

## **Research Problem Statement**

2020-01-LSRB

Project Title:	MASH TL-3 Evaluation of Painted/Coated Guardrails
Project Synopsis:	Evaluate MASH TL-3 compliance of a painted/coated guardrail
Project Goal(s):	Determine MASH TL-3 compliance of a painted/coated guardrail using computer simulation
Project Background:	Previous research has not identified if painting or coating of a guardrail will affect its performance in a crash. While the effects of painting or coating may be subtle, it is important to consider and ensure proper compliance with MASH should painting or coating ever be done to guardrail.
Proposed Work Plan:	Tasks:  1. Literature Review and Engineering Analysis 2. Computer Simulation
Deliverables:	A report.  The report should describe the designs considered, as well as the results of the engineering analysis/simulation and the possible effects of the painting/coating on the guide rails performance.
Urgency and Expected Benefit:	States may need or want to paint/coat guardrail for a variety of reasons (e.g., aesthetics, context sensitive design). Some states may already be doing this. The expected benefit will be that states may freely do this knowing with full confidence that the guardrail system will not be affected negatively.

Problem Funding and Research Period:	<ul> <li>Please describe what are the estimated costs to complete the project</li> <li>Work Schedule: (Project Duration = 9 months from initiation of the project)</li> <li>Task 1 = 2 months</li> <li>Task 2 = 7 months</li> <li>Approximate Budget: \$75k</li> </ul>
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