



VISION ZERO ★

zero deaths · zero serious injuries

**MONTANA DEPARTMENT
OF TRANSPORTATION**

MDT's Infrastructure Safety Engineering Program

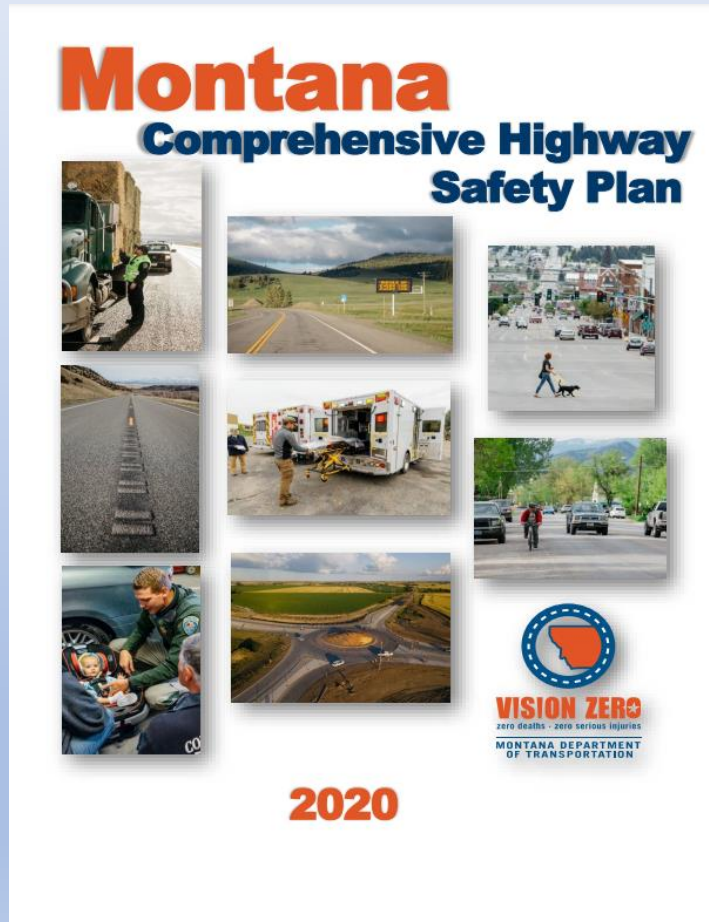
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MDT's Highway Safety Plan



- 4 Emphasis Areas:
 - Impaired Driving
 - Unrestrained Vehicle Occupants
 - Emergency Response – After Crash Care
 - Roadway Departure and Intersection Related Crashes

