ranked based upon:
 - Included in an existing safety plan
 - Funds leveraged with others
 - Part of a comprehensive safety approach



2. Enforcement and EMS

- 20% goal in year one
- Emergency communications equipment
- Traffic enforcement activities
- Coordinated with BIA IHSP
- Ranked based upon:
 - Data
 - In a current safety plan
 - Leveraging of funds
 - Comprehensive approach



3. Education

- 10% Goal in year one
- Public Service Announcements
- Programs to inform or address driver behavior
- Ranked based upon:
 - Data
 - In a current safety plan
 - Leveraging of funds
 - Comprehensive approach



4. Engineering Improvements

- 30% Goal in year one
- Roadway Improvements
- Extensive list in Guidance
- Ranked based upon:
 - Data
 - In a RSA, Engineering Study, etc
 - Facility ownership (must be in inventory)
 - Leveraging of funds
 - Years since last safety construction project
 - Comprehensive approach



Application Process

- Can apply for multiple projects
- Projects Ranked by a review team consisting of BIA, FHWA and Tribes
- Notice of Funding Availability (NOFA) will be posted later this summer
<http://www.flh.fhwa.dot.gov/>
Click NOFA link in the "For the Public" box.



FHWA Contacts

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The form is titled "ARIZONA ROAD SAFETY ASSESSMENT APPLICATION" and includes the "Road Safety Assessments" logo. It contains 12 numbered sections for data entry, such as "Name, Position/Title, Address of Contact Person", "Type of assessment requested", and "Reasons for requesting RSA". A URL <http://azdot.gov/Highways/Traffic/9620.asp> is provided in section 5. The form also features the "Safe Roads for a Safer Future" slogan and website at the bottom right.

HSIP Projects Resulting from RSAs

- Safford- US 70 between 8th Avenue and 14th Avenue due to pedestrian crashes took place April 2-4
- Colorado River Indian Tribes- several segments of BIA roads south of Parker. RSA took place Feb. 27-March 1
- Graham County- roundabout at 8th Ave/Airport Rd (\$2,500,000), intersection improvement at Reay Ln/Safford-Bryce Rd (\$556,000)
- Tohono-O'odham Nation- improve SR 86/IRR 15 intersection (\$2,000,000)
- Bullhead City- various roads: Pedestrian Hybrid Beacon (HAWK), street lighting, intersection improvements, roadway improvements (\$2,100,000)

The logo at the bottom right of the slide includes the slogan "Safe Roads for a Safer Future" and the website "http://safety.fhwa.dot.gov".


ADOT RSA Program Contact:


<http://azdot.gov/Highways/Traffic/9620.asp>
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 U.S. Department of Transportation
Federal Highway Administration

 Safe Roads for a Safer Future
Department of Transportation
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**FHWA
Nine Proven Countermeasures
& Safety EdgeSM**

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<http://safety.fhwa.dot.gov>

Proven Safety Countermeasures

-  Roundabouts
-  Corridor Access Management
-  Backstreets with Retroreflective Borders
-  Longitudinal Rumble Strips and Stripes on Two-Lane Roads
-  Enhanced Delineation and Friction for Horizontal Curves
-  Safety EdgeSM
-  Medians and Pedestrian Crossing Islands in Urban and Suburban Areas
-  Pedestrian Hybrid Beacon
-  Road Diet

<http://safety.fhwa.dot.gov/provencountermeasures/>

 Safe Roads for a Safer Future
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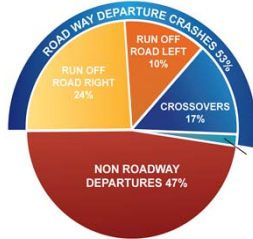
Safety Edge_{SM}



- 30 degree beveled pavement edge shaped during the paving process
- Located where the pavement edge meets with graded material
- Allows a vehicle to re-enter the roadway with better stability and better control resulting in reduced crashes on the roadways
- Also improves pavement edge durability

Safety Starts for a Safer Future
http://safety.fhwa.dot.gov

Safety Edge_{SM}



<http://www.fhwa.dot.gov/everydaycounts>

Safety Starts for a Safer Future
http://safety.fhwa.dot.gov

Safety Edge_{SM} Construction

- Similar to Conventional Paving
- No Effect on Production or Compaction
- Still Pull Shoulders Flush



http://safety.fhwa.dot.gov

Safety EdgeSM

<http://safety.edge.aot.gov>

Local Agency Grant Program

- FREE!
- Already procured
- Bypass Federal funding and contract process
- Loan out to Contractors
- 1-Page easy application
- SAVES LIVES!
- FREE!

<http://safety.edge.aot.gov>

Questions???

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<http://safety.edge.aot.gov>
