

PROJECT OVERVIEW REPORT

- 1. UTC Identifying Number 69A3551847102
- 2. Center Identifying Number CAIT-UTC-REG 19
- Project Title Improving Transportation Infrastructure Resilience against Hurricanes, other Natural Disasters, and Weathering: Part III
- Principal Investigator & Contact Information Héctor J. Cruzado, Ph.D.
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- 5. Rutgers/CAIT Project Manager Patrick Szary, Ph.D.
- Customer Principal Juan Carlos Rivera, Engineer Puerto Rico Highway and Transportation Authority San Juan, PR 00918

7. Project Description

The primary goal of this proposal is to analyze motor vehicle bridges that were damaged or collapsed during Hurricane Maria. The specific objectives of the project are: (a) develop an inventory of bridges that experienced damages or collapsed, (b) determine the causes of failure, (c) suggest improvements to the design and construction to avoid or reduce the risk of damages in future hurricane events.

8. Implementation of Research Outcomes (or why not implemented)

The intended outcome of the project is to raise awareness of potential issues related to the design, construction and maintenance procedures of motor vehicle bridges in Puerto Rico. It is expected that PRDOT and FHWA-PR will take measures to protect the structural elements of motor vehicle bridges from impacts associated to extreme weather events.



- 9. Impacts/Benefits of Implementation (actual, not anticipated) To Be Determined
- 10. Dates and Budget

Start date: 10/1/2018 End date: 9/30/2020 UTC (CAIT) Dollars: \$70,684 Cost Sharing: \$69,130 Total Dollars: \$139,814

11.Keywords

Highway bridges, wind-borne debris impact, hurricane damage, transportation infrastructure damages, infrastructure life expectancy, flooding impact, flood-induced scour

12. Web Links (Reports and Project Website)

https://cait.rutgers.edu/research/improving-transportation-infrastructureresilience-against-hurricanes-other-natural-disasters-and-weathering-part-iii/