



Meeting Notes

Attendees: NHDOT: Mark Richardson, Bob Juliano, Christine Perron
VHB: Steven Hodgdon, Julie Whitmore
Public: Attendance Sheet included

Date/Time: 8/14/2014, 6:30pm – 8:15pm

Location: Franconia Town Hall
421 Main Street
Franconia, NH

Project: Franconia 24497 (Br. No. 089/099)
Bridge Rehabilitation or Replacement
NH Route 18 over Lafayette Brook
Public Officials and Public Informational Meeting

Notes by: Julie Whitmore

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- At 6:30, the Town Hall was opened to the public where several presentation materials, including the existing conditions plan, detour maps, aerial, and site photos were set up and provided for initial viewing and discussion prior to the meeting and presentation
 - The public informational meeting began at 7:00pm
 - Mark Richardson introduced NHDOT and VHB representatives and consultants present at the meeting:
 - Mark Richardson – NHDOT Bureau of Bridge Design, Administrator
 - Bob Juliano – NHDOT Bureau of Bridge Design, Project Engineer
 - Christine Perron – NHDOT Bureau of Environment, Senior Environmental Manager
 - Steve Hodgdon – VHB Project Manager
 - Julie Whitmore – VHB Project Engineer
 - Bob Juliano began the PowerPoint slide presentation:
 - Project location information, from a broad sense in reference to I-93 and a more narrow view in the immediate project area was presented.
 - Photos of the existing bridge site were presented.
 - Basic information regarding the existing bridge was presented (year of construction, type of bridge, stone facing, geometry, Red List status, traffic volume).
 - The stone facing on the bridge rail and on all faces of the bridge superstructure and wingwalls was noted.
 - An audience member asked for the definition of “Red List” bridge. Mark Richardson provided the definition of a Red-List bridge: Any bridge which has any major component (deck, beams, substructure) rated as a “4” or less is added to the “Red List.”

- Mark explained that two major structural components of the bridge, the deck and beams, were rated at “4” and therefore, this bridge was added to the DOT Red List of deficient bridges.
- Mark also explained that the rating scale runs from “0” (closed bridge) to “9” (excellent/new bridge) and that “4” means that the component is “poor”.
- All State owned Red-List bridges are inspected twice a year.
- The existing typical section was presented to show the bridge type and other important components that make up the bridge superstructure:
 - The roadway width between bridge curbs is 24 feet.
 - The bridge rail is a stone faced parapet type rail.
 - The T-section of the superstructure was highlighted to help explain why the bridge is called a concrete “T-beam”.
 - An audience member asked what the space was between the T’s and it was explained that this is the reinforced concrete deck spanning between the beams. It was further explained that the beams support the deck and the abutments support the beams, essentially explaining the basics of the structure and how it works together as a unit.
 - The exterior beams are variable depth to create an arch look. It was emphasized that this structure is not an arch structure, but made to look like one.
- Photos were presented to help with the explanation of terms used to identify several bridge components (deck, beams, superstructure, abutment, wingwall, pilaster, and rail/parapet).
- Inspection findings were presented:
 - A photo of the northeast end of bridge rail was shown. At least one collision occurred at this corner, misaligning the stone rail end post, and had since been repaired.
 - A photo of the deteriorated concrete and exposed reinforcing steel along the east curb was shown. An audience member asked where the exposed reinforcing steel was and it was pointed out on the photo.
 - A spalled section of the underside of the bridge deck was shown. It was explained that “spalled” means that a portion of the concrete has unbonded itself from the reinforcing steel due to corrosion/rust, and has popped off from the structure.
 - A photo of the underside of the exterior T-beams showed the cracks and leaking through the concrete beams.
 - Another photo of the underside of the exterior T-beams showed a large spalled section along with the cracks and leaking.
 - A photo taken on 4/4/2013 showed debris stuck underneath the bridge at the exterior T-beam.
 - A photo showed cracks in the stone facing.
 - A photo of the south abutment was shown, and the components (superstructure and abutment) were identified. This photo also showed the location of a core of the concrete which was taken for testing as part of the inspection in April 2014.

