

NH Route 153 Cocheco River Bridge Replacement Project DRAFT Categorical Exclusion and Programmatic Section 4(f) Evaluation

State of New Hampshire
Department of Transportation
Farmington, NH
X-A001(152), 16146



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I. CATEGORICAL EXCLUSION

**CATEGORICAL EXCLUSION
PROGRAMMATIC DETERMINATION CHECKLIST**

Action/Project Name: Farmington
Federal Project Number: X-A001(152)

State Project Number: 16146
CE Action Number: N/A

This report contains two environmental documents. Part I is a Categorical Exclusion and Part II is a Programmatic Section 4(f) Evaluation.

**PART I
CATEGORICAL EXCLUSION**

Description of Project:

The NH Department of Transportation (NHDOT) proposes to replace the NH Route 153 Bridge over the Cocheco River (State Bridge No. 096/140) and the associated roadway approaches.

EXISTING BRIDGE AND ROADWAY

The existing bridge carries NH Route 153 (Main Street) over the Cocheco River and into the downtown of Farmington, New Hampshire. NH Route 153 is a rural principal arterial system with medium traffic volumes (7,400 average annual daily traffic (AADT) counts for construction year 2015; projected 9,000 AADT for design year 2035) and 6.4% truck traffic. The existing structure, built in 1924, is a 48-foot long two-span concrete encased steel girder bridge. The bridge has a Federal Sufficiency Rating of 11.3% and is structurally deficient, with substantial deterioration of the existing concrete encased steel beams, as well as the concrete deck and railing. This bridge was added to the NHDOT Red List in 2004 due to “poor condition” and “scour critical.” No reduced load posting has been recommended to this date.

The existing bridge is approximately 39 feet wide rail to rail and consists of the following: 11-foot lanes with minimal (less than 1-foot) shoulders which do not provide any provision for bicycle travel or winter maintenance. There is a 6-foot sidewalk on the upstream side of the bridge and adjacent approaches; and a water main encased in a 1-foot x 2-foot timber box, which is installed on the existing downstream side on top of the sidewalk, effectively blocking it for pedestrian travel. There is a sharp vertical crest curve approaching the bridge from the south, which restricts sight distance. The existing horizontal alignment on the south approach is also below standards for 35 mph (posted speed).

The bridge is adjacent to a 3,300-foot long flood control berm constructed by the US Army Corps of Engineers (ACOE) in the 1950s to protect a large residential neighborhood in downtown Farmington from flooding.

PURPOSE AND NEED

The purpose of the project is to address the red-listed bridge and provide a safe, cost-effective, multimodal crossing of the Cocheco River that maximizes longevity, minimizes maintenance, and does not increase the risk of flooding. The need for the project is evidenced by the poor condition of the bridge and existing safety concerns, including sight distance deficiencies, substandard shoulder widths, and substandard approach railing, in addition to ponding/flooding issues on private property from roadway runoff.

PROPOSED ACTION: BRIDGE REPLACEMENT

This alternative includes use of a temporary bridge to the downstream side to maintain two lanes of traffic while the existing bridge is removed and a new bridge is constructed. The horizontal alignment would shift the roadway centerline approximately 5.5 feet to the north at the center of the bridge to improve the roadway design to meet 35 mph design criteria. This alternative provides additional safety with wider shoulders and the best alignment, as well as addresses area flooding concerns by removing the pier from the center of the river and providing a larger opening. The structure would also provide the ability to accommodate utilities under the bridge deck.

The recommended typical section for the bridge and approaches includes the following:

- 11-foot travel lanes in each direction;
- 5-foot paved shoulders; and
- 5-foot sidewalk on the south side.

The west approach and the bridge sections are anticipated to be normal crown; and the east approach would be a super-elevated section.

The bridge would have T2 bridge rail on the non-sidewalk side, and T4 bridge rail on the sidewalk side. Approach rail with EAGRT end terminals would be used on the east side of the bridge, while a curved rail terminal with G2 end would be used on the west side to transition into the proposed bridge rail.

Project costs for this alternative, including engineering, Right-of-Way acquisition and construction, are anticipated to be approximately \$3.3 million. Long-term maintenance cost over the first 35 years is estimated at approximately \$120,000. Life span of the replacement bridge is expected to be 75 years.

PROGRAMMATIC CATEGORICAL EXCLUSION (CE) CRITERIA

	NO	YES	If yes, then...
1a <i>Air Quality</i> – Is the proposed action a non-CMAQ project requiring a conformity..... determination?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Sec. 1, page 11
1b <i>Air Quality</i> – Does the proposed action require an 8-hour CO analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Sec. 1, page 11
2 <i>Cultural Resources</i> – Does the proposed action have an adverse effect on properties eligible for or listed in the National Register of Historic Places?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Sec. 2, page 11
3 <i>Endangered Species</i> – Does the proposed action affect species and critical habitat of species protected by the Endangered Species Act, as determined through consultation with USF&WS, NHF&G, and /or NHNHB, as appropriate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Sec. 3, page 12
4 <i>Floodways</i> – Does the proposed action <u>encroach</u> on the regulatory floodway of water courses or water bodies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Sec. 4, page 13
5 <i>Noise</i> – Is the proposed action a Type I highway project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Sec. 5, page 14
6a <i>Right-of-Way</i> – Does the proposed action require the acquisition of residences or businesses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Sec. 6, page 14
6b <i>Right-of-Way</i> – Does the proposed action require fee simple acquisition or permanent easements to an extent that impairs the functions of the affected properties?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Sec. 6, page 14
7 <i>Section 4(f)</i> – Does the proposed action require the use of any property protected by Section 4(f) of the 1966 USDOT Act, other than that for which a de minimis impact finding has been made?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Sec. 7, page 15
8 <i>Section 6(f)</i> – Does the proposed action require the use of any property protected by Section 6(f) of the L&WCF Act?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Sec. 8, page 15
9 <i>Water Quality</i> – Does the proposed action have more than a negligible impact on surface waters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Sec. 9, page 15
10 <i>Wetlands</i> – Does the proposed action require an Army Corps of Engineers Individual Permit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Sec.10, page 17
11 <i>Other</i> – Do any of the above conclusions benefit from more detailed explanation or are there other issues of concern?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See attached

☺ If the answer to all of the above questions is **NO**, the proposed action **qualifies for classification as a Programmatic Categorical Exclusion**. The Checklist should be completed (page 2, and page 3 when appropriate) and included in the Classification file.

☹ If the answer to any of the above questions is **YES**, the proposed action **does not qualify for classification as a Programmatic Categorical Exclusion**. In such cases, if the impact(s)/effect(s) leading to the disqualification are not significant; the proposed action may be processed as an Individual CE and the remainder of this form (beginning on page 4) should be filled out as appropriate..

ENVIRONMENTAL COMMITMENTS

See Section 23, page 22, Environmental Mitigation and/or Commitments.

CLASSIFICATION DETERMINATION

- The proposed action qualifies for a Programmatic Categorical Exclusion.
- The proposed action does not qualify for a Programmatic Categorical Exclusion.

Prepared by: _____ Date _____
Jameson Paine
Principal Planner
Normandeau Associates, Inc.

Approval
Recommended By: _____ Date _____
Ron C. Crickard
Chief, Project Management Section
NHDOT Bureau of Environment

Approved by: _____ Date _____
Kevin T. Nyhan
Administrator
NHDOT Bureau of Environment

Note: Post-hearing follow-up actions, if any, and their disposition, are indicated on the next page.

FOLLOW-UP ACTION FOR PROGRAMMATIC CATEGORICAL EXCLUSIONS

Action/Project Name: Farmington State Project Number: 16146
Federal Project Number: X-A001(152)

Was a Public Hearing held? Yes No

A Public Hearing is scheduled to be held on April 1, 2014.

If Yes, date hearing transcript and certification provided to
FHWA _____

As a result of the Public Hearing, have changes to the proposed action, if any, resulted in impacts/effects that do not meet the Programmatic Categorical Exclusion criteria? Yes No

If the answer to the above question is **YES**, the proposed action **no longer qualifies for classification as a Programmatic Categorical Exclusion**. In such cases, if the impact(s)/effect(s) leading to the disqualification are not significant, the proposed action may be reprocessed as an Individual CE, requiring FHWA's concurrence.

If the answer to the above question is **NO**, the proposed action continues to **qualify for classification as a Programmatic Categorical Exclusion**.

POST - HEARING CLASSIFICATION DETERMINATION

- The proposed action continues to qualify as a Programmatic Categorical Exclusion.
- The proposed action no longer qualifies as a Programmatic Categorical Exclusion.

If it no longer qualifies, list reasons: _____

Prepared by: _____ Date _____
Jameson Paine
Principal Planner
Normandeau Associates, Inc.

Approval
Recommended By: _____ Date _____
Ron C. Crickard
Chief, Project Management Section
NHDOT Bureau of Environment

Approved by: _____ Date _____
Kevin T. Nyhan
Administrator
NHDOT Bureau of Environment

**CATEGORICAL EXCLUSION
NON-PROGRAMMATIC ENVIRONMENTAL IMPACT SUMMARY**

Action/Project Name: Farmington
Federal Project Number: X-A001(152)

State Project Number: 16146

Description of Project:

The NH Department of Transportation (NHDOT) proposes to replace the NH Route153 Bridge over the Cocheco River (State Bridge No. 096/140) and the associated roadway approaches.

EXISTING BRIDGE AND ROADWAY

See Page 1.

PURPOSE AND NEED

See Page 1.

PROPOSED ACTION: BRIDGE REPLACEMENT

See Page 1.

Alternatives Considered

ALTERNATIVE A: NO BUILD ALTERNATIVE

If no work is completed, this would require an eventual closure of the bridge. The Federal Sufficiency Rating is currently 11.3%; structures with ratings below 50% are generally slated for treatment. The bridge was posted on the State's Red List in 2004 and has substantial deterioration that needs to be addressed in the short term to maintain this corridor for vehicular travel. As of the last inspection, the superstructure, deck and substructures all have a rating of 4 (Poor). This is an important corridor for the community, especially for emergency services. Closure of the bridge is not feasible for sustaining the community and would significantly increase emergency response times, which would be unacceptable to the Town.

ALTERNATIVE B: BRIDGE REHABILITATION

The existing bridge has sustained substantial deterioration, especially the concrete portions of the structure, including the concrete encasement of the main carrying beams, the deck, abutments, pier and the railing. Heavy spalling and delamination of the concrete members and exposed rebar is noted repeatedly on the inspection reports. Retaining any portion of the concrete superstructure is not feasible given the current condition. It is possible that the existing steel beams could be retained, with new reinforced concrete encasements, deck and railing constructed. Rehabilitation of the substructures would include removal of the existing deteriorated concrete faces to sound concrete (depth expected of approximately 6"). It is anticipated that 75% of the abutment and pier faces would need rehabilitation, and the entire surfaces must then be sealed.

There is scour and undermining of the existing foundations, which would require scour protection measures to stabilize the abutments and piers for the rehabilitated structure. These measures would likely reduce the waterway opening for the river, increasing flooding potential. Both the Town of Farmington (the flood control project sponsor) and the USACE must approve any proposed project at this location due to the presence of the flood control berm. They have noted that any proposal which would result in any increase in flooding potential would not be accepted.

This type of rehabilitation would require installation of a temporary bridge to maintain two lanes of traffic throughout construction. The temporary bridge would be installed on the downstream side of the project, requiring temporary easements from private property owners. It is anticipated that approximately 500 feet of

the roadway would need to be repaved following removal of the detour prior to completion of the rehabilitated structure project.

Project costs for this alternative, including engineering, Right-of-Way acquisition and construction of the temporary bridge as well as the structure rehabilitation (assuming existing steel beams are suitable for reuse), are anticipated to be approximately \$3.0 million (*This assumes approach pavement replacement only, and no drainage upgrades*). The anticipated life span of the rehabilitated bridge would be approximately 35 years, with an expected maintenance cost of approximately \$180,000 during that time span.

ALTERNATIVE C: BRIDGE BYPASS

Replacement of the bridge on a new alignment was considered, which would allow for the existing bridge to be maintained in its current location. The existing bridge would be closed to traffic and used as a multimodal crossing. Replacement on an upstream alignment would require removal of at least three buildings (at least one of which is potentially historic, and another is a former gas station) and purchase of those properties for the project, so this was not investigated. A downstream alignment was investigated which would require significant permanent private property acquisition, including impacting almost all of the parking area for an adjacent apartment building (potentially historic) and which could require purchase of the entire property. In addition, a gas station property would be impacted which could lead to significant additional costs. This active gas station has had previous remediation activities that have been documented by NHDES. The file is closed; however, with the previous activity in the area, a Worker's Health and Safety Plan should be completed in the event contaminants are found during disturbance at this site. This alternative provides a less desirable roadway alignment than the preferred alternative. Some rehabilitation work would be required to the existing bridge to repair the existing deteriorated concrete on the substructures, beam encasements and deck. The existing railing height does not meet height requirements for pedestrian or bicycle railing, and given its current condition, replacement of the railing is expected for this alternative.

Project costs for this alternative, including engineering, Right-of-Way acquisition and construction, are anticipated to be approximately \$3.7 million. Long-term maintenance cost for the existing and replacement bridges over the first 35 years is estimated at approximately \$230,000. Lifespan of the replacement bridge is expected to be 75 years.

ALTERNATIVE ANALYSIS SUMMARY

Based on the extent of the existing bridge deterioration, importance of the bridge for commerce, mutual aid and school transportation, and the anticipated life span of the alternative, the proposed action is replacement of the bridge on existing alignment, with a two lane temporary bridge located downstream. Temporary and permanent property impacts for this alternative would be very similar to the expected temporary impacts of Alternative B; permanent property impacts would be much less than Alternative C. Removal of the existing bridge is preferred due to the total project cost for the bypass alternative and lack of funding for future maintenance and rehabilitative work on the bypassed bridge. The community supports bridge replacement with removal of the existing bridge.

Project Setting:

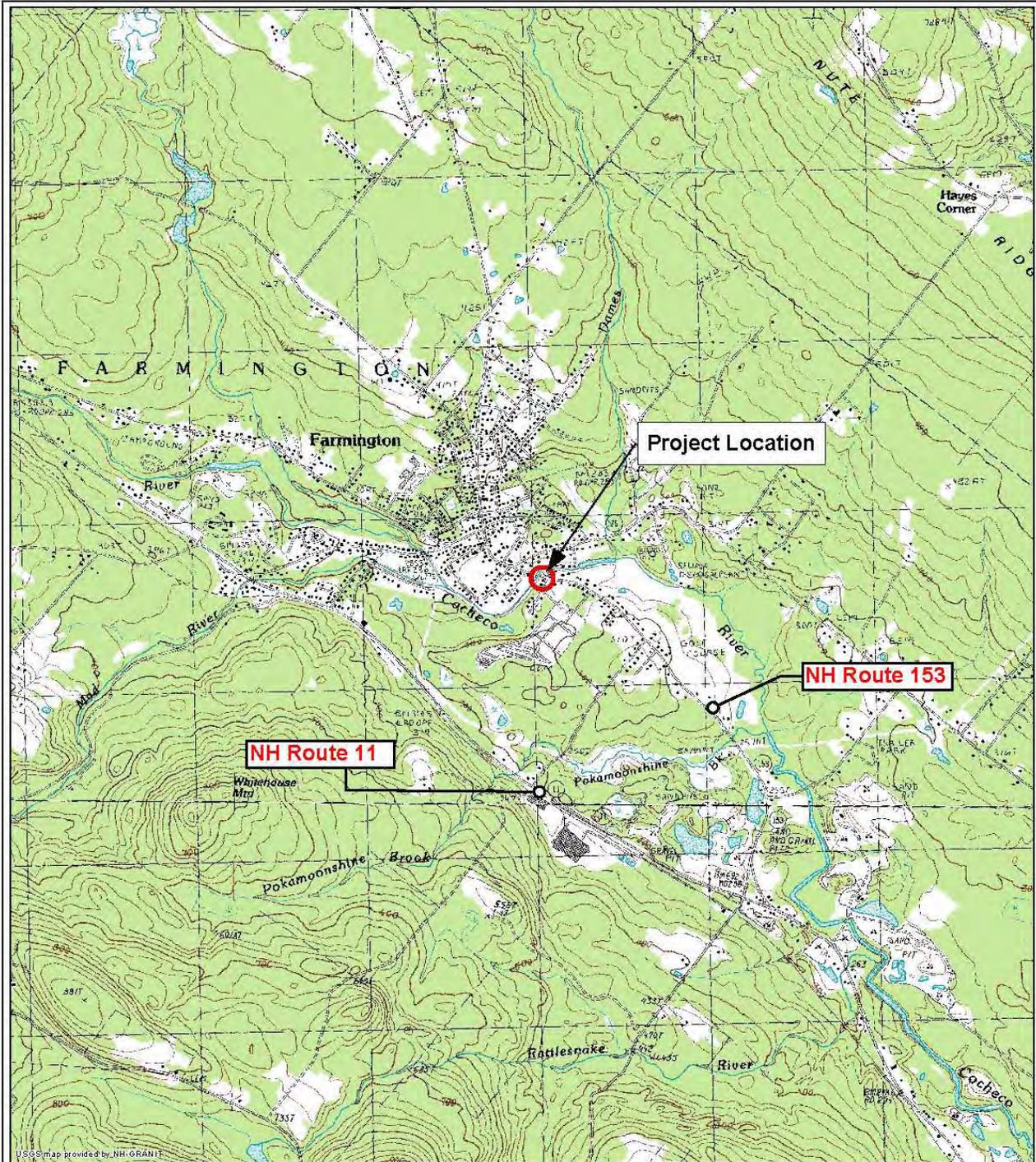
Urban Village Rural
Scenic Byway/NH Scenic Road? Yes No
National/State Forest Highway? Yes No

Unique Features: The project crosses over the Cocheco River near the southern gateway into downtown Farmington. An Army Corps of Engineers flood control project from the 1950's raised the banks of the river to protect adjacent properties from flooding.

CONTACT LETTERS SENT & REPLIES RECEIVED

AGENCY/ORGANIZATION	CONTACT	LETTER SENT	REPLY RECV'D
Farmington Board of Selectmen	Charlie King	12/6/12	No reply received
Farmington Conservation Commission	David Connolly	12/6/12	12/26/12
Farmington Fire & EMS	Chief Richard Fowler	12/6/12	12/26/12
Farmington Historical Society	Fred Dexter	12/6/12	No reply received
Farmington Planning Board	Paul Parker	12/6/12	No reply received
Farmington Police Department	Chief Kevin Willey	12/6/12	12/26/12
Farmington Public Works Department	Scott Hazelton	12/6/12	12/26/12
Farmington Town Administrator	Keith Trefethen	12/6/12	12/26/12
Farmington Town Clerk	Kathy Seaver	12/6/12	No reply received
Farmington Town Planner	Kathy Menici	12/6/12	12/26/12
Farmington Town Treasurer	Kristy Vickers Holtz	12/6/12	No reply received
Farmington Water & Wastewater	Dale Sprague	12/6/12	12/26/12
Farmington Zoning Board of Adjustment	Elmer "Butch" Barron	12/6/12	No reply received
Cocheco River Local Advisory Committee	Lorie Chase	12/6/12	No reply received
Land & Conservation Heritage Investment Program	Jess Charpentier	1/31/14	2/4/14
NHDRED, Land and Water Conservation Fund	Gail Wolek	12/6/12	12/7/12
NHOEP, Conservation Land Stewardship	Stephen Walker	12/6/12	Via email 12/7/12
NHOEP, National Flood Insurance Program	Jennifer Gilbert	12/6/12	12/21/12

LOCATION MAP



Date: 12/5/2012
Drawn By: dpeletier
Project No: 22605.000

0 1,250 2,500 5,000 Feet



Location Map
NH Route 153 Bridge Replacement Project
Farmington, NH



Path: J:\CAD\JOBS\Farmington\NH\22605\W\XD\FR_LocusMap_120512.mxd

IMPACT ASSESSMENT SUMMARY**1. Air Quality****NOT APPLICABLE**

Pursuant to the Clean Air Act Amendments (CAAA) of 1990, this project was examined for potential impacts to local and regional air quality. The proposed project is located within an area of the State that is in attainment with respect to the National Ambient Air Quality Standards (NAAQS) for ozone and all other transportation related criteria pollutants (CO, NOx, VOCs, PM10 and PM2.5). The project has been included in the *Statewide Transportation Improvement Program (STIP) 2013-2016* approved January 25, 2013. The proposed effort is not considered a "Regionally Significant Project" as defined in the final Transportation Conformity rules (40 CFR 93.101) or in those rules adopted by the New Hampshire Department of Environmental Services in accordance with the interagency consultation provisions required by 40 CFR 93.105.

