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| 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 |
| Principal Investigator | Jimmy Kim |
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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$80,000Colorado 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
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