

# BUREAU OF ENVIRONMENT CONFERENCE REPORT

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

**DATE OF CONFERENCES:** April 8, 2021

**LOCATION OF CONFERENCE:** John O. Morton Building

*Due to the Covid 19 Event, this meeting was a scheduled Zoom Meeting*

## ATTENDED BY:

### NHDOT

Sheila Charles  
Ron Crickard  
Jill Edelmann  
Wendy Johnson  
Marc Laurin  
Curtis Morrill  
Mike Mozer

Dan Prehemo

### NHDHR/NHDNCR

Laura Black  
David Trubey

### FHWA

Jamie Sikora

### VHB

Hannah Beato  
Benjamin Martin  
Quinn Stuart  
Pete Walker

## PROJECTS/PRESENTATIONS REVIEWED THIS MONTH:

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### **Bow 29641, X-A004(223)**

Participants: Gerry Bedard, Meli Dube, Matt Lampron, Dan Prehemo NHDOT

Gerard Bedard, NHDOT Bureau of Highway Design, introduced the project and provided a summary of the area, project history and goals. The project involves improvements at two intersections on NH Route 3A at River Road and Grandview Road. The project was developed through a NH Route 3A corridor feasibility study in 2008 which identified four intersections for possible improvements, however, the River Road and Grandview Road intersections were selected with input from the Town and the Central New Hampshire Regional Planning Commission in 2017. Possible design alternatives were presented to Town Officials, the CNRPC and the Public in 2020. The goals of this meeting are to discuss the purpose and need of the project as well as the proposed alternatives, address DHR's comments about the RPR, discuss limits of work near potential resources and determine if individual inventories are necessary.

The purpose of the proposed improvements at River Road are to improve the intersection sight distance and accommodate heavy truck turning movements. The need for these improvements is demonstrated by the lack of turning lanes, narrow shoulders, current turning radius for heavy trucks which encroach upon the NH3A southbound lane when turning onto NH3A north from River Road, and utilize the full width of River Road when turning onto River Road from either NH3A south or NH3A north. Additionally, the current intersection sight distance on NH3A is 415' which is not acceptable for the current 40 mph speed limit. Limiting features adjacent to the project area include overhead transmission lines crossing NH3A just north of the intersection, the residential structure at 758 River Road, the business/residential structures at 767 River Road and the water main under NH3A and River Road. Two possible design alternatives were

developed to address the purpose and need of this project including the relocation of River Road and the lowering of the NH 3A profile. The relocation of River Road would result in no change to the NH3A profile, 4'-10' shoulders on NH3A, River Road would be widened and shifted to the north of the current intersection location and water quality swales would be installed to treat increased stormwater runoff from additional impervious surface area. The lowering the NH3A profile alternative would lower the profile up to 2.7', create 12' travel lanes with 4-10' shoulders on NH3A, widen River Road to the north to accommodate heavy truck turning movements and would also install water quality treatment swales. During the 2020 coordination, the Town of Bow indicated their preference for the lowering NH3A profile alternative and the Department is pursuing this as the preference at this time.

Meli Dube, NHDOT Bureau of Environment, discussed the work limits near the Osborne property located at 758 River Road, which was constructed in 1940. A Phase 1A and 1B archaeological investigation indicated that there are remnants of an early-mid 20<sup>th</sup> century outbuilding on the property to the west of the residential structure, however, it was not considered likely to be historically significant and is outside of the proposed area of excavation for the alternatives discussed above. For the preferred alternative of lowering the NH3A profile, most of the work area in the vicinity of the Osborne property would remain within the existing State right-of-way except for small areas 1-3' wide near the western side of the property where ditch lines may be reconstructed.

