



Bristol

VT Route 116, Bridge 12

Bristol BF 021—1(33)

Project Location: Town of Bristol in Addison County on VT Route 116 over the Baldwin Creek. The bridge is located approximately 0.1 miles north of the intersection of VT Route 17 and VT Route 116.

PROJECT MILESTONES

- Preliminary Plans
 - March 2016
- Permitting
 - December 2016
- Final Design
 - February 2017
- Bid Advertisement
 - December 2017
- Contract Award
 - January 2018
- Target Construction Schedule
 - Summer 2018

The Bridge 12 project on VT 116 in the Town of Bristol consists of the replacement of the existing bridge deck, which is in poor condition, and is considered structurally deficient. The existing bridge is a steel beam bridge constructed in 1955. The existing bridge is 89-feet long and 33.3-feet wide. The superstructure and substructure are in good and satisfactory condition respectively and do not warrant a replacement.

VTrans evaluated alternatives for rehabilitation or replacement of Bridge 12 in an engineering study completed in February 2015. The study assessed the proposed design criteria for the bridge, Right-of-Way impacts, wildlife impacts, hydraulics, and historical and archaeological resources. Several alternatives were considered including no action, deck patching, deck replacement, and full bridge replacement on-alignment. Given the age of the structure, site constraints, and current condition, the engineering study recommended a deck replacement while maintaining traffic in phases.

The new concrete deck will have two 11-foot lanes with 4-foot shoulders to meet the Vermont State Design Standards. This configuration will match the existing geometry in regards to width, vertical, and horizontal alignment. Based on the condition of the substructure there may be potential for widening the bridge as well to accommodate a larger shoulder. In addition to the deck replacement, new bearings will be installed and minor substructure repairs may be necessary.

The maintenance of traffic options considered included a bridge closure with an offsite detour, phased construction, and a temporary bridge. In order to reduce impacts to archaeological sensitive areas and adjacent property owners, a temporary bridge was ruled out as an option. In addition there was no reasonable detour on state routes that was not exceedingly long therefore a total road closure was not considered. Ultimately phased construction was chosen as the best method for traffic control in which a single side of the bridge will be replaced at a time while maintaining one-way, alternating traffic in the other lane with a temporary traffic signal.



Looking South Over Bridge

Target Construction Schedule: It is anticipated that construction activities will take place during the summer of 2018 and will last one construction season. The bridge will be constructed using phased construction.

Contractor: TBD

Estimated Total Project Cost: TBD

VTrans Project Manager: Carolyn Carlson, P.E.

VTrans Resident Engineer: TBD

Maintenance of traffic: Traffic will be maintained with phased construction with one lane, alternating traffic with a traffic signal while the deck and repair work is conducted in two separate phases.



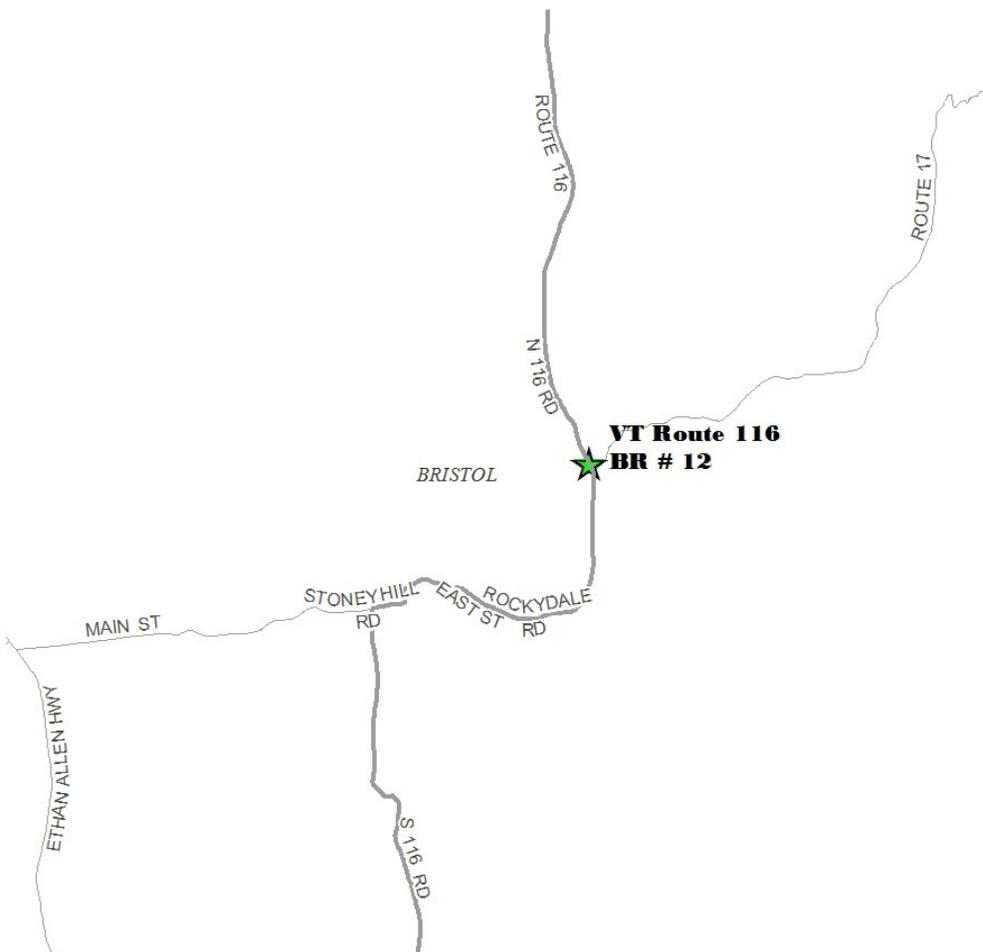
Deterioration of the Deck Underside



Bridge Railing Post



Bridge Seat Deterioration



Bridge Location Map



Section View



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[For more details, click here.](#)