PROGRAM of Projects

	Project Title	Task Order	Detailed Description of Work	Project Budget	DOT Rep.	Planned Finish (Date)
	Administrative Support	**T4541-DA**	Continuation of "Implementation Agreement" above, which ends 4/30/2018. Secure monetary provision for the support of the Roadside Safety Research Program Pooled Fund Study activities. Activities include preparation of meeting minutes, development of pooled fund marketing material, website upgrade and maintenance, support for FHWA eligibility letters requests, Pooled Fund Newsletter, yearly group meeting travel for TTI representatives, and other small tasks in support of the pooled fund program. Proposal approved by WSDOT; awaiting executed task order.	**$20,638**	**L. Saechao (WA)**	**4/30/2019**
Prior Work	**MASH TL3 T-Intersection (Short Radius) System Design Variations**	**T4541-CD**	Extend the TxDOT innovative design to incorporate conditions commonly found in the pooled fund state sites. Some of these conditions would include a modification of private driveway section to incorporate a secondary roadway section with a terminal. Another example will be the modification of the design to implement skewed intersection profiles. Others will be studied once the project scope is initiated with the pooled fund states' DOTs. PI requested and tech rep approved 3 month NCTE.	**$76,000**	**J. Petterson (WA)**	**8/31/2018**
2017 Starts (voted on at Fall 2016 meeting in Florida)	**MASH Implementation Support**	**T4541-CO**	Funding for coordination with members, compiling and updating of "Scorecard 3". Work includes providing links to system drawings and identifying and removing "redundant" systems. Alll columns of the scorecard must be filled out and ready to use prior to the next annual meeting.	**$81,718**	**J. Petterson (WA)**	**8/31/2018**
	MASH Full-Scale Crash Testing of a 31" Buried-in-Backslope Terminal Compatible with an MGS Guardrail System	**T4541-CQ**	Perform full-scale crash test and evaluate the performance of a 31" Buried-In-Backslope (BIB) terminal design compatible with an MGS guardrail system. If the results of the full-scale crash test will be deemed succesfull per MASH 2016 standards, this study is supposed to culminate with a request for FHWA eligibility letter. PI requested and tech rep approved 3 month NCTE.	**$110,411**	**J. Jeffers (AK)**	**9/30/2018**
	Placement of Guardrail on Slopes Phase IV: MASH TL-3 Testing of Guardrail	**T4541-CR**	Develop a MASH TL-3 compliant guardrail system meeting tests (3-11 and 3-10) for installing standard strong-post W-beam guardrail [Modified G4(1S)] with the face of the rail aligned with the break point of a 1H:1V slope.	**$111,087**	**D. Hardy/J. Hall (WV)**	**10/14/2018**
	31" W-Beam Guardrail with Steel and Wood Posts in Concrete Mow Strip	**T4541-CS**	Test the 31-inch tall W-beam guardrail system in concrete mow strip. Both steel and wood post options need to be tested. The tests are to be performed using the MASH Test Level 3 criteria. PI requested and tech rep approved 3 month NCTE and additional crash test.	**$198,087**	**M. Elle (MN)**	**9/30/2018**

