Title:	Expand Applications for Texas Connected Freight Corridor
The Problem:	The Texas Connected Freight Corridor (TCFC) is the backbone pilot for connected vehicle activities in the state of Texas. While certain applications have been developed along with the core work, the TCFC could serve as a platform for further research, such as truck signal priority, truck parking availability, bridge height warning, emergency electronic brake light, pedestrian and animal warning, eco-dynamic routing, border wait times, and supporting cooperative automated transportation. Building on the TCFC platform, this research will investigate augmentation of the system to support cooperative automated transportation and identify additional research topics. TxDOT will receive recommendations and supporting technical documentation on actions to build out the TCFC to support cooperative automated transportation.
Technical Objectives:	This research will help further expand the TCFC and improve freight movement and safety in Texas via cooperative automation. The work to be performed shall include: 1. Identify and recommend next steps to enable cooperative automation transportation using the TCFC platform. 2. Produce requirements that can be used in a subsequent TxDOT procurement to upgrade the system. 3. Perform a cost/benefit analysis for implementing the system with a consideration of change in connected/automated vehicle (CAV) penetration over time. 4. Review case studies from other jurisdictions with accompanying gathering of documents, such as program plans and supporting material. 5. Develop a list of potential future research topics associated with the TCFC. The expectation of the project end product(s) shall attain a Technology Readiness Level of 8.
Anticipated Deliverables:	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; not a stand-alone deliverable. 4. Research report documenting the findings of the research, including recommendations and supporting technical documentation on actions to build out the TCFC to support cooperative automated transportation. 5. Project Summary Report
Proposal Requirements:	1. Utilize the "Proj/Agre" and "PA_Form" templates located at the TxDOT RTI website. 2. 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, which is also located at the RTI website. 3. Proposals should be submitted in PDF format, 1 PDF file per proposal. File name should include project name and university abbreviation. 4. This project will be tracked during the life of the project using a Technology Readiness Level (TRL) scale. For more information about the use of a TRL, click.