BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: April 17, 2013
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Christine Perron
Steve Liakos
David Scott
C.R. Willeke

Army Corps of Engineers
David Keddell

EPA
Mark Kern

NHDES
Gino Infascelli

NH Fish & Game
Carol Henderson

NH Natural Heritage Bureau
Melissa Coppola

Federal Highway Administration
Jamie Sikora

CLD Engineers
Brian Pratt

Town of Hooksett
Leo Lessard

TF Moran
Nick Golon
Bob Duval

Dubois & King
Bob Durfee

HEB Engineers
Chris Fournier

(When viewing these minutes online, click on an attendee to send an e-mail)

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NOTES ON CONFERENCE:

Finalization of March Meeting Minutes

The March 20, 2013 meeting minutes were finalized.

Troy, X-A002(137), 21197 and Troy, X-A002(138), 21199

Brian Pratt of CLD Consulting Engineers presented the project on behalf of the Town of Troy. The project is a municipally managed Safe Routes to School (SRTS) funded project. The purpose of the project is to improve pedestrian safety in two areas of town to provide safe access to schools and other town facilities. The first area involves the construction of 1,500 linear feet of sidewalk along the west side of South Street from Route 12 to the Sand Dam Recreation Area (also known as Samuel Paul War Memorial). The second area involves drainage upgrades in Central Square to eliminate ponding. The majority of the project is located within the Troy Historic District, which ends halfway up South Street.

There are two wetland crossings included in the project, both on intermittent streams. Work at the first crossing, a 4' reinforced concrete pipe (RCP) with headwall, has been completed and involved relocating the headwall and extending the pipe approximately 8-feet. The work was completed by the Town as part of previous work to reclaim and repave the roadway, and permitted through a Routine Roadway Notification. The second crossing is an 18" RCP. Proposed work at this crossing involves extending the pipe 6 to 7 feet with a flared end section, which is expected to result in less than 500 s.f of wetland impact.

There are 4 proposed catch basins on South Street, one at the 4' RCP, one at the 18" RCP, and two near the intersection of South Main to help with ponding issues, which will tie into an existing culvert that outlets to a swale.

The NHDES One Stop database noted that there are two impaired waterbodies in the vicinity of the project area. Sand Pond and South Branch Ashuelot River are both impaired for E. Coli. The sidewalk project is not expected to contribute to the impairment.

Gino Infascelli noted that work on the 18" RCP would likely qualify for a routine roadway maintenance notification, provided it is not located within a ¼ mile of a river. CLD will look into this and file the application materials accordingly. Subsequent to the meeting it was determined that the impacts are not within ¼ mile of a designated river. Therefore the wetlands permit will be filed as a Routine Roadway Notification.

Carol Henderson asked if the curbing would inhibit turtles. CLD noted there would be breaks in the curbing where the existing driveways were located.

C. Henderson also asked if any stone would be placed along the roadway. CLD noted that this was not proposed. The curbing was proposed along the existing edge of pavement with a 5' concrete sidewalk. The proposed sidewalk was located along lawns and the lawns would be re-seeded if they were disturbed.

Jamie Sikora asked about the need for easements. CLD noted that an easement has been received from the Selectmen for the culvert extension. There would be other temporary right-to-enter easements needed, likely 5' or less, for tying driveways back into the grade. Subsequent to the meeting, upon further design review, it appears that permanent drainage easements on two private properties would also be required. These easements are not changing drainage patterns, but are required to formalize the existing culvert extensions and headwalls; existing culvert locations are already on the private properties,. Headwall work adjacent to this wetland will be included in the Routine Roadway Notification Permit.

