BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: Monthly SHPO-FHWA-ACOE-NHDOT Cultural Resources Meeting
DATE OF CONFERENCES: December 11, 2014
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Sheila Charles
Kathleen Corliss
Ron Crickard
Michael Dugas
James Kirouac
Bob Landry
Marc Laurin
Stephen Liakos
Don Lyford
Karen Malburne
Kevin Nyhan
Christine Perron
Michael Pouliot
Jennifer Reczek
Mark Richardson
C.R. Willeke

Federal Highway Administration
Jaime Sikora

NHDHR
Laura Black
Richard Boisvert

City of Keene
James Donison

CMA Engineers
Josh Bouchard
Daniel Hudson

GM2 Associates
Tom Levins

Hoyle, Tanner
Aaron Lachance
Matthew Low
Kimberly R. Peace

LBG
Theresa McAuliffe

Louis Berger
Michael Pillsbury

Smart Associates
Jenn Riordan

PROJECTS/PRESENTATIONS REVIEWED THIS MONTH:
(minutes on subsequent pages)

December 11, 2014

Keene 26505 (no federal number)
Participants: Theresa McAuliffe, Mike Pillsbury, Louis Berger; Jim Donison, Town of Keene; Steve Liakos, NHDOT

Initial consultation for the NH Route 12 (Main St) over Beaver Brook Bridge project (Bridge No. 137/059) constructed in 1961 in Keene, NH. Theresa McAuliffe began with a power point presentation of the project to provide the project background, existing conditions, purpose and need, and project scope. The existing bridge is twin corrugated metal arch culverts built in 1961. The headwalls and wingwalls appear to be field stone. It has a sufficiency rating of 52.3%, severe section loss, heavy rust, and sags in roof. In addition, the one guardrail it has is a substandard bridge rail. The purpose of the project is to remove the structurally deficient bridge found on the NHDOT Municipal Red List. The need is for a structurally sound and hydraulically compatible structure. Bridge replacement would completely remove the existing culverts, headwalls and wingwalls. In addition, there was a slope failure just downstream of the bridge adjacent to Citgo

which will be permanently stabilized as part of this project. The roadway limits of the project will be minimized to facilitate tie-in of pavement after the new bridge is constructed.

An aerial view of the location and close up photographs of the existing buildings along with the Area of Potential Effect (APE) of the project were shown. The following additional information was provided since the RPR form was submitted: Photo 1 and 2, showing the upstream and downstream faces of the bridge, were augmented with dimensions. Photo 9 showing 492 Main St (Tire Warehouse) was corrected to indicate the photo was taken "looking southeast". Photo 16 caption was corrected to indicate the building was located at 11 Sheridan Ave (Parcel 039030060000), built ca. 1940, and photo taken looking southwest from the project site. Photo 17 was added to provide a contextual view by the travelling public; the top of the mortar rubble masonry headwall is obscured by vegetation. The view is from Martell Ct. looking east towards the intersection with Main St.

Since the RPR form was submitted, the City has had two meetings to get community comment. The Local Concerns Meeting was held 11/18/14. The adjacent property owners were in attendance. T. McAuliffe summarized that the public was asked if they had any concerns with removing the stone headwalls and wingwalls and their feedback was that they weren't visible. Jim Donison held a meeting with the Keene Historic Committee 12/10/14 to discuss the stone headwalls and wingwalls and to see if they had any information on who built it and why stone was used. J. Donison reported that the Committee had no information about it and motioned that they would take "no action" against the removal of the bridge.