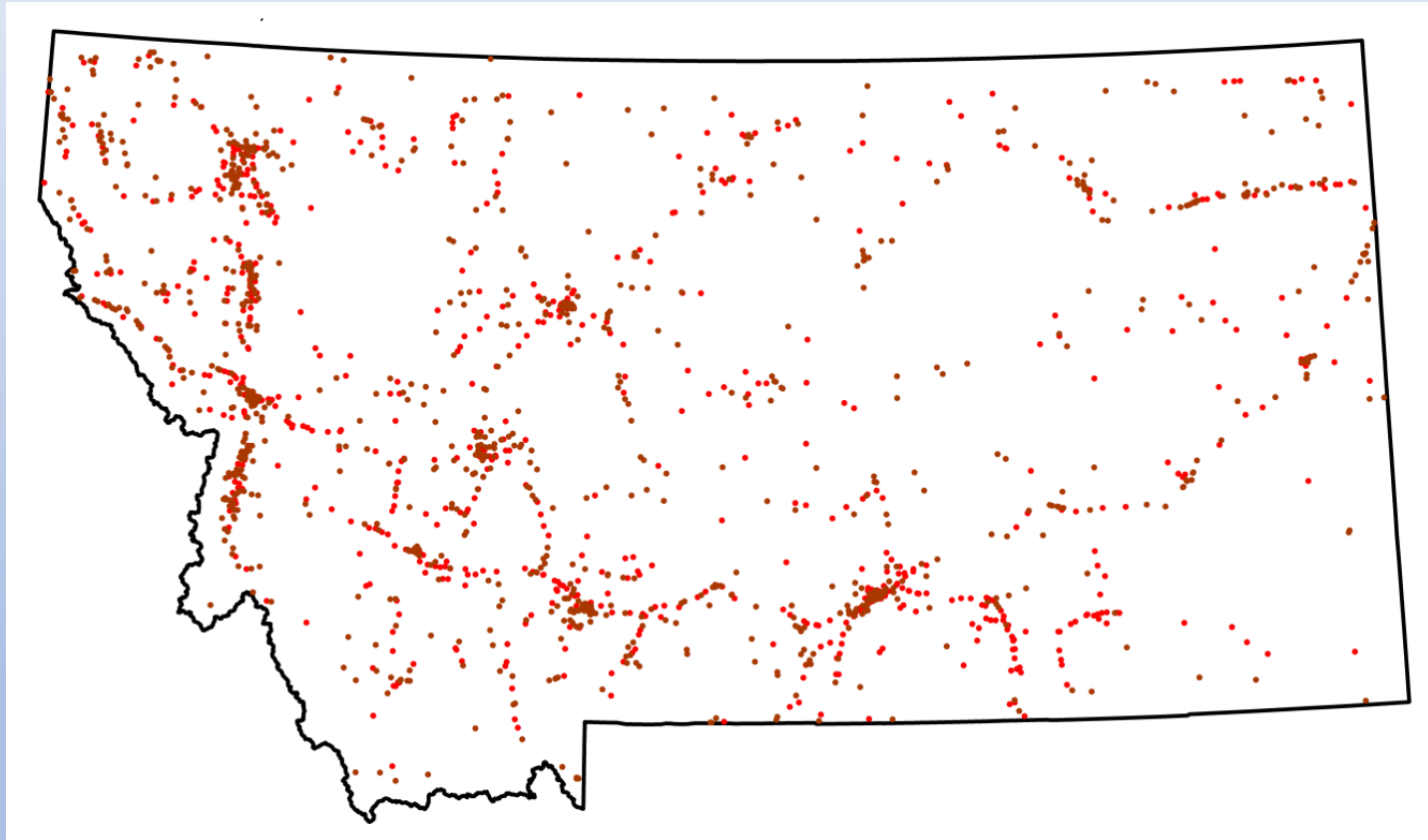
Highway Safety Improvement Program (HSIP)

- **Program has defined objectives and selection process**
 - **Data - Driven & Strategic Approach** to Improving Highway Safety
 - Project selection is **competitive** – based on benefit cost
 - Those that have a higher safety benefit are moved forward first
 - **All public roads** eligible
 - Projects identified **state-wide**
- **Roadway safety needs far exceed available funding**

How are Projects Identified?