The proposed project proposes to replace a two-lane bridge with a two-lane bridge, maintaining the approximate roadway alignment. The project is not intended to impact the existing traffic patterns within the project area. As a result, this project is not anticipated to result in any increased emission impacts. Additionally, when completed, the project is not expected to result in any meaningful changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative or contribute to violations of the NAAQS. Consequently, this project is exempt from the conformity requirements of the CAAA.

For the above noted reasons, the Federal Highway Administration (FHWA) has determined that this project will generate minimal air quality impacts for CAAA criteria pollutants and has not been linked with any special mobile source air toxics (MSAT) concerns. Consequently, this effort is exempt from analysis for MSAT. Moreover, Environmental Protection Agency (EPA) regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends, conducted by the FHWA using EPA's MOBILE 6.2 model, forecasts a combined reduction of 72 percent in the total annual emission rate for the priority MSAT from 1999 to 2050, while vehicle-miles of travel are projected to increase by 145 percent. This will both reduce the MSAT background level as well as the possibility of even minor MSAT emissions from this project.

Though exempt from the conformity requirements of the CAAA, the National Environmental Policy Act (NEPA) requires consideration of the project's impact on air quality. Of the NAAQS pollutants of concern in New Hampshire, only CO can generally be addressed at the project level. The proposed project does not involve any substantial changes to the existing traffic patterns of NH Route 153. Computer analyses of other projects (such as Portsmouth, 13455, Manchester, 10622A and Londonderry, 12704) with higher traffic volumes, flowing under more restrictive conditions, have consistently yielded maximum CO concentrations well below the one-hour NAAQS of 35 ppm and the eight-hour criteria of 9 ppm. As these projects were found not to have a detrimental impact on air quality, and for the reasons stated above, it can be concluded that this project will also not have an adverse impact on air quality. As a result, no further air quality review is warranted.

2. Historic/Archaeological Resources (Section 106 or RSA 227-C:9)**NOT APPLICABLE** Historic Resources Investigated? Yes No National Register Eligible? Yes No

Comments: The project was reviewed with NHDHR, FHWA, ACOE, and NHDOT at regularly scheduled Cultural Resource Agency Coordination Meetings on November 14, 2013 and December 5, 2013. Based on a review pursuant to 36 CFR 800.4 of the architectural and/or historical significance of resources in the area of potential effect, the bridge was found to be eligible for the National Register of Historic Places due to engineering significance. The bridge was designed by H.E. Langley, who worked for the NH Highway Department from at least 1920 to 1961, serving as the State's Bridge Engineer from 1942 to 1961.

This bridge was one of many I-Beam with concrete deck spans (IB-C) erected throughout the state in the early 20th century. The bridge uses rolled members (American Standard I-beams) that were available as far back as 1896. The I-Beam with concrete deck was widely used by the State Highway Department and as of 2011 there were at least 183 known I-Beam bridges with concrete decks built in New Hampshire in 1935 or earlier. The majority of the bridges were single span although there are also double spans and less frequently between 3 and 9 spans. Within Farmington this is one of four pre 1935 IB-C bridges. The others are Bridge 085/132 - a

single (49') span carrying NH 75 over the Mad River (1900); Bridge 057/126 - a single (25') span carrying Spring Street over the Ela River (1921); and Bridge 060/144 – a single (14') span carrying Tibbetts Hill Road over the Cocheco River.

According to an analysis completed in 2008, there were then only thirteen reinforced concrete slab on I-beam stringer bridges with concrete rails statewide in the NHDOT database. Of these thirteen, only four had an open concrete rail as is seen in Farmington. Since 2008, the Merrimack, Rumney and Hancock bridges have been rebuilt; Winchester is scheduled for replacement and Claremont is also on the Red List. Outside of these thirteen bridges, it is unknown how many of this combination may have been built in New Hampshire but subsequently replaced (see Exhibit 1).

Existing structures located within the project corridor were evaluated for historic significance and reviewed by NHDHR. No other structures were found to be eligible for the National Register.

Archaeological Resources Investigated? Yes No National Register Eligible? Yes No

Comments: A Phase IA/IB archaeological survey was completed within the project's area of potential effect (APE). It was determined that areas of archaeological sensitivity are not present within the APE.

Findings: No Historic Properties Affected No Adverse Effect Adverse Effect

Agency Comments: Applying the criteria of effect at 36 CFR 800.5, it was determined that the Preferred Alternative (bridge replacement) will have an adverse effect on the bridge (see Exhibit 2A). Review Completed:

Advisory Council Consultation Comments (when Adverse Effects are found): FHWA has consulted with the Advisory Council regarding the project; the Advisory Council has determined that their participation in Section 106 consultation is unnecessary (see Exhibit 2B).
Review Completed: 2/7/2014

Mitigation (Describe): Appropriate mitigation for the removal of the eligible bridge will be recorded in a Memorandum of Agreement signed by NHDHR, NHDOT, and FHWA.

3. Threatened or Endangered Species/Natural Communities	NOT APPLICABLE <input type="checkbox"/>
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Endangered species in project area? Yes No In vicinity? Yes No
Section 7 consultation necessary? Yes No

Comments from: NH Natural Heritage Bureau (NHNHB)
Reply letter dated November 21, 2012: It was determined that, although there was a NHNHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, NHNHB does not expect that it will be impacted by the proposed project (see Exhibit 3).

Comments from State, Federal, or Private Agency:
National Marine Fisheries Service (NMFS)
The Cocheco River was identified as potential Essential Fish Habitat (EFH) for Atlantic salmon. An EFH Report was completed for the project to determine whether this section of the Cocheco River should be considered Atlantic salmon habitat area. NMFS staff reviewed and concurred with the EFH Report's findings that the Cocheco River does not contain EFH for any fish species at the project location, and therefore, construction activities associated with replacement of the NH Route 153 Bridge would have no impact on Atlantic salmon. No further action is warranted regarding Atlantic salmon or EFH (see Exhibit 4).

NH Fish and Game Department (NHF&G)
Based on input from NMFS that the Cocheco River may have eel migration concerns, NHF&G's Marine Division staff was contacted via telephone on December 17, 2013. NHF&G provided that their concern is the adult eel yearly migration out to sea between October and December. Nighttime work would be a concern as the eels would tend to be held up in holes. NHF&G felt that the new replacement structure, with a natural stream bottom, wouldn't be a concern for passage. They requested that once the contractor's actual construction start date is known, NHDOT consult with NHF&G's Marine Division and NOAA Fisheries to further discuss timing considerations.

US Fish & Wildlife Service (USFWS)

The Town of Farmington is identified as a town known to have populations of Small-whorled Pogonia, a federally threatened orchid, which prefers forests with somewhat poorly drained soils and/or a seasonally high water table. The species was not identified by NHHNB as being in the project area and the project area does not contain the preferred habitat. Therefore, the project is not expected to contain this species and no further coordination with the USFWS is required (see Exhibit 5).

Natural Resource Agency Meeting

This project was reviewed at the monthly Natural Resource Agency Coordination meeting held on August 21, 2013, at the NH Department of Transportation office in Concord. It was determined that the project qualifies for the Army Corps State Programmatic General Permit (SPGP). No one objected to the project as proposed.

Mitigation (Describe):

The proposed project would create a wider opening across the Cocheco River and design components take into consideration floodplain elevations. In addition, a shelf is being provided beneath the western side of the bridge to provide a dedicated wildlife crossing at this location.

4.	Floodplains or Floodways	NOT APPLICABLE <input type="checkbox"/>
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Does the proposed project encroach in the floodplain? Yes No Acreage 0.062.
Volume ___.

Significance (Describe): Under a 1950's era Army Corps of Engineers (ACOE) project, the section of Cocheco River located immediately upstream from the project was reconstructed to create a flood levee system. The banks along the northern extent of the river were raised, creating a vegetated berm with approximate slope of 2.5H:1V, and an overflow gate was installed near the bridge. Along the upstream southern bank, an approximate 80-ft long stone retaining wall exists adjacent to the bridge. The berm is in fairly good condition and appears to control flooding fairly well in the adjacent low-lying neighborhood. The proposed project would not adversely affect this flood levee system.

Does the proposed project encroach in the floodway? Yes No Acreage 0.062.
Volume ___.

Significance (Describe): Preliminary hydraulic analyses were completed, which indicate a required hydraulic opening width of 62.5 feet is warranted, maintaining the existing low chord elevation of the bridge as 270.0 with at least 1-ft of freeboard over the 100-year storm. Based upon anticipated requirements to provide wildlife access under the bridge, the recommended clear span is 68.5 feet, providing a 10-ft wildlife platform on the west end of the bridge, above the Q2.33 water surface elevation, and approximately 6-ft of clearance below the bridge beam low chord. No platform is proposed on the east end, as the abutment location has been proposed to align with the existing 6-ft high retaining wall and addition of a platform above the Q2.33 elevation is not feasible without obstructing the lower flows.

Coordination With FEMA Required? Yes No

Comments from NH Office of Emergency Management: Comments from **NH Office of Energy and Planning (NHOEP):** Reply letter dated December 12, 2012 (see Exhibit 6): NHOEP reviewed the current Flood Insurance Rate Map for the project area. It appears the proposed project is located in a special flood hazard area (Zone AE). It also appears the project is located in the floodway of the Cocheco River. If the proposed project will impact the regulatory floodway and/or the base flood elevation, the following regulation contained in Farmington's floodplain regulations would apply:

Along watercourses with a designated Regulatory Floodway no encroachments, including fill, new construction, substantial improvements, and other development are allowed within the floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed encroachment would not result in any increase in flood levels within the community during the base flood discharge.

Based on hydraulic analysis and associated design considerations, the proposed project would not increase flood levels within the community of Farmington.

Comments from US Army Corps of Engineers: As noted under Section 3, the project qualifies for the ACOE State Programmatic General Permit.

The **ACOE Levee Safety Program** has reviewed the Preliminary Hydraulics report and generally agrees with the conclusions stated in the report. As some of the work is being done within the limits of a Federally Authorized flood control project, that work will need to be reviewed and approved by the Local Sponsor (Town of Farmington) and ACOE in accordance with the 33 USC 408 (see Exhibit 7).

The Town of Farmington has provided concurrence with the findings of the hydraulics report (see Exhibit 8) and stated support for the project at the two public meetings held for this project.

Mitigation (Describe): During the Final Design phase of the project, NHDOT will coordinate with the ACOE Levee Safety Program and the Town of Farmington to ensure the project has no adverse affect upon the previously constructed flood control project. The proposed project will create a wider opening at this location along the Cocheco River that will help to reduce flooding potentials at the site. No additional floodplain/floodway mitigation is proposed with this project.

5.	Noise	NOT APPLICABLE <input type="checkbox"/>
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The NH Department of Transportation's *Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I Highway Projects* (Noise Policy) provides guidelines for assessing noise impacts and determining the need, feasibility, and reasonableness of noise abatement measures for proposed Type I highway construction and improvement projects. A Type I highway project is defined by the Federal Highway Administration and the NH Department of Transportation as a project which involves the construction of a new highway, the addition of through traffic lanes or one that involves substantial alterations to either the vertical or horizontal alignment of the existing roadway.

Although this project involves a slight shift in the alignment of NH Route 153 (approximately 5.5 feet north), this shift would not be considered a "substantial" alteration to the horizontal alignment of the existing roadway as it does not halve the distance between the existing roadway and the closest receptor (approximately 200 feet from the existing roadway). Similarly, although this project may have slight changes to the vertical profile of the existing roadway; these alterations are not anticipated to be considered "substantial" as they are not anticipated to result in increased line-of-sight exposure between the roadway and any nearby receptors.

As this project does not involve the construction of a new highway, the addition of through traffic lanes or substantial alterations to the vertical or horizontal alignment of the existing roadway, the subject project is not a Type I highway project. Since this project is not a Type I highway project a noise impact assessment is not necessary.

The proposed project is not expected to result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in noise impacts. As a result, this project is not expected to cause a noticeable change in noise levels once construction is completed.

Construction activities will temporarily increase noise due to the use of heavy equipment, however these noise levels are expected to return to normal after the project has been completed. For the reasons stated above, this project is not expected to adversely affect noise levels at any of the adjacent receptors.

6.	Right-of-Way	NOT APPLICABLE <input type="checkbox"/>
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Is additional ROW required? Yes No Acreage See below.

- ROW Acquisitions (fee purchase for linear acquisition along downstream side of bridge) = 0.12 Acres
- New Permanent Drainage Easements = 0.31 Acres
- Temporary Construction Easements = 0.40 Acres

Are improved properties acquired? Yes No Acreage 0.

Displacement: Rental Units 0, Private Homes 0, Businesses 0.

Relocation Report received from the Bureau of Right-of-Way? Yes No

Relocation services to be provided? No relocation services are required.

Properties available for relocation? N/A

Public Land (Federal State, or Municipal) Involvement? Yes No . (See Section 7 below.)

The **Land and Community Heritage Investment Program** (LCHIP) has indicated that there are no LCHIP properties near this project site (see Exhibit 9)

7. Section 4(f) Resources NOT APPLICABLE

Public Parkland Impacts? Yes No Temporary Permanent
 Public Recreational Area Impacts? Yes No Temporary Permanent
 Public Wildlife/Waterfowl Refuge Impacts? Yes No Temporary Permanent
 Historic Properties Impacted? Yes No Temporary Permanent
 LCIP Recreational Land? Yes No Temporary Permanent

Acquisition required? Yes No The only Section 4(f) resource that would be impacted is the existing bridge, which would be removed.

Comments: After coordination with NHDHR and FHWA, it has been determined that there is no feasible and prudent alternative to the replacement of the bridge. A Programmatic Section 4(f) Evaluation is included as Part II of this report.

Non-acquisition use of 4(f) property (23 CFR 771.135(p)):

Noise Level Increase Yes No Visual Intrusion Yes No
 Access Restriction Yes No Vibration Impacts Yes No
 Ecological Intrusion Yes No

Programmatic 4(f) Evaluation 4(f) Evaluation

For impacts to recreational 4(f) resources, obtain a statement of significance from official with jurisdiction:
 Date Requested: N/A. Date Received: N/A.

8. Section 6(f) Resources NOT APPLICABLE

Are there impacts to any properties acquired or improved with funds made available through Section 6(f) of the Federal Land and Water Conservation Fund Act? Yes No Temporary Permanent

Recommendation received from State Liaison Officer? Yes No
 Coordination with the US Department of the Interior necessary? Yes No

Comments: **DRED 6(f) Liaison Letter**, Reply letter dated December 7, 2012: The Town of Farmington used Land and Water Conservation Fund (LWCF) monies on two properties within the town boundaries. However, there are no LWCF properties within the immediate project area (see Exhibit 10).

9. Water Quality/Streams, Rivers, and Lakes NOT APPLICABLE

Erosion Control Plan Required? Yes No
 Groundwater Impacts? Yes No
 Surface Water Impacts? Yes No
 Wells Impacted? Yes No Private Community Municipal
 Stream Alteration Required? Yes No

Coordination Required on:
 Public Waters Access? Yes No
 Shoreland Protection? Yes No
 Lakes Management? Yes No
 Wild and Scenic River? Yes No
 NH Designated River? Yes No

Comments: The Cocheco River through this area is a fourth order stream and a NH Designated River, pursuant to RSA 483. As such, the river falls under the NHDES Shoreland Water Quality Protection Act (SWQPA) and is protected by the NHDES Rivers Management and Protection Program.

NHDES staff has reviewed the project at monthly Natural Resource Agency Coordination Meetings. No one objected to the project as proposed. As the project alignment is adjacent to the existing bridge, a Shoreland Permit will be required as part of the project. Best management practices such as sediment fencing, silt booms, and/or work behind driven piles, will be used as warranted to protect water quality within and adjacent to the Cocheco River. The Project Contractor will be responsible for providing and implementing a professionally prepared Stormwater Pollution Prevention Plan prior to the commencement of construction.

Water Impairments

A review of known water impairments and existing conditions within the project area on the NHDES One Stop website provided the following findings. The Cocheco River within the project area has several water impairments, as indicated here:

2010 Surface Water Impairments with 1-Mile Buffer for Development Projects

ASSESSMENT UNIT ID	BEACH?	ASSESSMENT UNIT NAME	IMPAIRMENTS
NHRIV600030603-01	N	COCHECO RIVER	Aluminum; Dissolved oxygen saturation; Escherichia coli; Lead; Oxygen, Dissolved (mg/L)
NHRIV600030601-09	N	COCHECO RIVER	Aluminum; Escherichia coli; Lead

The project, as proposed, would improve water flow through the area by increasing the river crossing opening, providing better stormwater collection, and removing the center pier. This project would not contribute to the stated water impairments.

Stormwater Treatment

The proposed project includes perpetuating the existing closed drainage system on the west approach, with a new outlet location downstream of the bridge. Due to the topography and invert elevations in comparison with the river elevations, establishment of a best management practice (BMP) for stormwater treatment at this outlet is not feasible. The existing outlet is to a small vegetated basin behind the existing flood control berm, with a gated outlet pipe to the river. The Town raised concerns with flooding in an adjacent residential neighborhood and requested the new outlet downstream.

On the east approach, a new closed drainage system is proposed for the roadway to reduce runoff to private property. The industrial property on the northeast quadrant has the lowest point adjacent to the road, and receives runoff to a closed system at their loading dock, which is pumped to a small depression adjacent to the top of the river bank. The property owner requested that the roadway runoff be collected and discharged to a different location to reduce impacts to his property. The proposed closed drainage will discharge to a pocket pond to provide stormwater treatment prior to discharge to the Cocheco River. All outlet pipes will require backflow preventers as the river water elevations will exceed the outlet inverts during storm events.

NHDES Stream Crossing Rules/Fluvial Geomorphic Assessment

NHDES Stream Crossing Rules are a series of tasks intended to ensure surface water conveyance structures (e.g., culverts and bridges) are appropriately sized to reduce flood inundations and associated property damage. As allowed in NHDES Rules Wt. 904.09 Requirements for Alternative Designs, if the project proponent believes that installing the structure specified in the applicable rule is not practicable, as that term is defined in Env-Wt 101.73, the applicant may propose an alternative design in accordance with this section. To request approval of an alternative design, the applicant shall submit a written request to NHDES, accompanied by a technical report prepared by an environmental scientist or professional engineer that clearly explains how the proposed alternative meets the criteria for approval specified below, as applicable.

- NHDES shall approve an alternative design for a new tier 2 crossing, a replacement tier 2 crossing that does not meet the requirements of Env-Wt 904.07, or a new or replacement tier 3 crossing if:
 1. The report submitted pursuant to the conditions noted above, demonstrates that adhering to the stated requirements is not practicable;
 2. The proposed alternative meets the specific design criteria specified in Env-Wt 904.05 to the maximum extent practicable; and
 3. The alternative design meets the general design criteria specified in Env-Wt 904.01.

Comments:

Due to the adequate height clearance of the proposed new bridge structure (which meets the standards of a 'tier 3 crossing') above the existing 100-year floodplain elevation (please see plans), NHDES' request for a fluvial geomorphic assessment and a pebble count within the Cocheco River is not practicable.

A thorough review of floodway locations and structural design considerations, plus extensive computer HEC-RAS modeling, have been completed to ensure the new bridge will not be inundated during high water events, or affect the adjacent ACOE flood control project. The expense to complete a fluvial geomorphic assessment and a pebble count for no practicable purpose is unwarranted.

In addition, removal of the existing center pier and introduction of a wider bridge opening, with an improved inter-related stormwater collection and treatment system along the project corridor, will help reduce the quantity of stormwater runoff within this portion of the developed Cocheco River watershed and Farmington Village area. The project would result in no impact to flow characteristics of the river.

10. Wetlands NOT APPLICABLE

Will this project impact lands under the jurisdiction of the NH Wetlands Bureau? Yes No

Type of permit required: expedited minimum minor major .

Does this project qualify under the ACOE NHSPGP? Yes No .

ACOE Individual Permit required? Yes No .

Landform Type	USF&W Classification	Permanent Impacts	Temporary Impacts
Cocheco River	R2UB1	108 sq ft	3,943 sq ft
Non-Wetland Bank <small>(Jurisdictional land adjacent to lakes, ponds, streams and rivers)</small>	N/A	1,109 sq ft	2,038 sq ft
Upland Portion of the Tidal Buffer Zone <small>(Land within 100' of the highest observable tide line)</small>	N/A	N/A	N/A
Total		1,217 sq ft	5,981 sq ft

Estimated length of permanent impacts to banks	160 ft.
Estimated length of permanent impacts to channel	220 ft.
Estimated volume of impacts in Public Waters	176 cy
If a channel is to be constructed, or a culvert or a bridge is to be installed, give the distance the flow of water is to be rerouted	0 ft.
If waterfront project, indicate total length of shoreline frontage	N/A ft.
If wall, riprap, beach, or similar project, indicate length of proposed shoreline impact	N/A ft.