C. Henderson asked if the park was an LCHIP property. CLD noted that it was unclear but the plan would not restrict the use of the park as the new sidewalk ended right at the entrance. CLD noted that a signed letter was received from the Selectmen allowing the work to be performed. C. Henderson noted that she would talk with the OEP. Subsequent to the meeting, CLD clarified that a memo had been sent by Steve Walker from OEP indicating that there were no LCIP properties in the project area. A memo from NH Parks & Recreation indicated that the park is a LWCF property protected by Section 6(f) but that the project as proposed would not impact the property. A letter was also received on 5/1/2013 from LCHIP indicating that the property is not an LCHIP property and any nearby LCHIP properties would not be affected by the project.

This project was previously reviewed as Troy 15537 on the following dates: 3/17/2010.

Raymond, X-A002(092), 20818

David Scott gave an overview of the project, which proposes to remove the Dudley Road bridge in its entirety. The bridge spans the Lamprey River and both the bridge and the road are state-owned and state-maintained. The bridge is currently crossed by 600 vehicles per day. NH Route 27 crosses the Lamprey River just south of Dudley Road and is 7 to 8 feet lower in grade than the Dudley Road bridge. If the bridge is removed, a turnaround area would need to be constructed on the east side of the river to accommodate snow removal equipment. Equipment would utilize Critchett Road on the west side of the river to reverse direction. The bridge superstructure is rated as fair and the substructure is rated as serious. The bridge is currently posted at 10 tons and is 52 feet in length.

At an informal meeting with the community, town officials have stated that, in general, the bridge is not important; however, it does remain above water during large flood events while the NH 27 bridge is overtopped. Traffic traveling from Manchester to Deerfield must use Dudley Road as a detour when this occurs. According to Department maintenance personnel, this has only happened twice in the last 15 years, during the Mother's Day and Patriot's Day floods. The HEC-RAS model confirms the occurrence of flooding.

The town also expressed concern with the intersection of Dudley Road with NH 27, located to the west of the bridge. The angle of this intersection makes it impossible for longer fire trucks to make the turn onto Dudley Road when traveling west on NH 27.

The project has not yet been discussed with the State Historic Preservation Office. The Department also needs to go back to the town to discuss alternatives. Although unlikely to be acceptable to the town, one alternative would be to install a replacement bridge and transfer ownership to the town. If the bridge is removed, the Department recognizes the need to complete a flood study and update the HEC-RAS model.

Jamie Sikora commented that it would be important to justify the Department's preferred alternative when the project was discussed with the State Historic Preservation Office.

Carol Henderson asked when the Department would be going back to the town. D. Scott replied that it would likely be in early June.

David Keddell asked if it would be possible to rebuild the bridge in a new location. D. Scott stated that just wouldn't be possible given the concrete deck and stone abutments.

C. Henderson commented that she liked the removal alternative but indicated the need for further coordination regarding the sensitive species known to exist in the area.

Melissa Coppola stated that there is a historic record of a state endangered plant species in the vicinity of the project. If the project would impact floodplain forest, a survey for the plant would be required.

D. Keddell noted that this segment of the Lamprey River is not designated as Wild & Scenic, as was noted in the meeting agenda.

Gino Infascelli asked if downstream flooding would be alleviated by removing the bridge. D. Scott said that Materials & Research recently hired Ann Scholz, who completed her Masters Thesis on modeling of the Lamprey River. A copy of her work has been requested in order to review potential downstream and upstream impacts from bridge removal.

G. Infascelli asked if reconfiguration of the NH 27/NH 107 intersection would be considered as part of this project, as he considered it to be a safety concern. He also noted that the signage at the intersection was confusing. D. Scott commented that safety concerns at this intersection were analyzed, and the Department found that there have been only three minor crashes there in the last ten years. No work is proposed at this intersection at this time.

C. Henderson asked if the project would return to a future meeting once an alternative is selected and preliminary impacts are known. D. Scott stated that the project would be discussed again at a future meeting.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Hooksett, non-federal, 14950

Nick Golon presented the project, giving an overview of the project location, the project schedule, and TF Moran's current recommendation to the Town and NHDOT for improvements to the Hackett Hill Road and NH 3A intersection. The NH 3A/Hackett Hill Road intersection in Hooksett currently experiences heavy commuter traffic volumes, with lengthy delays and a high crash rate. The intent of the project involves the evaluation, design and construction of improvements to the intersection to address these capacity and safety issues. The timeline for the project consists of advertising Fall 2013 with an expectation for construction in Spring 2014.