Plans were shown for the 1960 NHDOT project no. P-3435-A. These plans were for the relocation of Martell Ct and King Ct to make way for the future Route 101. The plans also indicated a massive realignment of Beaver Brook. These plans show an existing Br. 137/059 as a concrete slab on incased I-beams crossing Beaver Brook and notes for removal of the bridge deck. The bridge shown in the plans is not in the same place as where the bridge is today. Plans from the 1963 NHDOT project no. P-3435-C were also shown. These plans were for the construction of Route 101. These plans show Br. 137/059 in the location of where it is today and the plans portray it as an "existing" feature. The plans also show that Beaver Brook did not undergo the massive realignment proposed in 1960 and instead show it as "existing" in its present day location. These sets of plans validate the "Built Date" of 1961 on the Structure Inventory & Appraisal form (SI&A). J. Donison indicated that it is likely the bridge construction and brook realignment were constructed as part of a change order given the broad statements on the 1960 plans, "Construct 16 ft channel from Baker St. to the Branch (river). Exact alignment to be determined prior to construction after consulting with City Engineer." Steve Liakos concurred that it was likely a change order scenario since the Bureau of Bridge Design had no records of the bridge.
The Standard Detail for Mortar Rubble Masonry wingwalls and headers from the NHDOT website was shown. T. McAuliffe explained that during a conversation with Kevin Belanger in District 4 that he did not anticipate there being any "structural" plans for Br. 137/059. He noted that the headwalls and wingwalls of these culverts were likely paid and constructed as the standard Mortar Rubble Masonry item. T. McAuliffe pointed out that the top dimension of the wingwalls and headers were measured to be 12-inches which is the same as the standard detail. Mike Pillsbury explained that during his time with NHDOT construction from 1975-1984 he saw many of these types of headers and wingwalls constructed because it was the standard detail which was included at the back of the plan set. He noted that the construction around the curved culvert openings was much easier using the stones than trying to build forms and support them to cast concrete. While it

cannot be confirmed that NHDOT built Br. 137/059, S. Liakos did indicate that the standard plans for mortar rubble masonry wingwalls and headwalls previously did not embed the walls deep enough (below the frost line) and were not designed for seismic.

Laura Black and Sheila Charles discussed the possibility of the Program Comment Form. T. McAuliffe indicated that one was submitted with the RPR. L. Black concluded that the new information regarding the Mortar Rubble Masonry will allow Br. 137/059 to be covered under the Post-1945 Bridge Program Comment Form. However, issuance of a "no adverse effect" or "no historic properties affected" finding will wait until after the 1997 Lower Main Street Area is updated, as needed, per DHR Survey Policy.

Action items for the project team are to append the RPR with the research presented during this meeting. Submit an update to the Lower Main Street Area historic district form. The Effect Memo will need to be drafted/submitted after the Lower Main Street Area data is updated.

Colebrook 28733, X-A003(733)
Participants: Daniel Hudson & Joshua Bouchard, CMA Engineers

Initial Review of the Colebrook Elementary School – Safe Routes to School Project located on Dumont Street. D. Hudson summarized the current project status and explained that the project intent is to improve pedestrian access to the elementary school. The Request for Project Review had included work on the school's driveway on Main Street, but given funding constraints this section was eliminated and only the Dumont Street work is proceeding at this time.

J. Bouchard described the proposed improvements on Dumont Street that include removing the existing bituminous curbing along the northeast side of the street and replacing it with vertical granite curb, a five foot wide bituminous asphalt sidewalk, and concrete ramps, landings, and painted crosswalks at the Colby Street/Dumont Street intersection. The project will also involve new and modified catch basins and drainage pipes to capture stormwater at the revised curb line and slope limits. Temporary impacts to existing properties will include reconstructing driveway entrances where necessary for proper grade and slope work to match the back of sidewalk to the existing ground. A small permanent impact/easement on the #39 Colby Street property is proposed to accommodate the proposed sidewalk on the northeast corner of the Colby Street / Dumont Street intersection. Work will include removal of an existing bush; however an existing tree that provides screening from the intersection will be retained. These changes have been reviewed with the property owners and no changes will be made without their written approval.

It was agreed that the proposed changes along Dumont Street are in previously disturbed areas will not impact the character of the neighborhood or the abutting properties. All direct property impacts are temporary, with exception of the small permanent sidewalk impact at #39 Colby Street. L. Black recommended that a finding of No Adverse Effect be made. J. Sikora noted the project would result in a de minimis Section 4(f) finding. A Cultural Resources Effect Memo will be drafted and submitted for review and approval.

Peterborough 14772A, X-A000(535) and & 14933, X-A002(107)
Participants: Matthew Low, Kimberly R. Peace, HTA; CR Willeke, NHDOT

Continued consultation on the US 202 Intersection and US 202 Retaining Wall (14772A, X-A000(535), and the Main Street Bridge Project (14933, X-A002(107), formerly presented four times and most recently at the July 2011 meeting. The goal of the meeting will be to update information on the project and introduce a design to move the project forward.

