



Research Project Statement 20-041 FY 2019 Annual Program

Title:	Sequencing and Placement of Noise Walls and Retaining Walls on Complex TxDOT Projects
The Problem:	The phasing of design features, such as noise walls and retaining walls, may cause issues with other roadway design features, existing utility installations, and proposed utility installations. TxDOT utility coordinators and design engineers must coordinate the sequencing and placement of different types of design features according to state and federal rules; however, the rules do not provide sufficient guidance on the interaction of design feature sequencing and placement.
Technical Objectives:	<p>The objective of this research is to develop guidelines for sequencing and placing noise walls and retaining walls for districts to use to improve design and coordination activities to avoid project delays.</p> <p>The researchers shall address the following:</p> <ol style="list-style-type: none">1. Conduct a literature review on the sequencing and placement of design features.2. Develop a summary of common issues.3. Develop a summary of current TxDOT practices.4. Develop a summary of utility owner recommendations.5. Analyze data collected.6. Develop a guidebook for the sequencing and placement of design features. <p>The expectation of this project is that the end product will obtain a TRL level 8.</p>
Desired 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.4. Research report documenting the findings of the research, including technical recommendations and guidance for sequencing and placement of design features and recommendations for additions to applicable TxDOT manuals; i.e., ROW Utilities Manual, Landscape and Aesthetics Design Manual, Geotechnical Manual, and the Roadway Design Manual.5. Project Summary Report.
Proposal Requirements:	<ol style="list-style-type: none">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.