Describe Mitigation: The proposed project will better collect stormwater runoff and create a wider river opening. No wetlands mitigation is currently proposed as part of this project.

Comments: Wetlands, top of bank, and ordinary highwater lines were delineated through the project area by a NH Certified Wetlands Scientist (NH CWS).

This project was reviewed by the NH Wetlands Bureau, US Army Corps of Engineers, US Environmental Protection Agency, NH Natural Heritage Bureau and Federal Highway Administration at a monthly Natural Resource Agency Coordination meeting held on August 21, 2013, at the NH Department of Transportation office in Concord. It was determined that the project qualifies for the US Army Corps of Engineers' SPGP. No one objected to the project as proposed.

Strict erosion and siltation control measures would be utilized during construction to protect the integrity of the Cocheco River. The project contractor would be required to submit a professionally prepared Stormwater Pollution Prevention Plan (SWPPP) prior to the commencement of construction. Upon approval by the NHDOT, the project contractor would be required to adhere to all conditions posted in the SWPPP.

11. Land Conservation Investment Program (LCIP) NOT APPLICABLE

Will land or easements obtained through the LCIP be impacted? Yes No
 Have the impacts been reviewed at a monthly Natural Resource Agency Meeting? Yes No
 Has an application been made to CORD demonstrating compliance with RSA 162-C:6? Yes No

Comments: The NH Office of Energy and Planning’s Conservation Land Stewardship (CLS) Program has indicated that the project would not impact any CLS-related lands (see Exhibit 11).

12. Wildlife and Fisheries NOT APPLICABLE

Does the project impact important habitat? Yes No
 Does the project have the potential to impact Essential Fish Habitat? Yes No

Comments from State, Federal, or Private Agency:
 Please see Section 3, above, for coordination and mitigation discussions related to sensitive wildlife and fisheries considerations.

13. Agricultural Land NOT APPLICABLE

Does the project impact agricultural land? Yes No Active farmland? Yes No
 Does project area contain prime, unique, statewide or local important farmland? Yes No
 Completion of Form AD-1006 Required? Yes No

Comments: The entire proposed project area is located within a mapped soil unit (Podunk fine sandy loam), classified as Prime Farmland soil. However, there are no active agricultural activities in the project area excepting for a small backyard garden which will not be impacted. Land uses adjacent to the bridge include residential, industrial, or commercial uses.

Historical research indicates that the project area has been substantially altered over time. The northeast quadrant of the project site is documented to have supported a former mill building (and associated canal) that was destroyed by fire. These areas were later backfilled and re-graded. The residential structure in the northwest quadrant was relocated further from the riverbanks. The former foundation location was backfilled and re-graded. In the southwest quadrant, a 1950’s era ACOE flood control berm/levee was constructed, substantially reshaping the grades within the area.

Impacts beyond existing NHDOT right-of-way (ROW) to existing Prime Farmland soil areas are slight encroachments associated with linear impacts from relocation of the bridge, stormwater collection, and associated roadway approaches. Roadway approach work is minimized to the extent practicable for the number and types of vehicles using NH Route 153. Due to impacts to Prime Farmland soil areas located beyond existing ROW, although minor, Form AD-1006 is being processed to ensure proper coordination with NRCS.

14. Coast Guard NOT APPLICABLE

Does the project involve work in navigable waters? Yes No
 Does the project impact a historic bridge? Yes No
 Does the project require a Coast Guard Permit? Yes No

15. Hazardous/Contaminated Materials Liabilities NOT APPLICABLE

Does the project area include sites from NHDES Groundwater Protection Bureau list? Yes No
 ISA completed and attached? Yes No Additional investigation required? Yes No
 CERCLA involvement? Yes No
 Remediation required? Yes No

A site walk and review of the NHDES OneStop website were completed to assist in identifying potentially hazardous materials or conditions. As noted below, the only active gas station within the project boundary was identified as having previous concerns with a Leaking Underground Storage Tank (LUST).

GAS STATION AT 351 MAIN STREET (Tax Map U6 Lot 89/NHDES Master ID No.1553)

The Gulf gas station site, located at 351 Main Street in Farmington, was reviewed by NHDES several times since 1989. The file is currently closed as all concerns have been addressed to NHDES standards.

- The site is currently listed by NHDES as having three underground storage tanks.
- The existing gas station had a LUST in 1989 that was remediated.
- The station had a 5-year ground water monitoring plan initiated in December 2002 and decommissioned April 2007.
- Seven monitoring wells were decommissioned in April 2007.
- Site had a reported 10 gallon spill of gasoline from a portable container to the pavement in November 2008. Speedi dri was placed on ground and then collected and properly disposed of. No further action was warranted.
- In February 2009, a leaking 275 gal. above-ground storage tank was found on the site that held #2 fuel oil.
- Quantity of fuel spilt was unknown.
- The surrounding soil was then removed and properly disposed of in March 2009.
- Contractor excavated to 11 ft, where they encountered groundwater.

No proposed work or right-of-way acquisitions currently extend onto this parcel. The pavement of NH Route 153, along the driveway entrance at the ROW line, would be sawcut to allow for only pavement removal. New pavement would be installed to reshape and enhance the gutter line flow, improving drainage at the entrance. No soil is proposed to be removed, nor are any new drainage structures or roadway subbase materials proposed to be installed in front of this property. The temporary alignment matches existing at a point approximately 50 feet east of the property line.

EAST END

No concerns were identified on the NHDES OneStop website within the project area located south of the Cocheco River. A remediation site and hazardous waste generator is located beyond the project area at 605 Main Street (Ernie's Gas & Tire). Groundwater was encountered at 11 feet below grade. This file has been closed by NHDES. Construction of this project will not require any work on or near this property.

FORMER MILL

Per findings in the architectural historian's reports, a water-powered mill was built in the northeast quadrant of the project circa 1858. A canal was constructed to feed water to the facility. The mill made packing crates for the local shoe shops. The mill burned in 1897. The canal was filled in 1956 as part of the ACOE's Cocheco River Flood Control Project. No known contamination has been identified at this site. A portion of the site will be used to construct a sediment basin.

LOCAL OFFICIALS INPUT

Input received from local officials reiterates that a small mill was located in the northeast quadrant of the project. Local officials are not aware of any asbestos within the project area (see Exhibit 12).

Comments:

No ground disturbance is currently proposed on the adjacent gas station property. Remediation for the former LUST on the gas station property is complete and the file for the site is closed. The former mill building does not have any known contaminants on site. No further coordination is required for hazardous materials.

16.	Public Participation Opportunity	NOT APPLICABLE <input type="checkbox"/>
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Public Informational Meeting?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Date <u>1/14/2013 (Public Officials Meeting) and 4/4/2013 (Public Informational Meeting)</u>
Public Hearing Required?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Date <u>April 1, 2014</u>
On site meeting?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Date <u>N/A.</u>

Comments: In addition to the two public meetings, initial coordination letters were sent to public officials, and input was sought regarding the findings of the hydraulic analyses.

17. Social and Economic Impacts

NOT APPLICABLE

Is the project consistent with local and regional land use plans? Yes No

Describe: The proposed project is identified in the State of NH's Ten Year Transportation Improvement Program.

Neighborhood and community impacts? Yes No

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> Churches | <input type="checkbox"/> Handicapped |
| <input type="checkbox"/> Schools | <input type="checkbox"/> Low Income Housing |
| <input type="checkbox"/> Elderly | <input type="checkbox"/> Emergency Service Facilities/Vehicles |
| <input type="checkbox"/> Minorities | <input type="checkbox"/> Environmental Justice (Executive Order 12898) |

Describe: The project would not have permanent adverse impacts on community resources. The replacement of the bridge and reconstruction of the roadway would make travel safer for the general public. During construction, the road would be maintained along the detour bridge. Traffic flow patterns would return to normal upon completion of the project.

Impacts to local businesses? Yes No Temporary Permanent

Describe: Temporary inconveniences may occur to local businesses to accommodate construction activities. Access to all businesses would be maintained during construction. See Section 19, Traffic Patterns, below, for additional information.

18. Environmental Justice

NOT APPLICABLE

Does the area affected by the proposed action contain minority or low-income populations? Yes No

Are the anticipated environmental impacts resulting from the proposed action likely to fall disproportionately on the minority and/or low-income populations? Yes No

Comments: Executive Orders 12898 and 13166, signed in 1994 and 2000 respectively, require that an Environmental Justice evaluation be conducted for all transportation projects that are undertaken, funded, or approved by the Federal Highway Administration to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, and social and economic effects on minority populations and low income populations. The Environmental Justice review for the proposed action shows that, based on the most recent Census Data, minority populations, disabled populations, and populations with limited English proficiency within the project area are not meaningfully greater than the surrounding area. Elderly populations are higher than the surrounding area and low-income populations are meaningfully greater than the surrounding area (see Exhibit 13).

Based on the results of the Environmental Justice review, it is recommended that special consideration be given to pedestrian accessibility. The project will incorporate a sidewalk on the bridge. No other special considerations are recommended. Therefore, this project complies with Executive Orders 12898 and 13166.

19. Traffic Patterns

NOT APPLICABLE

Temporary detour required? Yes No Length 80 ft.

Describe: The detour alignment is a total length of 470 feet, including a detour bridge.

Temporary bridge required? Yes No Impacts? Yes No

Describe: The proposed project replaces the existing bridge approximately on alignment. Due to the need for emergency response services and the excessive length of available detours, the Town of Farmington requested at public meetings that two lanes of traffic be provided at the project site during construction. In order to remove the existing bridge and provide two lanes of traffic, a two-lane temporary bridge would be located immediately downstream/north of the subject bridge, while limiting impacts to adjacent properties.

Permanent changes to traffic patterns? Yes No

Describe: Once the proposed bridge and roadway approaches are constructed, permanent traffic patterns will return to the approximate existing alignment.

20 Construction Impacts:

NOT APPLICABLE

1. An invasive species, Japanese knotweed, is present along the banks of the Cocheco River. Depending on the Contractor's ultimate project footprint, disturbance and redistribution of the soil supporting invasive species root systems could occur. The Contractor will be required to prepare an Invasive Species Control and Management Plan.
2. Strict erosion and siltation control measures would be utilized during construction to protect the integrity of the Cocheco River. The project contractor would be required to submit a professionally prepared Storm Water Pollution Prevention Plan (SWPPP) prior to the commencement of construction. Standard pollution prevention measures would be employed to assure that all negative impacts are avoided and/or minimized to the maximum extent practicable. Upon approval by the NHDOT, the project contractor would be required to adhere to all conditions posted in the SWPPP.
3. Construction vehicles shall not be stored, serviced, washed or flushed in a location where leaks, spills, waste materials or cleaners would be introduced into wetlands or watercourses.
4. Maintenance or refueling of equipment and vehicles shall occur at least 150 feet from wetlands or watercourses at a location where drainage is directed away from the river.
5. Absorbent material shall be placed on the ground prior to refueling to catch spills that may occur, and would be removed after construction is completed.
6. Heavy equipment operation would cause temporary increases in noise and dust levels during construction. All standard measures would be used to ensure that these increases are minimized to the extent practicable. Noise and dust levels should return to normal shortly after completion of construction, with no future implications.
7. There are several utilities located within the project area. These include resources such as telephone lines and electrical lines. In the event that a disruption to services would occur, coordination with appropriate utility companies must be undertaken to ensure that disruptions to services would be kept to a minimum.
8. The proposed action would inconvenience and disrupt motorists and pedestrians, as well as those people living and working in the area.
9. Access to all properties would be maintained throughout construction.

21. Field Inspection Comments:

The area is fairly urban in nature, with a manufacturing facility, former gas station, a large multi-family structure and several other residential structures nearby. A former mill building on the northeast quadrant burned down in the 1970's and an associated canal in the area was backfilled. Under a 1950's era Army Corps of Engineers project, the section of Cocheco River located immediately upstream from the project was reconstructed to create a flood levee system. The flood-control berm is located along the west side of the Cocheco River, extending approximately 3,100 feet upstream and 200 feet downstream of this crossing. A long, un-mortared stone retaining wall extends along the upstream, east riverbank. The west approach to the bridge includes an existing closed drainage system which outlets to a holding area behind the berm, which has an outlet pipe with backflow preventer on the upstream side of the bridge. The east approach roadway sheet flows off the roadway, with a private drainage system on the northeast quadrant.

22. Coordination

Meeting	Date	Comments
Natural Resource Agency Meeting	12/19/12	Presentation to receive initial input from agencies
Public Officials Meeting	1/14/13	Provide initial presentation to receive public input
Public informational Meeting	4/4/13	Provide project update and receive public input
Natural Resource Agency Meeting	8/21/13	Presentation to provide update and obtain concurrence from agencies
Cultural Resource Agency Meeting	11/14/13	Initial presentation
Cultural Resource Agency Meeting	12/5/13	Review of project alternatives, selection of preferred alternative, and determination of effect

23. Environmental Mitigation and/or Commitments:

1. Appropriate mitigation for the removal of the eligible bridge shall be recorded in a Memorandum of Agreement signed by NHDHR, FHWA, and NHDOT.
2. Once the contractor's actual construction start date is known, NHDOT shall consult with NHF&G's Marine Division and NOAA Fisheries to discuss timing considerations as they relate to American eel.
3. During the Final Design phase of the project, NHDOT shall coordinate with ACOE's Levee Safety Program and the Town of Farmington to ensure the project has no adverse affect upon the previously constructed flood control project.
4. The Contractor shall be required to prepare an Invasive Species Control and Management Plan.
5. Strict erosion and siltation control measures shall be utilized during construction to protect the integrity of the Cocheco River. The project contractor shall be required to submit a professionally prepared Stormwater Pollution Prevention Plan (SWPPP) prior to the commencement of construction. Standard pollution prevention measures would be employed to assure that all negative impacts are avoided and/or minimized to the maximum extent practicable. Upon approval by NHDOT, the project contractor shall be required to adhere to all conditions posted in the SWPPP.
6. Construction vehicles shall not be stored, serviced, washed or flushed in a location where leaks, spills, waste materials or cleaners would be introduced into wetlands or watercourses.
7. Maintenance or refueling of equipment and vehicles shall occur at least 150 feet from wetlands or watercourses at a location where drainage is directed away from the river.
8. Absorbent material shall be placed on the ground prior to refueling to catch spills that may occur, and would be removed after construction is completed.
9. The Project Contractor shall make provisions for the safety of recreational users (e.g., canoeists or kayakers) of the river during construction.
10. Heavy equipment operation would cause temporary increases in noise and dust levels during construction. All standard measures shall be used to ensure that these increases are minimized to the extent practicable.
11. Access to all properties shall be maintained throughout construction.

Prepared by:

Jameson Paine
Principal Planner
Normandeau Associates, Inc.

Date

Approval

Recommended By:

Ron C. Crickard
Chief, Project Management Section
NHDOT Bureau of Environment

Date

Approved by:

Kevin T. Nyhan
Administrator
NHDOT Bureau of Environment

Date

II. PROGRAMMATIC SECTION 4(f) EVALUATION

PART II
PROGRAMMATIC SECTION 4(f) EVALUATION

INTRODUCTION

Section 4(f) of the US Department of Transportation (US DOT) Act of 1966 (amended by 49 U.S.C. Section 303) provides additional protection for historic resources, wildlife refuges and publicly owned parks and recreational areas that are open to the public and are considered substantial recreational facilities. (See the Wildlife, Public Lands and Historical sections for additional information.) The NH Route 153 Bridge over the Cocheco River is considered a historic resource under Section 4(f). This Programmatic Section 4(f) Evaluation has been prepared to demonstrate that there are no prudent and/or feasible alternatives to the replacement of the NH Route 153 Bridge. The evaluation also outlines coordination that has occurred and the measures proposed to minimize harm to that resource.

The Programmatic Section 4(f) being used for this project is for Federal Highway Administration (FHWA) projects that necessitate the use of historic bridges. The approval for its use is subsequent to design studies that have determined that there are no feasible and prudent alternatives to the use of certain historic bridge structures to be replaced or rehabilitated with Federal funds and that the project includes all possible planning to minimize harm resulting from such use.

Pursuant to Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. 303(c), and Section 18(a) of the Federal-Aid Highway Act of 1968, 23 U.S.C. 138 (as amended by the Federal-Aid Highway Act of 1983), the U.S. Secretary of Transportation may approve a program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, State, or local significance (as determined by Federal, State, or local officials having jurisdiction over the park, area, refuge or site) only if:

1. There is no prudent and feasible alternative to using that land, and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife or waterfowl refuge, or historic site resulting from the use.

Coordination was established with local and state officials, and it was determined that there would be no publicly owned public parks, recreation areas, wildlife or waterfowl refuges impacted by the proposed project. The NHDOT, through its consultants, has coordinated with the NH Division of Historical Resources (NHDHR), FHWA, local organizations, local officials and the public to locate and identify National Register of Historic Places listed or eligible properties within the area and has determined how they would be affected by the proposed project. The project was reviewed with NHDHR, FHWA, and NHDOT staff at regularly scheduled Cultural Resource Agency Coordination Meetings on November 14, 2013 and December 5, 2013.

EXISTING CONDITIONS/ PROPOSED ACTION

The NH Department of Transportation (NHDOT) proposes to replace the NH Route 153 Bridge over the Cocheco River (State Bridge No. 096/140) and the associated roadway approaches.

EXISTING BRIDGE AND ROADWAY

The existing bridge carries NH Route 153 (Main Street) over the Cocheco River and into the downtown of Farmington, New Hampshire. NH Route 153 is a rural principal arterial system with medium traffic volumes (7,400 average annual daily traffic (AADT) counts for construction year 2015; projected 9,000 AADT for design year 2035) and 6.4% truck traffic. The existing structure, built in 1924, is a 48-foot long two-span concrete encased steel girder bridge. The bridge has a Federal Sufficiency Rating of 11.3% and is structurally deficient, with substantial deterioration of the existing concrete encased steel beams, as well as the concrete deck and railing. This bridge was added to the NHDOT Red List in 2004 due to "poor condition" and "scour critical." No reduced load posting has been recommended to this date.

The existing bridge is approximately 39 feet wide rail to rail and consists of the following: 11-foot lanes with minimal (less than 1-foot) shoulders which do not provide any provision for bicycle travel or winter maintenance. There is a 6-foot sidewalk on the upstream side of the bridge and adjacent approaches; and a water main encased in a 1-foot x 2-foot timber box, which is installed on the existing downstream side on top of the sidewalk, effectively blocking it for pedestrian travel. There is a sharp vertical crest curve approaching the bridge from the south, which restricts sight distance. The existing horizontal alignment on the south approach is also below standards for 35 mph (posted speed).

The bridge is adjacent to a 3,300-foot long flood control berm constructed by the US Army Corps of Engineers (ACOE) in the 1950s to protect a large residential neighborhood in downtown Farmington from flooding.

PURPOSE AND NEED

The purpose of the project is to address the red-listed bridge and provide a safe, cost-effective, multimodal crossing of the Cocheco River that maximizes longevity, minimizes maintenance, and does not increase the risk of flooding. The need for the project is evidenced by the poor condition of the bridge and existing safety concerns, including sight distance deficiencies, substandard shoulder widths, and substandard approach railing, in addition to ponding/flooding issues on private property from roadway runoff.

PROPOSED ACTION

This alternative includes use of a temporary bridge to the downstream side to maintain two lanes of traffic while the existing bridge is removed and a new bridge is constructed. The horizontal alignment would shift the roadway centerline approximately 5.5 feet to the north at the center of the bridge to improve the roadway design to meet 35 mph design criteria. This alternative provides additional safety with wider shoulders and the best alignment, as well as addresses area flooding concerns by removing the pier from the center of the river and providing a larger opening. The structure would also provide the ability to accommodate utilities under the bridge deck.

The recommended typical section for the bridge and approaches includes the following:

- 11-foot travel lanes in each direction;
- 5-foot paved shoulders; and
- 5-foot sidewalk on the south side.

The west approach and the bridge sections are anticipated to be normal crown; and the east approach would be a super-elevated section.

The bridge would have T2 bridge rail on the non-sidewalk side, and T4 bridge rail on the sidewalk side. Approach rail with EAGRT end terminals would be used on the east side of the bridge, while a curved rail terminal with G2 end would be used on the west side to transition into the proposed bridge rail.

Project costs for this alternative, including engineering, Right-of-Way acquisition and construction, are anticipated to be approximately \$3.3 million. Long-term maintenance cost over the first 35 years is estimated at approximately \$120,000. Life span of the replacement bridge is expected to be 75 years.

