

PROJECT OVERVIEW REPORT

1. UTC Identifying Number
69A3551847102
2. Center Identifying Number
CAIT-UTC-REG 18
3. Project Title
Improving Transportation Infrastructure Resilience against Hurricanes, other Natural Disasters, and Weathering: Part II - Analysis of pedestrian bridges failures due to Hurricane Maria
4. Principal Investigator & Contact Information
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5. Rutgers/CAIT Project Manager
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6. Customer Principal
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7. Project Description
The primary goal of this proposal is to analyze pedestrian bridges that were damaged or collapsed during Hurricane Maria. The specific objectives of the project are: (a) Develop an inventory of pedestrian bridges that experienced damages or collapsed and document the type of failures experienced. (b) Study a case of a steel pedestrian bridge which has experienced lateral bending in a plastic range due to the impact of hurricane Maria. This pedestrian bridge is located over a primary artery of the San Juan Metropolitan Area and was used to install traffic signs after its construction.
8. Implementation of Research Outcomes (or why not implemented)
The intended outcome of the project is for the PRDOT and FHWA-PR to take the necessary steps to improve the design and construction of pedestrian bridges, and the installation of traffic sign on pedestrian bridges. The assessment of pedestrian bridge ownership and the compiled data will be also valuable to the PRDOT.

9. Impacts/Benefits of Implementation (actual, not anticipated)
To Be Determined

10. Dates and Budget

Start date: 10/1/2018
End date: 3/2/2020
UTC (CAIT) Dollars: \$32,622
Cost Sharing: \$34,562
Total Dollars: \$67,184

11. Keywords

Pedestrian bridges, traffic signs, wind loads, hurricane damage, transportation infrastructure damages

12. Web Links (Reports and Project Website)

<https://cait.rutgers.edu/research/improving-transportation-infrastructure-resilience-against-hurricanes-other-natural-disasters-and-weathering-part-ii-analysis-of-pedestrian-bridges-failures-due-to-hurricane-maria/>