



Bolton

TH 4 Bridge 51-3

Bolton IM 089-2(45)

Project Location: Town of Bolton in Chittenden County on TH 4 below Interstate 89. The bridge is located approximately 4.5 miles south of the intersection of US Route 2 and Bridge St in the Richmond Village.

The Bolton IM 089-2(45) Bridge 51-3 project will rehabilitate the existing bridge. The existing bridge structure is a four sided concrete box constructed in 1964. It is approximately 150-feet in length and 20-feet wide. The culvert is in fair condition however two large cracks have caused some concern.

VTrans evaluated alternatives for rehabilitation or replacement of Bridge 51-3 in an engineering study completed in July 2016 and revised in December 2016 after gathering additional information from a public meeting. The study assessed the proposed design criteria for the bridge and roadway alignment, right-of-way impacts, and environmental and cultural resources. Several alternatives were examined combined with several traffic maintenance options including a short term bridge closure, phased construction and a temporary bridge. The revised Scoping Report recommends rehabilitating the entire bridge structure, installing a sidewalk for pedestrians, and reducing the culvert to alternating one lane traffic in each direction. During construction traffic would be maintained using phased construction with a weekend road closure. Given the width of this structure traffic could not be maintained while work occurred along the center of the culvert.

The proposed rehabilitation consists of grouting the cracks to fill the void, performing a structural repair using FRP, and then applying a new membrane and pavement to the bottom of the structure as well as treating the concrete with Silane or other similar material. FRP (Fiber Reinforced Polymer) repairs are a new technology in Vermont however it is an inexpensive long lasting material that can be quickly applied to the affected areas. After completion of all repairs, and prior to paving, a 5' wide sidewalk will be installed on the southern side of the culvert to provide permanent pedestrian access.

Looking west

PROJECT MILESTONES

- Permitting
 - Not Applicable
- Final Design Complete
 - Winter 2017
- Right-of-Way Complete
 - Not Applicable
- Bid Advertisement
 - Fall 2019
- Contract Award
 - Winter 2019
- Target Construction Schedule
 - Summer 2020



Settlement Crack



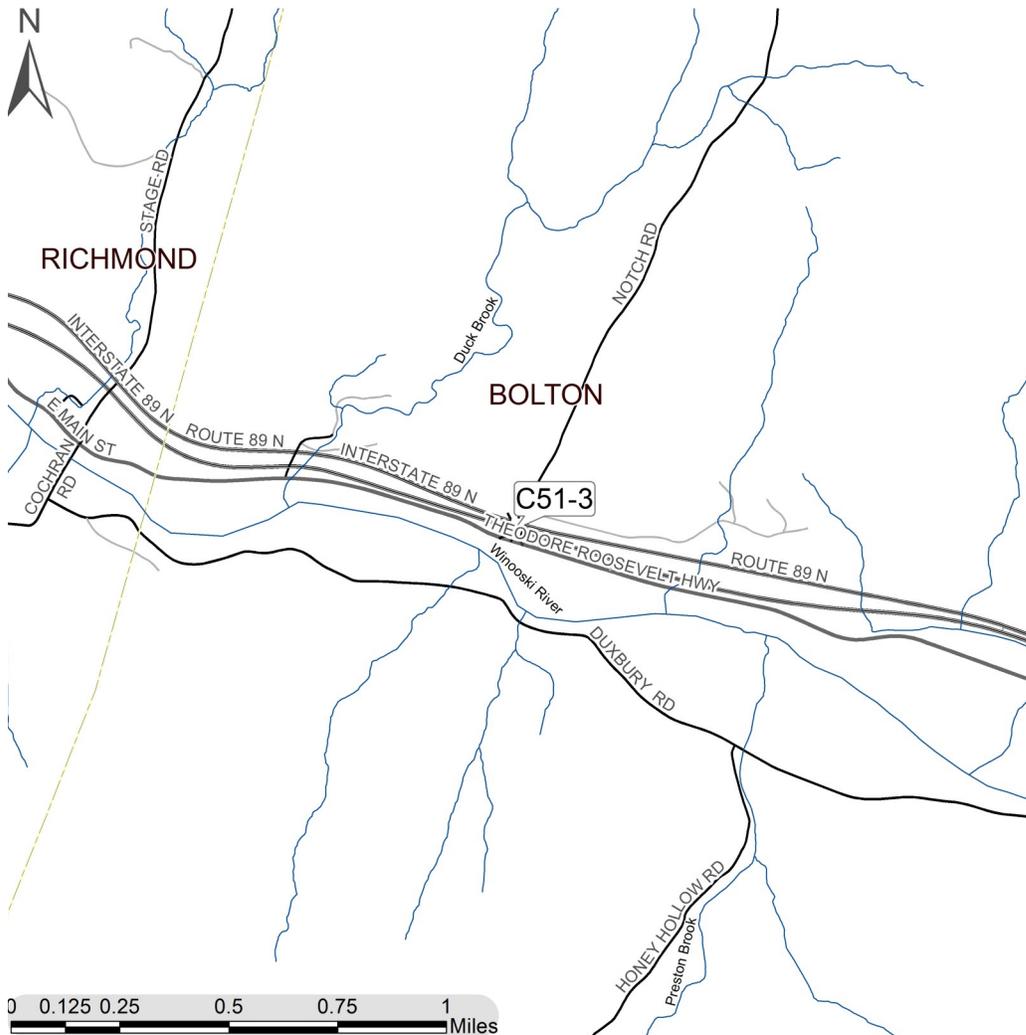
Target Construction Schedule: The bridge will be rehabilitated during the 2020 construction season.

Contractor: TBD

Cost: TBD

VTrans Project Manager: JB McCarthy, P.E., Structures Project Manager

Detour Route: Town Signed Detour



Project Location Map



Settlement Crack



Close Up of Settlement Crack



Fascia Damage



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