



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

Walpole, NH – Rockingham, VT
Bridge Street over the Connecticut River
Vilas Bridge (Br. No. 062/052)

Bureau of Highway Design
Room 200
(603) 271-2171

March 27, 2018

Mr. Jamison S. Sikora
NH Division Environmental Programs Manager
Federal Highway Administration
53 Pleasant Street; Suite 2200
Concord, NH 03301

Re: Updated Bridge Condition Report

Dear Mr. Sikora:

The NHDOT hired Hoyle, Tanner and Associates, Inc. (HTA) in 2017 to conduct a routine bridge inspection of this structure, assess any observed changes in conditions since the November 2010 assessment prepared by Wiss, Janney, Elstner Associates, Inc. (WJE) and update the Bridge Condition Report. As part of this inspection, an unmanned aerial system (drone) was used to photograph areas of the bridge that could not otherwise be accessed or observed without the use of ropes.

The results of this inspection show that the Vilas Bridge appears to be in a similar condition to the 2010 WJE inspection with approximately 5% additional deterioration. This limited amount of additional deterioration advancement from 2010 to 2017 is a direct result of the closure of the bridge and elimination of the use of de-icing materials/winter maintenance operations.

The Bridge Condition Report notes the following: the entire deck, and floor beams and spandrel columns at the expansion joints are in critical condition and in need of replacement; the remaining floor beams are in fair condition and may be able to be rehabilitated; the arches and remaining spandrel columns are in fair to good condition, making repairs a possibility; and lastly, the substructure (abutments, wingwalls and piers) is in fair condition with most areas able to be repaired and others near the deck that need more extensive efforts.

The Bridge Condition Report included the following recommendations for maintenance/preservation to further slow the progression of deterioration:

- Patch hole in the deck at the west abutment backwall.
- Remove vegetation and debris build-up from the deck and arch shoulders.
- Seal the cracks in the asphalt on the deck.

Members of Bridge Design and Bridge Maintenance have met to discuss the results of the report and develop a plan of action. Based on the recommendations of the report, Bridge Maintenance is planning a project for summer 2018 to perform the deck patch and joint sealing work. One area of concern in completing this work is the load limitation of the existing deck, which will require that this work be conducted with minimal loading on the deck itself.

Due to the report's large file size, a copy has been placed on the Department's Project Specific website at the following link: <https://www.nh.gov/dot/projects/walpolerockinghamvilasbridge/index.htm>

We will continue to keep you updated on the Department's efforts.

Sincerely,



Jennifer E. Reczek, P.E.
Project Manager

- c.c. J.B. Mack, Principal Planner Southwest Region Planning Commission
- P. Stamnas, Director of Project Development, NHDOT
- R. Landry, Administrator, Bureau of Highway Design, NHDOT
- K. Nyhan, Administrator, Bureau of Environment, NHDOT

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