Specific examples of site constraints were given, which entail the Merrimack River to the immediate East, Brickyard Brook to the North, and the steep slope of Hackett Hill Road as it enters into the intersection from the west, which is further magnified by the short distance from the intersection to the Interstate 93 exit 11 toll ramp/toll booth. Providing appropriate access to the commercial property at the northwest quadrant of the site was also identified as a site constraint as this site's only access point is on NH 3A and is located in very close proximity to the intersection. The project team acknowledged that the best solution to siting this driveway would be relocation to Hackett Hill Road but also that this area is Limited Access Right-Of-Way (LAROW), and that breaking the LAROW is problematic.

A more thorough evaluation of the two most likely alternatives was given, including reference to the before mentioned site constraints. TF Moran acknowledged that both alternatives took potential future growth into consideration. These alternatives include: 1) signalization of the intersection with dual eastbound and northbound lanes and 2) a roundabout. Under both alternatives, impacts to wetlands are anticipated as the existing box culvert passing Brickyard Brook under NH 3A would require extension or replacement. DOT is in the process of following up with a new evaluation of the culvert and noted the last evaluation received a "fair" grade.

The potential impact to rare or endangered species and exemplary natural communities was discussed, with the following reported by the NH Natural Heritage Bureau review (File NHB13-1918): brook floater, bald eagle, rich sugar maple-oak-hickory terrace forest, and golden heather. TF Moran had corresponded with NH Fish and Game and NH Natural Heritage Bureau at a prior date and no concerns were raised relative to the brook floater or rich sugar maple-oak-hickory terrace forest. Although there was no direct concern for bald eagle habitat, the project team was asked to minimize removal of mature pines tress adjacent to the Merrimack River.

Melissa Coppola requested that an evaluation for golden heather be conducted within the project area in late spring/early summer and for TF Moran to report back with results of the survey.

Relative to the alternatives presented, the roundabout concept appeared the most logical as it provided a suitable option for access to the property on the northwest quadrant while still maintaining appropriate levels of service in the future year evaluation while minimizing environmental impacts to the extent practical. This alternative appeared to have the least impact to the bank of the Merrimack River relative to its horizontal geometry, but the Project Team acknowledged that further evaluation of roadway profiles would be required to verify impacts. TF Moran is awaiting comment from NHDOT and the Town of Hooksett prior to moving forward with the next design phase.

Gino Infascelli asked if the relocated driveway to the property at the northwest quadrant would cross Brickyard Brook. N. Golon replied that the driveway would not need to cross the brook.

G. Infascelli asked if the DES Stream Crossing Rules had been considered for the culvert on Brickyard Brook. N. Golon said that a wetland scientist is currently evaluating what will need to be addressed. The condition of the culvert also needs to be assessed.

Carol Henderson and Mark Kern asked if the two project alternatives could address moving the intersection further away from the river. N. Golon replied that the existing site constraints limit the amount of space available for changing the location of the intersection. However, holding the existing limit of pavement may be possible and will be analyzed as design progresses. C.R. Willike commented that the grade through roundabouts does need to be relatively flat.

C. Henderson asked if this area had flooded during the Mother's Day flood event, and if there are any issues with bank stability in the vicinity of the project. The Project Team confirmed that no flooding of the roadway occurred in this area. Some erosion has taken place at the culvert outlet and it appears that sediment from upstream areas has settled in this area.

G. Infascelli stated that he would like to see the project at a future coordination meeting once decisions have been made regarding the box culvert. He suggested that additional photographs of the culvert should be provided at the next discussion. C. Henderson also stated that she would like more information about the project's impacts to the river once an alternative is selected.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Temple, non-federal, 24178

This project involves the replacement of the bridge that carries Converse Road over Whiting Brook in Temple, NH (Bridge No. 110/141). DuBois & King Project Manager, Bob Durfee, presented the initial project review, including alternatives and proposed wetland impacts.

