



Research Project Statement 24-043 FY 2024 Annual Program

Title:	Develop Crash Modification Factors for Super 2 Highways
The Problem:	Information on the crash reduction benefits of Super 2 highways exists from previous research projects in Texas and elsewhere; however, previous efforts have been somewhat constrained by either the limitations of the respective research projects or the number of Super 2 highway sites and the amount of related crash data available. The number of Super 2 corridors that have been built in the previous decade provide a sizeable addition to the potential sample size that would be used to develop a crash modification factor (CMF) focused on Super 2 corridors in Texas. A formal CMF based on a rigorous review of crash data and corresponding statistical analysis would provide additional support for installing new Super 2 corridors around the state and would also provide additional refinement to the benefit-cost analysis tool developed as part of TxDOT research project 0-6997, Develop Capacity and Cost Benefits of Super 2 Corridors.
Technical Objectives:	<p>This project will provide another data-driven tool for practitioners to identify the most appropriate alignment and cross-section to meet the demands of high-volume rural two-lane corridors statewide. Results from this project have the potential to reduce crashes and delay, while providing performance-based practical design solutions to problems at specific locations.</p> <p>Using existing Super 2 installations in Texas over the last two decades, the research team shall:</p> <ul style="list-style-type: none"> • Collect data on crashes, site characteristics, traffic volumes, and other relevant details. • Analyze datasets to identify and quantify relationships between crashes and other characteristics. • Define CMFs that practitioners can use for decision-making purposes in future projects. • Submit CMFs to FHWA's CMF Clearinghouse for consideration to be included in their database for more widespread use. <p>The expected technology readiness level (TRL) for this project is 8.</p>
Anticipated Deliverables:	<ol style="list-style-type: none"> 1. Technical memorandum for each task completed. 2. Monthly progress reports. 3. Value of Research (VoR) that includes both qualitative and economic benefits, to be included in the final research report. This is not a stand-alone deliverable. 4. Research report documenting the findings of the research, including guidelines on use of CMFs, including explanation of its development. 5. Project Summary Report
Proposal Requirements:	<ol style="list-style-type: none"> 1. Project duration shall be limited to 15 months. 2. Proposal Deadline: 12:00 p.m. Central Time, Monday, March 6, 2023. 3. RFP#1 Q&A Deadline: 12:00 p.m. Central Time, Wednesday, February 1, 2023. 4. Use the current "ProjAgre" and "PA Forms" templates located at the RTI Forms webpage. 5. Proposals will be considered non-responsive and will not be accepted for technical evaluation if they are not received by the deadline or do not meet the requirements stated in RTI's University Handbook. 6. Proposals should be submitted in PDF format; (1) PDF file per proposal. File name should include project name and university abbreviation. 7. This project will be tracked during the life of the project using the Technology Readiness Level (TRL) scale. 8. The 2021 Texas Legislative Session requires that universities be in compliance with Senate Bill 475 by submitting a completed and signed TxDOT Security Questionnaire (TSQ) to RTIMAIN@txdot.gov in advance of a proposal submission. Universities found to not submit a completed and signed TSQ in advance of proposal submitting will be held in non-compliance and unable to participate in the Program.