Hoyle, Tanner personnel provided an update on the current status of the bridge replacement project for bridge 092/089. This meeting covers two separate projects: the Main Street bridge replacement project (14933) and the Route 202 intersection improvements and retaining wall stabilization project (14772A).

M. Low presented an update to the Committee. He explained that the consulting parties to the project include the Peterborough Heritage Commission, Peterborough Town Library, Peterborough Economic Development Authority and Peterborough Greater Downtown Tax Increment Fund. These groups have been very involved in the project to this point, and were invited to this meeting but none were in attendance. These projects have had much public involvement and have been before the Committee four times before.

The Engineering Study was completed in 2011 with a focus on two items: replacement of the existing bridge and improving operation of the adjacent Main St/Route 202 intersection. The Town's preferred alternative was to construct a roundabout at this intersection, and construct the bridge using phased construction to maintain traffic. There was much resistance to the proposed roundabout, as well as schedule, funding, and business impacts associated with the alternative. As a result, the Town has reevaluated the project and would like to move forward with a conventional stop-controlled intersection alternative (Concept 1). The bridge replacement project will also use complete bridge closure for traffic management so that over-widening of the bridge in the final condition will not be required. One change that has made this possible is relocation of the Peterborough Fire Station. A roll plan showing the roundabout (Concept 2) and conventional intersection (Concept 1) concepts was presented.

M. Low summarized historic research previously completed. Preservation Company completed individual inventory forms for the bridge, the adjacent brick block row house, and the boulder retaining wall. An area form was also completed. The bridge and brick block row house were found to be eligible for the National Register of Historic Places, and the area was found to be eligible as a historic district. The Peterborough Library was investigated separately in 2006 and found to be eligible. The boulder retaining wall was not found to be individually-eligible for listing on the register, but should be considered a contributing element to the district. J. Sikora inquired about the retaining wall and noted it is likely a contributing element of the National Register of Historic Places district.

M. Low explained proposed changes to the bridge cross section, which involves maintaining the existing overall width of the bridge but removing the downstream sidewalk to allow for widening of the existing travel lanes to 11'. The downstream sidewalk will be moved to a separate bridge, perhaps a prefabricated steel pedestrian bridge; this concept is still being developed. There was general discussion about this pedestrian bridge, including the suggestion that a cantilevered sidewalk may also be an alternative to the separate pedestrian bridge. D. Boisvert asked if Monadnock Archaeological had looked at the area downstream of the existing bridge as part of the Phase 1A investigation; M. Low said that they had not but it would be done as the separate

pedestrian bridge concept was developed, and a Phase 1B could be done once the construction limits were determined. L. Black commented that she felt the aesthetics of a separate bridge for pedestrians might be preferred, and would be considered 'reversible' if the additional bridge needed to be removed later (vs. the cantilevered sidewalk approach which is not reversible). Plans or renderings would inform the final determination of visual impacts. M. Low and S. Liakos both expressed concerns with regard to the cost and constructability of a cantilevered sidewalk when compared to a separate structure. The use of a cantilevered sidewalk versus a separate pedestrian may be addressed further as part of the ongoing conceptual design.

The need for a new sidewalk along the east side of Route 202 is being evaluated as part of the design. Consideration as to whether pedestrians can safely cross to the west side of the Route 202 at the southern end of the project (at the Pine Street intersection) will likely determine whether a new sidewalk on the east side is required or preferred.

L. Black suggested that since some time has passed since the earlier historic documentation work had been performed, Hoyle, Tanner should determine if any new Determinations of Eligibility have been completed for properties within or near the project area. M. Low discussed the schedule for the project. These projects are currently programmed for FFY2017 construction funding, therefore, bidding is anticipated to take place in the spring of 2017. This is important as the US202 / Route 101 NHDOT bridge project, also being designed by Hoyle, Tanner, is scheduled for FY 2019 construction funding in the NHDOT Ten Year Plan. Since the Main Street Bridge is now proposed to be constructed with a detour of traffic as opposed to phased construction, the two bridge projects must not be under construction at the same time. The current schedules for both projects appear to facilitate the proposed traffic control methods at this time.

