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| **UTC Project Information** | |
| Project Title | MPC-448 – Reducing Flood Vulnerability of Communities with Limited Road Access by Optimizing Bridge Elevation |
| University | Colorado State University |
| Principal Investigator | John W. van de Lindt  Senior Bolivar |
| PI Contact Information | John W. van de Lindt  Professor  Civil and Environmental Engineering  Phone: (970) 491-6697  Email: jwv@engr.colostate.edu  Senior Bolivar  Associate Professor  Construction Management  Phone: (970) 491-7337  Email: bolivar.senior@colostate.edu |
| Funding Agencies | USDOT, Research and Innovative Technology Administration |
| Agency ID or Contract Number | DTRT12-G-UTC08, Modification No. 1 |
| Project Cost | $116,850 |
| Start and End Dates | April 1, 2014 – July 31, 2017 |
| Project Duration | 3 Year |
| Brief Description of Research Project | This research project will provide a prototype tool for the determination of the appropriate elevation of bridges in a road network serving a community with access compromised by a flood event. A holistic and systematic determination of safe elevations will help decision makers to prioritize resources for road bridge retrofitting, as well as designers in the engineering of these structures. This will be a reliability-based approach that accounts for the consequences of bridge failure rather than just the structural reliability. |
| Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here | Method is applicable but cost prohibitive currently. |
| Impacts/Benefits of Implementation  (actual, not anticipated) | The methodology provides a DOT the ability to optimize a road segment and all bridges on the roadway for height above a river or creek to ensure a consistent level of risk and provide egress. |
| Web Links   * Reports * Project Website | https://www.ugpti.org/resources/reports/details.php?id=1008 |