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| **Roadside Safety Pooled Fund Program** **Research Problem Statement** | State:  Minnesota (MN-86) **DRAFT**  (TTI\_MN Problem Statement Retrofit End Post TL-2 & TL-3) |
| Title:  W-Beam Transition  Retrofitted Stand-A-Lone End Post, TL-2 & TL-3 | |
| Problem Statement:  There are a large number of old guardrail systems adjoining and connecting to existing bridges. In several cases, the bridge is not due for any preservation or reconstruction project for several years. Unfortunately, in many cases, when the bridge was worked on in the past, the adjoining guardrail system was not upgraded. This typically happens on Non-NHS roadways crossing over or under the NHS roadway system, without any sort of ramp or loop connection between the two.  This is partly due to the differing nature of the bridge preservation program and the multitude of different roadway agencies. Often times the guardrail is left out of either project. This is due to the very fact of the guardrail attachment to the bridge rail. | |
| Objectives of the Study:  The study would determine a stand-a-lone end post design that could be built with TL-2 or TL-3 criteria. The design would allow for a guardrail upgrade of the end treatment, regular rail, and the transition. The lower test level option would be used for lower speed roadways where a TL-3 system would be unnecessary and impractical. | |
| Expected Benefits:  The state roadway agencies would be able to upgrade safety for the traveling public sooner, without having to wait for a bridge improvement project. | |
| Description of the Proposed Feature to be Tested: *(Be as detailed as possible. Include drawings and/or plans, if available.)*  Structural design and analysis of a stand-a-lone concrete end post, with an independent foundation. Followed up with simulation and full scale crash testing. | |
| Estimated Cost *(of the feature per linear foot installed):* | Total Estimated Cost of Crash Test: |
| Contact Person: | Telephone: |