The bridge replacement project is in the NHDOT Municipal Bridge Aid Program, with the Study Phase nearly completed. The schedule is to proceed with Preliminary Design/Final Design and permitting this summer, and advertise the project in late summer/fall of 2013.

The existing bridge is a narrow, one-lane (17'-2" wide), 17'-8" long metal plate arch span on concrete strip footings. There is a natural stream bottom through the bridge between footings. NHDOT records indicate the bridge was built in 1950. The bridge is on the NHDOT "Red List" and posted E2 due to structural deficiencies. The road is dead ended on the west side, providing access to thirteen homes.

Moderate changes to the existing road profile are proposed. The elevation of the road through the bridge would be raised approximately one foot with new bridge construction.

A hydraulic and hydrologic investigation has been performed. Results indicate the current bridge opening (17'-8") can pass the NHDOT required Q50 flood event with over 1.0 foot (minimum) of freeboard. The brook width between banks at normal flow is approximately 20', thus a minimum bridge span of 20' was investigated.

The proposed bridge structure would be a new two lane (24' wide), 24' long bridge consisting of a 3-sided precast concrete arch, on concrete footings. The 24' span is a better fit than a 20' span for the skewed geometry of the road intersecting the brook. Construction cost estimate for the 24' span is $425,000.

A bridge design that would satisfy the NHDES Stream Crossing Rules (Env-Wt 900) was studied. Bank full width was determined to be 20'. A 26' long clear span bridge would be required to span the 1.2 x full bank width plus 2'. A 28' long precast bridge section is the smallest standard precast bridge span available to satisfy the rules. Construction cost estimate for the 28' span is $460,000.

A temporary, one-lane bridge will be erected upstream during construction to provide a detour and maintain traffic through Converse Road. Phased construction of the bridge was studied, and it was determined the existing metal plate arch is not feasible for partial removal during phased construction.

A wetlands survey was performed by a certified wetland scientist, and no wetlands were found within the project area beyond the brook.

A "Request for Project Review" was submitted to NHDHR. The NHDHR has recommended a Historic Inventory Form be competed for the existing bridge/structure before it is removed.

Replacement of the bridge, and construction and removal of the temporary bridge will all have impact to wetlands (Whiting Brook). A NHDES Standard Dredge and Fill permit will be required.

Approval of an alternative design (Env Wt 904.09) for a 24' max clear span bridge will be requested as part of the NHDES permit application. Dubois & King believes that it is not practical to meet the NHDES Stream Crossing requirements due to the cost increase of a longer bridge. In addition, the longer 28' span offers little environmental benefit or improvement over the proposed 24' span, which is longer than the 20' minimum span necessary to span the brook width.

There were no objections to pursue an alternative design.

Mark Kern asked what the definition of stream (brook) width was. B. Durfee answered it is the width between the banks during normal (typical) flows.

M. Kern asked if the alternate design proposed (24' span) was based on cost. B. Durfee answered it is based on cost, as well as being able to satisfy many of the Stream Crossing Rules, specifically providing a wildlife path (shelf) through the bridge.

M. Kern stated that the cost difference between the 24' span and the 28' span did not seem substantial.

Christine Peron asked if other design criteria of the NHDES Stream Crossing Rules would be met. B. Durfee replied that the 24' span would satisfy most of the design criteria.

Carol Henderson asked if the intent is to keep a natural stream bottom. B. Durfee answered yes, that both proposed bridge types (Rigid Frame or Arch) would have a natural stream bottom through the bridge site between abutments.