- The need for concrete cores (to better evaluate condition) was explained and a photo showed the location of some deck cores taken in April 2014.
- Photos of the actual concrete core samples were presented and compared. Poor quality concrete cores from the deck and beams look like cookie crumbs and are indicative of the poor condition of the superstructure. As a comparison, an intact core from another portion of the deck showed what good quality concrete looks like.
- Based on concrete cores, chloride testing, and visual inspection, it was determined that the superstructure is in poor condition and must be replaced.
- Abutments and wingwalls are in good condition and may be rehabilitated.
- The roadway geometry and several substandard conditions were discussed:
 - The lack of bridge approach rail which leaves the unprotected (blunt) ends of the stone bridge rail exposed is a safety concern for errant vehicles.
 - NH 18 is a designated bike route, and bridge railing should be a minimum of 42 inches tall to contain bicyclists. The existing rail is approximately 36 inches tall measured above the current pavement surface.
 - Several audience members expressed a desire that any new bridge rail should have the appearance of the existing rail.
- The intersection sight lines at NH 141 (Butter Hill Road) were discussed:
 - An audience member mentioned that she has had no issues with the intersection and does not see any reason to modify the intersection.
 - Several others supported her statement.
- Two traffic control options for completing the bridge work were presented:
 - Option 1: Maintain a single lane of alternating one-way traffic:
 - It was explained that this option is not recommended due to the narrow width (24 feet between curbs) of the existing bridge. To maintain one lane of traffic, the bridge must be widened and the roadway centerline must be shifted. This option would only apply to a complete bridge replacement. For bridge rehabilitation the bridge must be closed. A conceptual graphic was shown to explain the situation described above.
 - Many in the audience disapproved of the appearance of the 3-bar steel rail depicted in the graphic as they were concerned that it could lead to its incorporation in the final work. Most members of the audience strongly preferred bridge rail that is similar in appearance to the existing stone rail. It was explained that it is shown because it is the DOT standard treatment. Other options may be possible and will be evaluated as part of the design process.
 - This option would require two construction seasons to complete the work.
 - Option 2: Close bridge and detour traffic:
 - It was noted that a detour requires coordination with emergency responders and schools for bus routes.

- It was noted that a bridge closure and detour would allow faster construction and would be more economical compared to maintaining one lane of traffic on the existing bridge during construction. The work could be completed in one construction season, possibly limited to begin after the school year ends.
- A conceptual graphic was provided that depicts a new, wider superstructure, emphasizing that even with a wider bridge, the roadway centerline would not need to be shifted if the bridge was closed during construction. Again, the 3-bar steel rail was shown and the public voiced their desire to not use or even show this rail type.
- This construction option is recommended.
- An aerial plan of the signed detour concept was shown:
 - An audience member mentioned that the owners of Lovett's Inn have begun focusing on weddings and that construction in the summer may negatively affect their business.
 - Several audience members mentioned concern for business owners in the heart of Franconia that might be affected by the bridge closure during late fall months (foliage season) and during the winter when skiers travel from Cannon Mountain into town.
 - A firefighter in the audience expressed concern over a delay in response times due to a bridge closure. Maintaining access across the bridge would be preferred from his standpoint.
 - Audience members expressed concern about any long-term closures having a negative economic impact on the community and local businesses. The tourism industry is very important. The closure of the Gale River bridge (located approximately one mile north on NH 18) was very unpleasant. [Referring to repairs undertaken by DOT Bridge Maintenance forces in 2012].
- Alternatives to address the deficient bridge were presented:
 - Bridge Rehabilitation:
 - Rehabilitation would consist of superstructure replacement.
 - The abutments and wingwalls would be retained and rehabilitated as needed.
 - A new superstructure would be provided that will meet or exceed the current hydraulic opening. One possible choice may be a constant depth precast concrete superstructure, which is cast in a shop and delivered to the site, and can be installed quickly.
 - An audience member expressed concern over losing the "arch" look.
 - An audience member asked if an "arch" look could be done with precast concrete and if a stone veneer could be applied. Some feel it is one of the prettiest bridges in the state. It was explained that it may be possible to form precast concrete units to replicate the shape of the arch.
 - Crash tested bridge and approach rail would be used.

- An audience member asked if the crash-tested rail is required by law. It was explained that the Federal Highway Administration (FHWA) requires the Department to provide crash-tested rail and we are limited to adequately tested rail options to address safety needs for errant vehicles.
- An audience member asked if a sufficient rail could be constructed with concrete, stone facing, and or/metal rail on the top.
- Bridge Replacement:
 - Bridge replacement involves removal of the entire existing structure, including the abutments and wingwalls.
 - Considerations could include a new, wider bridge with five-foot shoulders to accommodate bicycle traffic and improvements to the intersection with NH 141 (Butter Hill Road).
 - An audience member asked about sidewalks. It was explained that sidewalks would not be provided since there are none on the approaches. Wider shoulders could be provided to address pedestrian and bicyclist needs.
 - An audience member asked if drainage on the bridge would be improved by adding drains through the deck. It was explained that drains are not needed on the bridge since the grade of the roadway is adequate for drainage and the bridge is relatively short. Runoff would collect in the shoulder and be directed off the bridge near the ends of the wingwalls.
 - Replacement may involve right-of-way impacts and a longer design and permitting process.
 - Construction would likely take at least one full construction season, depending on the method of traffic control. Bridge closure is recommended.
 - An audience member expressed concern over the potential right-of-way impacts and additional width. It was explained that the state owned right-of-way is wider (66 feet wide) than the bridge, however, any impacts to property owners must be identified and mitigated or purchased.
- The next steps NHDOT and VHB will take to move the project forward were presented:
 - Work with cultural and natural resource agencies to evaluate the project's impacts to these resources for options considered.
 - Develop and evaluate bridge alternatives.
 - A 2nd public informational meeting will be held, likely in spring 2015, to present the results of the alternatives evaluation and the preferred alternative.
 - Complete NEPA process (National Environmental Policy Act)
 - Develop preliminary plans
 - Develop contract plans and documents
- Christine Perron presented information regarding cultural and natural resources:
 - The project must follow Section 106, which requires consideration of cultural resources.

