Roadside Safety Pooled Fund Program

The <u>Roadside Safety Pooled Fund</u> is an ongoing roadside safety research program to meet the research and functional needs of participating states in a cost-effective and timely manner.

Roadside Safety

Pooled Fund



The objective of the Pooled Fund is to provide a cooperative approach to conducting research on roadside safety hardware, leveraging the collective resources of member states. Emphasis is placed on assisting member DOTs with their implementation of MASH, as well as other roadside safety needs of common interest.

The Manual for Assessing Safety Hardware (MASH) supports consistent guidelines for crash testing permanent and temporary highway safety features and recommends test evaluation criteria.

In an effort to maximize coordination and information sharing among member states, the Roadside Safety Pooled Fund maintains a running list of MASH roadside safety hardware tests known as the <u>MASH database</u>. The MASH database is periodically updated to reflect recent crash testing and research.

The Pooled Fund hosts an annual meeting in the fall of each year with representation from each of the member DOTs and FHWA. During the meeting, important MASH implementation information is discussed, devices needing MASH testing are identified, and projects are prioritized for the upcoming federal fiscal year.

In preparation for the annual membership meeting each year, the Roadside Safety Pooled fund has developed methods for the communication of project information and testing needs. These methods include:



Occasional webinars are a mechanism for distributing updates related to ongoing projects, testing results, and upcoming Pooled Fund meeting details. Webinar meetings offer members the opportunity to receive presentations, inquire about relevant information, and discuss pertinent topics.

Working Groups

Working groups serve to facilitate discussion between members to identify common research interests by hardware category. During group meetings, representatives form partnerships for developing problem statements. These problem statements are used to guide discussion and prioritization of projects by members to develop the annual research program during the annual meeting. Work groups are identified for five specialty areas: <u>Longitudinal Concrete Barriers, Longitudinal Semi-Rigid</u> <u>Barriers, Bridge Rails, Breakaway Devices, and Work Zones</u>.

Current Projects	Detailed Description of Work
Administrative Support	Secures monetary provisions for the support of the Roadside Safety Pooled Fund activities. <i>Ongoing support work throughout the year</i>
Placement of Guardrail on Slopes Phase IV: MASH TL-3 Testing of Guardrail	Development of MASH TL-3 compliant guardrail system meeting tests for installing standard strong-post W-beam guardrail with the face of the rail aligned with the break point of a 1H:1V slope. <i>Testing phase of work continues</i>
MASH Coordination Effort	Assists the DOTs with coordination of information and testing activities related to MASH implementation program. <i>Ongoing support work</i>
Testing and Evaluation of the MGS System with Maximum Flare at MASH Test	Investigation of the flared MGS system to MASH TL-3 standards. <i>Testing phase of work continues</i>
Testing of Midwest Guardrail Systems with Reduced Post Spacing for MASH Compliance	Testing of a MGS systems with reduced post spacing for MASH compliance. <i>Test-ing phase of work continues</i>
Thrie/ W-Beam/Tubular Barrier Gap Rail for MASH TL-3	Design of a tubular barrier gap rail system for use on a 36" high single slope safety barrier. Thrie-beam, W-beam and tubular rail elements will be considered for the barrier rail design. The maximum open gap utilized will be 8'. <i>Project is underway</i>
Engineering Support Services for Recommen- dations for Roadside Safety Issues/ Problems for Member States	Provides engineering support services and recommendation for roadside safety hardware and barrier systems that are prioritized and requested by pooled fund member states. <i>Projects have been prioritized</i>
Accommodating Inlets and Transitions TL-3	Development of a transition design to be evaluated under MASH TL-3 test condi- tions. <i>Proposal in development</i>
Review and Investigation of W-Beam Guard- rail Terminals with Curbs	The objective is to compile current literature and practices on W-beam guardrail terminals when located near a curb. <i>Proposal submitted to WSDOT</i>
Investigation/Testing Critical Flare Rate for TL -4 CIP 42" Concrete Barrier at Fixed Object	Investigation of the critical flare rate and corresponding crashworthiness of a 42" tall single slope concrete median barrier flaring around a fixed object. <i>Project is underway</i>
MASH TL-4 Testing and Evaluation of a Con- crete Median Barrier with Fence Mounted on Top	Investigation of the crashworthiness of a 36" tall concrete single slope median bar- rier with chain linked fence on top. Engineering analysis will aid in the selection of system details for testing. <i>Project is underway</i>
Testing and Evaluation of Large Signs Slip base support on slope at MASH TL-3 Impact Conditions	Assessment of the crashworthiness of a large breakaway sign support on flat ground, investigates the utilized installation conditions for the system. <i>Project is underway</i>
Shorter MASH TL-3 W-Beam Transition	To model and test shorter W-Beam transition systems. Task order in process
Guardrail Evaluation on 6:1 Slope	To determine the critical offset for slope placement. Proposal in development
Determination of the Length-of-Need for Guardrail without Anchorage	Determining the required length-of-need for a guardrail system without anchorage at one end. <i>Project is underway</i>
Design and Testing of a Thrie-beam Guardrail System at a Fixed Object	Development of a thrie-beam guardrail system, that minimizes the dynamic deflec- tion during an impact. This system will be crash tested to MASH specifications. <i>Task order in process</i>
Design and Testing of a MASH TL-3 Thrie- Beam System for Roadside and Median Appli- cations	Development of cost-effective thrie-beam guardrail systems for both roadside and median applications. These systems will be crash tested to MASH specifications. <i>Task order in process</i>
Development of a Thrie-Beam Retrofit for Up- grading Obsolete Bridge Railings	Design and testing of a thrie beam bridge rail retrofit that can be installed on bridg- es with old/obsolete bridge rail systems that do not meet the crash performance requirements of MASH 2016. <i>Task order in process</i>