



**STANDARD DREDGE AND FILL  
WETLANDSPERMIT APPLICATION**  
Water Division/Land Resources Management  
Wetlands Bureau  
[Check the Status of your Application](#)



**RSA/Rule:** RSA 482-A/Env-Wt 100-900

**APPLICANT'S NAME:** Bernedette & Albert Patterson    **TOWN NAME:** Fremont

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.:
			Amount:
			Initials:

A person may request a waiver of the requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interest of the public or the environment but is still in compliance with RSA 482-A. A person may also request a waiver of the standards for existing dwellings over water pursuant to RSA 482-A:26, III(b). For more information, please consult the [Waiver Request Form](#).

**SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))**

Please use the [Wetland Permit Planning Tool \(WPPT\)](#), the Natural Heritage Bureau (NHB) [DataCheck Tool](#), the [Aquatic Restoration Mapper](#), or other sources to assist in identifying key features such as: [priority resource areas \(PRAs\)](#), [protected species or habitats](#), coastal areas, designated rivers, or designated prime wetlands.

Has the required planning been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the property contain a PRA? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&amp;G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>Protected species or habitat? <ul style="list-style-type: none"> <li>If yes, species or habitat name(s): <input type="text"/></li> <li>NHB Project ID #: NHB21-2707</li> </ul> </li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>Bog?</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>Floodplain wetland contiguous to a tier 3 or higher watercourse?</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>Designated prime wetland or duly-established 100-foot buffer?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> <li>Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is the property within a Designated River corridor? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>Name of Local River Management Advisory Committee (LAC): <input type="text"/></li> <li>A copy of the application was sent to the LAC on Month: <input type="text"/> Day: <input type="text"/> Year: <input type="text"/></li> </ul>	

[lrn@des.nh.gov](mailto:lrn@des.nh.gov) or (603) 271-2147

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**SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))**

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

The wetland impacts are along the sides of Shirkin Road and therefore already see some minor impacts due to vehicular traffic.

**SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))**

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

The proposed project will likely enhance public commerce, navigation and recreation.

**SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6))**

Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.

The proposed project is to widen the road to minimum Town of Fremont standards. There are no plans to pave the road at this time.

**SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB –MARSH COMPLEXES  
(Env-Wt 313.03(b)(7))**

Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub – marsh complexes of high ecological integrity.

The road will be widened to the minimum allowable standard.

**SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))**

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

There are no private residences within 1,000 feet to the proposed project.

**SECTION I.IX- STREAM CHANNELS(Env-Wt 313.03(b)(9))**

Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.

There are no stream channel impacts proposed.

**SECTION I.X -SHORELINE STRUCTURES - CONSTRUCTION SURFACE AREA(Env-Wt 313.03(c)(1))**

Describe how the project has been designed to use the minimum construction surface area over surface waters necessary to meet the stated purpose of the structures.

N/A

**SECTION I.XI -SHORELINE STRUCTURES - LEAST INTRUSIVE UPON PUBLIC TRUST(Env-Wt 313.03(c)(2))**

Describe how the type of construction proposed is the least intrusive upon the public trust that will ensure safe docking on the frontage.

N/A

**SECTION I.XII-SHORELINE STRUCTURES – ABUTTING PROPERTIES(Env-Wt 313.03(c)(3))**

Describe how the structures have been designed to avoid and minimize impacts on ability of abutting owners to use and enjoy their properties.

N/A

**SECTION I.XIII -SHORELINE STRUCTURES – COMMERCE AND RECREATION(Env-Wt 313.03(c)(4))**

Describe how the structures have been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.

N/A



# STANDARD DREDGE AND FILL WETLAND PERMIT APPLICATION

## Water Division/Land Resources Management Wetlands Bureau



Check the Status of your Application

**RSA/Rule:** RSA 482-A/Env-Wt 100-900

**APPLICANT'S NAME:** Bernedette & Albert Patterson      **TOWN NAME:** Fremont

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.
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### SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))

Please use the Wetland Permit Planning Tool (WPPT), the Natural Heritage Bureau (NHB) DataCheck Tool, the Aquatic Restoration Mapper, or other sources to assist in identifying key features such as: priority resource areas (PRAs), protected species or habitats, coastal areas, designated rivers, or designated prime wetlands.

Has the required planning been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the property contain a PRA? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&amp;G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Protected species or habitat?               <ul style="list-style-type: none"> <li>○ If yes, species or habitat name(s): <span style="border: 1px solid black; padding: 0 20px;"> </span></li> <li>○ NHB Project ID #: NHB21-2707</li> </ul> </li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
• Bog?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
• Designated prime wetland or duly-established 100-foot buffer?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is the property within a Designated River corridor? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Name of Local River Management Advisory Committee (LAC): <span style="border: 1px solid black; padding: 0 20px;"> </span></li> <li>• A copy of the application was sent to the LAC on Month: <span style="border: 1px solid black; padding: 0 10px;"> </span> Day: <span style="border: 1px solid black; padding: 0 10px;"> </span> Year: <span style="border: 1px solid black; padding: 0 10px;"> </span></li> </ul>	

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For dredging projects, is the subject property contaminated?

☐ Yes ☒ No

- If yes, list contaminant:

Is there potential to impact impaired waters, class A waters, or outstanding resource waters?

☐ Yes ☒ No

For stream crossing projects, provide watershed size (see WPPT or Stream Stats):

## SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i))

Provide a **brief** description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached"; please use the space provided below.

Shirkin Road is a class six road and the applicant needs to up-grade it to a class five in order to facilitate the use of their property that abuts the road.

## SECTION 3 - PROJECT LOCATION

Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.

ADDRESS:

TOWN/CITY:

TAX MAP/BLOCK/LOT/UNIT:

US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME:

☒ N/A

(Optional) LATITUDE/LONGITUDE in decimal degrees(to five decimal places):

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**SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))**

If the applicant is a trust or a company, then complete with the trust or company information.

NAME: Bernadette Patterson - Albert Patterson

MAILING ADDRESS: 10 Twins Road

TOWN/CITY: Raymond

STATE: NH

ZIP CODE: 03077

EMAIL ADDRESS: a.e.p.constructionnh@gmail.com

FAX:

PHONE: 603-300-2323

ELECTRONIC COMMUNICATION: By initialing here: , I hereby authorize NHDES to communicate all matters relative to this application electronically.

**SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))**☐ N/A

LAST NAME, FIRST NAME, M.I.: Seekamp, Michael

COMPANY NAME: Seekamp Environmental Consulting, Inc.

MAILING ADDRESS: 129 Route 125

TOWN/CITY: Kingston

STATE: NH

ZIP CODE: 03848

EMAIL ADDRESS: seekampm.sec@comcast.net

FAX: 603-642-8500

PHONE: 603-642-8300

ELECTRONIC COMMUNICATION: By initialing here M.S., I hereby authorize NHDES to communicate all matters relative to this application electronically.

**SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))**

If the owner is a trust or a company, then complete with the trust or company information.

☐ Same as applicant

NAME: Town of Fremont

MAILING ADDRESS: PO Box 120

TOWN/CITY: Fremont

STATE: NH

ZIP CODE: 03044

EMAIL ADDRESS: landuse@fremont.nh.gov

FAX: 603-895-3149

PHONE: 603-895-3200

ELECTRONIC COMMUNICATION: By initialing here , I hereby authorize NHDES to communicate all matters relative to this application electronically.

**SECTION 7 - RESOURCE-SPECIFIC CRITERIA ESTABLISHED IN Env-Wt 400, Env-Wt 500, Env-Wt 600, Env-Wt 700, OR Env-Wt 900 HAVE BEEN MET (Env-Wt 313.01(a)(3))**

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):

Impacts to Prime Wetlands and non-tidal wetlands are minimized to also meet the minimum road width standards for a class-5 town road. The project will essentially extend the Shirkin Road improvement for the Galloway project approved by NH DES in 2021.

**SECTION 8 - AVOIDANCE AND MINIMIZATION**

Impacts within wetland jurisdiction must be avoided to the maximum extent practicable (Env-Wt 313.03(a)). \*Any project with unavoidable jurisdictional impacts must then be minimized as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization and the Wetlands Permitting: Avoidance, Minimization and Mitigation Fact Sheet. For minor or major projects, a functional assessment of all wetlands on the project site is required (Env-Wt 311.03(b)(10)).\*

Please refer to the application checklist to ensure you have attached all documents related to avoidance and minimization, as well as functional assessment (where applicable). Use the Avoidance and Minimization Checklist, the Avoidance and Minimization Narrative, or your own avoidance and minimization narrative.

\*See Env-Wt 311.03(b)(6) and Env-Wt 311.03(b)(10) for shoreline structure exemptions.

**SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)**

If unavoidable jurisdictional impacts require mitigation, a mitigation pre-application meeting must occur at least 30 days but not more than 90 days prior to submitting this Standard Dredge and Fill Permit Application.

Mitigation Pre-Application Meeting Date: Month:  Day:  Year:

☒ N/A - Mitigation is not required

**SECTION 10 - THE PROJECT MEETS COMPENSATORY MITIGATION REQUIREMENTS (Env-Wt 313.01(a)(1)c)**

Confirm that you have submitted a compensatory mitigation proposal that meets the requirements of Env-Wt 800 for all permanent unavoidable impacts that will remain after avoidance and minimization techniques have been exercised to the maximum extent practicable: ☐ I confirm submittal.

☒ N/A - Compensatory mitigation is not required

**SECTION 11 - IMPACT AREA (Env-Wt 311.04(g))**

For each jurisdictional area that will be/has been impacted, provide square feet (SF) and, if applicable, linear feet (LF) of impact, and note whether the impact is after-the-fact (ATF; i.e., work was started or completed without a permit).

For intermittent and ephemeral streams, the linear footage of impact is measured along the thread of the channel. *Please note, installation of a stream crossing in an ephemeral stream may be undertaken without a permit per Rule Env-Wt 309.02(d), however other dredge or fill impacts should be included below.*

For perennial streams/ivers, the linear footage of impact is calculated by summing the lengths of disturbances to the channel and banks.

Permanent impacts are impacts that will remain after the project is complete (e.g., changes in grade or surface materials).

Temporary impacts are impacts not intended to remain (and will be restored to pre-construction conditions) after the project is completed.

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland	485		<input type="checkbox"/>			<input type="checkbox"/>
	Scrub-shrub Wetland	4,250		<input type="checkbox"/>			<input type="checkbox"/>
	Emergent Wetland			<input type="checkbox"/>			<input type="checkbox"/>
	Wet Meadow			<input type="checkbox"/>			<input type="checkbox"/>
	Vernal Pool			<input type="checkbox"/>			<input type="checkbox"/>
	Designated Prime Wetland	3,850		<input type="checkbox"/>			<input type="checkbox"/>
	Duly-established 100-foot Prime Wetland Buffer			<input type="checkbox"/>			<input type="checkbox"/>
Surface Water	Intermittent / Ephemeral Stream			<input type="checkbox"/>			<input type="checkbox"/>
	Perennial Stream or River			<input type="checkbox"/>			<input type="checkbox"/>
	Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - River			<input type="checkbox"/>			<input type="checkbox"/>
Banks	Bank - Intermittent Stream			<input type="checkbox"/>			<input type="checkbox"/>
	Bank - Perennial Stream / River			<input type="checkbox"/>			<input type="checkbox"/>
	Bank/ Shoreline - Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
Tidal	Tidal Waters			<input type="checkbox"/>			<input type="checkbox"/>
	Tidal Marsh			<input type="checkbox"/>			<input type="checkbox"/>
	Sand Dune			<input type="checkbox"/>			<input type="checkbox"/>
	Undeveloped Tidal Buffer Zone (TBZ)			<input type="checkbox"/>			<input type="checkbox"/>
	Previously-developed TBZ			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - Tidal Water			<input type="checkbox"/>			<input type="checkbox"/>
<b>TOTAL</b>							

**SECTION 12 - APPLICATION FEE (RSA 482-A:3, I)**

☐ **MINIMUM IMPACT FEE:** Flat fee of \$400.

☐ **NON-ENFORCEMENT RELATED, PUBLICLY-FUNDED AND SUPERVISED RESTORATION PROJECTS, REGARDLESS OF IMPACT CLASSIFICATION:** Flat fee of \$400 (refer to RSA 482-A:3, 1(c) for restrictions).

☒ **MINOR OR MAJOR IMPACT FEE:** Calculate using the table below:

Permanent and temporary (non-docking): 8,585 SF × \$0.40 = \$ 3,434

Seasonal docking structure: SF × \$2.00 = \$

Permanent docking structure: SF × \$4.00 = \$

Projects proposing shoreline structures (including docks) add \$400 = \$

Total = \$

**The application fee for minor or major impact is the above calculated total or \$400, whichever is greater = \$ 3,434**

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**SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05)**

Indicate the project classification.

<input type="checkbox"/> Minimum Impact Project	<input checked="" type="checkbox"/> Minor Project	<input type="checkbox"/> Major Project
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**SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)**

Initial each box below to certify:

Initials: <i>MA</i>	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: <i>MA</i>	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
Initials: <i>MA</i>	<p>The signer understands that:</p> <ul style="list-style-type: none"> <li>The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: <ol style="list-style-type: none"> <li>Deny the application.</li> <li>Revoke any approval that is granted based on the information.</li> <li>If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1.</li> </ol> </li> <li>The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.</li> <li>The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.</li> </ul>
Initials: <i>MA</i>	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

**SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)**

SIGNATURE (OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY: 1-18-2022 Albert Patterson	DATE: 1-18-22
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY: Michael Seekamp	DATE: 1-18-22

**SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))**

As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.

TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY:
TOWN/CITY: Fremont	DATE: 1/24/2022



# WETLANDS FUNCTIONAL ASSESSMENT WORKSHEET

Water Division/Land Resource Management  
Wetlands Bureau

Check the Status of your Application



**RSA/Rule:** RSA 482-A /Env-Wt 311.03(b)(10); Env-Wt 311.10

**APPLICANT LAST NAME, FIRST NAME, M.I.:** Patterson, Bernadette

As required by Env-Wt 311.03(b)(10), an application for a standard permit for minor and major projects must include a functional assessment of all wetlands on the project site as specified in Env-Wt 311.10. This worksheet will help you compile data for the functional assessment needed to meet federal (US Army Corps of Engineers (USACE); if applicable) and NHDES requirements. Additional requirements are needed for projects in tidal area; please refer to the Coastal Worksheet (NHDES-W-06-079) for more information.

Both a desktop review and a field examination are needed to accurately determine surrounding land use, hydrology, hydroperiod, hydric soils, vegetation, structural complexity of wetland classes, hydrologic connections between wetlands or stream systems or wetland complex, position in the landscape, and physical characteristics of wetlands and associated surface waters. The results of the evaluation are to be used to select the location of the proposed project having the least impact to wetland functions and values (Env-Wt 311.10). This worksheet can be used in conjunction with the Avoidance and Minimization Written Narrative (NHDES-W-06-089) and the Avoidance and Minimization Checklist (NHDES-W-06-050) to address Env-Wt 313.03 (Avoidance and Minimization). If more than one wetland/ stream resource is identified, multiple worksheets can be attached to the application. All wetland, vernal pools, and stream identification (ID) numbers are to be displayed and located on the wetlands delineation of the subject property.

## SECTION 1 - LOCATION (USACE HIGHWAY METHODOLOGY)

ADJACENT LAND USE: Sand and gravel, forest products, unofficial shooting range, off road vehicle and party site.

CONTIGUOUS UNDEVELOPED BUFFER ZONE PRESENT? ☒ Yes ☐ No

DISTANCE TO NEAREST ROADWAY OR OTHER DEVELOPMENT (in feet): >1,000 feet

## SECTION 2 - DELINEATION (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)

CERTIFIED WETLAND SCIENTIST (if in a non-tidal area) or QUALIFIED COASTAL PROFESSIONAL (if in a tidal area) who prepared this assessment: Michael Seekamp CWS # 169

DATE(S) OF SITE VISIT(S): 2017 through 2021

DELINEATION PER ENV-WT 406 COMPLETED? ☒ Yes ☐ No

CONFIRM THAT THE EVALUATION IS BASED ON:

- ☒ Office and  
☒ Field examination.