C. Henderson asked if there would be any blockage of the stream during construction. B. Durfee replied that it is possible the contractor would use a water diversion structure (sandbag dike and pipe culverts) through the construction site. C. Henderson stated that September to December is brook trout spawning season. Fish & Game would prefer that some stream flow through the site be maintained during construction. B. Durfee explained that one thought was to construct an earth causeway upstream, and extend the pipe culverts through the bridge site, as an alternative to installing a temporary bridge. C. Henderson asked about the length of time the causeway would be in place. B. Durfee stated four weeks is a typical length of time needed for a detour on this type of project.

C. Henderson asked about the time frame for the permit application submittal. B. Durfee stated the permit application will be submitted early in the next phase (Preliminary Design Phase), with an estimated a submittal sometime in June.

Gino Infaselli felt that submitting preliminary plans with the permit application may be a concern. He also noted that erosion control plans would need to be included. He suggested looking at the existing bridge spans upstream and downstream of Whiting Brook to help justify the alternative design recommendation.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Strafford, non-federal, 24213

This project involves the replacement of the bridge that carries First Crown Point Road over the Pease River in Strafford, NH (Bridge No. 069/164). DuBois & King Project Manager, Bob Durfee, presented the initial project review, including alternatives and proposed wetland impacts.

The bridge replacement project is in the NHDOT Municipal Bridge Aid Program, with the Study Phase nearly completed. The schedule is to proceed with Preliminary Design/Final Design and permitting this summer/fall, and advertise the project in December 2013.

The existing bridge is a narrow, two-lane (22'-2" wide), 14'-0" long metal plate arch culvert with a metal bottom resting on the river bed. NHDOT records indicate the bridge was built in 1983. The bridge is on the NHDOT "Red List" due to structural deficiencies. The road is dead ended on the west side, providing access to nineteen homes.

No changes to the existing road profile are proposed. The elevation of the road through the bridge will be maintained with new bridge construction.

A hydraulic and hydrologic investigation has been performed. Results indicate the current bridge opening (14'-0") is inadequate to pass the NHDOT required Q50 flood event with over 1.0 foot (minimum) of freeboard. The river width between banks at normal flow is approximately 20', thus a minimum bridge span of 20' was investigated. A 20' span would satisfy the NHDOT hydraulic requirements. Construction cost estimate is $445,000 for the 20' span.

A bridge design that would satisfy the NHDES Stream Crossing Rules (Env-Wt 900) was studied. A 36' long clear span bridge would be required to span the 1.2 x full bank width plus 2'. Construction cost estimate is $600,000 for the 36' span.

The proposed bridge structure would be a new two-lane (24' wide), 20' long bridge consisting of a 3-sided precast concrete rigid frame on concrete footings.

A mill foundation was discovered upstream of the bridge site, outside of the Town's Right-of-Way. The foundation will be avoided and not impacted by construction of the project.

A temporary, one lane bridge will be erected downstream during construction to provide a detour and maintain traffic through First Crown Point Road. Phased construction of the bridge was studied, and it was determined the existing metal plate arch is not feasible for partial removal during phased construction.

A wetlands survey was performed by a certified wetland scientist. Wetlands were discovered beyond the limits of the Pease River near the project site, but not within the limits of disturbance for constructing the project.

A search of the NH Natural Heritage database was conducted for threatened or endangered species. The database has records in the vicinity of the project, which will be obtained and reviewed for impacts during the next phase of the project (Preliminary Design Phase).

A "Request for Project Review" was submitted to NHDHR. The NHDHR is recommending a Phase 1A Archaeological Sensitivity Assessment competed for the downstream impact area of the temporary bridge.

Replacement of the bridge, and construction and removal of the temporary bridge will all have impact to wetlands (Pease River). A NHDES Standard Dredge and Fill permit will be required.

Approval of an alternative design (Env Wt 904.09) for a 20' max clear span bridge will be requested as part of the NHDES permit application. Dubois & King believes that it is not practicable to meet the NHDES Stream Crossing requirements due to the significant cost increase of a longer 36' bridge span.

There were no objections to pursue an alternative design, but there were several concerns relative to the proposed span length of 20'.

