



ACCELERATED BRIDGE CONSTRUCTION
UNIVERSITY TRANSPORTATION CENTER

UTC Project Information	
Project Title	Comprehending the Structural Performance and Examining Potential Field Applications of Sileto, as a New Material
University	Florida International University
Principal Investigator	Atorod Azizinamini
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Funding Source(s) and Amounts Provided (by each agency or organization)	Sileto Funds: \$120,000 Match funds from ABC-UTC : \$80,000
Total Project Cost	\$200,000
Agency ID or Contract Number	69A3551747121
Start and End Dates	May 30,2023 – May 30,2024
Brief Description of Research Project	<p>The research project aims to comprehensively assess the structural performance of Sileto, a new polymer-based concrete material, in various applications. Collaborating with ABC-UTC and funded by Sileto and ABC-UTC, the project's Phase II will involve conducting proof-of-concept tests in areas such as bridge deck overlay, precast deck panels, 3D printing, and retrofitting. The project's objective is to determine the viability of Sileto in these applications, potentially leading to field implementation and demonstration projects in partnership with relevant agencies.</p> <p>The project's scope includes constructing test specimens for each application area and subjecting them to static and dynamic tests. Through strain distribution analysis, durability tests, and comparison with existing materials like UHPC, the research team aims to evaluate Sileto's performance and assess its suitability for specific structural applications. The ultimate goal is to generate valuable knowledge and seek opportunities for practical implementation based on the proof-of-concept tests' results.</p>
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	The outcomes will be tracked and reported once they are identified.

Impacts/Benefits of Implementation (actual, not anticipated)	The impacts will be tracked and reported once they are identified.
Web Links <ul style="list-style-type: none">• Reports• Project website	Comprehending the Structural Performance and Examining Potential Field Applications of Sileto, As A New Material Accelerated Bridge Construction (fiu.edu)