METHOD USED FOR FUNCTIONAL ASSESSMENT (check one and fill in blank if "other"):

- ☒ USACE Highway Methodology.  
☐ Other scientifically supported method (enter name/ title):

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SECTION 3 - WETLAND RESOURCE SUMMARY (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
WETLAND ID: Hard Rock Dev. -Thayer & Trst-Town of Fremont on Shirkin Road	LOCATION: (LAT/ LONG) 43d 00'56.72N"/71d07'31.93"W
WETLAND AREA: 132,872 sq. ft.	DOMINANT WETLAND SYSTEMS PRESENT: Palustrine Scrub/Shrub
HOW MANY TRIBUTARIES CONTRIBUTE TO THE WETLAND? One	COWARDIN CLASS: Palustrine Scrub/Shrub
IS THE WETLAND A SEPARATE HYDRAULIC SYSTEM? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No if not, where does the wetland lie in the drainage basin? Near the top	IS THE WETLAND PART OF: <input type="checkbox"/> A wildlife corridor or <input checked="" type="checkbox"/> A habitat island?
	IS THE WETLAND HUMAN-MADE? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
IS THE WETLAND IN A 100-YEAR FLOODPLAIN? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	ARE VERNAL POOLS PRESENT? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, complete the Vernal Pool Table)
ARE ANY WETLANDS PART OF A STREAM OR OPEN-WATER SYSTEM? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	ARE ANY PUBLIC OR PRIVATE WELLS DOWNSTREAM/DOWNGRADIENT? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
PROPOSED WETLAND IMPACT TYPE: Road widening	PROPOSED WETLAND IMPACT AREA: 8,585 sq. ft.
SECTION 4 - WETLANDS FUNCTIONS AND VALUES (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
<p>The following table can be used to compile data on wetlands functions and values. The reference numbers indicated in the "Functions/ Values" column refer to the following functions and values:</p> <ol style="list-style-type: none"> <li>1. Ecological Integrity (from RSA 482-A:2, XI)</li> <li>2. Educational Potential (from USACE Highway Methodology: Educational/Scientific Value)</li> <li>3. Fish &amp; Aquatic Life Habitat (from USACE Highway Methodology: Fish &amp; Shellfish Habitat)</li> <li>4. Flood Storage (from USACE Highway Methodology: Floodflow Alteration)</li> <li>5. Groundwater Recharge (from USACE Highway Methodology: Groundwater Recharge/Discharge)</li> <li>6. Noteworthiness (from USACE Highway Methodology: Threatened or Endangered Species Habitat)</li> <li>7. Nutrient Trapping/Retention &amp; Transformation (from USACE Highway Methodology: Nutrient Removal)</li> <li>8. Production Export (Nutrient) (from USACE Highway Methodology)</li> <li>9. Scenic Quality (from USACE Highway Methodology: Visual Quality/Aesthetics)</li> <li>10. Sediment Trapping (from USACE Highway Methodology: Sediment /Toxicant Retention)</li> <li>11. Shoreline Anchoring (from USACE Highway Methodology: Sediment/Shoreline Stabilization)</li> <li>12. Uniqueness/Heritage (from USACE Highway Methodology)</li> <li>13. Wetland-based Recreation (from USACE Highway Methodology: Recreation)</li> <li>14. Wetland-dependent Wildlife Habitat (from USACE Highway Methodology: Wildlife Habitat)</li> </ol> <p>First, determine if a wetland is suitable for a particular function and value ("Suitability" column) and indicate the rationale behind your determination ("Rationale" column). Please use the rationale reference numbers listed in Appendix A of USACE <i>The Highway Methodology Workbook Supplement</i>. Second, indicate which functions and values are principal ("Principal Function/value?" column). As described in <i>The Highway Methodology Workbook Supplement</i>, "functions and values can be principal if they are an important physical component of a wetland ecosystem (function only) and/or are considered of special value to society, from a local, regional, and/or national perspective". "Important Notes" are to include characteristics the evaluator used to determine the principal function and value of the wetland.</p>	

FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE (Reference #)	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Minimal disturbance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	The subject wetlands have no observable disturbance except for the existing Road (Shirkin Road)
2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2. 3. 4. 8.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Accessability will be improved by this project
3	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wetlands likely dry up during the Summer in most years
4	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1. 2. 3. 5. 8. 17. 18.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flood characteristics will not be changed
5	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. 6. 10. 15.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Recharge is likely but not of primary importance
6	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	No Threatened or Endangered Species recorded
7	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. 5. 7. 8. 9. 10.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Potential sources of excess sediment. Dense vegetation is present
8	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1. 2. 7. 8. 12. 14.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thickly vegetated
9	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. 4. 5. 6. 7. 8. 9. 10. 11. 12.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wetland is undisturbed with the exception of Shirkin Road
10	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1. 4. 5. 7. 8. 9.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Slow moving
11	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
12	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. 13. 15. 16. 18. 19.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Common wetland in this town
13	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	There are many more suitable wetlands in town
14	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1. 3. 4. 5. 7. 8. 13. 14. 19. 20. 21.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Relatively undisturbed

lrm@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)

**SECTION 5 - VERNAL POOL SUMMARY (Env-Wt 311.10)**

Delineations of vernal pools shall be based on the characteristics listed in the definition of "vernal pool" in Env-Wt 104.44. To assist in the delineation, individuals may use either of the following references:

- *Identifying and Documenting Vernal Pools in New Hampshire* 3<sup>rd</sup> Ed., 2016, published by the New Hampshire Fish and Game Department; or
- The USACE *Vernal Pool Assessment* draft guidance dated 9-10-2013 and form dated 9-6-2016, Appendix L of the USACE New England District *Compensatory Mitigation Guidance*.

All vernal pool ID numbers are to be displayed and located on the wetland delineation of the subject property.

"Important Notes" are to include documented reproductive and wildlife values, landscape context, and relationship to other vernal pools/wetlands.

Note: For projects seeking federal approval from the USACE, please attach a completed copy of The USACE "Vernal Pool Assessment" form dated 9-6-2016, Appendix L of the USACE New England District *Compensatory Mitigation Guidance*.

VERNAL POOL ID NUMBER	DATE(S) OBSERVED	PRIMARY INDICATORS PRESENT (LIST)	SECONDARY INDICATORS PRESENT (LIST)	LENGTH OF HYDROPERIOD	IMPORTANT NOTES
1					
2					
3					
4					
5					

**SECTION 6 - STREAM RESOURCES SUMMARY**DESCRIPTION OF STREAM: STREAM TYPE (ROSGEN): 

HAVE FISHERIES BEEN DOCUMENTED?

☐ Yes ☐ No

DOES THE STREAM SYSTEM APPEAR STABLE?

☐ Yes ☐ NoOTHER KEY ON-SITE FUNCTIONS OF NOTE: 

The following table can be used to compile data on stream resources. "Important Notes" are to include characteristics the evaluator used to determine principal function and value of each stream. The functions and values reference number are defined in Section 4.

[lrn@des.nh.gov](mailto:lrn@des.nh.gov) or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)



FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
12	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
13	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
14	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	

**SECTION 7 - ATTACHMENTS (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)**

- ☐ Wildlife and vegetation diversity/abundance list.
- ☒ Photograph of wetland.
- ☒ Wetland delineation plans showing wetlands, vernal pools, and streams in relation to the impact area and surrounding landscape. Wetland IDs, vernal pool IDs, and stream IDs must be indicated on the plans.
- ☐ For projects in tidal areas only: additional information required by Env-Wt 603.03/603.04. Please refer to the Coastal Area Worksheet (NHDES-W-06-079) for more information.

## Memo

## NH Natural Heritage Bureau NHB DataCheck Results Letter

Please note: portions of this document are confidential.  
Maps and NHB record pages are confidential and should be redacted from public documents.

**To:** MICHAEL SEEKAMP  
129 Route 125  
Kingston, NH 03848

**From:** Jessica Bouchard, NH Natural Heritage Bureau  
**Date:** 8/26/2021 (valid until 08/26/2022)  
**Re:** Review by NH Natural Heritage Bureau  
**Permits:** NHDES - Wetland Standard Dredge & Fill - Minor, USACE - General Permit

**NHB ID:** NHB21-2707      **Town:** Fremont      **Location:** Shirkin Road  
**Description:** Widening Shirkin Road which in this section is a class 6 road.  
**cc:** Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

**Comments** NHB: No Comments At This Time  
**F&G:** Please describe and send photos of wetland impact areas and culvert locations. Describe what size RCPs or CMPs will be put in.

Vertebrate species	State <sup>1</sup>	Federal	Notes
Blanding's Turtle ( <i>Emydoidea blandingii</i> )	E	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle ( <i>Clemmys guttata</i> )	T	--	Contact the NH Fish & Game Dept (see below).
Wood Turtle ( <i>Glyptemys insculpta</i> )	SC	--	Contact the NH Fish & Game Dept (see below).

<sup>1</sup>Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (\*) indicates that the most recent report for that occurrence was more than 20 years ago.

