

<b>Project Title:</b>	<b>Development and Evaluation of a Thrie Beam Transition between 31" Median Guardrail and Median Single Slope Concrete Barrier (2024-08-LSRB)</b>
<b>Project Synopsis:</b>	This project would develop a MASH transition from two-sided 31" median guardrail to single-slope concrete median barrier using thrie beam rails. Although TTI previously developed and tested a MASH TL-3 median guardrail transition, it uses a stacked W-beam design. This project would fund the design and full-scale crash testing a symmetrical thrie beam transition consistent with one-sided MASH approach guardrail transitions.
<b>Project Goal(s):</b>	<ol style="list-style-type: none"> <li>1.) Provide states with a median guardrail transition design that uses the same components and construction methods as a typical MASH one-sided approach guardrail transition (AGT).</li> <li>2.) Provide a transition design compatible with raised medians (31" median guardrail installed over curb).</li> </ol>
<b>Project Background:</b>	TTI previously designed and tested a MASH TL-3 median guardrail transition that used stacked W-beam rails (TR No. 0-6990-R1). MwRSF developed a NCHRP 350 TL-3 median guardrail to single slope median barrier transition that used thrie-beam rails (Report No. TRP-03-47-95). TTI evaluated and tested to MASH TL-3 the one-sided TxDOT thrie-beam transition to concrete barrier without end shoe block (TR No. 0-6946-R3). The proposed median transition design would seek to approximately match the materials and construction methods of the one-sided AGT.
<b>Proposed Work Plan:</b>	<ol style="list-style-type: none"> <li>1.) Task 1 – Design development of thrie-beam transition to single-slope concrete barrier.</li> <li>2.) Task 2 – Finite element analysis to determine critical impact scenarios and design modifications, if necessary.</li> <li>3.) Task 3 – Full-scale crash testing according MASH TL-3.</li> </ol>
<b>Deliverables:</b>	Test report with design analysis, design details, and full-scale crash test results.
<b>Urgency and Expected Benefit:</b>	States may be reluctant to use the available stacked W-beam median guardrail transition design out of concern that it differs too greatly from one-sided MASH AGT designs, complicating construction and maintenance.
<b>Problem Funding and Research Period:</b>	<b>Total Estimated Cost = \$105,000</b>
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