The purpose of the proposed improvements at Grandview Road is to add a northbound left turn lane on NH3A, improve intersection angle to 60 degrees or greater, accommodate more turning vehicles, and to shift NH3A alignment slightly to the west to provide adequate clear zone to the structure at 807 NH Route 3A (Metzger/McGuire property). The need for these improvements is demonstrated the lack of turning lanes on NH3A, narrow shoulders, poor intersection angle of 16 degrees, poor turning radius for truck turning onto Grandview Road from NH3A south, and presence of the building at 807 NH Route 3A in the clear zone. Thirteen accidents occurred at this intersection between 2007-2017. There are several limiting features at this intersection including proximity to several structures, driveways, the steep grade of NH3A and steep slopes nearby, resulting in only one viable alternative that would meet the purpose and need and minimize impacts to the surrounding area. This alternative would add a twelve foot north bound turning lane on NH3A, shift the centerline of NH3A 2.7' to the southwest to create a better clear zone, create 12' lanes with 4' shoulders on NH3A, adjust the profile of NH3A up to 1', realign the intersection of Grandview Road and provide a stormwater quality treatment swale.

Due to limited time to discuss this intersection during the meeting, it was agreed that NHDOT would follow up with NHDHR with details regarding excavation/slope work near any potentially historic structures to determine if individual inventories are necessary. No recommendations were given at the meeting.

#### **Derry-Londonderry 13065, IM-0931(201)**

Participants: Hannah Beato, Benjamin Martin, Quinn Stuart, Pete Walker, VHB; Ron Crickard, Wendy Johnson, Marc Laurin, Curtis Morrill, Mike Mozer, Dan Prehemo, NHDOT

The intent of the meeting was to continue consultation and present two of the I-93 Exit 4A ATCs, including potential design modifications related to modifying the layout of Exit 4A to a Diverging Diamond Interchange (DDI), and to shifting the rail trail crossing to a location adjacent to Shields Brook, combined with Shields Brook bridge, rather than providing a connector tunnel under Folsom Road as identified in the 2019 Memorandum of Agreement (MOA).

Wendy Johnson provided a status update and explained that the project approach is now design bid build. The project will be designed and constructed in three phases, contracts 13065A, B & C. The project will include a review of the DDI ATC and the rail trail crossing at Shields Brook ATC to determine if one, both

or no options will be incorporated into 13065A and 13065B final designs respectively. The 13065A project is planned to be advertised on March 29, 2022 and the 13065B project is planned to be advertised on October 31, 2023.

VHB provided an overview of the design bid build concept and the three contract segments; the contract segments are preliminary and may change as part of final design to increase construction efficiency. VHB also provided a general discussion of the DDI ATC and rail trail ATC. VHB and the Department are currently considering whether to revise the design of these two project elements. Possible resource impacts and regulatory reviews are a critical consideration that will help to determine whether either design change moves forward.

#### Diverging Diamond Interchange Concept at Exit 4A

The DDI is a new concept in New Hampshire but is used throughout the United States. The layout assessed in the 2020 Final Environmental Impact Statement (FEIS) was a traditional diamond interchange. The DDI would reconfigure the interchange and result in several benefits to the project design. To analyze and compare changes between impacts of the traditional diamond interchange and the DDI ATC, the project team will overlay the two limits of disturbance to ensure that no new archaeologically sensitive areas would be affected. VHB is not anticipating new concerns related to above-ground historic resources, since no identified eligible properties or districts are adjacent. Of note is that the DDI would have a slightly lower elevation than the traditional diamond interchange proposed in the 2020 FEIS, which limits the potential for visual impacts. VHB opened the floor to questions about the DDI.

Jamie Sikora (FHWA) questioned whether the faster moving traffic at the DDI would indirectly cause congestion issues at other local intersections, particularly to the east.

Ben Martin (VHB) clarified that the DDI would reduce delays for vehicles navigating through the interchange and not result in a reduction in vehicle throughput or capacity. There will be less idling, emissions and fuel consumption. The interchange and corridor signals will be interconnected and coordinated to provide adaptive timing that will prioritize corridor intersection operations to provide peak volume throughput.

David Trubey (NHDHR) stated that he would like to review previous reports before making final comment but acknowledged the existing ground disturbance. No immediate concerns regarding archaeology impacts and the DDI footprint.

Sheila Charles (NH DOT) agreed with D. Trubey – no immediate concerns.

P. Walker (VHB) restated that VHB would do a footprint overlay to check.

Laura Black (NHDHR) requested to see the footprint overlay and asked when the above-ground surveys were done for the project. There may be new properties that were not previously identified that may need to be assessed. Until then, she cannot provide informed comments.

Jill Edelmann (NH DOT) responded that cultural resources were looked at recently.