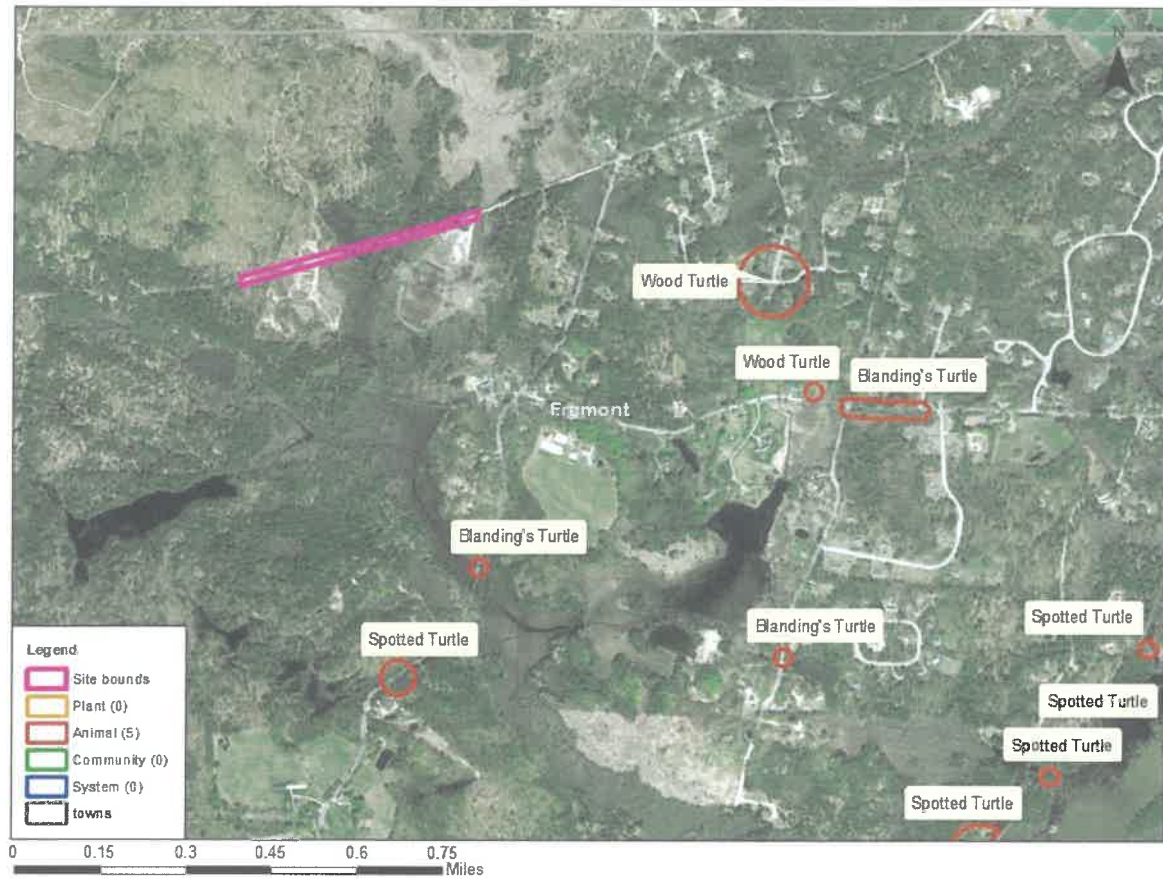
Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources  
Division of Forests and Lands  
(603) 271-2214 fax 271-6488

DNCR/NHB  
172 Pembroke Rd.  
Concord, NH 03301

NHB21-2707



Michael Seekamp &lt;seekampm.sec@comcast.net&gt;

1/13/2022 5:54 PM

**RE: Shirkin Road widening Fremont NHB21-2707**

To Kim Tuttle &lt;kim.a.tuttle@wildlife.nh.gov&gt; Copy Melissa Doperalski &lt;melissa.j.doperalski@wildlife.nh.gov&gt;

Hi Kim,

We have revised the road widening plan in accordance with your suggestions. The changes include increasing the size of the two existing 12" plastic culverts to 18" RCP, specifying rounded "river rocks" for the outlets of the culverts (low flow), no exposed geotextile. An Alteration Of Terrain permit will not be required for this project. I have not observed any Beaver activity in these wetlands. The road will not be paved under this permit. The road improvement will be about 2,040 feet in length and the average increase in height of the road will be approximately one foot. This project extends the approved widening of another section of Shirkin Road with similar wetland impacts east to the junction with Beede Hill Road. ECC-2B erosion control blankets are specified. I have attached a copy of the revised plan and the Google Earth graphic showing approximate locations of wetland impacts and culverts.

Regards,  
Mike

Michael Seekamp  
Seekamp Environmental Consulting, Inc.  
129 Route 125  
Kingston, NH 03848  
Tel. 603-642-8300

On 10/18/2021 8:53 AM Tuttle, Kim <kim.a.tuttle@wildlife.nh.gov> wrote:

Hi Michael,

Impact Areas #2 and #5 look like they could use a much larger RCP or CMP culvert than a 12". Also consider ellipticals. Impact #5 looks like it is plugged by beavers- please confirm. How many of the culverts have this problem? Please send photos of inlets and outlets of all proposed replacements and consider upsizing at all locations as this is a high priority area for Blanding's and other listed turtles. Are there any other DES permits associated with this job like an AoT? We will only consider plastic culverts at wetland crossings with little or no current and that are backwatered at all times. Please send a job narrative describing the entire project. Will the road be paved? Please include NHB file number in the subject line of all emails pertaining to this job. There looks like there was a diagram for a box culvert in the plan- what size is it and where is it going? If there is little flow at these crossings, rip- rap should not be required at inlets and outlets- replace with natural smooth stone if needed. Avoid using geotextile fabric in wetlands.

How long of a section of the existing 12-16' wide gravel road be widened to 30'? How high will the road be elevated over the current grade? Culverts should be upsized accordingly.

Please provide a simple Google Earth aerial showing locations of all proposed culvert replacements.

ECC-2B is acceptable erosion control matting as it does not contain welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene).

**Please inform NHFG reviewers if your project will require or may require an Alteration of Terrain Permit.**

Be advised that as of June 2, 2020, DES has adopted a new rule; Env-Wq 1503.19 intro and (h), pertaining to the criteria for issuance of AoT permits specific to RSA 212-A:9, III threatened and endangered wildlife species.; Please refer to the NHDES webpage, <https://www.des.nh.gov/land/land-development>, for more information on permit requirements pertaining to threatened and endangered wildlife species and their critical habitats.

**\*NEW: Please submit AoT-related documents for NHFG review, AoT review inquiries or wildlife biologist questions to [NHFGreview@wildlife.nh.gov](mailto:NHFGreview@wildlife.nh.gov). If project related: Include the NHB datacheck results letter number (i.e. NHBxx-xxxx) in the email subject line at a minimum. Not including this number will affect our response time and delays of our review. Additional information can include project name and AoT application number. Please include the NHB number in the title of the assessment along with a date (year,month,day).**

Thanks,

Kim Tuttle

Wildlife Biologist

NH Fish and Game

11 Hazen Drive

Concord, NH 03301

603-271-6544

**From:** Michael Seekamp <[seekampm.sec@comcast.net](mailto:seekampm.sec@comcast.net)>

**Sent:** Friday, October 15, 2021 3:57 PM

**To:** Tuttle, Kim <[Kim.Tuttle@wildlife.nh.gov](mailto:Kim.Tuttle@wildlife.nh.gov)>

**Subject:** Minor impact permit in Fremont

**EXTERNAL:** Do not open attachments or click on links unless you recognize and trust the sender.

Hi Kim,

I have attached the project plans and photographs of the impact areas for the widening of Shirkin Road in Fremont. The NHB data check report suggested that I send them to you for review. The 12-inch culverts will be replaced with 12-inch culverts. The existing culverts are partially blocked. It does not appear that water has flowed over the road so there is not much of a gradient change from one side to the other. The road over the scrub shrub marsh where impacts 3 & 4 are proposed was filled prior to the implementation of wetland regulations. The photographs are keyed to the plans. I can be reached on my cell phone # 603-778-5532.



Shirkin Road Fremont D & F application. Approximate locations of the wetland impacts are shown as red lines along the road. Red arrows indicate approx. culvert locations 12" (new) 18"