DESCRIPTION OF 4(f) RESOURCES

The project bridge is a two-span bridge with concrete encased I-Beams, a concrete deck and concrete rail. The substructure consists of stone abutments which are faced with concrete and a reinforced concrete pier that is nosed on both the upstream and downstream elevations. The superstructure is composed of steel I-beams (18" x 54.7 pound I-Beams each measuring 23'6" long) with a cast in place reinforced concrete slab and bituminous wearing surface. The bridge has an overall length of 48', with a maximum span of 21'. In 1927 a new wide-flange I-beam was introduced by the steel industry. Those beams were 27 inches deep as compared to the earlier American Standard I-beam which was 18-20 inches deep. The bridge was determined eligible for the National Register of Historic Places due to engineering significance.

The total bridge width is 40.5 feet and the width from curb to curb is 27.4 feet. The sidewalks are six feet wide; the overall width of the sidewalk and rail is 3' 8". The concrete railing consists of posts, joined by reinforced concrete panels punctuated by arched openings, all capped by a continuous rail. The bridge is currently in poor condition with extensive spalling, and deterioration of the ironwork and roadway. In addition to being seriously deteriorated, it is also functionally obsolete and is on the State Red List.

IMPACTS TO SECTION 4(f) PROPERTIES

The proposed project involves removing the NH Route 153 Bridge over the Cocheco River. As the bridge is individually eligible for the National Register of Historic Places it is considered a Section 4(f) resource and therefore is subject to the provisions set forth in Section 4(f). At the December 5, 2013 Cultural Resource Agency Coordination Meeting, it was confirmed by FHWA that as the project involves the removal of an historic bridge with Federal funds, the project would be eligible for a Programmatic Section 4(f) Evaluation.

ALTERNATIVE A: NO BUILD ALTERNATIVE

If no work is completed, this would require an eventual closure of the bridge. The Federal Sufficiency Rating is currently 11.3%; structures with ratings below 50% are generally slated for treatment. The bridge was posted on the State's Red List in 2004 and has substantial deterioration that needs to be addressed in the short term to maintain this corridor for vehicular travel. As of the last inspection, the superstructure, deck and substructures all have a rating of 4 (Poor). This is an important corridor for the community, especially for emergency services. Closure of the bridge is not feasible for sustaining the community and would significantly increase emergency response times, which would be unacceptable to the Town.

ALTERNATIVE B: BRIDGE REHABILITATION

The existing bridge has sustained substantial deterioration, especially the concrete portions of the structure, including the concrete encasement of the main carrying beams, the deck, abutments, pier and the railing. Heavy spalling and delamination of the concrete members and exposed rebar is noted repeatedly on the inspection reports. Retaining any portion of the concrete superstructure is not feasible given the current condition. It is possible that the existing steel beams could be retained, with new reinforced concrete encasements, deck and railing constructed. Rehabilitation of the substructures would include removal of the existing deteriorated concrete faces to sound concrete (depth expected of approximately 6"). It is anticipated that 75% of the abutment and pier faces would need rehabilitation, and the entire surfaces must then be sealed.

There is scour and undermining of the existing foundations, which would require scour protection measures to stabilize the abutments and piers for the rehabilitated structure. These measures would likely reduce the waterway opening for the river, increasing flooding potential. Both the Town of Farmington (the flood control project sponsor) and the USACE must approve any proposed project at this location due to the presence of the flood control berm. They have noted that any proposal which would result in any increase in flooding potential would not be accepted.

This type of rehabilitation would require installation of a temporary bridge to maintain two lanes of traffic throughout construction. The temporary bridge would be installed on the downstream side of the project, requiring temporary easements from private property owners. It is anticipated that approximately 500 feet of the roadway would need to be repaved following removal of the detour prior to completion of the rehabilitated structure project.

Project costs for this alternative, including engineering, Right-of-Way acquisition and construction of the temporary bridge as well as the structure rehabilitation (assuming existing steel beams are suitable for reuse), are anticipated to be approximately \$3.0 million (This assumes approach pavement replacement only, and no drainage upgrades). The anticipated life span of the rehabilitated bridge would be approximately 35 years, with an expected maintenance cost of approximately \$180,000 during that time span.

ALTERNATIVE C: BRIDGE BYPASS

Replacement of the bridge on a new alignment was considered, which would allow for the existing bridge to be maintained in its current location. The existing bridge would be closed to traffic and used as a multimodal crossing. Replacement on an upstream alignment would require removal of at least three buildings (at least one of which is potentially historic, and another is a former gas station) and purchase of those properties for the project, so this was not investigated. A downstream alignment was investigated which would require significant permanent private property acquisition, including impacting almost all of the parking area for an adjacent apartment building (potentially historic) and which could require purchase of the entire property. In addition, a gas station property would be impacted which could lead to significant additional costs. This active gas station has had previous remediation activities that have been documented by NHDES. The file is closed; however, with the previous activity in the area, a Worker's Health and Safety Plan should be completed in the event contaminants are found during disturbance at this site. This alternative provides a less desirable roadway alignment than the preferred alternative. Some rehabilitation work would be required to the existing bridge to repair the existing deteriorated concrete on the substructures, beam encasements and deck. The existing railing height does not meet height requirements for pedestrian or bicycle railing, and given its current condition, replacement of the railing is expected for this alternative.

Project costs for this alternative, including engineering, Right-of-Way acquisition and construction, are anticipated to be approximately \$3.7 million. Long-term maintenance cost for the existing and replacement bridges over the first 35 years is estimated at approximately \$230,000. Lifespan of the replacement bridge is expected to be 75 years.

ALTERNATIVE ANALYSIS SUMMARY

Based on the extent of the existing bridge deterioration, importance of the bridge for commerce, mutual aid and school transportation, and the anticipated life span of the alternative, the proposed action is replacement of the bridge on existing alignment, with a two lane temporary bridge located downstream. Temporary and permanent property impacts for this alternative would be very similar to the expected temporary impacts of Alternative B; permanent property impacts would be much less than Alternative C. Removal of the existing bridge is preferred due to the total project cost for the bypass alternative and lack of funding for future maintenance and rehabilitative work on the bypassed bridge. The community supports bridge replacement with removal of the existing bridge.

MEASURES TO MINIMIZE HARM/MITIGATION

It was agreed among FHWA, NHDHR, and NHDOT that impacts to the historic resources are unavoidable. To properly mitigate for the replacement of the existing bridge structure, the NHDOT will prepare appropriate historic bridge documentation and photographs, the requirements of which will be documented in a Memorandum of Agreement with

NHDHR and FHWA. This work will be completed prior to the commencement of construction. Further discussions on appropriate mitigation will take place prior to completion of the MOA.

COORDINATION AND PUBLIC PARTICIPATION

Coordination meetings have been held among NHDHR, FHWA, and NHDOT Officials and concerned citizens to discuss alternatives and measures to minimize harm to the Section 4(f) resources. The measures that were considered feasible and prudent were evaluated and incorporated into the design of the project. Initial coordination letters were also sent to town and State of NH officials (e.g., the Cochecho River Local Advisory Committee, Land and Water Conservation Fund (LWCF), Conservation Land Stewardship, National Flood Insurance Program, and the NHDES Conservation Land Stewardship (CLS)).

An Adverse Effect memo was prepared which addresses unavoidable impacts to the historic properties (*See Exhibit 1*). The FHWA consulted with the Advisory Council on Historic Preservation regarding the determination of Adverse Effect. The Advisory Council determined that their participation in Section 106 consultation is unnecessary (see Exhibit XX). Pursuant to the provisions of Section 106 of the National Historic Preservation Act (36 CFR 800), a Memorandum of Agreement (MOA) addressing the proposed action and subsequent mitigation will be developed. Meetings were held periodically with various Federal, State and local agencies, as well as with the general public throughout the development of this project. Project review meetings were held on the following dates:

Meeting	Date	Comments
Natural Resource Agency Meeting	12/19/12	Presentation to receive initial input from agencies
Public Officials Meeting	1/14/13	Provide initial presentation to receive public input
Public informational Meeting	4/4/13	Provide project update and receive public input
Natural Resource Agency Meeting	8/21/13	Presentation to provide update and obtain concurrence from agencies
Cultural Resource Agency Meeting	11/14/13	Initial presentation
Cultural Resource Agency Meeting	12/5/13	Review of project alternatives, selection of preferred alternative, and determination of effect

PROGRAMMATIC APPLICABILITY

This project meets the criteria for Programmatic Section 4(f) Evaluations for Federal Aid highway projects that necessitate:

1. The use of historic bridges
 - The bridge will be replaced with Federal funds.
 - The project will require the use of a historic bridge structure, which is eligible for listing on the National Register of Historic Places.
 - The bridge is not a National Historic Landmark.
 - The FHWA Division Administrator has determined that the facts match those set forth in the sections of this document labeled Alternatives, Findings, and Mitigation.
 - Agreement between the SHPO and FHWA has been reached through the section 106 review process.
 - Fully adequate records of the bridge will be made in accordance with the Historic American Engineering Record (HAER) standards.

Based on the above considerations there are no feasible and prudent alternatives to the use of this historic bridge and the proposed action includes all planning to minimize harm to the 4(f) resources resulting from such use.

III. PHOTOGRAPHS



SUBJECT BRIDGE, FACING DOWNSTREAM/NORTHEAST

REPLACEMENT OF NH ROUTE 153 BRIDGE OVER COCHECO RIVER

Farmington, X-A001(152), 16146
NH Department of Transportation



ABUTTING PROPERTY IN SOUTHEAST QUADRANT



STRUCTURE LOCATED SOUTH AND EAST OF PROJECT, ALONG NH ROUTE 153



NORTHEAST QUADRANT ADJACENT TO BRIDGE

REPLACEMENT OF NH ROUTE 153 BRIDGE OVER COCHECO RIVER

Farmington, X-A001(152), 16146
NH Department of Transportation



YARD OF PROPERTY LOCATED IMMEDIATELY EAST OF PROJECT IN NORTHEAST QUADRANT



DOWNSTREAM SIDE OF BRIDGE, FACING EAST

REPLACEMENT OF NH ROUTE 153 BRIDGE OVER COCHECO RIVER

Farmington, X-A001(152), 16146
NH Department of Transportation



DOWNSTREAM SIDE OF BRIDGE, FACING WEST

REPLACEMENT OF NH ROUTE 153 BRIDGE OVER COCHECO RIVER

Farmington, X-A001(152), 16146
NH Department of Transportation



BRIDGE, FACING WEST

REPLACEMENT OF NH ROUTE 153 BRIDGE OVER COCHECO RIVER

Farmington, X-A001(152), 16146
NH Department of Transportation



ABUTTING PROPERTY IN NORTHWEST QUADRANT



GAS STATION LOCATED ON NORTH SIDE OF NH ROUTE 153, NEAR WESTERN PROJECT LIMITS



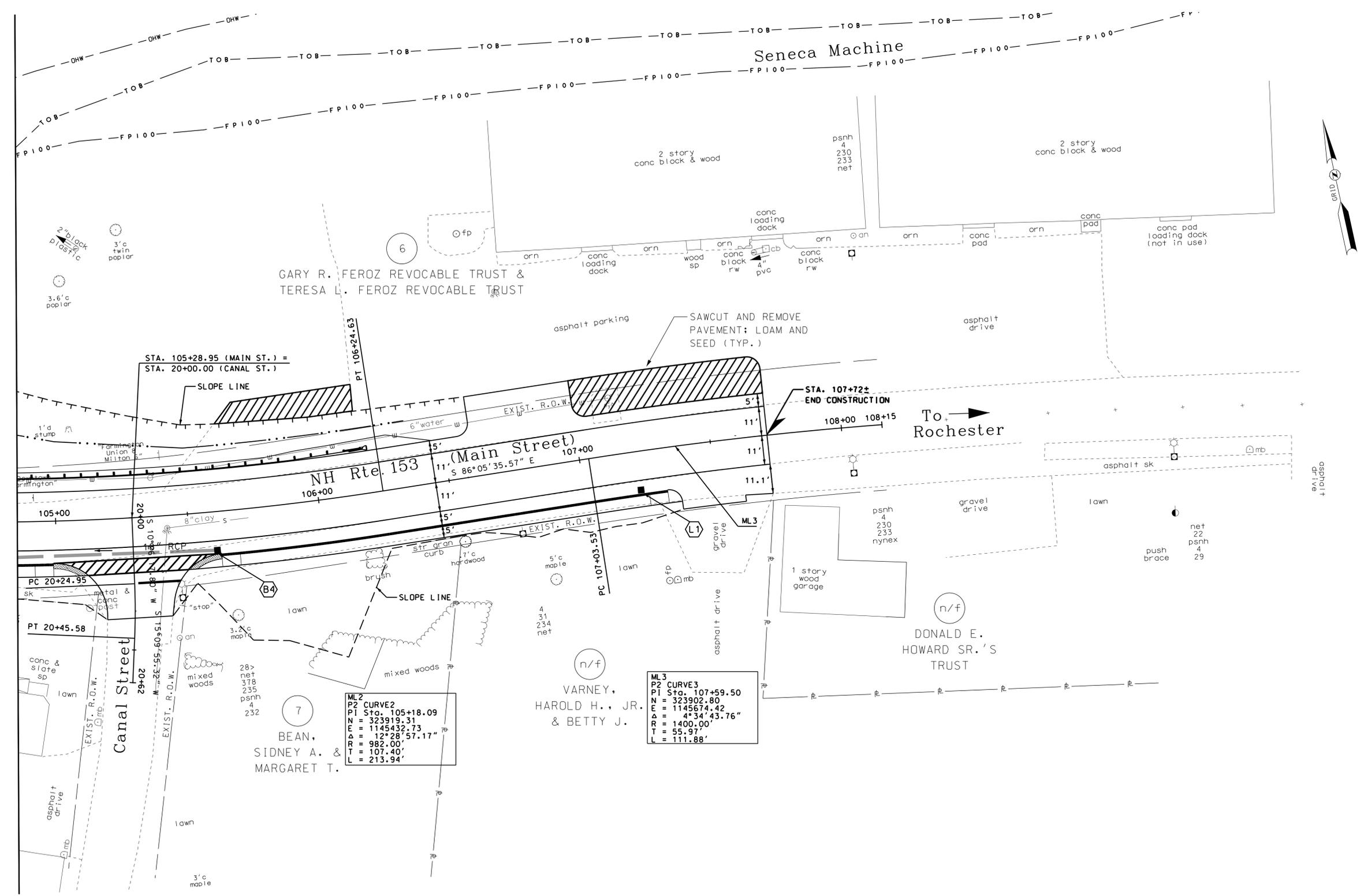
STRUCTURE SOUTH AND WEST OF BRIDGE, FACING SOUTH - FORMER GAS STATION, CURRENT APPLIANCE REPAIR SHOP



STRUCTURE LOCATED SOUTH AND WEST OF PROJECT , ALONG NH ROUTE 153

IV. PROJECT ALIGNMENT

SDR PROCESSED	NAME1	DATE	DATE1	REVISIONS AFTER PROPOSAL	DESCRIPTION
NEW DESIGN	NAME2	DATE	DATE2	STATION	
SHEET CHECKED	NAME3	DATE	DATE3	STATION	
AS BUILT DETAILS		DATE		DATE	

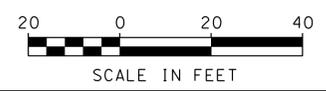


PRELIMINARY DRAINAGE NOTES

- (B3) PROPOSED CB. STA. 105+60.0, 15.0' RT. RIM EL. = 269.9'
- (L1) PROPOSED LEACHING CB. STA. 107+21.5, 15.0' RT. RIM EL. = 267.0'

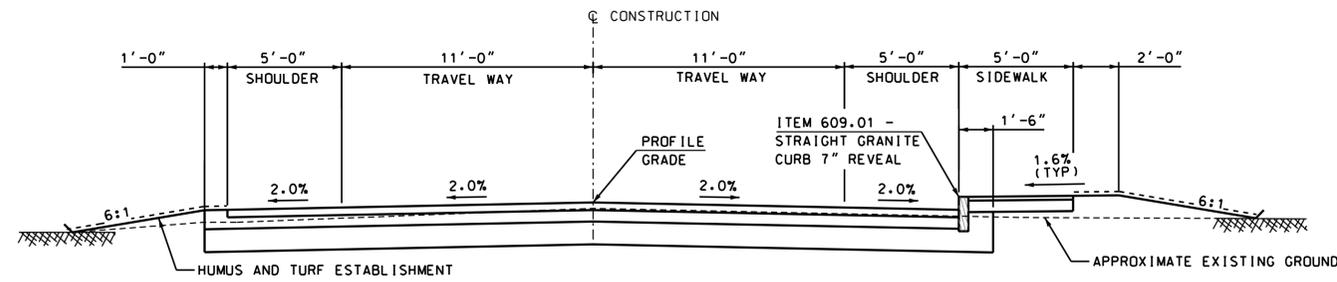
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E = 1145432.73
A = 12°28'57.17"
R = 982.00'
T = 107.40'
L = 213.94'

ML3
P2 CURVE3
PI Sta. 107+59.50
N = 323902.80
E = 1145674.42
A = 4°34'43.76"
R = 1400.00'
T = 55.97'
L = 111.88'



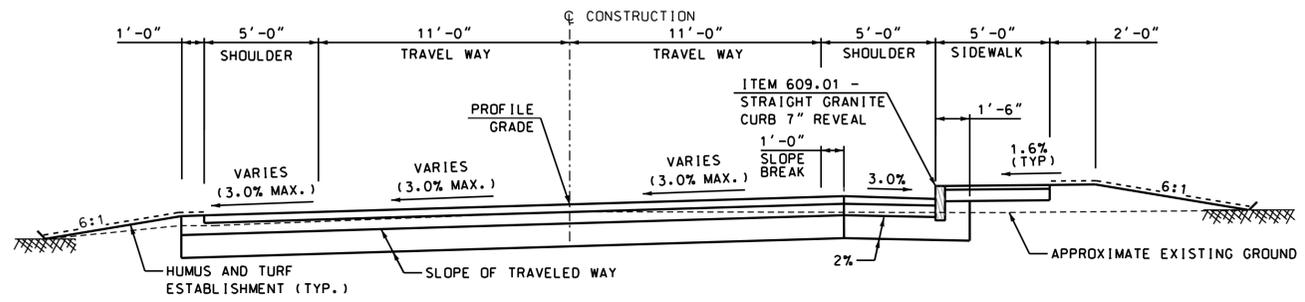
CLD CONSULTING ENGINEERS
Park Place Corporate Center
316 US Route 1, Suite D, York, ME 03809
(207) 363-0669 • Fax: (207) 363-2384
cl@cldeengineers.com • www.cldeengineers.com
Maine • New Hampshire • Vermont

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
GENERAL PLAN			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
16146GenPlans	16146	X	0



