

Calais

BHF 037-2(10), (11), and (12). Bridges 74, 82, and 77 on VT 14



Bridge 74

Project Facts:

- Provides fully compliant bridge structures.
- Project will take an entire construction season to complete. Traffic delays will occur during this time, but no long term closures are anticipated
- Temporary bridge construction and related costs and impacts are avoided.
- Accelerated construction techniques are not expected to be implemented.
- Reduced impacts to:
 - Environmental Resources
 - Utilities
 - Right-of-Way

Calais BHF 037-2(10): Bridge 74 is located on VT 14 approximately 5.2 miles north of the intersection with US2, just south of the intersection with Pekin Brook Rd, over Pekin Brook.

Calais BHF 037-2(11): Bridge 82 is located on VT 14 approximately 9.5 miles north of the intersection with US2, about 0.3 miles north of Balentine Rd., over Kingsbury Branch.

Calais BHF 037-2(12): Bridge 77 is located on VT 14 approximately 7.6 miles north of the intersection with US 2, over Kingsbury Branch

These three projects are State owned and will be bid and constructed under one contract. Bridges 74 and 82 will be completely replaced. Bridge 77 will have a deck and superstructure replacement, while keeping the existing substructures.

The bridges in this project are concrete T-beam bridges built in the late 1910s and early 1920s and are nearing the end of their service lives. Bridges 74 and 77 were widened in the late 70s and early 80s. All of the bridges are deficient in terms of structural condition and need rehabilitation or replacement. All have substandard and deteriorating bridge railings. All are substandard hydraulically, and Bridge 74 is scour-critical. There are various geometric roadway deficiencies as well at bridges 74 and 77.

For each of the three bridges, VTrans evaluated alternatives for improvements in separate engineering studies in 2012. The studies assessed the design criteria and standards for the bridges and roadways. Also, Right-of-Way impacts, utility impacts, hydraulics, and impacts to environmental and cultural resources are evaluated. Alternatives including no action, deck and superstructure replacement, and full bridge replacement were considered. Given the age and condition of the bridges, full replacements were recommended for Bridges 74 and 82. Bridge 77, due to the better condition of the substructure and relative stability for scour, is recommended for a superstructure and deck replacement.

Although the types of bridges to be built in this project are not yet determined, all structural deficiencies will be corrected. New railings will be installed to meet current standards. Bridges 74 and 82 will receive new substructures that will be much more scour resistant. Not all roadway geometric standards will be corrected, but some improvements will be made. Hydraulic standards will be fully met on only Bridge 82, but lane and shoulders will meet current standards, and most standards will be improved. Expected life after the project will be 80 years for Bridges 74 and 82, and 40 years for Bridge 77.

It is proposed that these projects be constructed in phases, one at a time, due to the lack of reasonable detours and bypasses. Conventional construction techniques are expected.



Bridge 77

Target Construction Schedule: It is anticipated that the construction of all three projects will take place beginning in June 2017 and will last one construction season. The projects will not all be done at the same time. Order of construction is not yet determined.

Contractor: TBD

Estimated Total Project Cost:
Bridge 74: \$1,471,200
Bridge 82: \$1,581,000
Bridge 77: \$ 855,600

VTrans Project Manager: Mark Sargent

VTrans Resident Engineer: Unknown at this time

Traffic Maintenance: Each bridge will be constructed in phases, where one half the bridge is constructed at a time, while the other half remains open for traffic. It is expected that it will take an entire construction season to get all three done.



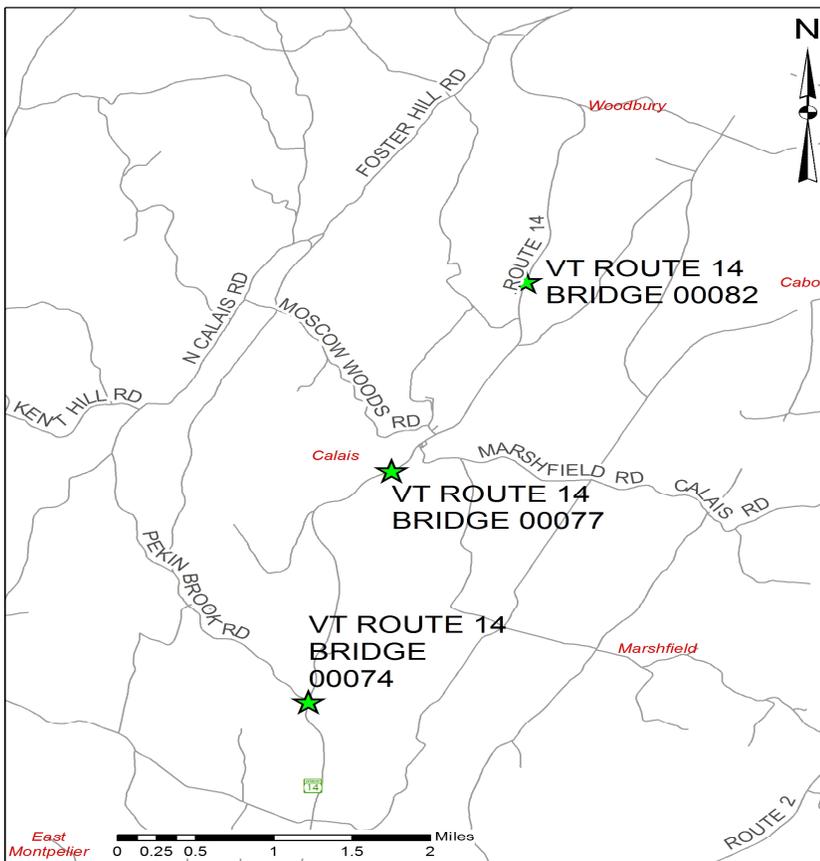
Bridge 77



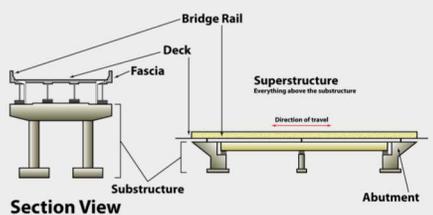
Bridge 74



Bridge 82



Bridge Location Map



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