Preliminary design work completed to date includes geotechnical borings, sampling of the existing bridge for the presence of asbestos, and preliminary investigation into refined roadway and intersection alignments. The project will be presented to the Committee at a later date when the design concepts are further developed.

Acworth 16301, X-A001(226)
Participants: Marc Laurin, Bob Landry, Jennifer Reczek, NHDOT; Tom Levin, GM2; Jennifer Riordan, Smart Associates

Tom Levins (GM2 Associates) provided an overview of the project, which involves the replacement of the existing bridge on NH Route 123A over Bowers Brook in the Town of Acworth. The existing bridge was constructed in 1915 and is on the Red List. The bridge suffered significant damage from a 2005 flood event. The current opening is insufficient to convey 100-year storm events. The proposed bridge opening will be increased from 11 feet to 27.5 feet. The proposed bridge layout is in conformance with the Bowers Brook Plan shown in the Cold River Restoration Master Plan developed by Sean Sweeney (Horizons Engineering). Stone fill is proposed for scour protection of the new bridge foundations.

The original design for the project involved a temporary detour to maintain traffic during construction. This is no longer proposed and the project will involve an estimated 3-week road closure to replace the bridge. A temporary pedestrian path will be constructed to the south of NH Route 123A to allow residents to access the Village Store, which houses the Post Office, during the bridge closure. This path will include a temporary bridge over Bowers Brook.

A Phase IA and IB archaeological study was completed in 2013-2014. The only archaeological resource identified within the project area is the Grange Hall foundation, which is located west of the bridge and south of NH Route 123A. The foundation is located beyond the proposed limits of disturbance for the pedestrian path and will not be impacted by construction. DHR recommended that the contract documents specify that this area cannot be used as a staging area during construction. Since the foundation is not an obvious feature at the site, it was suggested that orange construction fence be used to delineate the resource and prevent access during construction.

The Determination of Eligibility (DOE) for the existing bridge was discussed. The area form will be reviewed at the January 14, 2015 DOE Committee meeting. FHWA and DHR have previously determined that the bridge is not individually eligible. The period of significance for the South Acworth Historic District has been identified as circa 1772-1964. Since the bridge was constructed in 1915, it would normally qualify as a contributing structure; however the many modifications made to the bridge after 1915 have caused it to no longer qualify as a contributing structure to the South Acworth Historic District.

Laura Black asked to confirm if there will be impacts to other properties within the South Acworth Historic District. Tom Levins replied that there will be permanent slope impacts from grading near the bridge. The proposed slopes will be flatter than the existing slopes in order to increase stability near the bridge. The work will not involve the removal of any large trees. The slope impacts will occur on private property, but the use of these properties won't change.

Although the slope impacts will be within the historic district, they will benefit the district by providing increased stabilization at the Bowers Brook/NH Route 123A bridge crossing. As such, the Department requested that FHWA make a No Adverse Effect finding with *de minimis* Section 4(f) impacts for the project.

Laura Black agreed that there will likely be a No Adverse Effect to the District, and requested that DHR be provided with photos of the proposed impact areas, the dates of public input opportunities, and any comments received from the consulting party. Marc Laurin will provide this information.

Concord 28977, X-A003(902)
Participants: Kathy Corliss, Mikel Dugas, Don Lyford, Christine Perron, Mike Pouliot, NHDOT

Initial consultation on a CMAQ project that proposes to utilize a portion of the Stickney Avenue highway garage complex to expand parking at the Concord Transportation Center. The purpose of the project is to accommodate projected and unprojected demand for parking at the Concord Transportation Center on Stickney Avenue. Christine Perron began the meeting by providing a handout that summarized the project's Purpose and Need, existing conditions, and design alternatives that have been considered.

Mike Pouliot summarized the current use of the parking facility. The use of Park and Rides is increasing across the State, and the facility on Stickney Avenue is no exception. Passengers utilizing the transit services at the Concord Transportation Center have been increasing at a rate of approximately 6% per year. There are currently five transit agencies which provide service from

the Concord Transportation Center. The facility provides 340 parking spaces and DOT has allowed informal overflow parking at the former highway garage complex, which provides approximately 68 spaces.