Carol Henderson asked what the cost estimate was for the precast arch option. There is not a lot of natural light that can get inside of a rigid frame. B. Durfee stated a cost estimate for the precast arch option cost was prepared, but he did not bring this information to the meeting.

Christine Peron asked if other design criteria of the NHDES Stream Crossing Rules would be met. B. Durfee replied that the 20' span could satisfy some of the other rules, but did not have adequate information with him to fully describe which rules could be satisfied.

C. Henderson asked what the height of opening was for the precast rigid frame option shown as an example. B. Durfee replied that the photo presented was just a typical sample, and that the actual height of opening for this project would be greater.

C. Henderson asked if the intent is for a natural stream bottom. B. Durfee answered yes, that the proposed bridge type would have a natural stream bottom through the bridge site between abutments.

Gino Infascelli wanted to know what the definition is of "hydraulic acceptability". B. Durfee responded that the NHDOT hydraulic requirement is for a Q50 flood event to pass through the bridge opening with 1.0 foot (minimum) of freeboard.

Mark Kern noted the cost difference between the alternate design span (20') and the Stream Crossing Rules span (36') is more substantial than the previous project reviewed (Temple 24178). Were other alternatives considered for spans between 20' and 36'? G. Infascelli commented that it would depend on what is upstream and downstream of the bridge. One purpose of the rules is to not cause upstream or downstream flooding. B. Durfee stated that there are standard precast rigid frame sizes available, based on standard forms used, that produce spans in 4' multiples (i.e. 20', 24', 28', 32', 36'). M. Kern asked if a 24' or 28' span could be considered. B. Durfee responded that the current bridge span is 14', and the proposed span of 20' is already a significant improvement to the site.

G. Infascelli stated that this permit application may be questioned by NHDES due to the difference between the 20' span and the 36' span. He suggested early coordination with Dori Wiggin at NHDES on this matter.

C. Henderson inquired about the approximate height of the proposed opening. B. Durfee estimated the vertical opening at 7'. C. Henderson responded that the larger the opening the better.

Subsequent to the meeting, based on the feedback and advice that was offered, Dubois & King added a 24' span precast concrete arch alternative to evaluate for permitting, design, and construction purposes.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Lincoln, non-federal, 22292

Chris Fournier of H.E. Bergeron Engineers (HEB) presented the project on behalf of the Town of Lincoln. The project goal is to replace the damaged Loon Mountain Bridge. The project is being funded primarily with FEMA Public Assistance and secondarily funded and administered through the NHDOT Municipal-managed State Aid Bridge program. The bridge is owned by the Town of Lincoln.

The project entails removal and replacement of the existing damaged bridge. The existing bridge was constructed in 1966 by NHDOT. In 1974 the bridge piers were destabilized when the dam downstream failed; subsequently the piers were repaired by NHDOT by driving sheeting around the existing footings. In 1988 the bridge was widened to 3-lanes. In 1995 the north pier was again destabilized and again repaired by NHDOT. Finally, the bridge collapsed as a result of Tropical Storm Irene in 2011. Photos of the existing condition were presented and reviewed.

C. Fournier reviewed the project progress to date. Immediately following the storm a NHDES emergency authorization was obtained for temporary cofferdam, slope stabilization, and construction access. A temporary pedestrian bridge and subsequent temporary vehicular bridge were installed by NHDOT. Acceptance of replacement funding by FEMA was very recently received. Field survey, wetland delineation, and engineering study have been completed. The engineering study covered comparison between rehabilitation and replacement, scour mitigation, bridge location, and comparison of a clear span and multi-span configuration. Ultimately it was recommended that a three-span replacement bridge be located directly downstream from the existing bridge. The substructure of the new bridge is proposed to be founded on micropiles, which will be embedded in bedrock. HEB is currently in the preliminary design

phase. The anticipated project schedule is as follows: Submission of permit applications – June 2013; Bidding – November/December 2013; and Construction – May 2014 to September 2015.

