

UTC Project Information	
Project Title	MPC-588 – Hybrid Bridge Bents Using Post-tensioned Precast Columns for Accelerated Bridge Construction in High Seismic Regions
University	University of Utah
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT, Research and Innovative Technology Administration \$112,000 Splice Sleeve North America, US Endowment for Forestry and Communities, Corebrace \$124,090
Total Project Cost	\$236,090
Agency ID or Contract Number	69A3551747108
Start and End Dates	January 12, 2019 to July 31, 2022
Brief Description of Research Project	Seismic resilience of bridges improves safety and livability of communities. The State of Utah is likely to experience strong earthquakes. Successful completion of the project will ensure that the proposed method of constructing bridges will improve seismic resilience of bridges for strong earthquakes thus preserving the existing transportation system. The project investigates a bridge bent with self-centering precast concrete columns for Accelerated Bridge Construction (ABC) in high seismic regions. The proposed hybrid system consists of post-tensioned precast concrete columns in a two-column bridge bent with one or two Buckling Restrained Braces (BRBs) as external energy dissipation devices. The proposed activity involves testing and analysis of a bridge bent under cyclic loads built with the proposed system. It is expected that the precast columns will remain repairable after strong earthquakes. The BRB devices could be replaced after the earthquake whereas the gravity load bearing frame should remain undamaged.
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