UTC Project Information – Project 3.11	
Project Title	Assessment of micropile-supported integral abutment bridges
University	University of Maine
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Brief Description of Research Project	Integral abutment bridges (IABs) are the preferred method of construction by Maine Department of Transportation (DOT) and other transportation agencies throughout the United States due to their durability and reduced upfront and life-cycle costs. Shallow bedrock, commonplace at bridge sites throughout the state of Maine, has precluded the use of conventional driven pile foundations and IABs in some instances. Micropiles are an attractive foundation alternative at shallow bedrock sites where conventional foundation systems (e.g. driven piles) cannot develop sufficient length to achieve fixity and/or adequate geotechnical resistance. These foundation elements can be installed through challenging glacial geology, including boulder material and bedrock. Currently, there is no guidance on the design of micropile-supported IABs, or long-term instrumentation data capturing their performance. The objective of this study is to develop a design methodology and engineering recommendations for the structural and geotechnical design of micropiles for IABs, and to demonstrate that micropiles satisfy strength and stability requirements for IAB applications when shallow bedrock is present.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links • Reports	

• Project website	