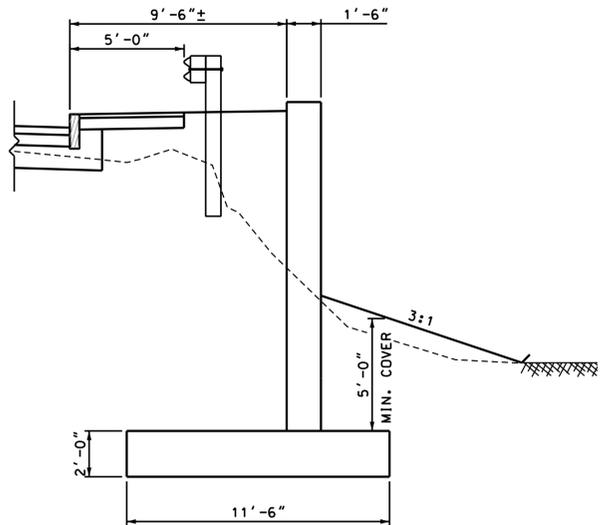
ROADWAY TYPICAL SECTION

NTS



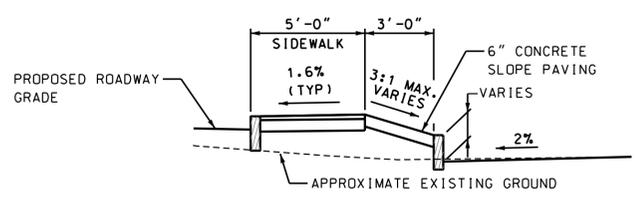
SUPERELEVATED ROADWAY TYPICAL SECTION

NTS



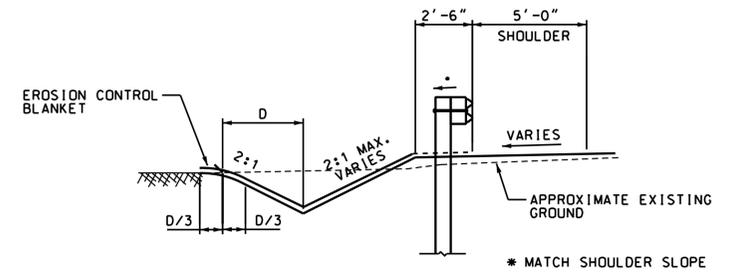
CAST-IN-PLACE RETAINING WALL TYPICAL SECTION

STA. 102+35± TO STA. 102+78±
NTS



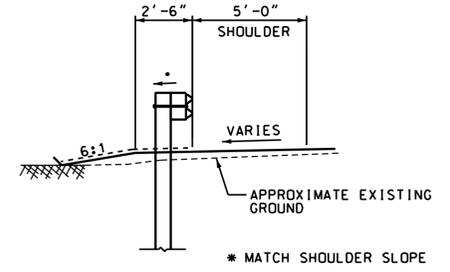
PARKING LOT ISLAND TYPICAL SECTION

STA. 101+80± TO STA. 102+15±
NTS



ROADWAY TYPICAL GUARDRAIL SECTION W/DITCH

NTS



ROADWAY TYPICAL GUARDRAIL SECTION

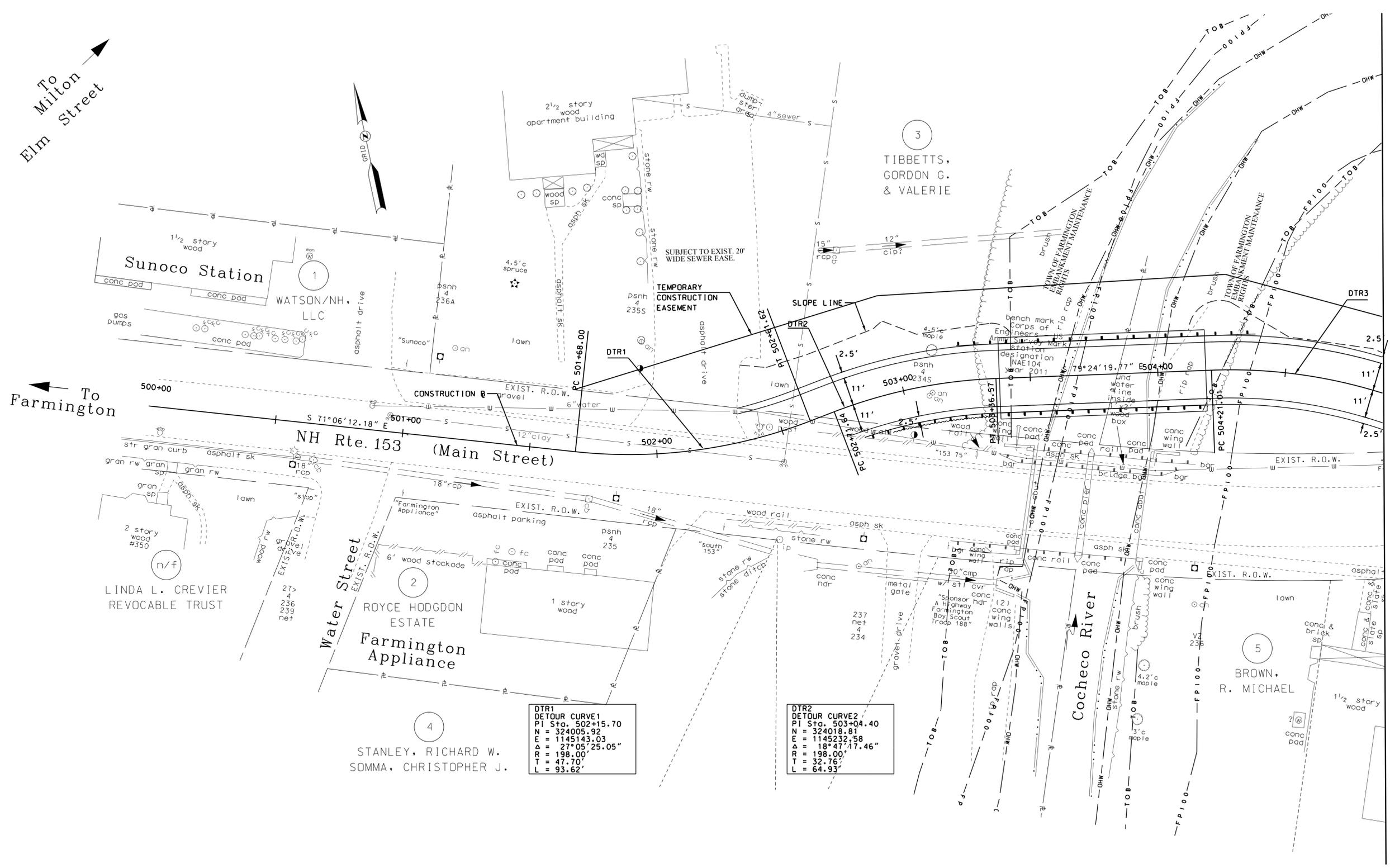
NTS

REVISIONS AFTER PROPOSAL	DESCRIPTION
STATION	
STATION	
DATE	
NUMBER	
SDR PROCESSED NAME1	DATE DATE1
NEW DESIGN NAME2	DATE DATE2
SHEET CHECKED NAME3	DATE DATE3
AS BUILT DETAILS	DATE

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
TYPICAL SECTIONS			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
16146Typicals	16146	X	0

SDR PROCESSED		DATE		DATE		DATE		DATE	
NAME1	NAME2	DATE1	DATE2	DATE3	DATE4	DATE5	DATE6	DATE7	DATE8
NEW DESIGN	NAME2								
SHEET CHECKED	NAME3								
AS BUILT DETAILS									

REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION



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E = 1145143.03
Δ = 27°05'25.05"
R = 198.00'
T = 47.70'
L = 93.62'

DTR2
DETOUR CURVE2
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L = 64.93'



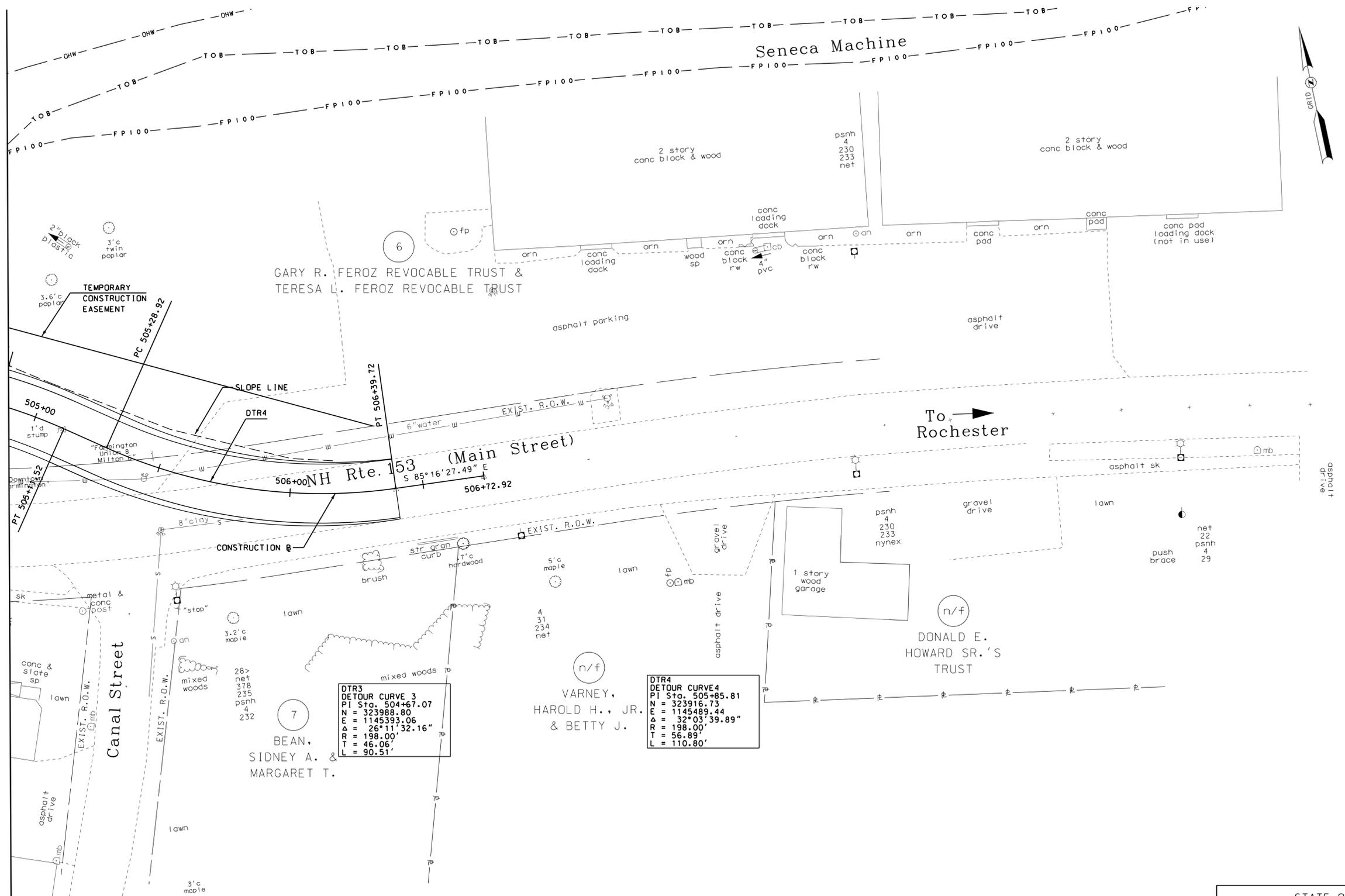
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cl@cldeengineers.com • www.cldeengineers.com
Maine • New Hampshire • Vermont

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
TRAFFIC CONTROL PLAN			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
16146Detour	16146	X	0

REVISIONS AFTER PROPOSAL		STATION		DESCRIPTION	
NUMBER	DATE	STATION	STATION	DATE	DESCRIPTION

SDR PROCESSED	NAME1	DATE	DATE1	DATE	DATE2

AS BUILT DETAILS	DATE



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 PI Sta. 504+67.07
 N = 323988.80
 E = 1145393.06
 Δ = 26°11'32.16"
 R = 198.00'
 T = 46.06'
 L = 90.51'

DTR4
DETOUR CURVE 4
 PI Sta. 505+85.81
 N = 323916.73
 E = 1145489.44
 Δ = 32°03'39.89"
 R = 198.00'
 T = 56.89'
 L = 110.80'



STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
TRAFFIC CONTROL PLAN			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
16146Detour	16146	X	0

V. COORDINATION RESPONSE LETTERS

INDIVIDUAL INVENTORY FORM

NHDHR INVENTORY #FAR0022

Name, Location, Ownership

- 1. Historic name Hayes Bridge (Bridge No. 096/140)
- 2. District or area _____
- 3. Street and number S. Main (Rt. 153) over Cocheco
- 4. City or town Farmington
- 5. County Strafford
- 6. Current owner State of NH

Function or Use

- 7. Current use(s) Transportation: Road related
- 8. Historic use(s) Transportation: Road related

Architectural Information

- 9. Style I-Beam Bridge with Concrete Deck and Rail
- 10. Architect/builder H.E. Langley/ Ames Construction Co.
- 11. Source DOT records, Town Reports
- 12. Construction date 1924
- 13. Source Town Reports
- 14. Alterations, with dates date unknown – railing on east side
- 15. Moved? no yes date: _____

Exterior Features

- 16. Foundation stone, concrete
- 17. Cladding _____
- 18. Roof material ---
- 19. Chimney material ---
- 20. Type of roof ---
- 21. Chimney location ---
- 22. Number of stories ---
- 23. Entry location ---
- 24. Windows ---
- Replacement? no yes date: _____

Site Features

- 25. Setting over Cocheco River
- 26. Outbuildings NA
- 27. Landscape features NA



- 35. Photo #1 Direction: east
- 36. Date June 27, 2013
- 37. Reference (file name or frame#): FAR0022-1

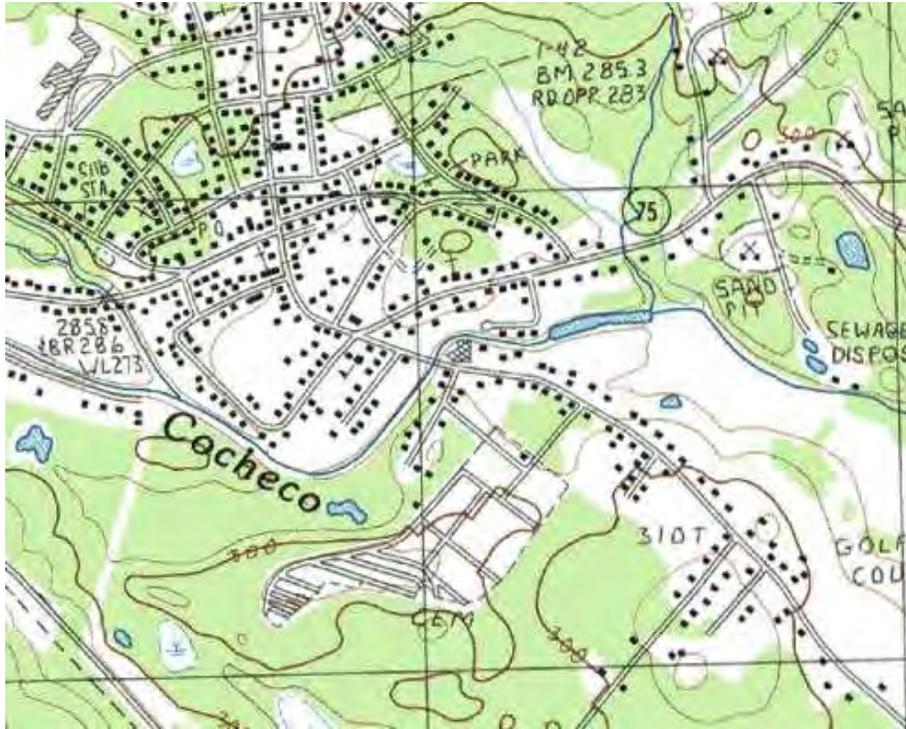
- 28. Acreage NA
- 29. Tax map/parcel # NA
- 30. Map reference Z19 4805620N 333070E
- 31. USGS quadrangle and scale Farmington 1:24000
- Form prepared by**
- 32. Name Lisa Mausolf
- 33. Organization Normandeau/CLD for NHDOT
- 34. Date of survey June - August 2013

Exhibit 1

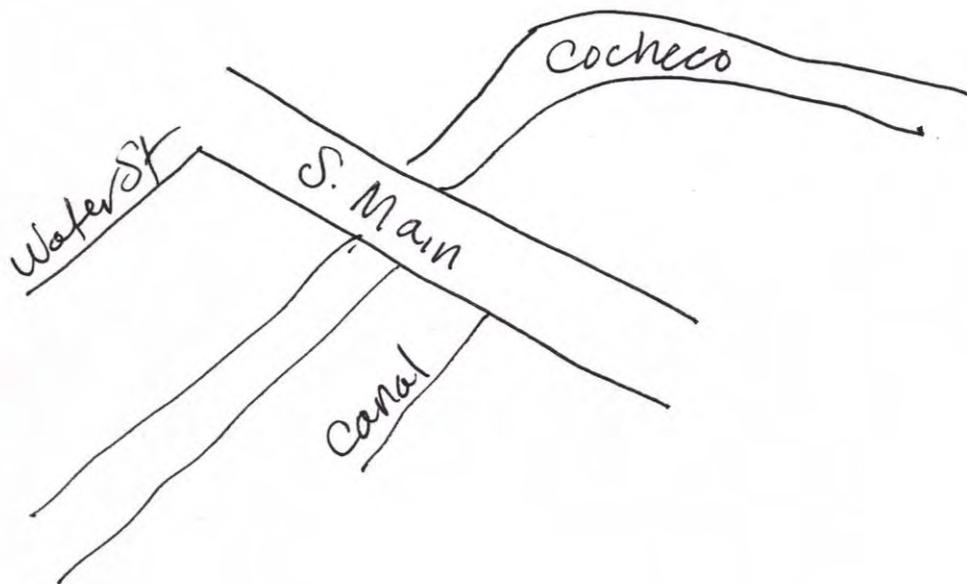
INDIVIDUAL INVENTORY FORM

NHDHR INVENTORY #FAR0022

39. LOCATION MAP:



40. PROPERTY MAP:



41. Historical Background and Role in the Town's Development:

A bridge on South Main Street over the Cocheco River was first completed in 1811. Prior to this, the river was forded (Bicentennial History: 91). The present bridge was constructed in 1924 and replaced a wooden bridge of unknown date. The former bridge was known as the Hayes Bridge due to its proximity to the sawmill of William Hayes which was located northeast of the bridge. William Hayes lived in the house at 5 Canal Street. According to the 1924 Town Report, the Hayes Bridge was one of twenty wooden bridges in town and had to be "looked over every week and strengthened with additional props and new plank" (1924 Town Report: 7). At Town Meeting in 1924, it was voted to authorize the selectmen to build a permanent bridge to replace the Hayes bridge. As the bridge was located on the trunk line, the state was to pay twenty five cents of each dollar appropriated (*The Farmington News*, March 1924).

The bridge was designated as Farmington S.A.B. (State Aid Bridge) 1924 by the State of New Hampshire Highway Department. Drawings at the NHDOT indicated that it was designed by H.E.L. (Harold E. Langley) on June 21, 1924 and traced by R.K. (Ralph Kenney) and A.P. (A.G. Paige) on July 3, 1924 (NHDOT; James Garvin). Harold E. Langley (1896-1991) was born in Durham and attended the Massachusetts Institute of Technology. By 1920 he was working at the State Highway Department; this would appear to be one of his earlier known designs. Langley served as the Highway Department's Assistant Bridge Engineer from 1935 to 1941 and was Bridge Engineer from 1942 to 1961. Ralph Kenney (1896-1994) worked as an assistant to Langley. He was born in Concord, the son of a brick mason, and was a lifelong Concord resident. He was a World War I veteran of the U.S. Army and worked for many years as a civil engineer and chief draftsman for the State of New Hampshire Bridge Department. He helped design the Vilas Bridge, designed the Parker truss in Littleton (1928), and the Bean Brook multi-span rigid frame bridge at Piermont (Garvin 2009).

On October 24, 1924, the *Farmington News* reported that "Work on the South Main street bridge is progressing very well...The progress is slow, especially from the fact that only one half of the bridge can be under construction at a time, thus allowing the other half to be open for traffic" (*The Farmington News*, October 24, 1924). On December 12, 1924 the paper reported that the bridge was now open:

The Main street bridge, which has been partly open for transportation, waiting for the cement to dry, is now, ready for use, the timbers having been removed this week. There still is asphalt to be placed on the road bed and a little more work of a minor nature to be done to the bridge which will be postponed until spring, owing to the atmospheric conditions. The bridge was constructed by the Ames Construction Company of Somersworth at an expense of upward of \$9,000, twenty-five percent of the cost being met by the state. The reopening of the bridge in its entirety is welcomed, especially by autoists and it looks like a very sound piece of construction work" (*The Farmington News*, Dec. 12, 1924).

The new structure was constructed of six 23' 6" steel spans with a concrete slab, stone abutments faced with concrete and a reinforced concrete center pier. The estimate of materials needed for construction included 15,150 pounds of reinforcing steel, 18,000 pounds of structural steel and 101 linear feet of concrete bridge rail (NHDOT records).

This was one of the earlier bridges constructed by The Ames Construction Company in New Hampshire. Others included a concrete box culvert in Rochester in 1924; a 56 foot reinforced concrete bridge in Barnstead and a reinforced concrete T-beam bridge in Randolph in 1925; a 24' T-beam bridge in East Kingston and a 36' concrete T-beam bridge in Farmington in 1926; a concrete T-beam bridge in Lee and a concrete slab on I-beams in Madbury in 1927; a 15' reinforced concrete slab bridge in Wakefield in 1928; a concrete slab bridge in Derry, a rigid frame in Milton; an I-beam bridge with concrete deck in Warner and a concrete T-beam bridge in Lincoln in 1929; and a rigid frame over Little River in Nottingham in 1930 (Garvin 2013). The company also engaged in other construction projects including mill additions.