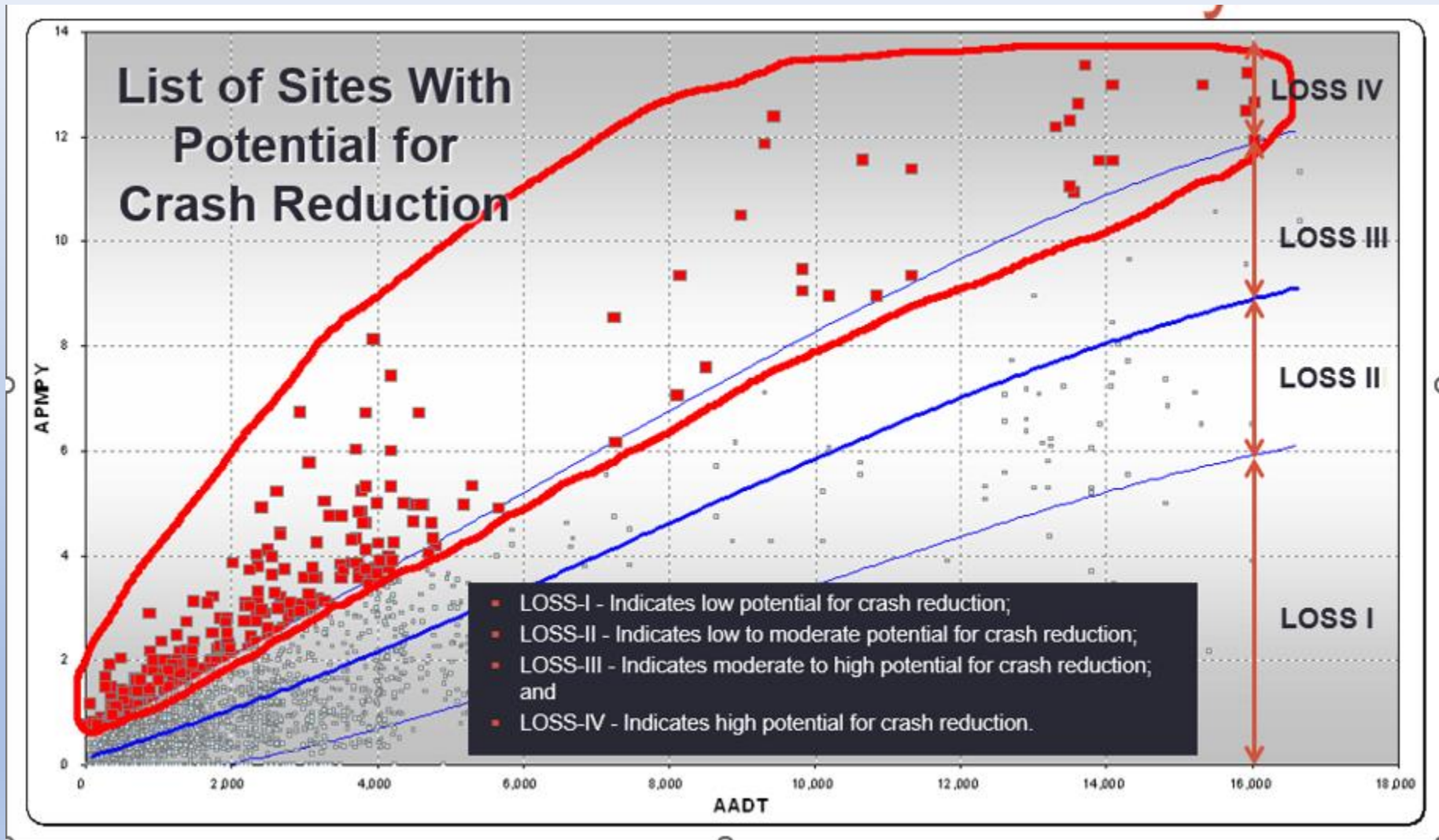
- Re-active / Traditional Method
 - **Network Screening** of the crash database (3-10 years data)
- Pro-active – 2 methods
 - **Requests** from MHP, MDT District Offices or Local / Tribal Governments
 - **Systemic Applications** of FHWA Proven Safety Countermeasures or other safety improvements (ie, delineation, sign reflectivity upgrades, centerline rumble strips, flashing yellow arrows, etc).

What areas in the state have the greatest need for highway safety improvements?

