



ACCELERATED BRIDGE CONSTRUCTION
UNIVERSITY TRANSPORTATION CENTER

UTC Project Information	
Project Title	Development of Non-Proprietary UHPC Mix – Application to Deck Panel Joints
University	University of Nevada, Reno
Principal Investigator	Mohamed Moustafa
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Funding Source(s) and Amounts Provided (by each agency or organization)	ABC-UTC Funds: \$85,000 Match funding from UNR: \$42,500
Total Project Cost	\$127,500
Agency ID or Contract Number	Accelerated Bridge Construction University Transportation Center (ABC-UTC) 69A3551747121
Start and End Dates	01/01/2019-Active
Brief Description of Research Project	One of the most common ABC applications nowadays is the use of precast deck panels and fill the joints in the field using advanced materials such as UHPC. A lot of research has been done on optimizing the field joint reinforcement details such as shortest lap length and shear key shape and dimensions. However, most of the applications used proprietary UHPC mixes, which can sometimes constrain the DOTs bidding process due to lack of several UHPC vendors. In this collaborative effort among all five institutions in the ABC-UTC consortium, comprehensive research on non-proprietary UHPC mix design and extension to common ABC applications is sought. The objective of UNR scope for this collaborative effort is to finalize the selection of best feasible non-proprietary UHPC mix and demonstrate its validity for the use for precast deck panel transverse and longitudinal joints.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	As reported under 2016-C2-FIU01, collaboration between FIU, UNR, and OU invited to present a full-day non-proprietary UHPC mix workshop, held in Miami on 12-11-2019. Invited presentation to Global Sealer Technologies (GST International) to their internal group, Oct 2020

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	https://abc-utc.fiu.edu/research-projects/unr-research-projects/development-of-non-proprietary-uhpc-mix-application-to-deck-panel-joints/