Historically, the limited channel capacity of the Cocheco River has frequently caused the river to overflow, resulting in flood damage to the center of Farmington. The flood damage was especially serious in March 1936 and May 1954. The limited channel capacity was also aggravated by periodic ice jams. In 1956 and in 1959 the Army Corps of Engineers was responsible for projects to increase the channel capacity of the Cocheco River, specifically the 7,800 foot stretch between the Central Street Bridge and a point 4,700 feet downstream of the South Main Street Bridge. In 1964 and in the early 1980s the project area once again suffered significant flood damage despite the efforts to widen and deepen the River.

INDIVIDUAL INVENTORY FORM

NHDHR INVENTORY #FAR0022

42. Applicable NHDHR Historic Contexts:

Automobiles, Highways and Culture, 1900-present

43. Architectural Description and Comparative Evaluation:

Built in 1924, Bridge No. 096/140 is located south of Farmington Village and carries South Main Street over the Cocheco River. The bridge is a two-span bridge with concrete encased I-Beams, a concrete deck and concrete rail. The substructure consists of stone abutments which are faced with concrete and a reinforced concrete pier that is nosed on both the upstream and downstream elevations. The superstructure is composed of steel I-beams (18" x 54.7 pound I-Beams each measuring 23'6" long) with a cast in place reinforced concrete slab and bituminous wearing surface. The bridge has an overall length of 48', with a maximum span of 21'. In 1927 a new wide-flange I-beam was introduced by the steel industry. Those beams were 27 inches deep as compared to the earlier American Standard I-beam which was 18-20 inches deep. The new wide-flange sections were not yet available when this bridge was erected (Garvin 2011).

The total bridge width is 40.5 feet and the width from curb to curb is 27.4'. The sidewalks are six feet wide; the overall width of the sidewalk and rail is 3' 8". The concrete railing consists of posts, joined by reinforced concrete panels punctuated by arched openings, all capped by a continuous rail. The bridge is currently in poor condition with extensive spalling, and deterioration of the ironwork and roadway. In addition to being seriously deteriorated, it is also functionally obsolete and is on the State Red List.

This bridge was one of many I-Beam with concrete deck spans (IB-C) erected throughout the state in the early 20th century. The bridge uses rolled members (American Standard I-beams) that were available as far back as 1896, when the American Standard shapes were adopted shortly after the Bessemer process made steel inexpensive. The I-Beam with concrete deck was widely used by the State Highway Department and as of 2011 there were at least 183 known I-Beam bridges with concrete decks built in New Hampshire in 1935 or earlier (Garvin 2011). The majority of the bridges were a single span although there are also double spans and less frequently between 3 and 9 spans. Within Farmington this is one of four pre 1935 IB-C bridges. The others are Bridge 085/132 - a single (49') span carrying NH 75 over the Mad River (1900); Bridge 057/126 - a single (25') span carrying Spring Street over the Ela River (1921); and Bridge 060/144 - a single (14') span carrying Tibbetts Hill Road over the Cocheco River (Garvin 2013).

According to an analysis completed in 2008 by Laura Dreimeyer of the Preservation Company for Bridge 138/110 in Hancock, there were then only thirteen reinforced concrete slab on I-beam stringer bridges with concrete rails statewide in the NHDOT database. Of these thirteen, only four had an open concrete rail as is seen in Farmington (Dreimeyer 2008: 6). Since 2008 the Merrimack, Rumney and Hancock bridges have been rebuilt, Winchester is scheduled for replacement and Claremont and is also on the Red List. Outside of these thirteen bridges, it is unknown how many of this combination may have been built in New Hampshire but subsequently replaced.

Bridge No.	City/Town	Type	Year Built
144/075	Manchester	Closed rail	1915
123/090	Claremont	Closed rail	1920
095/166	Merrimack	Closed rail	1923
096/140	Farmington	Open rail	1924
118/080	Harrisville	Closed rail	1925
174/071	Harrisville	Closed rail	1925
082/125	Marlborough	Closed rail	1926
088/133	Marlborough	Closed rail	1932
120/026	Merrimack	Closed rail	1935
152/181	Winchester	Open rail	1935
138/075	Rumney	Open rail	1937
138/110	Hancock	Open rail	1939

Source: Compiled by Laura Dreimeyer, Preservation Company, 2008 for Bridge 138/110 in Hancock

44. National or State Register Criteria Statement of Significance:

Criterion A: The South Main Street Bridge (Bridge No. 096/140), constructed in 1924, is not eligible under this criterion as it is not associated with a significant trend or event in Farmington's history. It is one of a number of bridges replaced in Farmington in the 1920s.

Criterion B: The South Main Street Bridge (Bridge No. 096/140) is of interest for its associations with Harold E. Langley (1896-1991), an important bridge engineer with the New Hampshire Department of Public Works and Highways in the early 20th century but is one of many bridges across the state designed by Langley.

Criterion C: This property is not eligible for either the National or State Registers under Criterion C. It does not appear that it embodies a significant advance in technology or is an outstanding example of its type (IB-C bridge). Its only relative distinction appears to be the use of the open rail.

45. Period of Significance: N/A

46. Statement of Integrity:

Other than the addition of a railing to protect a water main, Bridge No. 096/140 survives largely unaltered and therefore retains integrity of design, materials, workmanship, feeling and association. Unfortunately the bridge is in poor condition and there is considerable spalling and exposure of rebar. The bridge retains integrity of location and much of its integrity of setting although the adjacent west bank of the Cocheco River has seen alterations as a result of the Cocheco River Local Protection Project.

INDIVIDUAL INVENTORY FORM

NHDHR INVENTORY #FAR0022

47. Boundary Discussion: NA

48. Bibliography and/or References:

Bicentennial History Committee. The History of Farmington, New Hampshire. Farmington: 1976.

Bird's Eye View of village of Farmington, 1877.

Closs, Christopher. Historic American Engineering Report for Cohas Brook Bridge, Manchester, NH, 1984.
<http://memory.loc.gov/pnp/habshaer/nh/nh0100/nh0181/data/nh0181data.pdf>

Dreimeyer, Laura. Individual Inventory Form for N.H. Route 137 Bridge over Moose Brook (No. 138/110), Hancock, March 2008. [NH Division of Historical Resources, Concord].

Farmington Town Reports, various dates.

Garvin, James. "Engineers Known to Have Worked in Bridge Design at the New Hampshire Highway Department from the 1920s to the 1940s", no date.

Garvin, James. "I-Beam Bridges with Concrete Decks (IB-C) in New Hampshire, 1935 or earlier". March 15, 2011.

Garvin, James. Information on I-Beam Bridges and Steel Beam Technology, March 15, 2011 & September 6, 2013.

Garvin, James. Information on Ames Construction Company, Somersworth, September 6, 2013.

New Hampshire Department of Transportation. Bridge Design, Inspection Card, Drawings and reports for Bridge No. 096/140 and other comparable bridges.

Parsons Brinckerhoff and Engineering and Industrial Heritage. "A Context for Common Historic Bridge Types," Prepared for the National Cooperative Highway Research Program, Transportation Research Council, National Research Council, October 2005.

U.S. Army Corps of Engineers. Cocheco River Local Protection Project.
<http://www.nae.usace.army.mil/Missions/CivilWorks/FloodRiskManagement/NewHampshire/Cocheco.aspx> (accessed August 27, 2013).

Surveyor's Evaluation:

NR listed: individual _____
within district _____

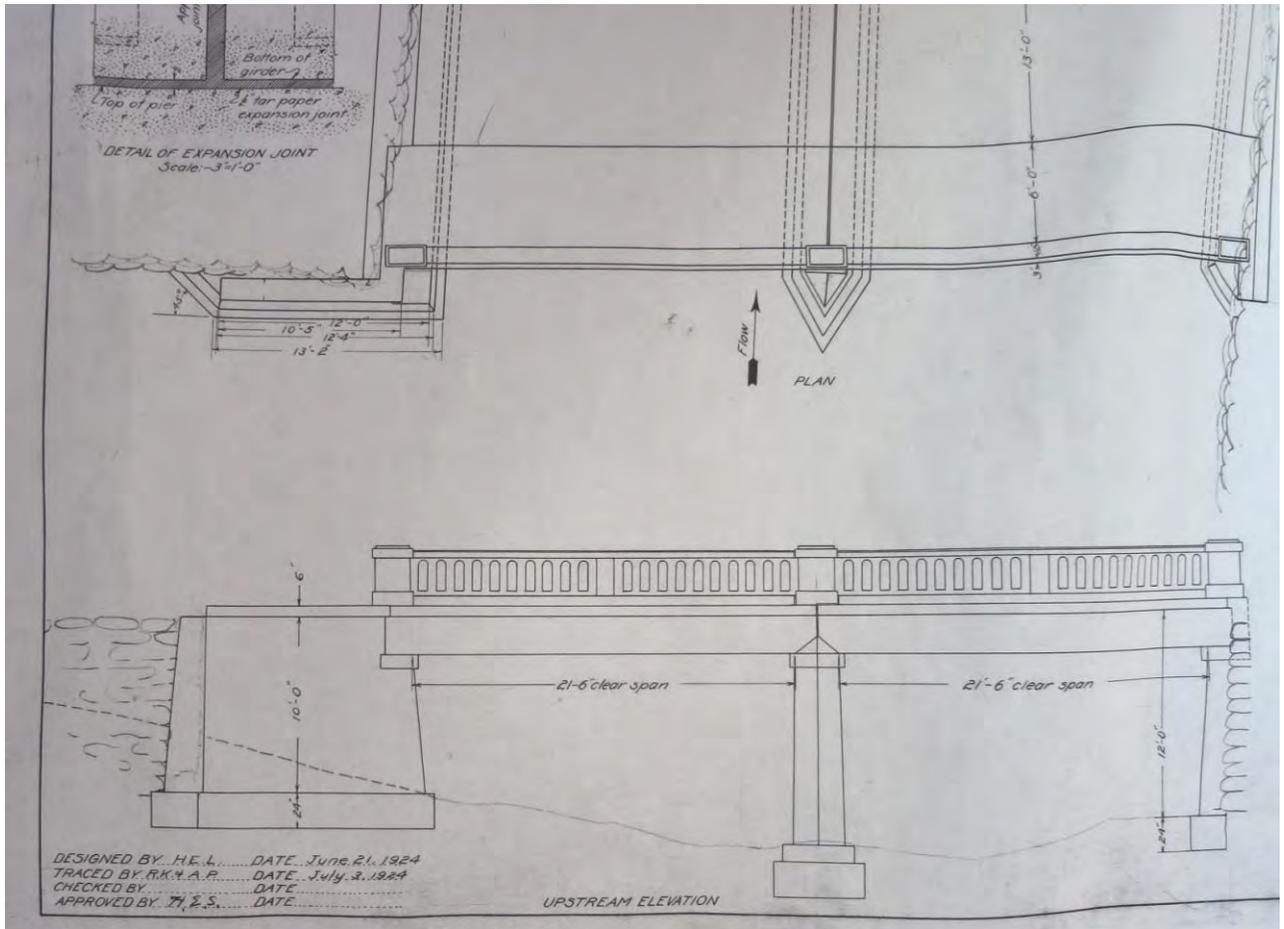
Integrity: yes _____ x _____
no _____

NR eligible: individual _____
within district _____
not eligible _____ x _____
more info needed _____

NR Criteria: A _____
B _____
C _____
D _____
E _____

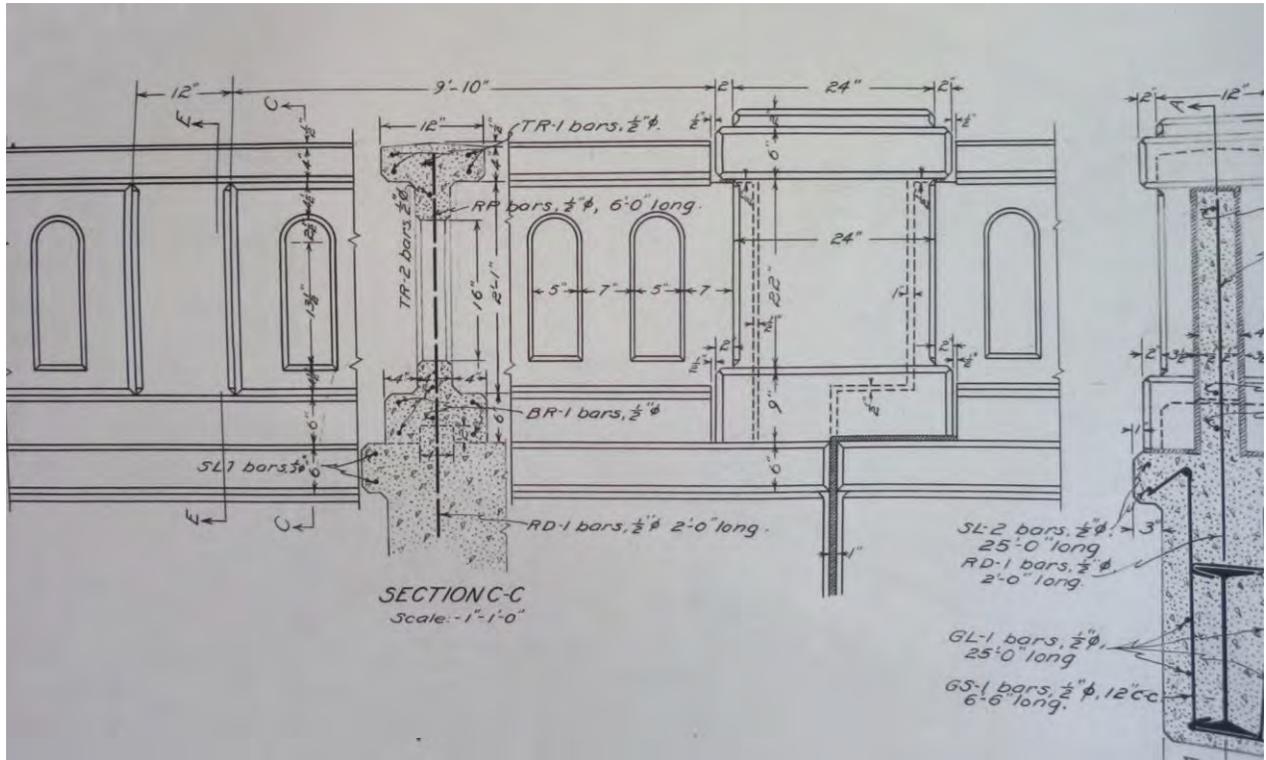


Bird's eye view of the village of Farmington, 1877
Earlier bridge over Cocheco River is circled



Detail of original 1924 drawings

Source: NHDOT



Detail of open concrete rail, original 1924 drawing

Source: NHDOT

INDIVIDUAL INVENTORY FORM

NHDHR INVENTORY #FAR0022

Date photos taken: June 27, 2013



Photo # 2 Description: South rail
Reference (file name): FAR0022-2

Direction: west



Photo # 3 Description: Rail added to north side
Reference (file name): FAR0022-3

Direction: NW

INDIVIDUAL INVENTORY FORM

NHDHR INVENTORY #FAR0022

Date photos taken: June 27, 2013



Photo # 4 Description: South Main Street over Cocheco River

Reference (file name): FAR0022-4

Direction: east



Photo # 5 Description: Upstream side of bridge

Reference (file name): FAR0022-5

Direction: NE

INDIVIDUAL INVENTORY FORM

NHDHR INVENTORY #FAR0022

Date photos taken: June 27, 2013; August 27, 2013



Photo # 6 Description: Deteriorated south railing
Reference (file name): FAR0022-6

Direction: north

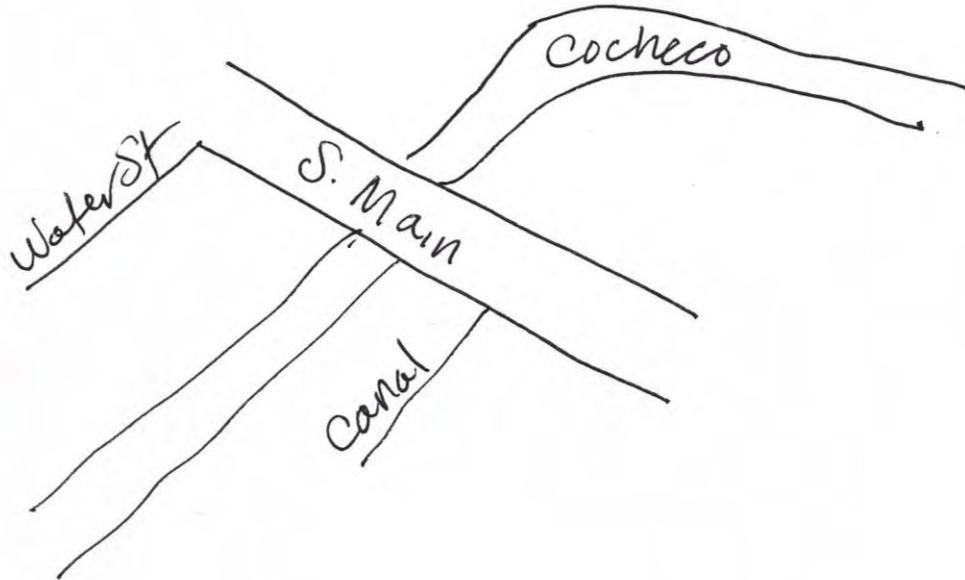


Photo # 7 Description: Spring Street Bridge, Farmington, 1926
Reference (file name): FAR0022-7

Direction:

INDIVIDUAL INVENTORY FORM

NHDHR INVENTORY #FAR0022



I, the undersigned, confirm that the photos in this inventory form have not been digitally manipulated and that they conform to the standards set forth in the NHDHR Photo Policy. These photos were printed using an Epson Stylus Photo R2880 Printer and Epson papers and inks. The digital files are housed at my office in Reading, Mass.

SIGNED:



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



CHRISTOPHER D. CLEMENT, SR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

RECEIVED
BUREAU OF ENVIRONMENT

IAN 10 2014

NH DEPARTMENT OF
TRANSPORTATION

Farmington
X-A001(152)
16146
RPR4449

Adverse Effect Memo

Pursuant to meetings and discussions on November 14, 2013 and December 5, 2013, and for the purpose of compliance with regulations of the National Historic Preservation Act, as amended, and the Advisory Council on Historic Preservation's *Procedures for the Protection of Historic Properties* (36 CFR 800), the NH Division of the Federal Highway Administration and the NH Division of Historical Resources have coordinated the identification and evaluation of historic and archeological properties with plans to replace the bridge carrying NH Route 153 over the Cocheco River (096/140) in Farmington, New Hampshire.

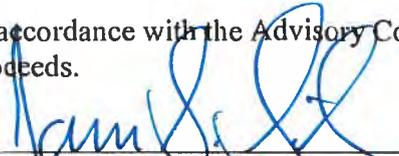
Based on a review pursuant to 36 CFR 800.4 of the architectural and/or historical significance of resources in the area of potential effect, we agree that the Hayes Bridge on Main Street/NH Route 153 (096/140) is eligible for listing on the National Register of Historic Places. A detailed description of the bridge (FAR0022) is on file at the New Hampshire Division of Historical Resources in Concord, New Hampshire.

Applying the criteria of effect at 36 CFR 800.5, we have determined that the project will have an adverse effect on the bridge, due to its replacement.

All necessary phases of archaeology have been completed, and no further survey has been recommended for the area.

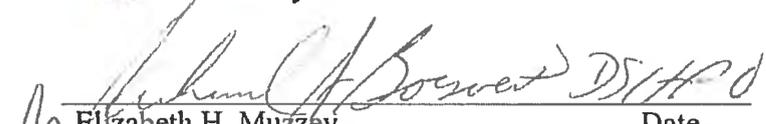
Appropriate mitigation for the removal of the eligible bridge will be recorded in a Memorandum of Agreement.

In accordance with the Advisory Council's regulations, consultation will continue, as appropriate, as this project proceeds.

for  1/13/14
Patrick Bauer, Administrator
Federal Highway Administrator

 1-13-2014
Jill Edelman
Cultural Resources Manager

Concurred with by the NH State Historic Preservation Officer:

 1-7-14
Elizabeth H. Muzzey
State Historic Preservation Officer
NH Division of Historical Resources

c.c. Jamie Sikora, FHWA
Christine St. Louis, NHDHR
Jamie Paine, Normandeau

Bob Landry , NHDOT
Christine Perron, NHDOT

s:\environment\projects\design\16146\cultural\adverseeffect 12.18.2013.docx



Preserving America's Heritage

February 7, 2014

Jamison S. Sikora
Environmental Program Manager
Federal Highway Administration
New Hampshire Division
53 Pleasant Street, Suite 2200
Concord, NH 03301

Ref: *Proposed Replacement of NH Route 153 Bridge (Hayes Bridge) over the Cocheco River
Farmington, New Hampshire
NHDOT Project Number: 16146*

Dear Mr. Sikora:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and it is determined that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the New Hampshire State Historic Preservation Office (SHPO), and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA, and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with the notification of adverse effect. If you have any questions or require further assistance, please contact Ms. Najah Duvall-Gabriel at 202-606-8585 or at ngabriel@achp.gov.