#### Rail Trail Under Shields Brook Concept

The FEIS layout included a box culvert/tunnel to carry the rail trail. The Rail Trail and Shields Brook ATC considers a realignment to avoid constructing a box culvert/tunnel, which would provide benefits to the project: the roadway would follow the existing vertical geometry more closely; the roadway footprint would be smaller; construction costs would be lower, and; the Town's lifecycle maintenance costs would be lower. The Rail Trail and Shields Brook ATC would have the same start and end points as the previous box culvert/tunnel design, which should help to minimize the overall impact on the Manchester and Lawrence Railroad (M&LRR) corridor. There would be no new footprint expansion, but the water quality treatment basin would need to be reconfigured. VHB will confirm that the north side of the bridge (Station

114+00 to 116+00) was included in previous archaeological evaluation, since a portion of the revised trail appears to be slightly outside of the BTC footprint. Stream crossing rules may necessitate a slightly longer bridge (span increases by 10') than what was included in the FEIS. This design would provide enhanced user experience – no tunnel, natural lighting, more open, meandering trail with resting areas (i.e., benches), and adjacent to Shields Brook.

David Trubey recommended confirming the former archaeological investigation included the area for the realigned trail proposal and included the slope along the brook on the north side of the connector road, as this area is likely archaeologically sensitive. If not, a Phase IA should be completed in this area.

P. Walker clarified that the northern portion of the Rail Trail has some old M&LRR corridor features (e.g., linear), but that the corridor is absent (previously impacted) through a majority of the area affected by the ATC. The ATC would impact the same length of the M&LRR since those impacts result from the reconstruction of the interchange access with High Street & Folsom Road; the ATC would not change that design other than to lower the vertical elevation of the road. Two stipulations of the 2019 MOA bear on the railroad. The Rail Trail and Shields Brook ATC could still include interpretive panels on history of the M&LRR. Stipulation 2 discusses aesthetic treatments to the tunnel headwalls, which would need to be modified, but the team could work with the Town to provide similar aesthetic enhancements on the abutment of the Shields Brook Bridge adjacent to the Rail Trail.

J. Edelmann explained that the adverse effect to the National Register-eligible M&LRR corridor was due to modern intrusion and consequent realignment of the corridor. The modern intrusions into the corridor was discussed in the executed adverse effect memo.

J. Sikora said that if the Department pursues this change then it would need an environmental reevaluation.

VHB noted that their full final design scope was approved on 4/7/2021. This current evaluation effort is part of an early action design task order. The team will be attending a Natural Resource Agency Coordination Meeting on 4/21/2021 to hear any concerns by others. By the end of May 2021, the project team should have acquired enough information to make decisions on the ATCs. The NEPA reevaluation would be done if the ATCs move forward.

L. Black stated that the trail is separate from the historic resource. The resource is the rail alignment and the impact is to the historic M&LRR corridor, not the trail. The trail user benefits are clear, but the team's attention should be kept on the historic resource. Shifting the trail alignment off the historic corridor, as decided upon in the FEIS, still maintained the connectivity of the rail alignment and corridor feel. Trains could still be visualized to travel along that shift. However, the proposed trail design of the ATC takes that off the table all together by leaving the rail corridor and creating a new section of trail, then back to the rail corridor. These elements must be thought about as the evaluations are progressed. The intrusion of roadway was an adverse effect to the National Register-eligible M&LRR. The Section 4(f) Net Benefit was that the M&LRR corridor would be reconstructed in such a way as to reflect the historic significant of what the resource is: still linear, reads as a historic rail corridor, some shifts would have been normal for a rail corridor. This was important to NHDHR concurrence with the Section 4(f) Net Benefit Programmatic Evaluation. The first goal is to avoid the historic resource, then minimize, then mitigate. A new design cannot be shoehorned into the discussion and argument of what we [NHDHR] have identified as historic resources and create new results because of that fact.

J. Sikora thinks that an Individual Section 4(f) Evaluation would be required and asked how much of the proposed rail trail concept is on property owned by the NHDOT. Section 106 and Section 4(f) would need to be reevaluated.

B. Martin clarified that the new, meandering element of the rail trail is still within the previous footprint of what was included in the FEIS.