- NH Division of Historical Resources (DHR) through its State Historic Preservation Office (SHPO) reviews this effort, with FHWA as the lead agency.
- Lovett's Inn is on the National Register of Historic Places; a report (Inventory Form) is currently underway to determine if the bridge is eligible for listing, although it is assumed that it is eligible.
- The Section 106 Consulting Party process was explained, which allows anyone with an interest in historical resources in the project area, including Town officials and Historical Societies, an opportunity to become more involved in an advisory role during project development as "Consulting Parties." Those interested would need to indicate so in writing to the FHWA.
 - An audience member asked "what happens to the bridge if it becomes listed?" It was explained that the bridge deficiencies will still need to be addressed, but that mitigation would be required if the project results in an Adverse Effect. Mitigation could include, in part, the selection of certain railing or bridge type.
 - It was explained that even if the bridge becomes listed, this action does not preclude its replacement.
- There are no known archaeological concerns in the anticipated project area.
- Natural resources were discussed and it was explained that NH Department of Environmental Services (NHDES) and Army Corps of Engineer permits are required, and that all impacts must be identified and permitted appropriately. The project would also need to take into consideration any impacts to other resources such as floodplains and wildlife habitat
 - An audience member mentioned the pond on Lovett's Inn property and the surrounding vegetation, including lilac bushes adjacent to the bridge. It was explained that the pond will be treated as a wetland and that important vegetation will be identified and impacts avoided, if possible.
- Bob Juliano discussed the project schedule:
 - The contract plans would likely be completed by Fall 2017
 - The bridge is funded in the current Ten-Year Plan for fiscal year 2022, which is when construction would begin.
 - The estimated construction cost is \$2.5 million based on the bridge rehabilitation alternative and a bridge closure. State and Federal funds will be used; Town funds are not anticipated to be used on this project.
 - Construction could begin in 2018 if funding becomes available.
- The audience was solicited for additional input:
 - An audience member asked how the public was notified and requested additional notice for the next public meeting.
 - It was explained that notice was provided to all abutters.
 - It was explained that notices were also sent to the Board of Selectmen and members of the Conservation Commission and Historical Society.

- Another audience member mentioned that it was in the local paper.
- An audience member asked that if the bridge is widened, doesn't the roadway also need to be widened.
 - It was explained that the appropriate measures will be taken to determine the width and transitions to match the existing roadway, but that a wider bridge would likely require roadway widening at least in the vicinity of the bridge.
- An audience member asked who would do the construction.
 - It was explained that construction would be performed by a contractor who is chosen based on low bid.
- An audience member asked about the spalled concrete along the bridge curb and if that will be addressed before the bridge is rehabilitated or replaced.
 - It was explained that we will coordinate with DOT Bridge Maintenance forces and determine how to treat the deficient areas. It is likely that the spalled concrete will not be addressed.
- An audience member asked if the bridge is posted for a vehicular load limit.
 - It was explained that it is not currently posted, but that if its condition worsens and it becomes posted, it could limit access for some emergency response vehicles and school buses, depending on their weight and axle configuration.
- An audience member mentioned that she has seen the river bank full during several storms and asked if the bridge needs additional clearance.
 - It was explained that the bridge has a sufficient opening to handle high flows, and that if replaced, the new bridge may need to be longer based on new stream crossing regulations, but that will be evaluated in design.
- An audience member asked who built the bridge.
 - It was explained that it is unknown at this time. Our records indicate it was built by NH Highway Department under a force account, but records do not list a contractor.
- It was explained that all presentation materials from tonight's meeting will be made available on the NHDOT website within a few weeks.
 - An audience member asked if a link to the DOT project website could be added to the Town website.
- Meeting adjourned at 8:15pm.

Attendance

Franconia 24497 - Public Informational Meeting

Franconia Town Hall --- August 14, 2014

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