Sincerely,

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004
Phone: 202-606-8503 • Fax: 202-606-8647 • achp@achp.gov • www.achp.gov

Exhibit 2B



NEW HAMPSHIRE NATURAL HERITAGE BUREAU
NHB DATACHECK RESULTS LETTER

To: Jameson Paine, Normandeau Associates
30 International Drive
Suite 6
Portsmouth, NH 03801

From: NH Natural Heritage Bureau

Date: 11/21/2012 (valid for one year from this date)

Re: Review by NH Natural Heritage Bureau of request submitted 11/20/2012

NHB File ID: NHB12-3513

Applicant: NHDOT

Location: Farmington
Rt 153 Bridge over Cocheco River

Project Description: The NHDOT proposes to replace the Rt 153 Bridge over the Cocheco River at this location.

The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 11/20/2012, and cannot be used for any other project.

Exhibit 3



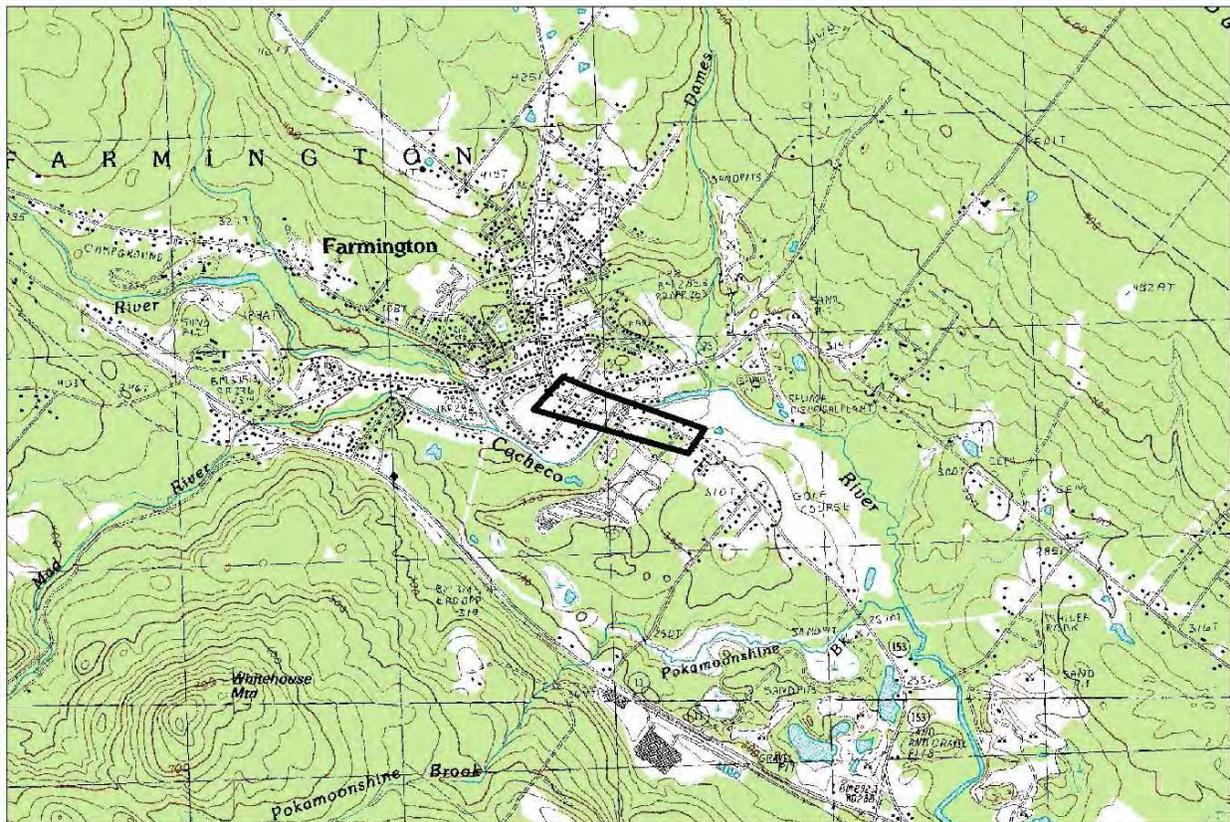
NEW HAMPSHIRE NATURAL HERITAGE BUREAU
NHB DATA CHECK RESULTS LETTER

MAP OF PROJECT BOUNDARIES FOR: **NHB12-3513**

NHB12-3513



NH NATURAL HERITAGE BUREAU



1:24000

Valid for one year from this date: 21 Nov 2012

From: Mike R Johnson - NOAA Federal [<mailto:mike.r.johnson@noaa.gov>]
Sent: Monday, December 16, 2013 4:33 PM
To: Christine Perron
Subject: Re: Farmington 16146, Bridge replacement over Cocheco River, NH Route 153

Christine,

I concur with your determination that this area of the Cocheco River is not accessible by anadromous fish (i.e., Atlantic salmon, river herring, and shad). However, based upon data provided by NH Fish and Game, American eel have been collected in several locations in the Cocheco in the Farmington area. See attached files for details. You can contact John Magee and Cheri Patterson if you have questions about the data.

Although American eel are not a species managed by NMFS (EFH), they are covered under our Fish and Wildlife Coordination Act consultation responsibilities. Because the EFH assessment did not provide details on the construction, I cannot give you specific conservation recommendations for American eel passage. However, as general guidance, I would recommend that the project design consider passage of American eel. American eel elver (upstream) migration can begin around March 15 and last through August 30.

Thanks,

Mike

--

Michael R. Johnson
Habitat Conservation Division
NOAA Fisheries
U.S. Department of Commerce
Northeast Regional Office
55 Great Republic Drive
Gloucester, MA 01930
978-281-9130
mike.r.johnson@noaa.gov

Web www.nmfs.noaa.gov
Facebook www.facebook.com/usnoaafisheriesgov
Twitter www.twitter.com/noaafisheries
YouTube www.youtube.com/usnoaafisheriesgov



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
<http://www.fws.gov/newengland>

January 7, 2013

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Brett Hillman of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office



JOHN H. LYNCH
GOVERNOR

**STATE OF NEW HAMPSHIRE
OFFICE OF ENERGY AND PLANNING**

107 Pleasant Street
Johnson Hall, 3rd Floor
Concord, NH 03301-8501
Telephone: (603) 271-2155
Fax: (603) 271-2615



www.nh.gov/oep

MEMORANDUM

TO: Jameson Paine
Normandeau Associates, Inc.

FROM: Jennifer Gilbert
NH Floodplain Management Coordinator
State NFIP Coordinator

DATE: December 21, 2012

SUBJECT: NH DOT, Farmington, NH
NH Route 153 Bridge Replacement Project over Cocheco River
Normandeau Project No. 22605.000

I am writing in reference to your letter dated December 6, 2012 regarding the above-referenced project. I have reviewed and attached the current Flood Insurance Rate Map.

It appears the proposed project is located in a special flood hazard area (Zone AE). It also appears the project is located in the floodway of the Cocheco River.

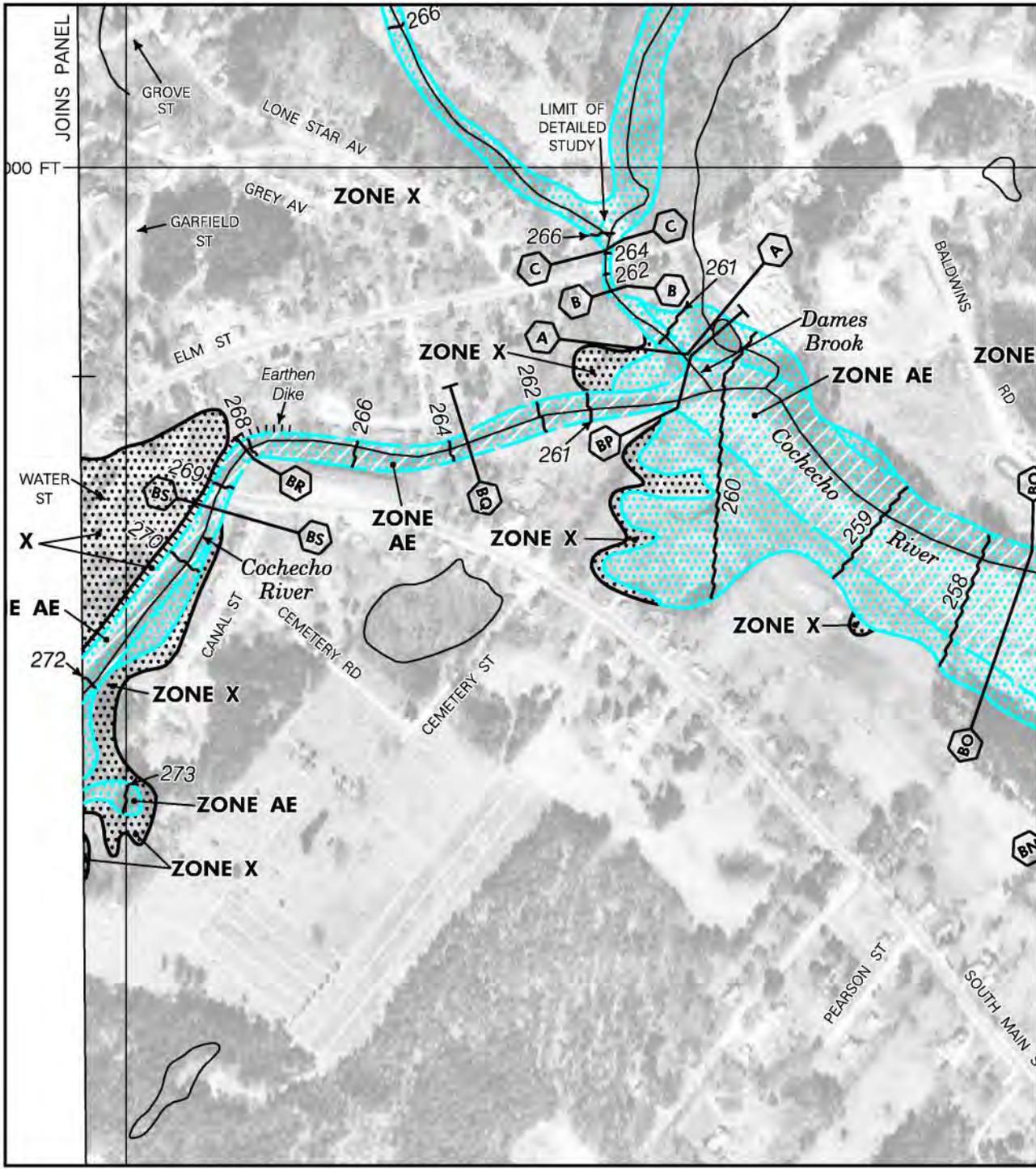
If the proposed project will impact the regulatory floodway and/or the base flood elevation, the following regulation contained in Farmington's floodplain regulations would apply:

Along watercourses with a designated Regulatory Floodway no encroachments, including fill, new construction, substantial improvements, and other development are allowed within the floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed encroachment would not result in any increase in flood levels within the community during the base flood discharge.

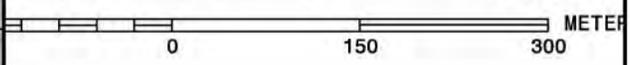
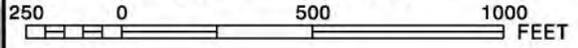
If you need further assistance, please contact me at 271-2155 or jennifer.gilbert@nh.gov.

Thank you.

Exhibit 6



MAP SCALE 1" = 500'



NFIP

PANEL 0118D

FIRM
FLOOD INSURANCE RATE MAP
 STRAFFORD COUNTY,
 NEW HAMPSHIRE
 (ALL JURISDICTIONS)

PANEL 118 OF 405

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FARMINGTON, TOWN OF	330147	0118	D
MILTON, TOWN OF	330148	0118	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
33017C0118D

EFFECTIVE DATE
MAY 17, 2005

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

From: [Bachand, Michael L NAE](#)
To: [Bachand, Michael L NAE](#); [Jameson Paine](#)
Cc: "[Christine Perron](#)"; "[JoAnn Fryer](#)"; [Roach, Richard A NAE](#); "[Robert Landry](#)"; "[Kevin Nyhan](#)"; [directordpw@metrocast.net](#); [Barker, Townsend G NAE](#); [cking603@gmail.com](#)
Subject: RE: NHDOT - Farmington Rt 153 Bridge Replacement (Farmington, X-A001(152), 16146) (UNCLASSIFIED)
Date: Monday, July 08, 2013 1:53:00 PM

Classification: UNCLASSIFIED
Caveats: NONE

Hi Jamie,

Any update on the below mentioned meeting? USACE has reviewed the Preliminary Hydraulics report transmitted on April 8, 2013 and generally agrees with the conclusions stated in the report. However, because some of the work is being done within limits of Federally Authorized flood control project. Any work will need to be reviewed and approved by the Local Sponsor (town of Farmington) and USACE in accordance with the 33 USC 408. I can help walk you through what needs to be submitted.

If you have any questions please let me know.

Regards,

Michael L. Bachand, P.E.
Levee Safety Program Manager

United States Army Corps of Engineers
New England District
696 Virginia Road
Concord, Massachusetts 01742
Office: 978.318.8075
Cell: 978.551.1656

-----Original Message-----

From: Bachand, Michael L NAE
Sent: Monday, June 10, 2013 7:53 AM
To: Jameson Paine
Cc: Christine Perron; JoAnn Fryer; Roach, Richard A NAE; Robert Landry; Kevin Nyhan
Subject: RE: NHDOT - Farmington Rt 153 Bridge Replacement (Farmington, X-A001(152), 16146) (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi Jamie,

My apologies. I mi-read your email and was expecting a specific meeting request. In general yes, the monthly natural resources meeting would be okay for me. Right now it looks like I could make the June meeting if you were able to organize it. I will be traveling during the July Meeting but could make the August meeting. Please let know.

Regards,

Michael L. Bachand, P.E.
Levee Safety Program Manager

United States Army Corps of Engineers
New England District
696 Virginia Road

Exhibit 7

Concord, Massachusetts 01742
Office: 978.318.8075
Cell: 978.551.1656

-----Original Message-----

From: Jameson Paine [<mailto:jpaine@normandeau.com>]
Sent: Sunday, June 09, 2013 10:34 PM
To: Jameson Paine; Bachand, Michael L NAE
Cc: Christine Perron; JoAnn Fryer; Roach, Richard A NAE; Robert Landry; Kevin Nyhan
Subject: RE: NHDOT - Farmington Rt 153 Bridge Replacement (Farmington, X-A001(152), 16146)
(UNCLASSIFIED)

Hi Michael,

We never heard back regarding the inquiry below. Could you please provide some guidance as to whether the June or July natural resource agency meeting might work for you? It's always the third Wednesday of the month. The June meeting might be coming up too quick, but we can still ask.

Thanks for your help,
Jamie

JAMESON R. PAINE Principal Planner
30 International Drive - Suite 6, Portsmouth, NH 03801
603-319-5309 (direct) 603-770-3758 (mobile)
jpaine@normandeau.com www.normandeau.com

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-----Original Message-----

From: Jameson Paine
Sent: Friday, April 12, 2013 10:03 AM
To: 'Bachand, Michael L NAE'
Cc: Christine Perron; JoAnn Fryer; Roach, Richard A NAE; Garneau, Alex R NAE; Michalak, Scott C NAE; Cattano, Andrew M NAE; Barker, Townsend G NAE; directordpw@metrocast.net; Robert Landry; 'Kevin Nyhan'
Subject: RE: NHDOT - Farmington Rt 153 Bridge Replacement (Farmington, X-A001(152), 16146)
(UNCLASSIFIED)

Michael,

Thanks for your reply. If it helps with your review, we presented the project at the December 2012 monthly natural resource agency meeting at NHDOT (please see meeting minutes here: <http://www.nh.gov/dot/org/projectdevelopment/environment/units/project-management/documents/December192012.pdf>).

We'll discuss internally regarding dates and times, but would one of the monthly natural resource agency coordination meetings at NHDOT suffice for a meeting location (always the third Wednesday of the month)? It would minimize meetings for Mr. Roach and others and allow for discussion of materials by federal and state agencies in attendance.

Thanks again,

Jamie

JAMESON R. PAINE Principal Planner
30 International Drive - Suite 6, Portsmouth, NH 03801
603-319-5309 (direct) 603-770-3758 (mobile) jpaine@normandean.com www.normandean.com

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-----Original Message-----

From: Bachand, Michael L NAE [<mailto:Michael.L.Bachand@usace.army.mil>]
Sent: Friday, April 12, 2013 8:42 AM
To: Jameson Paine
Cc: Christine Perron; JoAnn Fryer; Roach, Richard A NAE; Garneau, Alex R NAE; Michalak, Scott C NAE; Cattano, Andrew M NAE; Barker, Townsend G NAE; director@metrocast.net
Subject: RE: NHDOT - Farmington Rt 153 Bridge Replacement (Farmington, X-A001(152), 16146) (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Jamie,

I received your Preliminary Hydraulic Report dated December 2012. USACE will review and provide comments where appropriate. This project will require two approvals from USACE. First is likely a regulatory permit (from Rich) and the second is acceptance under 33 USC 408 since you are making modifications to structures within the Farmington Flood Damage Reduction (FDR) system.

USACE requests an initial meeting to discuss the project and outline USACE requirements for both approvals. The 33 USC 408 approval will be focused on not altering the level of protection for the FDR system and ensure it remains operational before, during, and after construction.

The Local Sponsor (town of Farmington) must be engaged during this process and ultimately the one that requests USACE to accept this modification.

Please suggest some days and times for a meeting and we will get back to you with a date and time that works for USACE.

Regards,

Michael L. Bachand, P.E.
Levee Safety Program Manager

United States Army Corps of Engineers
New England District
696 Virginia Road
Concord, Massachusetts 01742
Office: 978.318.8075
Cell: 978.551.1656

-----Original Message-----

From: Roach, Richard A NAE

Sent: Wednesday, April 03, 2013 10:09 AM
To: Jameson Paine
Cc: Christine Perron; JoAnn Fryer; Bachand, Michael L NAE
Subject: RE: NHDOT - Farmington Rt 153 Bridge Replacement (Farmington, X-A001(152), 16146)
(UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Jamie, Mike Bachand handles our Levee safety program you should coordinate with him. Rich roach

-----Original Message-----

From: Jameson Paine [<mailto:jpaine@normandeau.com>]
Sent: Tuesday, April 02, 2013 2:34 PM
To: Roach, Richard A NAE
Cc: Christine Perron; JoAnn Fryer
Subject: NHDOT - Farmington Rt 153 Bridge Replacement (Farmington, X-A001(152), 16146)

Mr. Roach,

Normandeau and CLD Consulting Engineers are working on a NHDOT project for the replacement of the NH Route 153 Bridge over the Cocheco River in Farmington. The project is within a former flood control area. I believe you had previously commented at the December 19, 2012 natural resource agency meeting that the project will have to consider ACOE concerns in this area. The draft hydraulic report has been prepared and the team would like to send a copy of it to ACOE for review. Is there a contact person that this should be sent to?

Thanks for your help,

Jamie

JAMESON R. PAINE Principal Planner

30 International Drive - Suite 6, Portsmouth, NH 03801

603-319-5309 (direct) 603-770-3758 (mobile)

jpaine@normandeau.com www.normandeau.com <<http://www.normandeau.com>>

Normandeau Email Signature Graphic <<http://www.normandeau.com/>>

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From: [Farmington Town Administrator](#)
To: [JoAnn Fryer](#)
Subject: RE: Farmington 16146 - Route 153 over Cocheco River (CLD #11-0125)
Date: Wednesday, August 14, 2013 11:34:06 AM

JoAnn:

Just to let you know that the Town will not be in attendance to the meeting on the 21st. I am in possession of the Hydraulics Report that you sent to me. I have reviewed this information and upon review I see no issues with the conclusion reached in the Report.

Keith M. Trefethen
Town Administrator

From: JoAnn Fryer [mailto:jlf@cldengineers.com]
Sent: Tuesday, August 13, 2013 5:31 PM
To: farmingtonta@metrocast.net
Cc: Jameson Paine
Subject: RE: Farmington 16146 - Route 153 over Cocheco River (CLD #11-0125)

Hi Keith – I just wanted to confirm that you did receive the full copy of the Hydraulics Report that was mailed out to you last week.