David Keddell asked if a lift bridge alternative had been studied. C. Fournier indicated that the bridge profile was not the problem with the 2011 failure. The failure was caused by the scouring of the north abutment, which will be solved in the proposed bridge by using micropiles.

Melissa Coppola asked if the NHB Database check had been completed and C. Fournier indicated it had and returned no records.

Carol Henderson asked about the timing of permitting during preliminary design. C. Fournier clarified that the design will be progressed enough by the end of preliminary design for permit application submission and that final design will consist of working out the final details.

C. Henderson asked if it had been determined why the bridge had been damaged so many times. C. Fournier indicated that the original bridge was designed for a backwater condition due to the proximity of the dam, and that since that time the bridge experiences high flows for which it was not designed.

D. Keddell asked if the riprap would be permanently installed and keyed into the channel. C. Fournier indicated that the current riprap was installed temporarily and that the project would install permanent riprap keyed into the channel.

D. Keddell commented that the gabions downstream are not stable. C. Fournier clarified that the gabions downstream are not associated with the bridge project.

C. Henderson asked if there would be any work in the channel. C. Fournier indicated that so much had been moved and disturbed during the emergency repair activities that it was intended to return the affected channel to a state similar to the undisturbed conditions found directly upstream and downstream.
C. Henderson suggested involving a fisheries biologist when determining the scope of channel repair and reconfiguration. Gino Infascelli offered to meet on-site to walk through and review the scope with C. Fournier.

G. Infascelli asked if micropiles would be used for the abutments as well as the piers. C. Fournier indicated that they would be.

Christine Perron asked if the proposed bridge adhered to the Stream Crossing Rules. C. Fournier indicated that HEB would be seeking approval of an alternate design in accordance with NHDES Administrative Rule Env-Wt 904.09 on the grounds on practicality.

G. Infascelli asked that HEB fully describe all alternatives in the wetland application package.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Thornton, non-federal, 15938

Chris Fournier of H.E. Bergeron Engineers (HEB) presented the project on behalf of the Town of Thornton. The project goal is to replace the red-listed Covered Bridge Road Bridge. The project is being administered through the NHDOT Municipal-managed State Aid Bridge program.

The project entails removal and replacement of the existing hydraulically inadequate and red-listed bridge. The existing bridge was constructed in 1986 by a private developer and was taken by the Town via a Town

vote in 1998. The bridge is a 25-foot span longitudinal timber deck beam bridge and has a timber framed cover which is supported by independent steel beams. Photos of the existing condition were presented and reviewed.

C. Fournier reviewed the project's progress to date. Field survey, wetland delineation, and hydrologic-hydraulic analyses have been completed. HEB is currently in the engineering study phase. The bankfull width was determined to be 50 feet in the vicinity of the bridge, which corresponds to a recommended span of 62 feet according to the NH Stream Crossing Guidelines. Hydraulic analysis and engineering judgment indicate a 40-foot clear span bridge with a 2-foot vertical profile increase would fit the channel well, meet NHDOT's hydraulic requirements, eliminate roadway flooding, and substantially improve upon the existing 25-foot clear span. In addition a 46-foot bridge was built in 2003 one-half mile downstream. HEB will seek approval for an alternate design in accordance with NHDES Administrative Rule Env-Wt 904.09 due to cost differences between a 62-foot and 40-foot-span bridge.

A temporary bridge would be located directly downstream to provide continuous access across the river for this dead end road during construction. The abutments are proposed to be cast-in-place concrete as bedrock is quite shallow at the bridge location.

The anticipated project schedule is as follows: Submission of permit applications – July 2013, Bidding – May 2016, and Construction – Late Summer 2016. The timing matches that of the funding that will be available in Fiscal Year 2017.

Melissa Coppola asked if the NHB Database check had been completed and C. Fournier indicated it had and returned no records.

Gino Infascelli indicated that there were two permits issued for the site, one in 1996 regarding an emergency repair of the banks at the bridge, and one in 2008 regarding bank repair for a nearby pond.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.