

UTC Project Information	
Project Title	MPC-675 – Transition of Allowable Stress Rating to Load and Resistance Factor Rating for Timber Bridges
University	University of Colorado Denver
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT, Office of the Assistant Secretary for Research and Technology \$80,000 Colorado Department of Transportation \$80,000
Total Project Cost	\$160,000
Agency ID or Contract Number	69A3551747108
Start and End Dates	November 12, 2021 to July 31, 2022
Brief Description of Research Project	One of the critical challenges facing the infrastructure community is that transportation agencies do not have sufficient information whether Allowable Stress rating (ASR) provides a better rating for timber bridges compared with Load and Resistance Factor rating (LRFR) or vice versa. In other words, simple analytical calculations will merely generate rating factors without knowing the actual performance of timber bridges. Refined investigations are, thus, necessary for addressing this practical matter in order to advance the state of the art of bridge rating technologies. The proposal discusses a comprehensive research program to elucidate the applicability of ASR and LRFR in timber bridges and aims to suggest an appropriate rating protocol. Furthermore, to strengthen the outcomes of the research, an experimeantal program is conducted with various retrofit methods and their implications will be examined. In so doing, bridge owners can properly manage built-environments and efficiently spend funds on maintenance and traffic control.
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