

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: Monthly SHPO-FHWA-ACOE-NHDOT Cultural Resources Meeting

DATE OF CONFERENCES: August 13, 2015

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT

Chris Carucci
Sheila Charles
Ron Crickard
Jill Edelmann
Bob Landry

Marc Laurin
John Sargent

NHDHR

Laura Black
Edna Feighner

FHWA

Jamie Sikora

City of Concord

Martha Drukker

CMA

Britt Audet
Jason Gallant

PROJECTS/PRESENTATIONS REVIEWED THIS MONTH:

(minutes on subsequent pages)

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| <i>Laconia 16144, X-A001(150)</i> | <i>1</i> |
| <i>Concord 28417, X-A003(741)</i> | <i>3</i> |

(When viewing these minutes online, click on a project to zoom to the minutes for that project)

Laconia 16144, X-A001(150)

Participants: John Sargent, Bob Landry, Ron Crickard, NHDOT; Jason Gallant, Britt Audet, CMA Engineers

Initial consultation on the US Route 3 (Endicott Street) Bridge (131/154) over the New Hampshire Railroad (NHRR) in Laconia. The project is located west of the Weirs Channel and immediately to the east of the Lakeside Avenue intersection with Endicott Street.

Jason Gallant presented an overview of the existing bridge condition including pictures of the bridge and surrounding embankments and approaches. The bridge was placed on the State's Red List in 2009 and has a Federal Sufficiency Rating of 32.7 out of 100. The bridge carried approximately 13,000 vehicles per day in 2011. Traffic increases significantly during the summer tourist season. The railroad is typically active from May to November.

The bridge deck is cast-in-place concrete slab constructed in 1933. The length of the single span varies from 23 to 32 feet. The narrowest roadway width is 27 feet curb-curb with a 7 foot sidewalk along the north side of the bridge. There is a solid concrete rail on either side of the bridge. The vertical clearance from the top of rail to the bottom of slab is 17.5 ft. The substructure is primarily made up of split granite block abutments, which were built prior to 1933. There are no existing records of abutment construction. In 1933, the abutments were widened with mass concrete and a wing wall extended down Lakeside Avenue. There is significant deterioration on the underside of the concrete deck which has led to exposure of the reinforcing steel. The bridge slab has reached the end of its useful service life and requires replacement.

The design of the proposed replacement superstructure has taken into account the following considerations: existing narrow roadway shoulders over the bridge cannot be widened without widening the bridge; the existing concrete rail impairs line of sight of motorists and is not crashworthy; the presence of many utilities which will require relocation; close proximity to intersections (Lakeside Avenue, Channel Lane and Endicott Rock State Park); location in popular tourist destination; available vertical clearance from the NHRR; detour length.

Several superstructure replacement options were evaluated as a part of the Engineering Study and presented to the City Council and subsequently at a Public Information Meeting. A precast-prestressed concrete slab was selected as the preferred alternative since it allows for an accelerated construction schedule and is the most economical. Construction is anticipated to start in March or April and last approximately 30 days. A T4 bridge rail is the preferred bridge rail since it will alleviate safety issues associated with line of site, vehicular impact, and rail termination issues with the additional benefit of accelerated construction advantages.

The existing substructure, while deteriorated, is stable and can be rehabilitated. The preferred construction method is complete closure of the bridge, which will allow for the quickest construction of the bridge but will require a 15 mile detour. There is a shorter detour using private roads for which permissions will be secured to use as an emergency vehicle access route.

Since the project does not include substructure replacement, the proposed construction limits include the bridge slab and some minor approach roadway and slope work. Substantial earth disturbing activity is not anticipated. Laura Black asked for clarification of the limits of the proposed Area of Effect (APE) for cultural resources review as included in the Request for Project Review (RPR). J. Gallant clarified that the proposed extent is the limit of the aerial imagery of the APE plan provided but given the limited project area, consideration could be given to reducing the size of the APE. John Sargent noted that the emergency access detour was included in the APE as proposed. Jamie Sikora asked about when the long detour would be in use. J. Sargent noted that start of construction would be no later than the end of April in order to complete the bridge work before the busiest tourist season.

Within the project APE (as proposed in the RPR), several cultural resources have been identified. Endicott Rock Park, a New Hampshire State Park, is located to the northeast of the bridge. Endicott Rock is located on the western bank of the Weirs channel and is listed on the National Register. The bridge is located within the Boston, Concord & Montreal (BC&M) Railroad Historic District.

Preparation of an Individual Inventory for Bridge No. 131/154 to determine National Register eligibility and its contribution to the BC&M Railroad Historic District is planned. L. Black asked for clarification regarding the 2010 inventory form of the bridge that was referenced in the RPR. Jill Edelmann clarified that the form was completed following the Mother's Day flooding. It was part of a large inventory effort to document resources that was not comprehensive.

Edna Feighner noted that the Phase 1A completed by Independent Archeological Consulting, LLC and submitted with the RPR was acceptable. She cautioned that if any staging work or changes to the project require ground disturbing activity further archaeological study may be need.

A follow-up meeting with the City of Laconia to review the proposed design is planned for Fall 2015. The anticipated design and construction schedule includes development of contract plans by the end of 2016, advertisement for bids in Fall 2019, and construction starting in Fall 2019 to

Spring 2020 (with road closure in April). The estimated construction cost based on superstructure replacement and accelerated construction and bridge closure is \$1,500,000.

