



# Fairfield

## TH 47 (Elm Brook Road) Bridge 46

### Fairfield BRO 1448(41)

**Project Location: Town of Fairfield in Franklin County on TH 47 (Elm Brook Road) over the Black Creek. The bridge is located approximately 0.05 miles west of the intersection with VT 36.**

The Fairfield TH 47 Bridge 46 project will replace the existing bridge, which does not have adequate hydraulic capacity, substandard bridge rail and is considered structurally deficient, with a new bridge that meets current design standards. The existing Fairfield TH 47 Bridge 46 is a single span open grating steel deck on rolled beams. The bridge structure is 31-feet long. The bridge superstructure (deck and beams) components are in poor condition.

VTrans evaluated alternatives for replacement of Fairfield TH 47 Bridge 46 project in an engineering study completed in August 2012. The study assessed the proposed design criteria for the bridge and roadway alignment, right of way impacts, hydraulics, and historical and archaeological resources, and environmental resources. Several alternatives were considered including no action,, superstructure replacement and full bridge replacement. Given the age of the structure and existing structural and geometric deficiencies, the engineering study recommended full bridge replacement using Accelerated Bridge Construction (ABC) methods with an offsite detour.

The new bridge will be a Precast Prestressed Concrete Solid Slab Bridge which has a relatively short construction period and comparatively low construction and maintenance costs. The new bridge will be 54-feet in length and 16-feet wide including two 8-foot travel lanes. The new bridge will feature a fascia mounted heavy duty steel beam bridge rail.

The bridge will be constructed during the summer of 2015 using ABC methods, which will expedite construction and reduce disturbance to the public. There will be an allowable 7 day bridge closure period starting Monday July 13th and ending Monday July 20th. In addition the bridge will be closed during working hours for a two week period prior to July 13th.

#### PROJECT MILESTONES

- Preliminary Plans
  - October 2013
- Permitting
  - December 2013
- Final Design
  - June 2014
- Right-of-Way Complete
  - Non required
- Bid Advertisement
  - September 2014
- Contract Award
  - Fall 2014
- Target Construction Schedule
  - Summer 2015



*Bridge profile looking west*



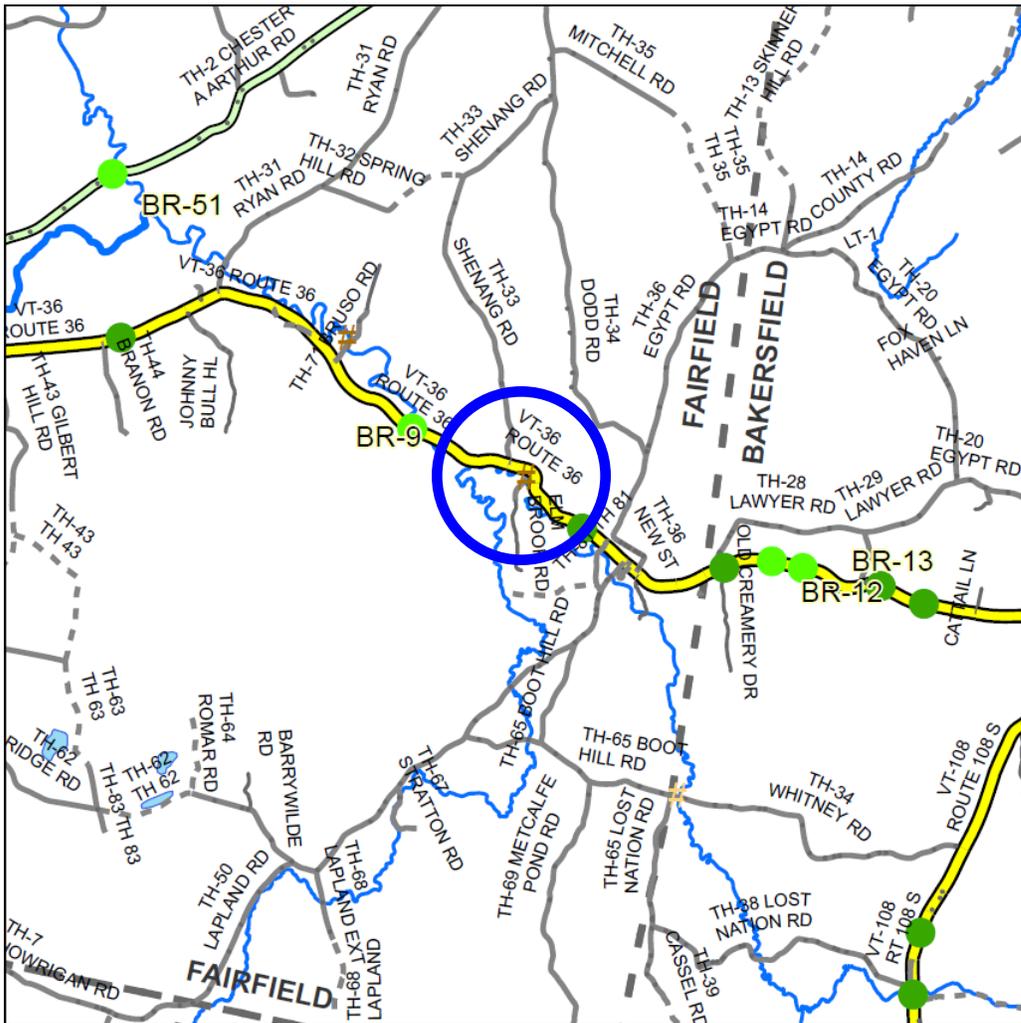
**Target Construction Schedule:** Elm Brook Road will be closed at the bridge site during the bridge closure period scheduled for 7 a.m. on Monday July 13, 2015 until 6:59 a.m. on Monday July 20, 2015.

**Contractor:** A.L. St. Onge

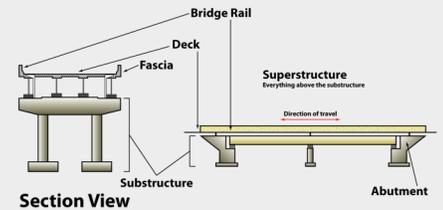
**Low Bid:** \$1,150,384.22 (includes Bridge 14 on South Road)

**VTrans Project Manager:** Rob Young, P.E.

**Detour Route:** The detour route will be the responsibility of the Town of Fairfield



Project Location Map



Generic Bridge Element Description



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