We are meeting with the Natural Resource Agencies next Wednesday morning (August 21st). The Town is welcome to attend if you would like – please let me know if someone from the Town is planning to attend so that we can coordinate with NHDOT (secured access building). Please see highlighted section below – we are looking for a verbal or email confirmation that the Town does concur, or if you have concerns, we would like to receive those at your earliest convenience.

Thanks for your help!

JoAnn Fryer
Branch Manager and Senior Associate
CLD Consulting Engineers, Inc.
316 US Route 1, Suite D
York, ME 03909
(207)363-0669x311
(603)540-8731 Cell
(207)363-2384 Fax

From: JoAnn Fryer
Sent: Friday, August 02, 2013 11:26 AM
To: 'farmingtonta@metrocast.net'
Cc: Jeff DeGraff; 'Robert Landry'; Ron Kleiner (RKleiner@dot.state.nh.us); Jameson Paine (jamesonrp@yahoo.com)
Subject: Farmington 16146 - Route 153 over Cocheco River (CLD #11-0125)

Hi Keith –

Please see attached hydraulic report (without appendices). The appendices files are VERY large so

Exhibit 8

it is not able to be emailed.

We will be printing a full copy of the report with appendices for the Town, to be sent to you next week. If you will need more than one copy, please let me know.

At this time, for our environmental coordination process, we will need initial input from the Town that you concur with the recommendations in the report for the bridge span and configuration, and that you do not have any conflicts with the recommended bridge in regard to the Flood Control levee system.

Further down the line, as we discussed, the Town will need to complete a sign-off on the project, in conjunction with the US Army Corps of Engineers (USACE), to clear the project for construction (again, in regard to the Flood Control levees project which the Town was the project sponsor).

If you have any questions, please let me know!

JoAnn Fryer
Branch Manager and Senior Associate
CLD Consulting Engineers, Inc.
316 US Route 1, Suite D
York, ME 03909
(207)363-0669x311
(603)540-8731 Cell
(207)363-2384 Fax

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From: [Jess Charpentier](#)
To: [Jameson Paine](#)
Cc: [Christine Perron](#); [Mark Hutchins](#)
Subject: RE: NHDOT Project - Farmington 16146
Date: Tuesday, February 04, 2014 10:42:28 AM

There are no LCHIP properties near this project site.

Jess Charpentier, Natural Resource Specialist
Land and Community Heritage Investment Program
13 West Street, Suite 3, Concord, NH 03301
Tel (603) 224-4113 / Fax (603) 224-5112
www.lchip.org

From: Jameson Paine [mailto:jpaine@normandeau.com]
Sent: Friday, January 31, 2014 12:56 PM
To: Jess Charpentier
Cc: Christine Perron; Mark Hutchins
Subject: NHDOT Project – Farmington 16146

Hi Jess,

On behalf of the NH Department of Transportation, Normandeau Associates, Inc. is developing environmental documentation for a NHDOT Bridge Project to replace the existing bridge carrying NH Route 153 over the Cocheco River in Farmington, NH (see Location Map). This bridge is a 48 foot two-span concrete girder bridge with a concrete deck built in 1924.

We request your assistance in determining if there are any properties that have used LCHIP or other similar funds within the project area.

If you have any questions or comments concerning this project, please contact me at JPaine@Normandeau.com or 603-319-5309.

Thank you,
Jamie

JAMESON R. PAINE *Principal Planner*
30 International Drive - Suite 6, Portsmouth, NH 03801
603-319-5309 (direct) 603-770-3758 (mobile)
jpaine@normandeau.com www.normandeau.com



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Exhibit 9



STATE OF NEW HAMPSHIRE
DEPARTMENT of RESOURCES and ECONOMIC DEVELOPMENT
DIVISION of PARKS and RECREATION
172 Pembroke Road P.O. Box 1856 Concord, New Hampshire 03302-1856
PHONE: (603) 271-3556 FAX: (603) 271-3553 E-MAIL: nhparks@dred.state.nh.us
WEB: www.nhstateparks.org

December 7, 2012

Normandeau Environmental Consultants
Attn: Jameson R. Paine, Principal Planner
30 International Drive, Suite 6
Pease International Tradeport
Portsmouth, NH 03801

RE: NH Department of Transportation
Farmington, NH
NH Route 153 Bridge Replacement Project over the Cocheco River
Normandeau Project No. 22605.000

Dear Mr. Paine:

This letter is in response to your inquiry dated December 6, 2012 regarding any Land and Water Conservation Fund (LWCF) projects that may impact the NH Route 153 Bridge Replacement Project over the Cocheco River.

There are 2 LWCF properties in Farmington, NH. They are project numbers and name:

33-00516 Farmington School Fields (Park Drive)
33-00639 Farmington Downtown Greenbelt (Paulsen Road)

I have checked our project files, and based on the information and map you have provided, it does not appear that there are any LWCF properties that would impact the NH Route 153 Bridge Replacement Project over the Cocheco River.

Should your plans change or if you have any question please contact me at (603) 271-3556 or by email jane.carey@dred.state.nh.us .

Sincerely,

A handwritten signature in cursive script that reads "Jane Carey".

Jane Carey
Program Specialist

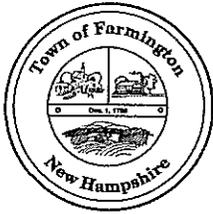
Cc: Philip A. Bryce, Acting Commissioner/ASLO
Gail A. Wolek, Deputy Director/ASLO

JC/jc

Exhibit 10

From: [Walker, Steve](#)
To: [Jameson Paine](#)
Subject: #22605.000
Date: Friday, December 07, 2012 3:19:40 PM

Hi Jameson, There are no LCIP / CLS properties in the project area. Have a nice weekend. steve



A Bicentennial Community
1798 - 1998

Town of Farmington
Office of the Selectmen

356 Main Street
Farmington, NH 03835
Phone: (603) 755-2208 • Fax: (603) 755-9934

December 26, 2012

Normandeau Associates
Attn: Jameson R. Paine
30 International Drive Suite #6
Pease Tradeport
Portsmouth, NH 03801

Re: Normandeau Project #22605.000

Mr. Paine:

I am responding on your letter written to the Town of Farmington on December 6, 2012 in reference to the Route 153 Bridge Replacement. I have attached for your review a series of e-mails from various staff here in Farmington attempting to answer the questions asked.

If you need any additional information or answers are still pending please let me know.

Respectfully

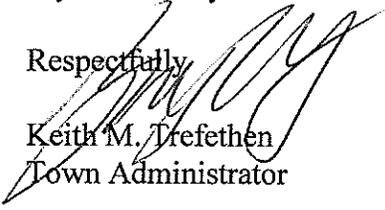

Keith M. Trefethen
Town Administrator

Exhibit 12

Farmington Town Administrator

From: Scott Hazelton [directordpw@metrocast.net]
Sent: Thursday, December 13, 2012 11:27 AM
To: 'Farmington Town Administrator'
Cc: 'Dale Sprague'; rfowler@farmingtonfd.net; 'Kevin Willey'; 'Rick Conway'; davidfly2@aol.com; 'Kathy L. Seaver'
Subject: RE: Letter from Normandeau Associates 12/6/12 NH 153 Bridge Replacement

Keith:

The only concern that I have that pertains to the "Environmental Review & Documentation" that Normandeau is completing for the project is the following:

"Normandeau shall coordinate all preliminary design and permitting efforts pertaining to the bridge project with the US Army Corps of Engineers (USACOE) to ensure that the USACOE's requirements pertaining to the Town's levee system that is adjacent to the Cocheco River are addressed, and that no negative impacts to the Town's drainage system will result in conjunction with the project."

Also and unrelated to Normandeau's ER&D but more important for the success of the project, all Town department heads should be provided a copy of the "Preliminary Plans" as soon as possible so that we may engage the NHDOT and its' consultant (CLD) in conversations that pertain to more critical concerns such as traffic maintenance, utility impacts and EMS access planning and for execution during construction.

*Scott A. Hazelton, CPESC
Director of Public Works
Town of Farmington
14 Baldwin Way
Farmington, NH 03835
Telephone: (603)755-4884
Cell Phone: (603) 923-3260*

From: Farmington Town Administrator [mailto:farmingtonta@metrocast.net]
Sent: Thursday, December 13, 2012 10:06 AM
To: 'Scott Hazelton'; 'Kathy Menici'; davidfly2@aol.com; rfowler@farmingtonfd.net; 'Kathy Seaver'; 'Kevin Willey'; 'Dale Sprague'
Subject: Letter from Normandeau Associates 12/6/12 NH 153 Bridge Replacement

Folks:

Dale had approached me with an excellent suggestion. You all received a letter from Normandeau Associates asking a series of questions. If you could answer the questions related to your specific field of expertise and e-mail me those answers I will put the town's answers into one letter for a response. Please provide me your answers by December 20, 2012.

Thanks

Keith

Farmington Town Administrator

From: Kevin Willey [kwilley@farmingtonpd.com]
Sent: Thursday, December 13, 2012 11:40 AM
To: Farmington Town Administrator
Cc: Scott Hazelton; Kathy Menici; davidfly2@aol.com; Rich Fowler; Kathy Seaver; Dale Sprague
Subject: Re: Letter from Normandeau Associates 12/6/12 NH 153 Bridge Replacement
Keith,

After reviewing the letter, it appears that a response from me is not necessary. However, I do want to echo Scott's sentiments about getting information from NHDOT about the plan for road closure and construction schedule. Even if their plan is to only reconstruct one side of the bridge at a time and allow for alternating one way traffic, I have concerns about traffic flow and management.

Kevin

On Thu, Dec 13, 2012 at 10:05 AM, Farmington Town Administrator
<farmingtonta@metrocast.net> wrote:

Folks:

Dale had approached me with an excellent suggestion. You all received a letter from Normandeau Associates asking a series of questions. If you could answer the questions related to your specific field of expertise and e-mail me those answers I will put the town's answers into one letter for a response. Please provide me your answers by December 20, 2012.

Thanks

Keith

--

Kevin J. Willey
Chief of Police
Farmington Police Department
531 Main Street
Farmington, NH 03835

Office: (603) 755-2731 x107
Fax: (603) 755-9712
Dispatch: (603) 755-2231

www.farmingtonpd.com

12/13/2012

Farmington Town Administrator

From: rfowler@farmingtonfd.net
Sent: Thursday, December 13, 2012 1:22 PM
To: Farmington Town Administrator; 'Scott Hazelton'; 'Kathy Menici'; davidfly2@aol.com; 'Kathy Seaver'; 'Kevin Willey'; 'Dale Sprague'
Subject: RE: Letter from Normandeau Associates 12/6/12 NH 153 Bridge Replacement

Keith,

I can not think of anything that would effect my department for this project, Maybe once they get going I would be interested in road closers, complete shut down or keeping one lane open stuff like that.

Thanks,
Rich

Richard E. Fowler Jr.
Fire Chief
Farmington Fire Rescue
603-755-2131 Fire Station
603-396-2318 Cell Phone
603-755-4283 Fax

----- Original Message -----

Subject: Letter from Normandeau Associates 12/6/12 NH 153 Bridge Replacement
From: "Farmington Town Administrator" <farmingtonta@metrocast.net>
Date: Thu, December 13, 2012 10:05 am
To: "Scott Hazelton" <directordpw@metrocast.net>, "Kathy Menici" <planningdirector@metrocast.net>, <davidfly2@aol.com>, <rfowler@farmingtonfd.net>, "Kathy Seaver" <tctc@metrocast.net>, "Kevin Willey" <kwilley@farmingtonpd.com>, "Dale Sprague" <pubwks@metrocast.net>

Folks:

Dale had approached me with an excellent suggestion. You all received a letter from Normandeau Associates asking a series of questions. If you could answer the questions related to your specific field of expertise and e-mail me those answers I will put the town's answers into one letter for a response. Please provide me your answers by December 20, 2012.

Thanks

Keith

Farmington Town Administrator

From: Kathy Menici [planningdirector@metrocast.net]
Sent: Thursday, December 13, 2012 2:14 PM
To: 'Farmington Town Administrator'; 'Scott Hazelton'; davidfly2@aol.com; rfowler@farmingtonfd.net; 'Kathy Seaver'; 'Kevin Willey'; 'Dale Sprague'

Subject: RE: Letter from Normandeau Associates 12/6/12 NH 153 Bridge Replacement

Keith, I have no concerns regarding the project from a planning perspective.

Kathy Menici
Director of Planning and Community Development
Town of Farmington
356 Main St.
Farmington, NH 03835
(603) 755-2774
planningdirector@metrocast.net

From: Farmington Town Administrator [mailto:farmingtonta@metrocast.net]
Sent: Thursday, December 13, 2012 10:06 AM
To: 'Scott Hazelton'; 'Kathy Menici'; davidfly2@aol.com; rfowler@farmingtonfd.net; 'Kathy Seaver'; 'Kevin Willey'; 'Dale Sprague'
Subject: Letter from Normandeau Associates 12/6/12 NH 153 Bridge Replacement

Folks:

Dale had approached me with an excellent suggestion. You all received a letter from Normandeau Associates asking a series of questions. If you could answer the questions related to your specific field of expertise and e-mail me those answers I will put the town's answers into one letter for a response. Please provide me your answers by December 20, 2012.

Thanks

Keith

Farmington Town Administrator

From: davidfly2@aol.com
Sent: Thursday, December 13, 2012 7:05 PM
To: farmingtonta@metrocast.net; directordpw@metrocast.net; planningdirector@metrocast.net; rfowler@farmingtonfd.net; tctc@metrocast.net; kwilley@farmingtonpd.com; pubwks@metrocast.net
Cc: eaglesnest1255@yahoo.com; scott@taylorrentalfarmington.com; kspankey@yahoo.com; randyo@gbhsurvey.com; raballou@gmail.com; a.leclair@dover.k12.nh.us; bogardus.lauram@gmail.com; neilf1999@yahoo.com

Subject: Re: Letter from Normandeau Associates 12/6/12 NH 153 Bridge Replacement

The Conservation Commission reviewed this request 12-12-12 and here are the responses:

- 1) No
- 2) None Known
- 3) No
- 4) Flood dyke along river
- 5) Off site sediment erosion
- 6) None Known
- 7) No
- 8) Yes.....traffic flow/access (as stated by Police , Fire and DPW)
- 9) None Known

As with any construction project that we are asked to review, we request that BMP (Best Management Practices) procedures are followed.

Dave C.

-----Original Message-----

From: Farmington Town Administrator <farmingtonta@metrocast.net>
To: 'Scott Hazelton' <directordpw@metrocast.net>; 'Kathy Menici' <planningdirector@metrocast.net>; davidfly2 <davidfly2@aol.com>; rfowler <rfowler@farmingtonfd.net>; 'Kathy Seaver' <tctc@metrocast.net>; 'Kevin Willey' <kwilley@farmingtonpd.com>; 'Dale Sprague' <pubwks@metrocast.net>
Sent: Thu, Dec 13, 2012 10:05 am
Subject: Letter from Normandeau Associates 12/6/12 NH 153 Bridge Replacement

Folks:

Dale had approached me with an excellent suggestion. You all received a letter from Normandeau Associates asking a series of questions. If you could answer the questions related to your specific field of expertise and e-mail me those answers I will put the town's answers into one letter for a response. Please provide me your answers by December 20, 2012.

Thanks

Keith

12/14/2012

Farmington Town Administrator

From: Dale Sprague [pubwks@metrocast.net]
Sent: Thursday, December 13, 2012 4:51 PM
To: farmingtonta@metrocast.net
Subject: Normandeau response

Keith

Question 1: unknown

Question 2: unknown

Question 3: unknown

Question 4: There are (2) town owned water wells with a wellhead protection area aprox 1/4 mile+ upstream from the bridge located between the Cocheco River and Rt 11. No locally significant water resources in the project vicinity.

Question 5: unknown

Question 6: The gas station at the corner of Rt 75 and Rt 153 has had gasoline releases. There are monitoring wells around the property.

Not sure of current status. An old mill used to sit on the corner (vacant lot area) of the bridge downstream southerly side that may have some residual debris that was buried. No asbestos utility pipes located within the project limits to the best of my knowledge.

Question 7: N/A

Question 8: Yes this project will have a significant impact on surrounding area. If a temporary bridge is erected that will certainly help.

There is a water main that crosses the bridge and should be maintained if possible thru construction. This connects the Well 6

high pressure area with the Well 4&5 low pressure downtown area. There are no sewer lines on either side of bridge but not on the bridge.

These will have to be maintained thru construction.

Question 9: unknown

Dale Sprague

Water and Wastewater Departments

KTH ✓ COP ✓

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
INTER-OFFICE COMMUNICATION

DATE: August 27, 2012
FROM: Jay Ankenbrock, Chief of Labor Compliance, Executive Office
TO: Michael J. Dugas, P.E., Chief of Preliminary Design
RE: Environmental Justice Population Analysis, Project: Farmington 16146

The attached analysis and recommendations are provided pursuant to Title VI of the Civil Rights Act of 1964 and Executive Orders 12898 & 13166. The intent of these statutes is to ensure fair and full participation and the equal receipt of benefits under Federally-assisted programs. Your efforts to accommodate and encourage participation by traditionally underserved groups, where significant, will ensure program access and minimize the potential for disproportionate project impacts on protected groups.

The table entitled "EJ Population Analysis" shows the presence of protected groups that might be impacted by the project. Personnel responsible for project planning/design and the coordination of public meetings/hearings should use this analysis to guide their outreach efforts under Title VI and in support of developing a context sensitive solution. Based on the availability of information and where appropriate, we have included specific outreach recommendations to facilitate public comment from underrepresented groups.

Please note the Minority and Elderly percents are from the 2010 Census data while the Poverty and LEP percents are from the 2006-2010 American Community Survey. Disability data is no longer collected by the Census or American Community Survey.

If you have questions regarding this analysis, please contact me @ 271-2467.

Encls: EJ Population Analysis
Cc: Peter Crouch, Bureau of Traffic
C. Perron, Bureau of Environment
R. Landry, Bureau of Bridge Design

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BUREAU OF ENVIRONMENT

AUG 28 2012

DEPARTMENT OF
TRANSPORTATION

Exhibit 13

EJ Population Analysis for Project:

STUDY AREA	AVG% Elderly Population (P8)	AVG% Minority Population (P6)	AVG% Low-income Population (P87)	AVG% LEP (P19)
Impacted Area – Stafford County US Census Tract # 870, Blocks 2 & 4.	12.21%	4.13%	19.77%	0.79%
Surrounding Area Stafford County, Census Tract #870 Blocks 1,3 & 5, Census Tract #880 Block 3.	10.07%	3.30%	17.0%	0.39%
REMARKS: * The population percentage identified is meaningfully greater than the surrounding area and constitutes an EJ population. Characteristics of this particular study area indicate that targeted outreach efforts to solicit public participation should be taken. LEP Definition: Where there is a population of people who speak English as a second language less than well (as indicated by the U.S. Census data). When a particular LEP language group constitutes 5% of the impacted population, the Department is required to translate public information meeting notices and take appropriate measures to ensure language access. If this requirement exists, the Project Manager should contact the Title VI Coordinator for further assistance.				

Impacted Area: The impacted area was defined by the project limits and the area in the immediate vicinity that most closely corresponds to the boundaries of Census Tracts and Block Groups

Surrounding Area: All Census Tracts and Block Groups outside of, and immediately adjacent to, the impacted area

Special Considerations: Special consideration should be given to any project features that affect pedestrian accessibility. This project constitutes an alteration in accordance with Title II of the Americans with Disabilities Act. As such, minimum ADAAG accessibility requirements apply, unless deemed technically infeasible. For more information, I have provided a link to the Draft Public Rights-of-Way Guidelines (PROWAG). Although these guidelines will not be enforceable until they have been adopted by the US DOJ and US DOT, the FHWA considers them to be the most current recommended best practices in pedestrian facility design: <http://www.access-board.gov/rowdraft.htm#Text>.

Outreach Recommendations: In consideration of the populations above, we are providing contact information for all known agencies and subsidized housing units serving the above groups within the project area. These contacts should be included in your notification list for public information meetings and hearings related to this project:

<u>Resident/Agency Address</u>	<u>Org/Housing Type</u>	<u>Contact Name/Number</u>
Hattie's Place 256 Main St. Farmington, NH 03835	Seniors	603-755-3937
Strafford County CAP Farmington Outreach 527 Main Street Farmington, NH 03835	Seniors & Low-Income	Deb Casey 603-755-9305
Farmington Parks & Rec. Seniors Group 39 North Main Street Farmington, NH 03835	Seniors	Rick Conway 603-755-2405
The Goodwin Library 422 Main Street Farmington, NH 03835		603-755-2944
Head Start 120 Main Street Farmington, NH 03835	Low-Income	603-755-2883
Town of Farmington 356 Main Street Farmington, NH 03835		603-755-2208