J. Edelman asked about the transition of the proposed bridge rail to the existing metal rail along the southerly side of Lakeside Avenue. J. Gallant responded that the proposed T4 bridge rail will be terminated where the black metal rail starts.

L. Black asked if the proposed rehabilitation for the bridge is actually removal and replacement of the existing bridge. J. Gallant clarified that the proposed project involves replacement of the existing superstructure. L. Black noted that if the bridge is found to be eligible for the NR or contributing to the BC&M District then removal of the bridge superstructure would be considered an adverse effect and that replacement alternatives should take into account elements that are character defining features. J. Sargent explained the proposed construction procedure and that the final appearance and configuration of the new bridge will be very similar to the existing bridge. He also noted that the existing concrete rail is a safety concern because it obstructs line of sight. Bob Landry noted that the existing concrete rail is not crash worthy and that construction of a metal rail is more expedient. J. Sikora noted that it should be documented that rail alternatives have been considered. L. Black noted that there is not a need to provide that level of documentation until it has been determined that there will be adverse effects. If there is a determination of adverse effects, then she recommends minimizing those effects through the design process rather than through mitigation.

J. Sikora asked if the 17.5 foot vertical clearance to the railroad is standard. B. Landry replied that 22.5 feet is the standard vertical clearance but they opted to maintain the existing clearance for construction expediency. J. Sargent noted that increasing the vertical clearance would require extensive road profile changes.

Ron Crickard asked J. Sikora if he thought the proposed staging area in Endicott Rock Park would be a de minimis Section 4(f) impact. J. Sikora noted that it appears that way but that the Environmental Document will need to include a Section 4f Impact Determination.

Concord 28417, X-A003(741)

Participants: Martha Drukker, City of Concord; Chris Carucci, Marc Laurin, NHDOT

Chris Carucci provided an overview of the project, which is to address the intermittent flooding that occurs at the intersection of I-393 and N. Main Street, usually during high intensity thunderstorms. Ponded water overtops the curb and sidewalks, spills over the adjacent retaining wall and onto the Kimball-Jenkins property, ponding in the lower parking lot. Significant flooding also occurs along the south side of N. Main Street at the Bouton Street intersection. Storm water runoff from approximately 56 acres of City streets and 1 acre from I-393 converge on the existing basin located at the corner of N. Main Street and I-393. This basin is connected to an old 20 inch clay drainage pipe that runs down the Jenkins driveway, under the railroad tracks, under the I-393 railroad bridge abutment, and runs southeast under I-93 and Fort Eddy Road about 3,500 feet to an outfall on the Merrimack River, behind Fort Eddy Plaza.

The current proposal is to construct a diversion pipe from the existing basin along N. Main Street and Horseshoe Pond Lane outletting into Horseshoe Pond. Low flows would continue through the existing system. The project would also adjust I-393 westbound pavement cross slope, upsize a few existing metal pipes and add an ADA compliant sidewalk at the corner of I-393 with N. Main

Street and at the Commercial Street intersection. The sidewalk in front of Kimball-Jenkins would be brick as existing.

This option is basically the same as one presented at a Cultural Resource Meeting in December of 2005. The project was put on hold in 2006 due to concerns from adjacent property owners and impacts to the conservation easement held by the Society for the Protection of NH Forests (SPNHF) on the Horseshoe Pond property. Abutters were concerned that additional water would adversely impact the agricultural use of the land surrounding the Pond.

The project was re-initiated in 2012 after a serious flooding event. Numerous options have been studied and several meetings have been held with stakeholders, which found the current concept to be the only practicable alternative. There was general agreement from stakeholders that if this option were pursued that a comprehensive drainage study of the Pond's watershed, to provide recommendations on improving its water quality, and dredging of the Pond's outlet channels be included in the project. Dredging would involve removal of accumulated sediments from approximately 2,800 linear feet of channel.

The new outfall would be designed to operate during high flows and would be dry most of the time. Hydraulic studies indicate that there would not be a significant increase to the Pond's elevation. However, the abutters feel that due to the sedimentation of the Pond outlets further flooding of the agricultural fields would occur as the outlets are not able to carry this water away, especially if this were to occur during saturated conditions. Photographs from 1948 show clear, straight, well-established outlet channels from the Pond. The easements on the Pond state that impacts to these conservation lands need to be appropriate to agricultural uses. The potential for additional flooding would not be acceptable to SPNHF.

Edna Feighner stated that a Phase IB archaeological investigation of proposed dredge areas and access points is needed as there are known sites in the vicinity of the Pond. Whether archaeological investigations will need to be conducted along Horseshoe Pond Lane was discussed. Martha Drukker will further investigate, but feels that existing utilities located under the Lane have likely disturbed the area where the new pipe is proposed to be installed.

Laura Black stated that the railroad spur that crossed the Lane needs to be further researched to see how it relates to the Concord-Lincoln main line. C. Carucci stated that the cobble gutters and curbing along N. Main Street will be restored, and the street will be repaved. No impacts to the existing sidewalk will occur along N. Main Street apart from the area by I-393 that will be made ADA compliant.

Sheila will ensure that the Phase I-B investigation to be completed will take into account the rail line spur, access and egress points needed to accomplish the dredging, how to deal with the spoils, and potential dewatering areas.

Submitted by: Sheila Charles and Jill Edlmann, Cultural Resources