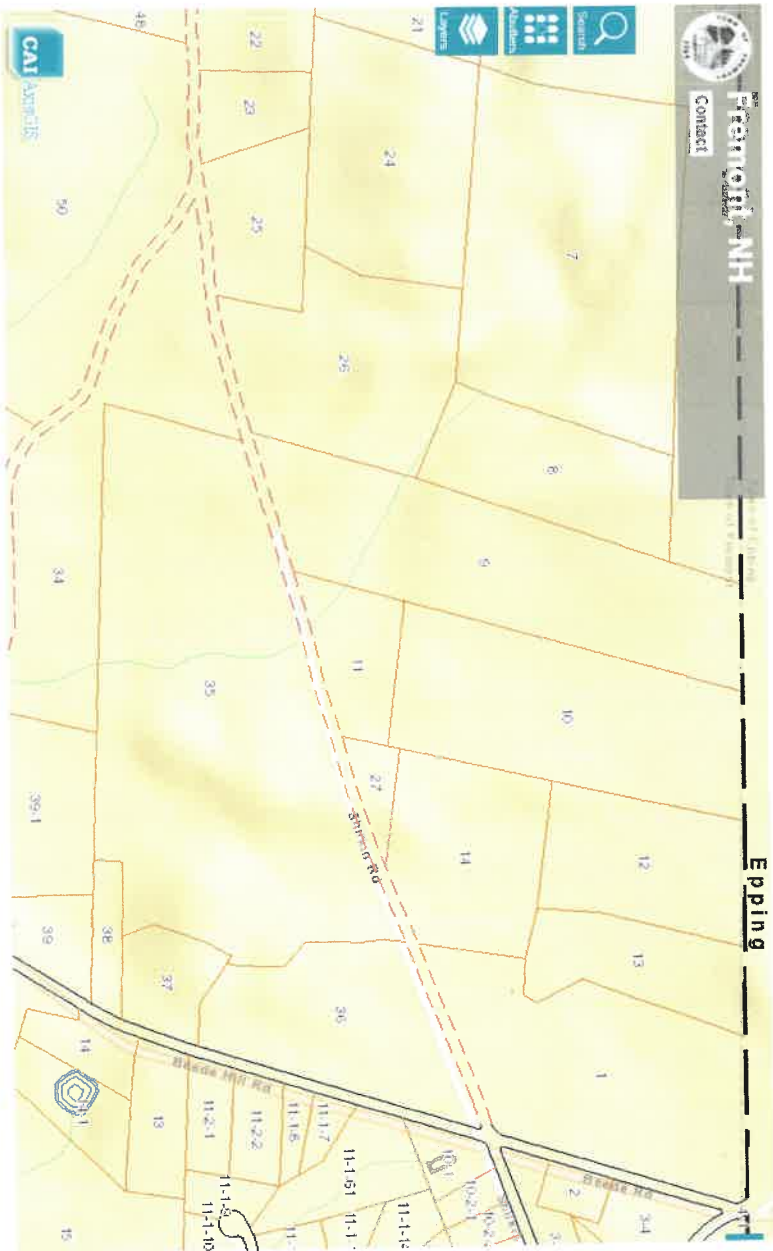
Town of Fremont Prime Wetlands in the vicinity of the proposed project on Shirkin Road.

#### **Construction sequence:**

**1.** Install erosion controls. **2.** Remove two existing 12" culverts. **3.** Replace with two 18" culverts and an additional 12" culvert. **4.** Stake the Town right-of way; survey the area if required. Any assistance of a survey if determined necessary by the town, shall be done at the owner/developer's expense. **5.** Grub and Stump. **6. Call for an Inspection** **7.** Build road to subgrade with gravel base to specified width. **8.** Vibra roll. **9. Call for an Inspection.** **10.** Install grade stakes at 50 foot intervals. **11.** Install twelve inches (12") of four inch minus gravel to specified width (contingent upon development specifications and proposed use). **12.** Vibra roll. **13. Call for an inspection.** **14.** Install six inches (6") of crushed gravel to specified width. **15.** Vibra roll. **16. Call for an inspection.** **17.** Install three foot (3') gravel shoulder on both sides. **18.** Loam and seed banks beyond shoulder. **19. Call for an inspection.** **20.** The road will not be paved.

All work will conform to the Construction Detail D1 (sheet 4) of the Roadway Improvement Plan prepared by Beals Associates, PLLC and will be carried out within the Town Road easement. Erosion controls may be removed after construction is complete.

# Tax Map





## Abutter list

Parcel ID: 005-035-000-000  
Vision ID: 1102

Owner: GALLOWAY TTEES, JOHN &  
Co-Owner: BRENDA  
Mailing Address: PO BOX 809  
PLAISTOW, NH 03865-0809

Parcel ID: 005-027-000-000  
Vision ID: 1094

Owner: TOWN OF FREMONT  
Co-Owner:  
Mailing Address: PO BOX 120  
FREMONT, NH 03044-0120

Parcel ID: 005-011-000-000  
Vision ID: 1080

Owner: THAYER FAMILY IRREV TRUST  
Co-Owner:  
Mailing Address: C/O JERRY THAYER  
21 RICHMOND STREET  
PORTSMOUTH, NH 03801

Parcel ID: 005-009-000-000  
Vision ID: 1078

Owner: HARD ROCK DEVELOPMENT LLC  
Co-Owner:  
Mailing Address: PO BOX 2750  
SEABROOK, NH 03874-2750

Parcel ID: 005-026-000-000  
Vision ID: 1093

Owner: PATTERSON, BERNADETTE  
Co-Owner:  
Mailing Address: 10 TWINS ROAD  
RAYMOND, NH 03077

Applicant owns 005- 034 &

005 - 026



NHB21-2707

Impact area #1  
310 Square feet



Impact area #2  
660 square feet





NHB21-2707

Impact area #3

3,940 square feet



Impact area #4

3010 square feet



NHB21-2707

Impact area #6

440 square feet



Impact area # 7

45 square feet




NHB21-2707

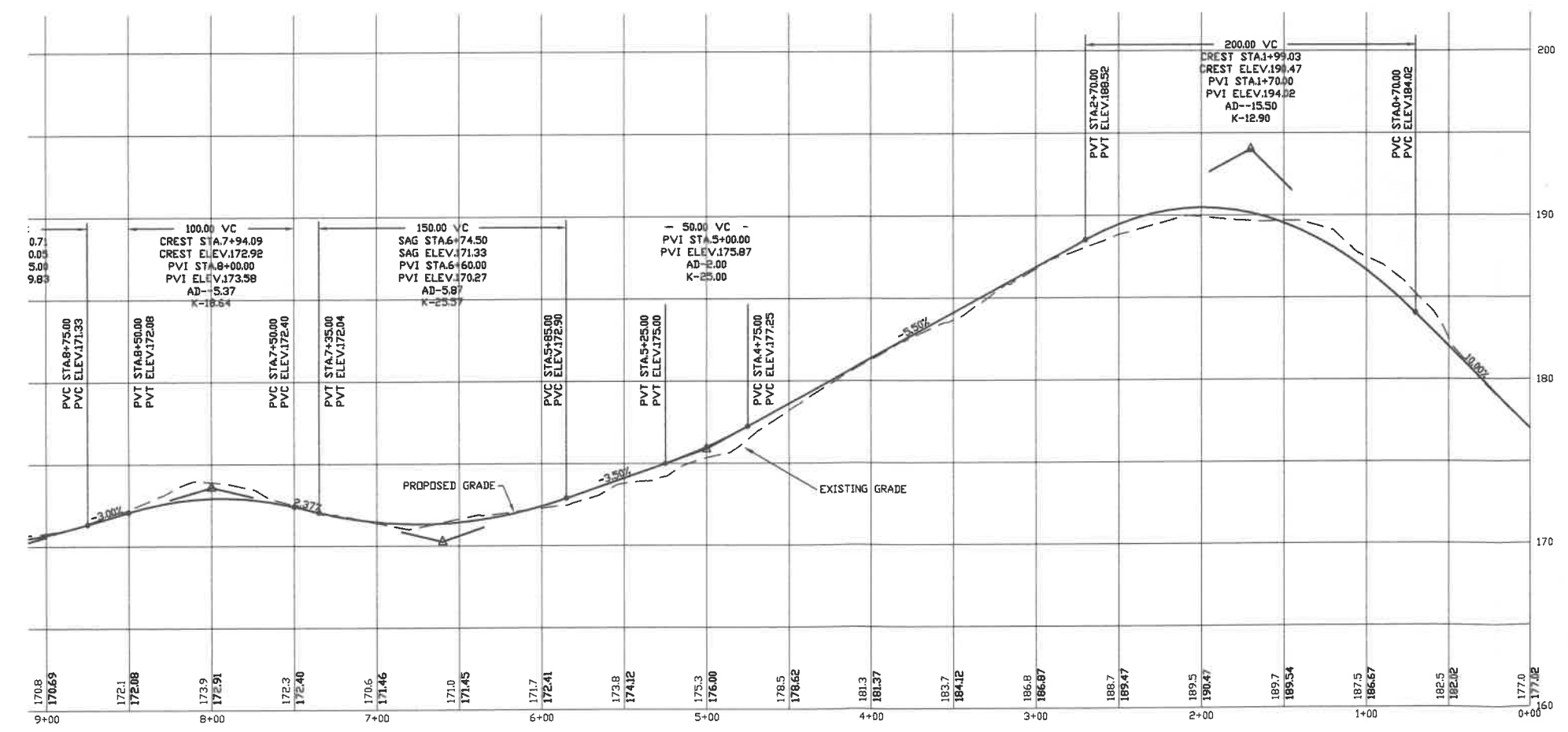
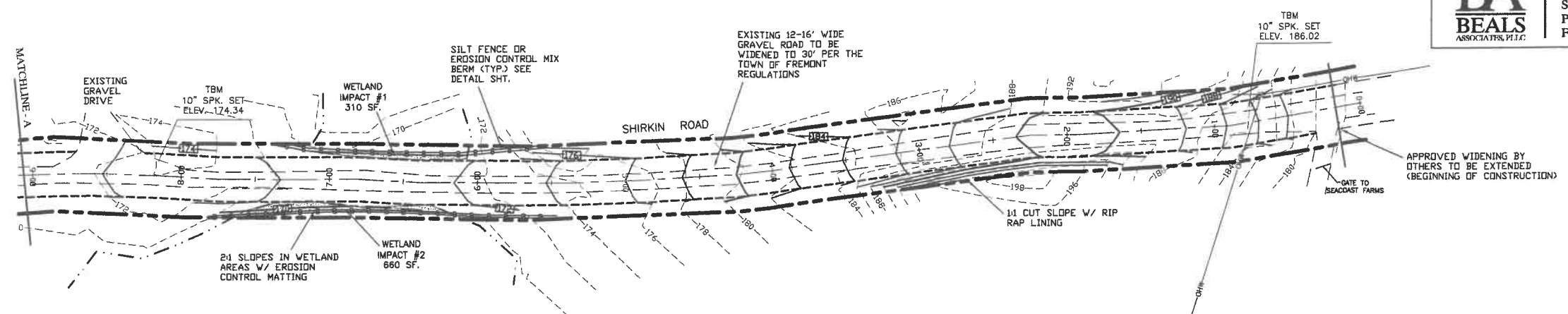