The NHDOT completes an annual car count of all NH Park & Rides during a mid-week day in October. This represents usage for a "typical day." A summary was provided for the counts that have been completed at the Concord Park & Ride lot. The counts show a steady increase in parking demand, with an average annual increase of 6%. Counts over 340 include vehicles that have parked in the overflow lot on the west side of Stickney Avenue. Of note, during certain periods of peak parking demand, there may be no parking available at all.

Part of the increase in parking demand is related to the increase in transit services at this facility. In 2014, Concord Coach Lines, which is the principle provider of intercity bus service from the Concord terminal, has increased its schedule by 9% and its ridership has increased by 6%. The Manchester Transit Authority began its "Concord Express" service between the Concord terminal and downtown Manchester in 2013, and currently provides 7 roundtrips Monday through Friday and 3 on Saturdays. In 2014 (January – November), Concord Express has averaged 831 passengers per month. Other transit providers include Greyhound and Peter Pan, which are intercity transit providers, and Concord Area Transit which is the local transit provider. There are also chartered buses that utilize the terminal & parking facilities. In addition to transit services, the lot is also utilized by carpoolers and vanpoolers, both of which are becoming more and more popular.

Mike Dugas provided an overview of the design alternatives that have been studied. Alternative 1 is the No Build Alternative, which would not address the need for additional parking.

Alternative 2 would create additional parking within the main parking area at the Concord Transportation Center. Existing parking already optimizes the long axis of the site, with 340 existing spaces available. Expanding parking at this location is constrained by the steep slopes along Interstate 93, and the need to maintain adequate space for bus flow through the lot. It may be possible to create a few additional spaces in some areas, but it would not result in any notable increase in parking.

Laura Black asked if it would be possible to restripe the lot to gain more spaces since it seems that there is a tremendous amount of space between travel lanes. M. Dugas explained that the lot is required to provide standard dimensions that a private lot would not need to adhere to. These dimensions include an 18 to 20 foot parking space and a 26-foot aisle. Based on these design standards, it would not be possible to gain enough space to create another row of parking.

Alternative 3 would create additional overflow parking in the NH Highway Garage Complex without removing buildings. This alternative would provide approximately 26 additional parking spaces.

Alternative 4 would create additional overflow parking in the NH Highway Garage Complex by removing 4 buildings. This alternative is considered the "full build" alternative since it fully maximizes the use of the north end of the complex. A new fence would be installed to secure the remaining buildings from the unsecured access to parking. This alternative would provide an additional 160 spaces, for a total of 212 spaces.

Alternative 5 represents a range of possible alternatives between Alternatives 3 and 4. Several variations could be pursued relative to the number of buildings removed to provide additional parking. All variations would result in few available parking spaces. Building I could be retained by changing the proposed fence layout, which would eliminate at least a few spaces in order to maintain adequate space for traffic flow. Retaining Building J would eliminate approximately 50 spaces, for a total of approximately 160 spaces.

Dick Boisvert asked how the area around the old gas pumps is currently being used. M. Pouliot said that the area is used for some overflow parking now and some State vehicles also park there. Access to the CNG pump needs to be maintained, which limits parking availability.

D. Boisvert asked why Building I would need to be removed. M. Dugas replied that its removal was proposed in order to provide a straight fence line but it would be possible to retain the building and create a jog in the fence. This would eliminate a few parking spaces. D. Boisvert commented that removing an entire historic building to provide a straight fence and gain a few parking spaces seemed unreasonable. L. Black further noted that all buildings at this site are contributing elements of a Historic District.

L. Black asked that the Department investigate the use of space around the former gas pumps and document whether or not the use of this space as formalized overflow parking was feasible. D. Boisvert added that it should be determined if it would be possible to utilize the space around the former pumps in order to offset spaces lost by retaining Buildings I and J. It was also suggested that more information be provided on the existing CNG pump, including whether it is possible to move this pump to a new location.