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2018 Starts (voted on at Fall 2017 meeting in Texas)	**2018 MASH Coordination Effort**	**T4541-CU**	Assist the DOTs with coordination of information and testing activities related to MASH implementation program, and produce tools to allow prioritization of hardware testing based on DOTs preferences.	**$80,392**	**J. Petterson (WA)**	**12/31/2018**
	Testing and Evaluation of the MGS System with Maximum Flare at MASH Test	**T4541-CV**	Investigate the critical flare for an MGS system under MASH 2016 TL-3 testing and evaluation criteria. Engineering analysis and computer simulation will aid in the selection of the critical flare to be considered for testing. The structural capacity and the occupant risk factors of such proposed guardrail system will be evaluated with respect to MASH TL-3 criteria through full-scale crash testing.	**$154,945**	**J. Jeffers (AK)**	**2/28/2019**
	Testing of Midwest Guardrail Systems with Reduced Post Spacing for MASH Compliance	**T4541-CW**	Test MGS systems with reduced post spacing for MASH compliance.	**$180,113**	**J. Hall (WV)**	**4/30/2019**
	MASH Testing of Keyed-In Single Slope Barrier (2018)	**T4541-CX**	Use an existing installation of the 42-inch tall, keyed-in single slope barrier and determine the crashworthiness performance of the barrier with a shorter segment length. The desired segment length is 40 ft or less. The performance of the barrier is to be evaluated by performing MASH Test 4-12 with a single unit truck.	**$41,709**	**K. Brauner (LA)**	**10/31/2018**
	MASH Testing of Pinned Temporary Concrete Barrier on Concrete Pavement	**T4541-CY**	Use engineering analysis and determine a suitable offset of the pinned barrier system from the edge of an unreinforced concrete pavement that would lead to successful MASH test level 3 performance. The barrier is then to be tested using MASH Test 3-11 criteria with a pickup truck vehicle.	**$50,754**	**K. Brauner (LA)**	**10/31/2018**
	Thrie/W-Beam/Tubular Barrier Gap Rail for MASH TL-3	**T4541-CZ**	Design a tubular barrier gap rail system for use on a 36-in. high single slope barrier. Thrie-beam, w-beam and tubular rail elements will be considered for the barrier rail design. The maximum open gap used for the design will be 8-ft. The new design will be tested to MASH TL-3.	**$120,821**	**M. Elle (MN)**	**4/30/2019**
	Engineering Support Services and Recommendations for Roadside Safety Issues/Problems for Member States	**T4541-DB**	Provide engineering support services and recommendations for those roadside safety barrier hardware and barrier systems that are prioritized and requested by pooled fund member states. The TTI researchers will assess the performance of the hardware and barrier systems selected and provide professional evaluation and recommendations, as necessary to meet the MASH performance criteria. The TTI researchers will gather information pertaining to the roadside safety barriers from the pooled fund member states, research facilities, and other sources. The TTI researchers will evaluate each roadside feature/safety barrier based on current details of the barrier and/or similar barriers, previous data and information gathered from past research studies of the barrier, and assessment methodologies.	**$61,036**	**J. Danila (MA)**	**8/31/2019**
	Accommodating Inlets with Transitions (TL-3)	***TBD***	*Just prioritized after re-balloting when above project was canceled. Proposal being developed.*		***D. Sheppard (FL)***	

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For Awareness Only **STATE - SPONSORED THROUGH POOLED FUND**	**Impact Performance Evaluation of Modified Minnesota Swing-Away Mailbox Support to MASH**	**T4541-CT**	Test and evaluate a modified swing-away mailbox support in accordance with MASH criteria.			**9/30/2018**
	Analysis and Testing of Florida Department of Transportation Barrier Systems for MASH Compliance	***TBD***	*Aid FDOT in bringing their standard barrier details to MASH compliance by testing their Special Baseplate Posts, Combination Traffic-Pedestrian-Bicycle Bridge Railing, and Guardrail Rub Rail. Proposal submitted to WSDOT; awaiting task order.*		**D. Sheppard (FL)**	**8/31/2019**
	MASH Full-Scale Crash Testing of the Massachusetts S3-MTL4 Curb Mounted Railing	***TBD***	*Perform the following full scale crash tests and to evaluate the performance of the Massachusetts S3-MTL4 Bridge Railing: 4-10, 4-11, 4-12. Proposal revised per tech rep request. Awaiting tech rep approval.*		**A. Bardow (MS)**	
	MASH Full-Scale Crash Testing of the Massachusetts S3-MTL4 Back of Sidewalk Mounted Railing	***TBD***	*Perform the following full scale crash tests and to evaluate the performance of the Massachusetts S3-MTL4 Bridge Railing: 4-10, 4-11, 4-12. Proposal revised per tech rep request. Awaiting tech rep approval.*		**A. Bardow (MS)**	
	MASH Implementation Technical Support for WSDOT	**T4541-DC**	Provide engineering support services and recommendations regarding MASH compliance for WSDOT. The TTI researchers will assess the performance of the hardware and barrier systems selected and provide professional evaluation and recommendations, as necessary to meet the MASH performance criteria.		**J. Petterson (WA)**	**6/30/2019**
	Evaluation of W-Beam Guardrail Terminal Post in Sleeve (Alaska)	**T4541-DD**	Evaluate the behavior of W-beam guardrail steel post installed in the buried steel sleeve and compare it to the steel post installed directly in the soil. The TTI research team will perform this evaluation and comparison using surrogate impact bogie testing and limited MASH full-scale vehicle impact testing. On hold per WsDOT.		**J. Jeffers (AK)**	**4/30/2019**
	MASH Full-Scale Crash Testing of the Transition from the MGS Weak Post System to the Strong Post MGS System	***TBD***			**D. Kilpatrick (CT)**	
	MASH Full-Scale Crash Testing and Evaluation of the Merritt Parkway Guiderail	***TBD***			**D. Kilpatrick (CT)**	