Impact area #5

180 square feet

PREPARED FOR:  
 BERNADETTE PATTERSON  
 10 TWINS ROAD  
 RAYMOND, NH 03077


 70 PORTSMOUTH AVE,  
 THIRD FLOOR, SUITE 2  
 STRATHAM, N.H. 03885  
 PHONE: 603-583-4860,  
 FAX: 603-583-4863



PROFILE SCALES:  
 HORIZONTAL: 1"=40'    VERTICAL: 1"=4'

REVISIONS:		DATE:

**ROADWAY IMPROVEMENT PLAN**  
 OWNERS OF RECORD:  
 TOWN OF FREMONT  
 25 MAIN STREET  
 FREMONT, NH

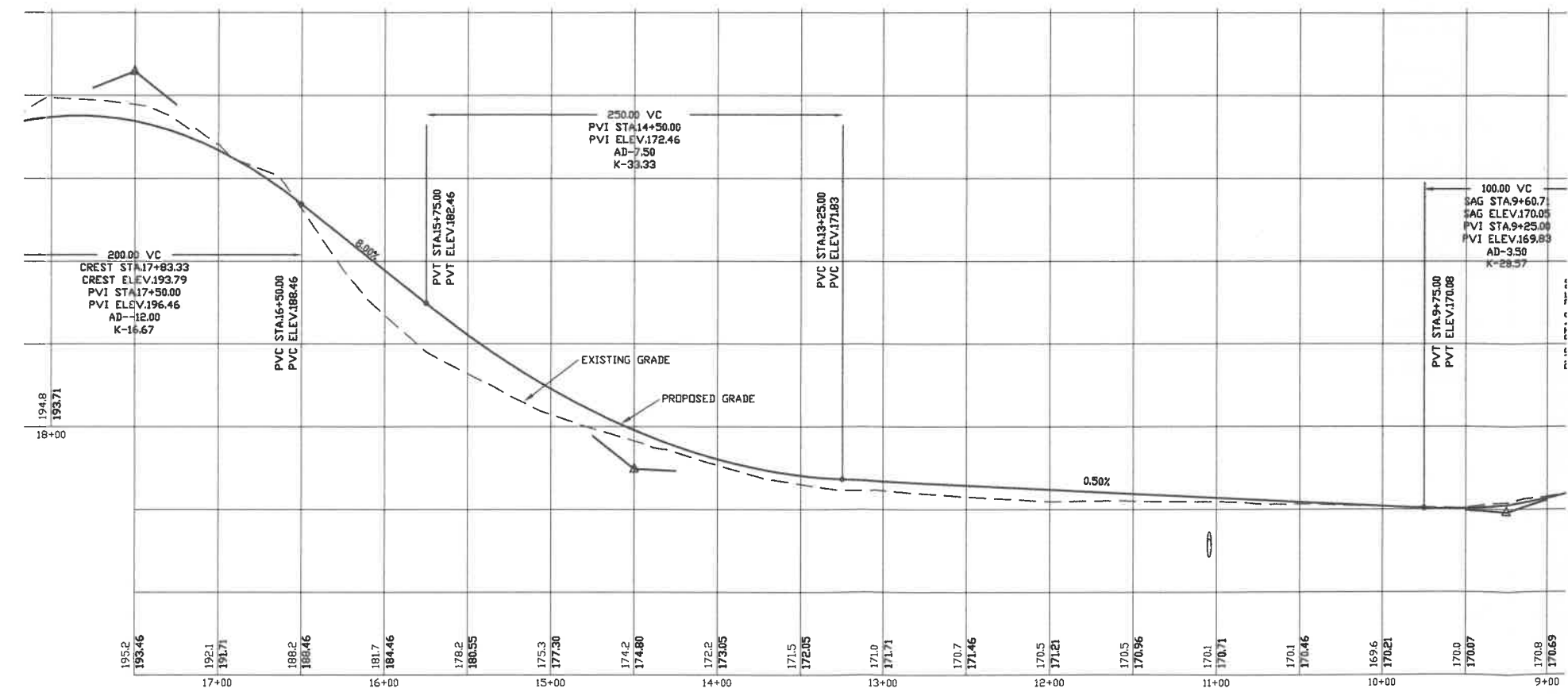
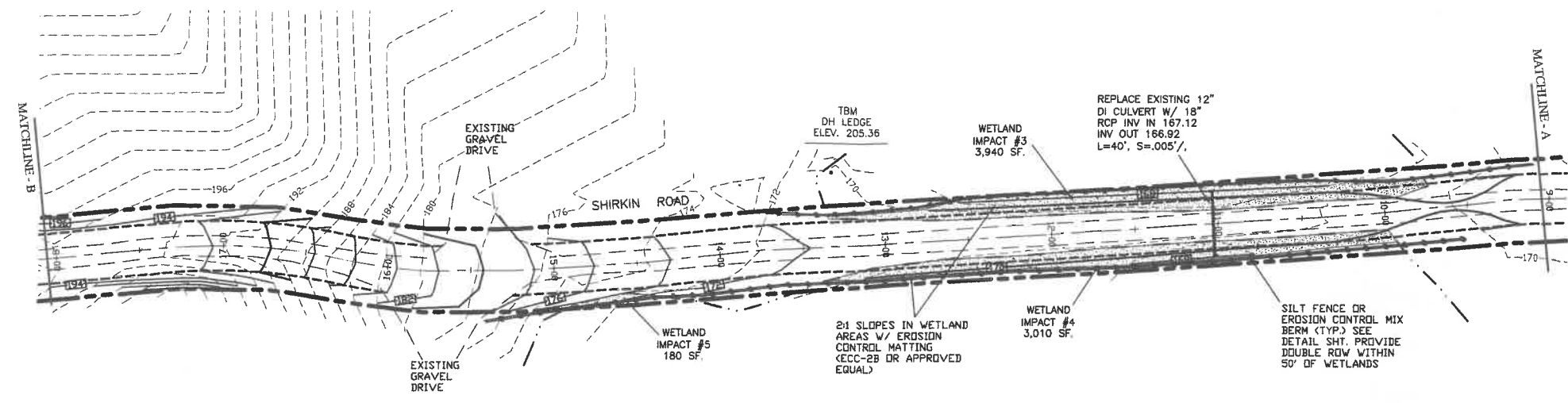
DATE: SEPT. 2021	SCALE: 1"=40'
PROJ. NO: NH-1305	SHEET NO. 1 OF 4

PREPARED FOR:

**BERNADETTE PATTERSON**  
 10 TWINS ROAD  
 RAYMOND, NH 03077

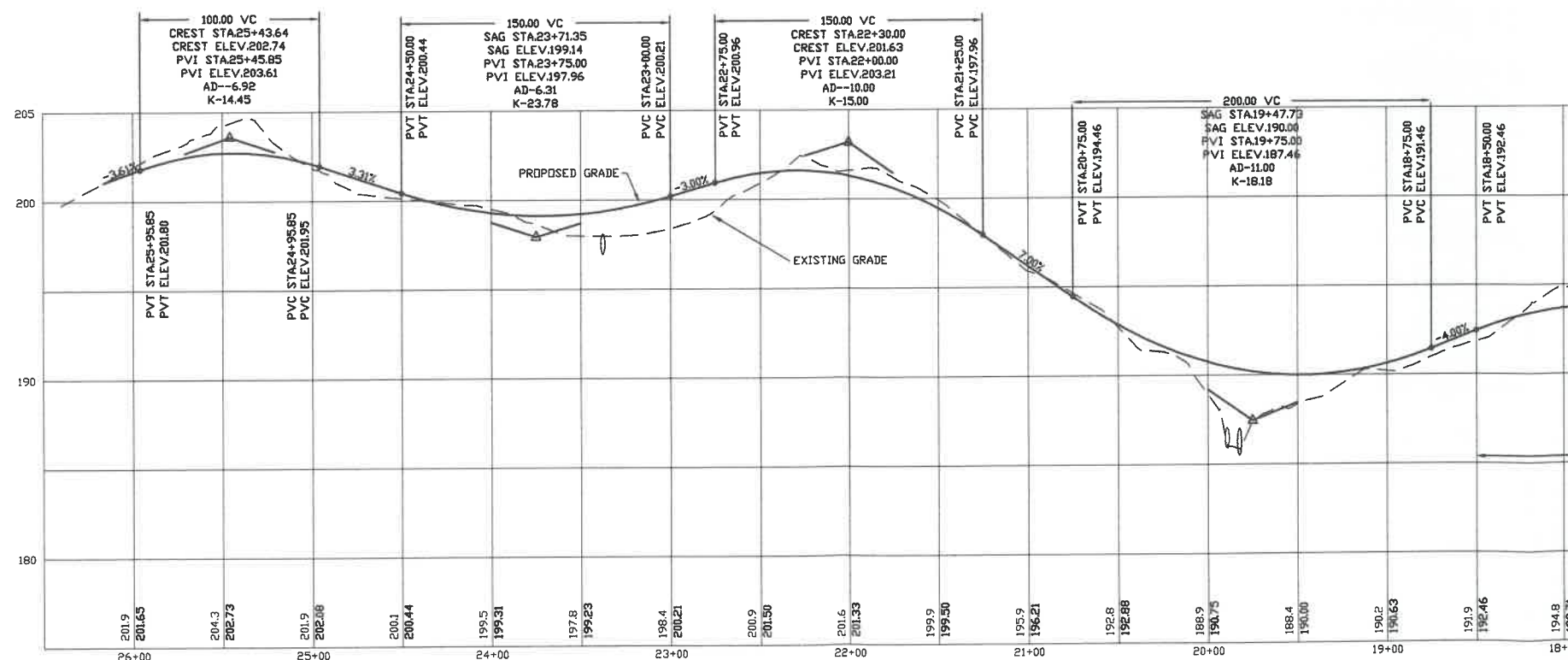
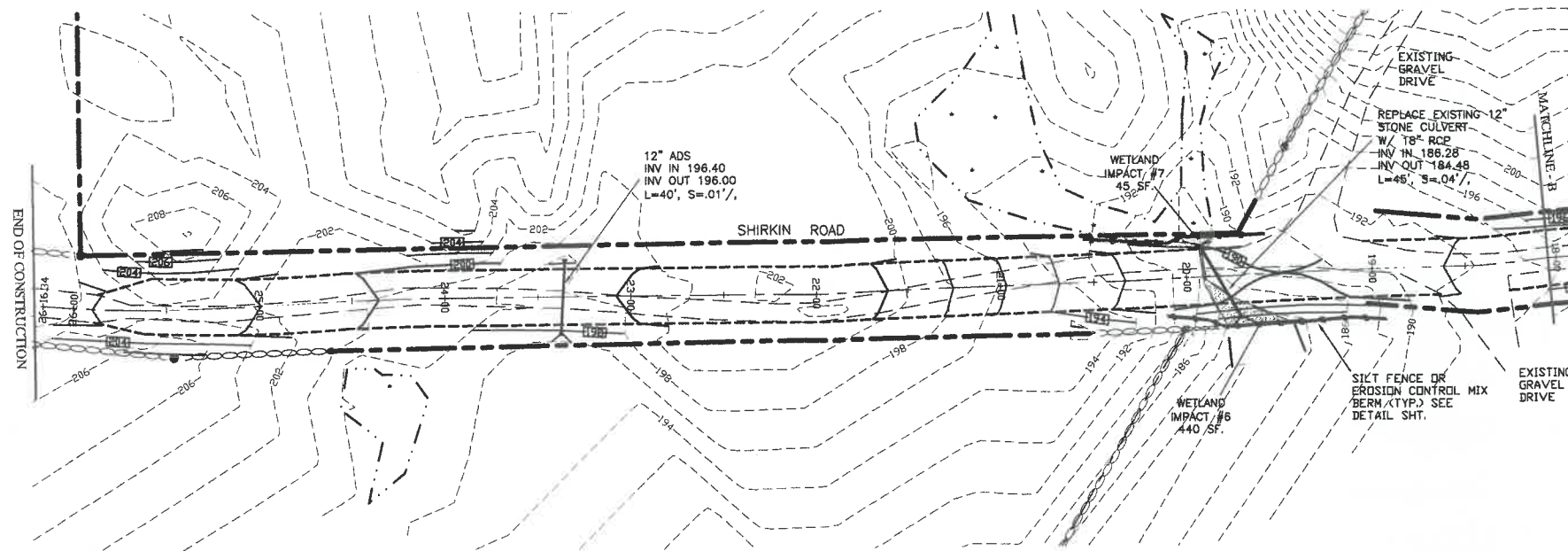
**BA  
BEALS**  
ASSOCIATES, PLLC

70 PORTSMOUTH AVE,  
 THIRD FLOOR, SUITE 2  
 STRATHAM, N.H. 03885  
 PHONE: 603-583-4860,  
 FAX: 603-583-4863



PROFILE SCALES:  
 HORIZONTAL: 1"=40' VERTICAL: 1"=4'

REVISED PER NHF&G REVIEW		11-14-21
REVISIONS:		DATE:
<b>ROADWAY IMPROVEMENT PLAN</b>		
OWNERS OF RECORD: TOWN OF FREMONT 25 MAIN STREET FREMONT, NH		
DATE:	SEPT. 2021	SCALE: 1"=40'
PROJ. NO:	NH-1305	SHEET NO. 2 OF 4



PREPARED FOR:  
**BERNADETTE PATTERSON**  
10 TWINS ROAD  
RAYMOND, NH 03077

**BA BEALS**  
ASSOCIATES, P.L.L.C.

70 PORTSMOUTH AVE,  
THIRD FLOOR, SUITE 2  
STRATHAM, N.H. 03885  
PHONE: 603-583-4860,  
FAX: 603-583-4863

**SEEKING REPORTS OF RARE TURTLES**  
The NH Fish & Game Department is collecting observations of four turtle species:

- Blindfold's turtle (state endangered)**
  - Large, dark/black domed shell with light tan speckles
  - Distinct yellow throat/neck
  - Aquatic but often moves on land
- Wood turtle (special concern)**
  - Scalloped, pyramidal brownish shell
  - Orange around neck and limbs
  - Powerful swimmer spending many months on land
- Eastern box turtle (state endangered)**
  - Small terrestrial turtle with highly domed shell
  - Irregular yellow or orange markings over brown/black base
- Spotted turtle (rare threatened)**
  - Small, mostly aquatic with black or dark brown with yellow spots
  - Fairly flat shell compared to Blindfold's turtle

Report sightings to [BNF@nh.gov](mailto:BNF@nh.gov) or 800-271-3482. Please report promptly, noting precise location and date. Photographs strongly encouraged.

TURTLES HAVE BEEN REPORTED IN THE AREA. IF TURTLES ARE FOUND LAYING EGGS IN THE WORK AREA, PLEASE CONTACT MELISSA DOPERASKI AT 271-1738 or JOSH MEGYESY AT 271-1125 FOR FURTHER INSTRUCTIONS.



