



U.S. Department
of Transportation
Federal Highway
Administration

DelMar Division

June 12, 2014

1201 College Park Dr., Suite 102
Dover, DE 19904
(302) 734-5323
(302) 734-3066
<http://www.fhwa.dot.gov/demddiv/>

In Reply Refer To:
HDA-DE

Mr. Shailen P. Bhatt
Secretary
Delaware Department of Transportation
800 Bay Road
P.O. Box 778
Dover, DE 19903



Dear Mr. Bhatt:

I am writing in response to your June 11 letter concerning FHWA Emergency Relief (ER) fund eligibility for the June 2 I-495 Bridge 1-813 event that caused significant damage to piers 12 and 13 as well as damage to piers 11 and 14. Based on our review, the FHWA has determined that the repair of the I-495 Bridge is eligible for funding under the ER program. The event falls under the category of a catastrophic failure from an external cause.

The catastrophic failure for this event appears to be caused by the large amount of fill placed adjacent to the bridge site which laterally loaded the pile group, causing a buckling of the piles and compromising their vertical capacity. Each of the pier foundations was excavated to determine the condition of the piles, which were found to not be corroded or fractured, but the concrete pile caps were found to be cracked in piers 11 through 14. The piles were found to be under stress and unsuitable for support of an in-service structure in all four piers.

The FHWA has determined that the damage was initiated by a force external to the damaged element of the bridge – that external force being the large amount of soil adjacent to the bridge. Additionally, the FHWA has determined that the bridge design and construction met applicable standards at the time it was constructed, and that the bridge appears to have been properly maintained and inspected. It does not appear to FHWA that there is anything that the State could have reasonably done to have anticipated or avoided this failure.

Emergency repairs conducted within the first 180 days from June 2, 2014, are eligible for ER funding at 100%, which is in addition to normal federal allocations to the State of Delaware. To be considered emergency repair, the repair must fall into one of three categories:

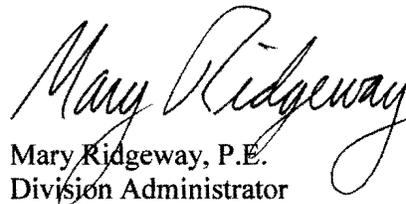
- Restore essential traffic;
- Minimize the extent of damage; or
- Protect the remaining facility.

All such emergency repairs after the first 180 days, as well as all permanent repairs, will be at a

90% federal share. Sufficient record keeping must be done to permit audit of costs on a site-by-site basis. Mr. Patrick Kennedy will be the ER point of contact and may be reached at (302) 734-5326 or patrick.kennedy@dot.gov.

We appreciate the actions DelDOT has taken to investigate this structural failure and to set in motion an expeditious repair to this essential regional transportation link. The full resources of the division office, across all program areas, are prepared to assist you in the swift and safe repair of the I-495 Bridge.

Sincerely,



Mary Ridgeway, P.E.
Division Administrator

cc: Nicole Majeski, DelDOT
David Nicol, DelDOT
Robert McCleary, DelDOT
Shante Hastings, DelDOT
Earle Timpson, DelDOT
Brett Taylor, DelDOT
Barry Benton, DelDOT
Greg Wolf, FHWA
Peter Kleskovic, FHWA
Martin Knopp, FHWA