

NCHRP 20-68 – “US Domestic Scan Program”

Domestic Scan 24-02 “Successful Agency Approaches to Response to Bridge Emergencies”

State DOTs are increasingly challenged to deal with an ever-increasing array of emergencies involving their bridge inventory. Fires, both natural and man-made, vehicle and vessel impacts, earthquakes, extreme heat and cold temperatures for prolonged periods of time, and an increased number of severe weather events (hurricanes, tornadoes, flooding etc.) are being experienced across the country. A DOTs' ability to plan and deliver their capital construction programs are increasingly compromised by the diversion of financial, material, and human resources to deal with an array of emergency responses. Agencies may be able to mitigate some of these impacts by developing and deploying plans to prepare for, respond to, and recover from these events.

The scan team will examine practices, procedures and plans of states, counties, metropolitan areas and municipalities that have successful approaches in responding to bridge emergencies. The team will document procedures for threat identification, response plans, and preparations specifically needed for rapid recovery. Also of interest is established communication protocols, and coordination across local, state, and federal emergency response groups. Response plans to address network-wide and individual bridge emergencies should be examined. Any examples of effective "desktop exercises" and practice responses (drills) that may be identified will also be studied. Case studies demonstrating successful practices and programs should be captured for dissemination to others as part of the teams' deliverables.

This scan is being planned as a Virtual Peer Exchange (Type 4). Several agencies have recent and historical experiences in responding to the bridge emergencies. These include state DOTs in California, Louisiana, Florida, Pennsylvania, Georgia, Texas, Kentucky, Minnesota, New York, Vermont and Puerto Rico. The states that have not traditionally experienced these types of hazards would greatly benefit from learning about the successful practices employed by other states in preparing for, reacting to, and recovering from these events.

The results of this scan could be used by AASHTO, FHWA and state DOTs as well as others in the transportation community to better prepare to respond to bridge emergencies on their system. Implementation of the results will allow agencies to plan and respond more quickly and effectively to future events to return bridge assets to service sooner following an event, thereby improving structural resiliency. It is anticipated that the results will be shared through webinars and presentations at national, regional, and local conferences. Further, the results of this scan can be used to develop formal guidance documents by either the AASHTO Committee on Maintenance and/or the AASHTO Committee on Bridges and Structures.

Original Scan Proposal Title: 24-05 Improved Structural Resilience thru Emergency Response Preparedness