PROFILE SCALES:  
HORIZONTAL: 1"=40' VERTICAL: 1"=4'

REVISED PER NH&G REVIEW		11-14-21
REVISIONS:		DATE:
ROADWAY IMPROVEMENT PLAN		
OWNER OF RECORD: TOWN OF FREMONT 25 MAIN STREET FREMONT, NH		
DATE:	SEPT. 2021	SCALE: 1"=40'
PROJ. NO:	NH-1305	SHEET NO. 3 OF 4



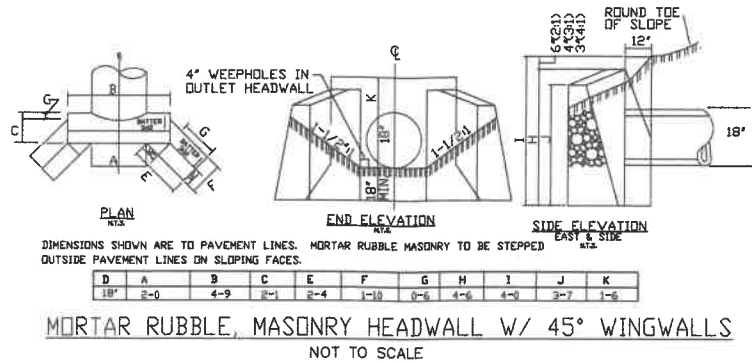
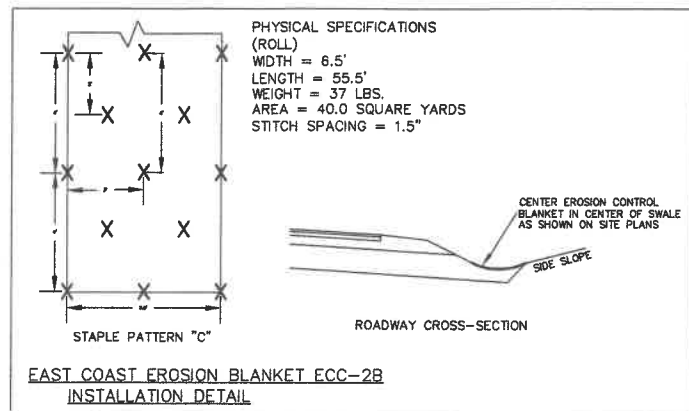


TABLE 7-24- ROUNDED STONE GRADATION RANGES			
THICKNESS OF ROUNDED STONE = 0.50 FEET			
d50 SIZE=	0.50	FEET	6 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES)		TO
100%	9	12	
85%	8	11	
50%	6	9	
15%	2	3	

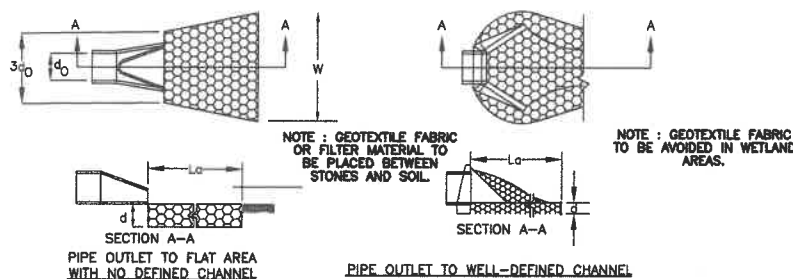
  

7-24- ROUNDED STONE GRADATION RANGES			
THICKNESS OF ROUNDED STONE = 0.75 FEET			
d50 SIZE=	0.75	FEET	9 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES)		TO
100%	14	18	
85%	12	16	
50%	9	14	
15%	3	5	

PREPARED FOR:  
**BERNADETTE PATTERSON**  
 10 TWINS ROAD  
 RAYMOND, NH 03077

**BA BEALS ASSOCIATES, PLLC**

70 PORTSMOUTH AVE,  
 THIRD FLOOR, SUITE 2  
 STRATHAM, N.H. 03885  
 PHONE: 603-583-4860,  
 FAX: 603-583-4863



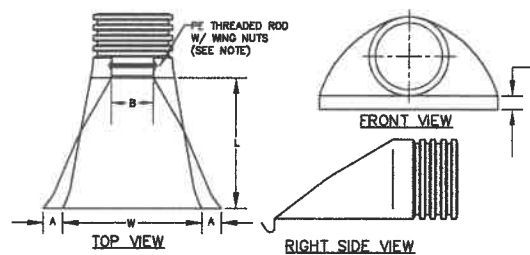
**CONSTRUCTION SPECIFICATIONS**

1. THE SUB GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND ROUNDED STONE SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR FILTER OF ROUNDED STONE SHALL CONFORM TO THE SPECIFIED GRADATION. 3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK ROUNDED STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE ROUNDED STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. STONE FOR RIPRAP SHALL BE ANGULAR OR SUBANGULAR. THE STONES SHOULD BE SHAPED SO THAT THE LEAST DIMENSION OF THE STONE FRAGMENT SHALL BE NOT LESS THAN ONE-THIRD OF THE GREATEST DIMENSION OF THE FRAGMENT.
6. FLAT ROCKS SHALL NOT USED FOR ROUNDED STONE. VOIDS IN THE ROCK RIPRAP SHOULD BE FILLED WITH SPALLS AND SMALLER ROCKS.

**MAINTENANCE**

1. THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE ROUNDED STONE HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION.

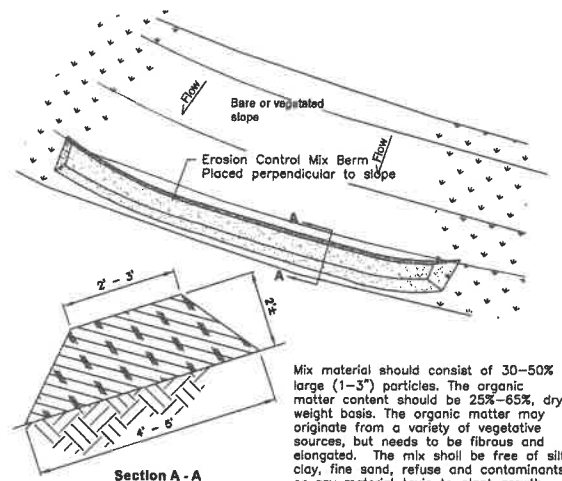
#### PIPE OUTLET PROTECTION



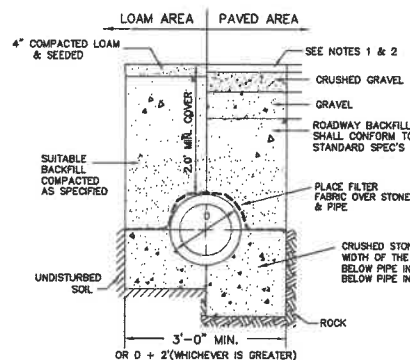
PART No.	PIPE SIZE	A	B(MAX)	H	L	W
1510-NP	15"	8.5"	10"	8.5"	25"	29"
	375 mm	165 mm	254 mm	165 mm	635 mm	735 mm
1810-NP	18"	7.5"	15"	8.5"	32"	36"
	450 mm	190 mm	380 mm	165 mm	812 mm	890 mm
2410-NP	24"	7.5"	18"	8.5"	36"	45"
	600 mm	190 mm	450 mm	165 mm	900 mm	1140 mm
3010-NP	30"	10.5"	N/A	7.0"	53"	68"
	750 mm	266 mm		178 mm	1345 mm	1725 mm
3610-NP	36"	10.5"	N/A	7.0"	53"	68"
	900 mm	266 mm		178 mm	1345 mm	1725 mm

**NOTE:** PE THREADED ROD W/ WING NUTS PROVIDED FOR END SECTIONS 15"-24". 30" & 36" END SECTIONS TO BE WELDED PER MANUFACTURER'S RECOMMENDATIONS.

**ADS N-12 FLARED END SECTIONS  
 NOT TO SCALE (ALL DIMENSIONS ARE NOMINAL)**



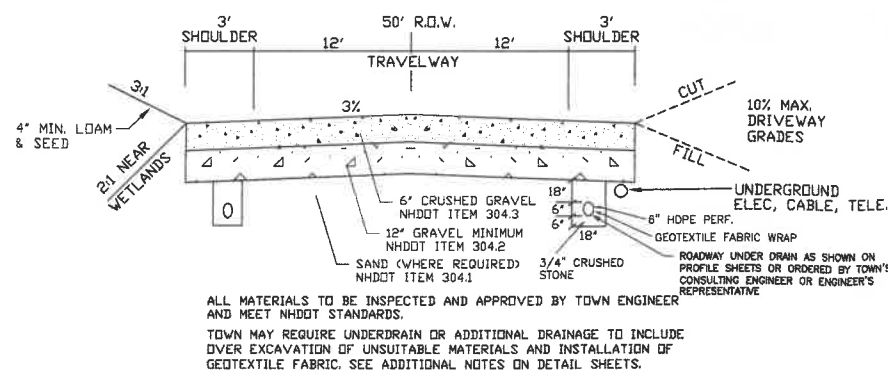
#### Erosion Control Mix Berm



**NOTE:**

1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPECS.

#### TYPICAL DRAINAGE TRENCH DETAIL



#### TYPICAL CROSS SECTION

REVISED PER NHT&G REVIEW		11-14-21
REVISIONS:		DATE:
<b>CONSTRUCTION DETAILS D1</b>		
<b>OWNER OF RECORD:</b> TOWN OF FREMONT 25 MAIN STREET FREMONT, NH		
DATE:	SEPT. 2021	SCALE: AS-NOTED
PROJ. NO:	NH-1305	SHEET NO. 4 OF 4