Jamie Sikora asked if the project would be designed based on projected parking demand over the next twenty years. C. Perron replied that demand had not been calculated that far out but that by 2018 approximately 126 projected vehicles would require overflow parking based on the average annual growth. Subsequent to the meeting, it was determined that an estimated 248 vehicles would require the use of overflow parking by the year 2024, ten years from now.

D. Boisvert asked if providing free parking for a private facility was justified by the air quality benefit of taking cars off the road. M. Pouliot clarified that the Concord Transportation Center is owned by NHDOT and operated by Concord Coach. Further, the facility does provide an important environmental benefit.

L. Black asked who typically parked along the front of the main office building and if a parking permit was required. M. Pouliot replied that State employees parked there, especially when the Legislature was in session, during which time the parking garage was closed. A shuttle is provided during that time, and the lot is also within walking distance to the offices that park there. A parking permit is not required. L. Black noted that a parking study completed by the City of Concord identified an underutilized parking area on Storrs Drive. She asked the Department to investigate the possibility of requiring the State employees who park on Stickney Avenue to instead park on Storrs Drive.

Berlin 29689 (No federal number)
Participants: Christine Perron

Christine Perron provided an overview of the project. The entire project is 1.49 miles long, beginning at the Berlin City Compact Limit (approximately Industrial Park Road) and ending at the Milan town line. The first 2,700 feet of the project (to approximately Horne Brook) will entail shifting the alignment of the roadway to the west approximately 12 feet to move the road away from a failing retaining wall. The project also proposes to replace the failing wall with a precast concrete retaining wall. The realignment will taper back into existing alignment just before the bridge over Horne Brook. From that point north to the Milan town line, the project will entail pavement reclaim, drainage replacement/repairs, and repaving. This project will be constructed by NHDOT District 1 Maintenance forces. The project has no federal funding.

Three stone features would be impacted by the work as proposed. For this reason, the project was reviewed according to the NHDOT Stone Wall Policy. Based on the Project Rating System, the overall project scored 33 points. This project scored relatively low using the Project Rating System due largely to its location within an area zoned as Industrial, as well as the lack of attractive roadside vegetation and historic features.

If a project receives a score of 70 or higher, all impacted stone walls should be considered for reconstruction. When a project scores below 70, as is the case with the subject project, then each individual wall needs to be rated using the Individual Wall Rating System. For an individual wall to qualify for reconstruction, the wall must score 26 or higher. The first stone wall in the project area is a short wall located approximately along the right-of-way line near the beginning of the project. This wall received a score of 14. The second stone wall in the project area is the stone retaining wall that is failing; the project proposes to replace it with a concrete retaining wall. This wall scored 16 points. The last stone feature in the project area consists of two stone retaining walls at the end of a concrete pipe. These walls scored 12 points.

All three stone walls scored relatively low due to the lack of aesthetic roadside features, the short lengths of the walls, and the lack of unique workmanship.

Dick Boisvert commented that the first stone wall feature appears to be a rebuilt stone wall, the retaining wall appears to be recycled cut stone, and the walls at the end of the concrete pipe appear to be serving as riprip/bank stabilization. He had no concerns with the work as proposed.

Laura Black asked if any of the properties that would be impacted had structures over 50 years old. C. Perron replied that all structures on the impacted properties are modern structures. It was noted that the historic Brown Co. Barns are located at the south end of the project; this property will not be impacted.

L. Black recommended a finding of No Historic Properties Affected.

Wentworth 26903, X-A003(407)
Participants: Kevin Nyhan, Christine Perron, Mark Richardson, David Scott, Jason Tremblay, NHDOT

Continued consultation to address the bypassed bridge (148/121) that carries Wentworth Village Road over the Baker River. Christine Perron summarized actions that have been completed to date. An initial Section 106 meeting was held on November 4th with NHDOT, FHWA, NHDHR, and members of the Wentworth Bridge Steering Committee. A Phase IA/IB archaeological survey was completed in November and determined that there are historic archaeological resources along the shoreline of the Baker River in the vicinity of the bridge, as well as potential historic resources under the existing roadway. No impacts to these resources are anticipated. An Individual Inventory Form on the bridge was also completed in November. Laura Black noted that a special Determination of Eligibility meeting was scheduled for December 17th. A draft Alternatives Evaluation was sent to NHDHR on December 4th.