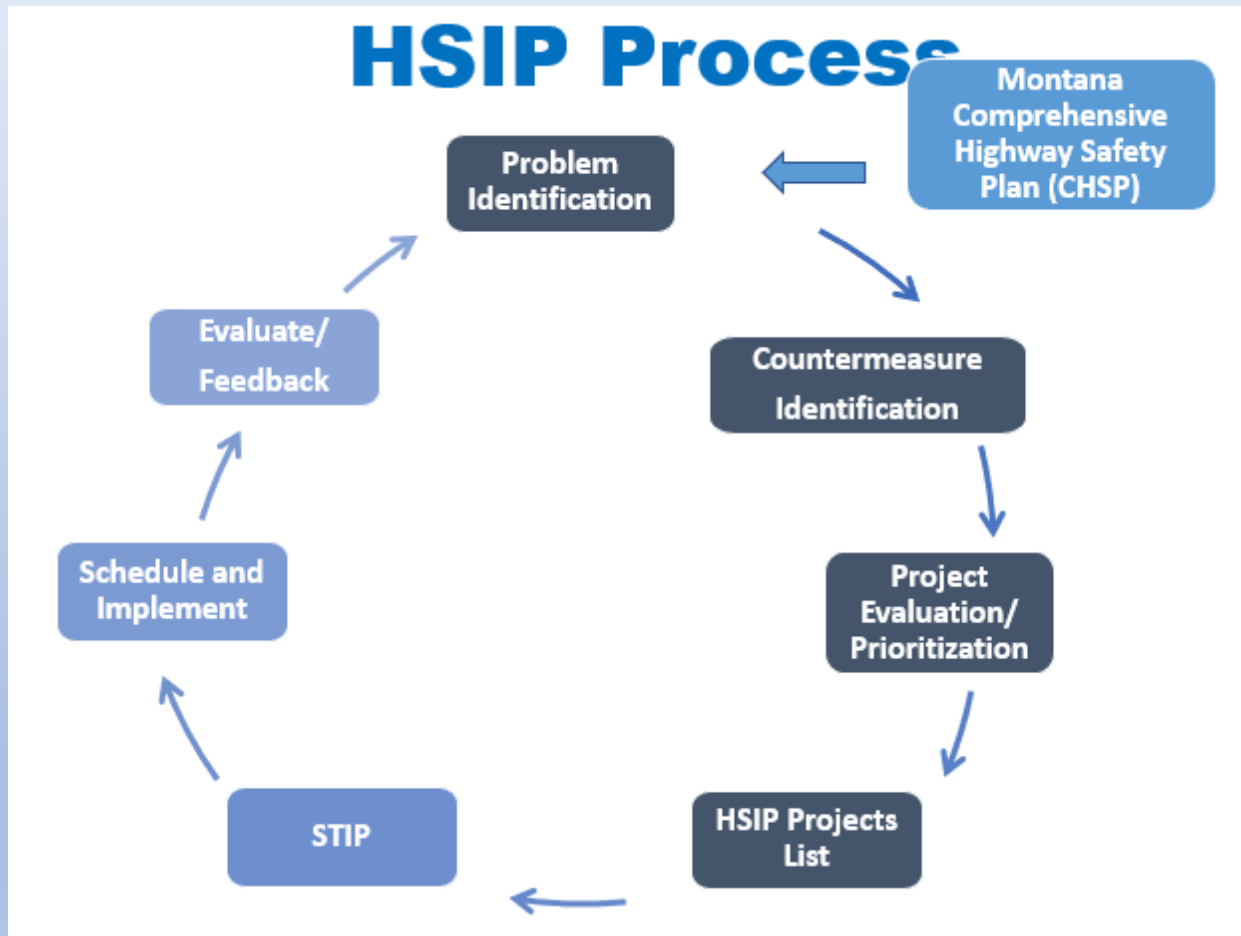


Fatal & Serious Injury Crashes 2017-2021

Level of Service of Safety (LOSS)



How Does MDT Prioritize Safety Projects?



What types of projects are used to improve highway safety and what is the cost associated with them?

	Safety Countermeasure	Crash Modification Factor (CMF)	Cost Range / Approximation
Intersection	Traffic Signals	28%	\$325,000 - \$400,000
	Roundabouts - Fatal/Serious Injury	82%	\$2-5 Million
	Roundabouts - Property Damage	42%	
Curve Signing Related	Signing Projects	23-50%	Varies (\$10,000 - \$100,000+)
	Flashing Beacons	27%	\$5,000 - \$70,000 (varies on type)
Roadway - Pavement Related	4 foot Shoulder Widening with shoulder rumble strips	48%	\$750,000 - \$1,500,000 per mile
Rumble Strips	Rumble Strips - Shoulder	18%	\$1,500 per mile
	Rumble Strips - Centerline	20%	\$2,000 per mile
	Rumble Strips - Intersection	28%	\$4,500 per installation

- **Safety is an element of all projects**
 - **Road Design, Bridge, Environmental, etc**
 - **Safety Reviews / crash analysis – Reconstruction, Rehabilitation & Pavement Preservation projects (3R Projects)**

Summary

- MDT's HSIP Program uses data-driven tools to implement safety improvements on all public roads
- There are multiple facets to addressing safety on Montana's roads. This includes engineering solutions, behavioral choices, enforcement and emergency response / trauma hospitals.
- Key Factors fatal and serious injury crashes between 2017-2021
 - 40% involved an impaired driver (alcohol and/or drugs)
 - 34% Lack of occupant protection (seat belts)
 - 59% distracted driver related