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| **Roadside Safety Pooled Fund Program****Research Problem Statement** | State:TTI-74 |
| Title:Guidebook to assist implementation of pinned-down barrier research. |
| Problem Statement: Since the beginning of the pooled-fund program, TTI has done significant work in developing a pinned-down temporary concrete barrier system for limited deflection applications. This work has been done over seven Task Orders, which have collectively led to seven full-scale vehicle crash tests and several component-level pendulum impact, static loading, and dynamic pull tests. The results of these tests have led to the development of a pinned down barrier system that can be placed on concrete and asphalt, along with its transitions from free-standing to pinned, and from pinned to rigid barrier systems.However, due to the fact that this research was completed under many task orders and crash tests, each supporting certain aspects of the overall system, information from various test reports is difficult to glean for developing design standards. This has been observed by TTI in answering questions that are asked by DOT engineers tasked with developing design standards using this research.It will be beneficial to prepare a single guidebook that has most of the information related to testing, implementation, and application of the pinned barrier design. This guide book will present summary of all the tests performed and address implementation issue such as use of the design for different segment lengths, barrier types, soil conditions, etc. Most of these issues come up in discussions or inquiries made to TTI regarding the use of the research. They can be addressed in an FAQ format in the guidebook, along with some illustrations where needed. |
| Objectives of the Study: Develop a guidebook to assist with implementation of the research performed to develop the pinned-down temporary concrete barrier and its various transitions.  |
| Expected Benefits:A guidebook will promote use of the pinned down barrier system by making it easy for DOT engineers in developing their design standards related to restrained barrier applications in work zones. |
| Description of the Proposed Feature to be Tested: *(Be as detailed as possible. Include drawings and/or plans, if available.)* |
| Estimated Cost *(of the feature per linear foot installed):* | Total Estimated Cost of Crash Test:6,500 |
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