To date, no one has requested consulting party status. Mark Richardson has been working closely with the Wentworth Board of Selectmen, as well as the Bridge Steering Committee, as the project moves forward.

The NHDOT Commissioner's Office viewed the bridge site recently and made the decision that fencing was needed to provide a more substantial barrier to prevent pedestrians from using the bridge this winter, when the snow load on the bridge creates more of a safety concern. Chain link fence was installed at each end of the bridge by a Bridge Maintenance crew on December 10th. The fence is green in color, making it less obtrusive.

A Public Informational Meeting was held in Wentworth on December 10th, with approximately 25 people in attendance, including the Board of Selectmen and members of the Bridge Steering Committee and Historical Society. Francis Muzzey (Wentworth Historical Society) and one other resident voiced concern over the loss of the historic truss, as well as a new pedestrian bridge that lacks any historic connection to the setting. Several residents stated their preference for a bridge at this site having a covered bridge appearance, and the Steering Committee asked DOT to consider providing a pedestrian bridge that would be strong enough to support a covered bridge like structure/façade over it, which the Town could pursue in the future. Many residents, including the Chair of the Steering Committee, expressed understanding and frustration over the lack of available state funds. Many residents expressed their desire for a pedestrian crossing to be available sooner rather than later, regardless of the type of bridge that is put in place.

The Alternatives Evaluation was discussed. C. Perron noted that the Purpose statement for the project was revised to reflect comments received at the November 4th meeting, as well as the Town's desire to retain a pedestrian crossing at the current location. The purpose of the project is to address the public safety concerns associated with the deteriorated condition of Bridge 148/121 and to re-establish a permanent pedestrian crossing of the Baker River at this location. Seven design alternatives were reviewed in the Alternatives Evaluation, including the No Build Alternative, and only three alternatives fully meet the Purpose and Need of the project. The alternatives that did not meet the Purpose and Need of the project were briefly summarized as follows:

Alternative 2: This alternative would consist of removing the existing bridge and installing nothing in its place. This eliminates the public safety concerns with the existing bridge, but it does not address the town's desire to maintain a pedestrian crossing of the Baker River at this location.

Alternative 3: This alternative would involve installing a Bailey bridge through the existing bridge. The Bailey bridge would need to have enough capacity to also support the existing bridge and would need to be installed in a manner that allows the top chord of the Bailey bridge to hold support beams for the existing truss. This alternative would not be a permanent solution since it would not address the truss bridge, and the presence of the Bailey bridge would make any subsequent actions more challenging to carry out.

Alternative 7: This alternative would involve adding sidewalks to the NH Route 25 bridge and removing the existing truss bridge. Although the NH Route 25 bridge is located just downstream from the truss bridge, the route is less pedestrian-friendly due to steeper grades, greater distance from the Village, and faster/greater volume of traffic. This alternative would also result in impacts to Riverside Park, another Section 4(f) resource.

The three alternatives that fully meet the Purpose and Need of the project were discussed as follows:

Alternative 4: This alternative would consist of replacing the existing bridge with a 5-foot wide I-Beam/Timber pedestrian bridge at the same location. The new bridge would be constructed by NHDOT Bridge Maintenance. The estimated cost of this alternative is $305,000, which reflects the use of new steel I-beams. The cost may be lower if Bridge Maintenance has salvaged I-beams available for use. The approximate maintenance costs for the new bridge over the next 50 years have been estimated at $270,000, which would include touch-up painting of the steel and replacing the timber deck every 15 years.

Alternative 5: This would consist of replacing the existing bridge with a new, prefabricated steel truss bridge at the same location. The estimated cost of this alternative is $450,000, and estimated maintenance costs over the next 50 years would be approximately $190,000.

Alternative 6: This alternative would involve the rehabilitation of the existing bridge. The rehabilitation that was detailed in the Alternatives Evaluation would entail replacing approximately 42% of all bridge members, and would restore pedestrian use of the bridge, not vehicular use. The Department's initial estimate for this alternative was $770,000. The Town of Wentworth requested an estimate from a private engineering firm, which was $1.5 million. The average of these two estimates would be roughly $1 million. The maintenance costs for a rehabilitation bridge over the next 50 years are still being determined; however, at this time, it is believed that these costs would be approximately $400,000. Future maintenance would need to include periodic spot painting, as well as one complete repainting, as well as repairs and eventual replacement of the timber deck.

