

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: [7/13/2022](#)

Lead Agency (FHWA or State DOT): [Washington State Department of Transportation](#)

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # TPF-5(343)		Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input checked="" type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31)	
Project Title: Roadside Safety Research for MASH Implementation			
Name of Project Manager(s): Mustafa Mohamedali		Phone Number: 360-704-6307	E-Mail: mohamem@wsdot.wa.gov
Lead Agency Project ID: T4541		Other Project ID (i.e., contract #): GCB	Project Start Date: 2016
Original Project End Date: Dec 31, 2021		Current Project End Date: Dec 31, 2023	Number of Extensions: 1

Project schedule status:

On schedule
 On revised schedule
 Ahead of schedule
 Behind schedule

<https://www.roadsidepooledfund.org/>.

Overall Project Statistics:

Total Currently Under Contract (this changes month to month)	Total Billed to Date	Percentage Contracted Value Billed to Date
\$5,741,619	\$3,659,172 (includes projects rolled over from 2020)	63.7%

Quarterly Project Statistics:

Total Value of Work Done (Amount Billed) As Percentage Contracted in This Quarter	Total Value of Work Done (Amount Billed) This Quarter	Total Value of Projects Contracted this Quarter
2.9% (See notes under "Circumstances..." below) **	\$21,405	\$745,498

Project Description:

The Roadside Safety Research for MASH Implementation program is designed to conduct research on roadside safety priorities for research projects aligned with the MASH implementation completion schedule. The compliance dates for MASH roadside safety hardware are:

- December 31, 2017: W-beam barriers and cast-in-place concrete barriers
- June 30, 2018: W-beam tangent terminals
- December 31, 2018: Crash cushions
- December 31, 2019: Bridge rails, transitions, all other longitudinal barriers (including portable barriers installed permanently), all other terminals, sign supports, other breakaway hardware, cable barriers, cable barrier terminals
- Also, temporary work zone devices, including portable barriers, manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH.

Washington State Department of Transportation is the lead agency for this pooled fund study. Texas A&M Transportation Institute (TTI) is the lead Principal Investigator and crash test site. A website is available to those interested in completed and ongoing research as well as the work plan for new inquiries.

<https://www.roadsidepooledfund.org/>

Progress these Quarters (includes meetings, work plan status, contract status, significant progress, etc.):

The following tasks were completed in this quarter:

- The following new Task Orders were issued this quarter:
 1. T4541-EQ: 2022 Program Development and MASH Coordination Effort
 2. T4541-ER: Engineering Support Services and Recommendations for Roadside Safety Issues/Problems for Member States
 3. T4541-ES: MASH 4-12 Evaluation of a Fence Mounted System for Attachments to Concrete Bridge Barrier
 4. T4541-ET: MASH Testing of a Guardrail System on 1H:1V Slope
 5. T4541-EV: MASH Crashworthy Pedestrian and Small Traffic Signals
 6. T4541-EW: 2022 Administrative Support
 7. T4541-EX: Buried-in-Backslope Terminal Variations in Foreslope, Backslope, and Ditch Configurations
- Work continued on the following projects:
 1. T4541-CV: Testing and Evaluation of the MGS System with Maximum Flare at MASH Test
 2. T4541-DJ: Testing and Evaluation of Large Signs Slipbase Support on Slope at MASH TL-3 Impact Conditions
 3. T4541-DY: MASH TL-3 Transition Design with a Storm Drain Inlet
 4. T4541-DZ: Determination of the Length-of-Need for Guardrail without Anchorage: Phase 2
 5. T4541-EB: 2021 Administrative Support
 6. T4541-EC: Develop Non-Proprietary MASH-Compliant Three-Pound and Four-Pound Post Systems
 7. T4541-ED: Develop Guidelines for Attaching MASH-Compliant Thrie-Beam Transitions to Rigid Concrete Barriers Other than the Rigid Barrier Tested when Evaluating the Thrie-Beam Transition
 8. T4541-EE: Exploration into Variations in Beam Guard Approach Transitions to Rigid Barrier
 9. T4541-EG: 2021 Program Development and MASH Coordination Effort
 10. T4541-EK: Transition Between Guardrail and Tangent Anchored Portable Concrete Barriers
 11. T4541-EL: Testing Type III Barricades with Aluminum Panels and Mounted Signs
 12. T4541-EM: Multi-Directional Base Design for Steel Beam Non-Proprietary Large Sign Supports: Phase I
- Work was not completed on any projects.

Additional project information and project activities is available by visiting the pooled fund web site:

<https://www.roadsidepooledfund.org/>.

Anticipated work next quarter:

- Continue carrying out the research plan for testing projects approved at the Fall 2021 Roadside Safety Pooled Fund Annual Meeting.
- Plan the logistics, agenda, etc. of the Fall 2022 Roadside Safety Pooled Fund Meeting scheduled for the last week in September 2022.

Significant Results:

Per progress report above

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

⚠️ Several states that whose obligation of funds were in arrears managed to make the transfers this quarter following an aggressive communication campaign. This meant that a number of projects and tasks prioritized at the 2021 fall meeting could be contracted this quarter. This has skewed significantly the contracted/billed percentage for this quarter although the overall work appears to be very much on track.

Potential Implementation:

Implementation ongoing following successful tests for MASH compliance.

Progress occurred on the supplemental projects executed under this master agreement:

The following tasks were completed in this quarter:

- The following new Task Order was issued this quarter:
 1. T4541-EU: Funding for Strain Gauge Deck and Barrier Optimization for Roadside Safety Issues/Problems for Member States
- Work continued on the following projects:
 1. T4541-EI: Crashworthy Enhanced Highway Sign Assemblies
 2. T4541-EJ: Design and Evaluation of a MASH TL-2 Compliant Permanent Concrete Low Profile Barrier
 3. T4541-EN: Development of a MASH TL-3 Compliant Portable Concrete Barrier System
 4. T4541-EP: Evaluation of Long-Span W-Beam Guardrail in Front of Fall-Protection Rail on Concrete Culverts
- Work was completed on the following projects:
 1. T4541-EO: Washington State I-90 Snoqualmie Pass Barrier Gap Design, Drafting, and Detailing