L. Black asked if the Department had looked into rehabilitating the existing bridge and providing a narrower pedestrian path down the center, which would presumably reduce the amount of work that would be necessary as compared to allowing pedestrian access across the full width of the bridge. M. Richardson said that this had not been studied. While the narrower pedestrian path may reduce the amount of work required on the floorbeams, other bridge members are so far gone that they would still require replacement. Additionally, the town has expressed concern with a narrow bridge and may not be supportive of providing a narrow pedestrian path on the existing bridge.

Dick Boisvert noted that providing a wider pedestrian bridge, as the town seemed to prefer, would increase the cost of Alternative 4, and providing a narrower pedestrian path across the existing bridge may decrease the cost Alternative 6. C. Perron remarked that, while the costs may change somewhat as these alternatives are refined, the magnitude of the overall cost difference between replacement and rehabilitation is not expected to substantially change.

C. Perron noted that comments were made at the Public Informational Meeting regarding the impracticality of spending $800,000 or more on rehabilitating the existing bridge. Since State funds are so limited, and there is, overall, support from the Town, the Department's preference is to move forward with replacing the bridge. The Department's intent is to turn ownership of the bridge and approach roadways over to the Town once construction is complete.

L. Black asked about impacts to other properties. C. Perron replied that replacing the bridge would have no direct impacts to adjacent properties. Adjacent property owners attended the Public Informational Meeting and did not express any concerns with replacing the bridge.

L. Black commented that she was interested in the Section 4(f) perspective, particularly whether the project would require an Individual 4(f) Evaluation, since an Individual Evaluation is subject to a greater degree of legal scrutiny. Jamie Sikora noted that the project would be an adverse effect and would require an Individual Section 4(f) Evaluation due to the impact on the Historic District, which does not qualify as a Programmatic 4(f). The Section 4(f) Evaluation being developed will include a Least Harm Analysis that explains the selection of the proposed action. The Individual Section 4(f) Evaluation must be determined legally sufficient prior to FHWA's issuing their Section 4(f) Determination.

D. Boisvert asked the Department to consider if there were any truss bridges slated for removal that could be moved to Wentworth.

L. Black commented that a fake covered bridge (described as one of the options presented by DOT, with a roof appended to the top) would present a false sense of history, unsympathetic to the covered bridge resource type and the historic district. M. Richardson stated that providing a covered bridge type façade for the pedestrian bridge would be something the Town would undertake once the bridge was under the Town's ownership. Providing a real covered bridge at this location is outside the scope of this project.

L. Black commented that it was a shame that the project was heading in the direction of replacing the truss bridge. She felt that this type of bridge in this setting could have been a perfect example of a potential success story for retaining a historic resource given that there are no weight limit concerns presented by a pedestrian bridge.

(Note: M. Richardson commented after the meeting that design criteria for pedestrian and other loads/uses still present considerable concerns regarding weight limits and capacities of steel members in the existing truss.)

M. Richardson stated that to the best of his knowledge, there were no other steel truss bridges that were available for adaptive reuse as part of this project.

L. Black commented that, in general, costs for certain things always seem to be astronomical, and she wondered if DOT had any checks and balances in place when considering cost estimates. D. Boisvert further wondered if the cost estimate for bridge rehabilitation was given adequate scrutiny. M. Richardson replied that cost estimates are developed based on past experience with similar projects. For this particular project, another steel truss bridge in Wentworth was recently rehabilitated at a cost of $925,000, which helped provide current costs for developing the cost estimate for rehabilitating the Wentworth Village bridge. C. Perron added that the Department develops an independent cost estimate for every project that is advertised. If the bids submitted by Contractors are substantially different from the Department's estimate, more information is obtained to determine why discrepancies exist. She further commented that some construction activities have a high cost because of certain requirements that may not be readily apparent. For example, bridge painting has a high cost in part because of containment and disposal requirements for the lead-based paint waste generated during these efforts.

Submitted by: Sheila Charles and Jill Edelmann, Cultural Resources