

# STATE OF NEW HAMPSHIRE INTER-DEPARTMENT COMMUNICATION

**DATE:** March 29, 2023

**FROM:** Joshua Brown  
Wetlands Program Analyst

**AT (OFFICE):** Department of  
Transportation

**SUBJECT** Shoreland Application  
Seabrook-Hampton, 15904

**Bureau of  
Environment**

**TO** Karl Benedict, Public Works Permitting Officer  
New Hampshire Wetlands Bureau  
29 Hazen Drive, P.O. Box 95  
Concord, NH 03302-0095

Forwarded herewith is the Shoreland application package prepared by NH DOT Bureau of Bridge Design for the subject project. A Standard Dredge and Fill application for this project area has already been submitted to DES and is pending approval (DES: 2023-00690). The project is located along NH Route 1A in the Towns of Seabrook and Hampton, NH. The Seabrook-Hampton Bridge Replacement Project involves the replacement of the Neil R. Underwood Bridge (Bridge No. 235/025) that carries NH Route 1A over the Hampton River at the inlet to Hampton Harbor.

This project was reviewed at the Natural Resource Agency Coordination Meeting on August 15, 2018, January 16, 2019, December 16, 2020, and July 20, 2022. A copy of the minutes was included with the standard dredge and fill application package. A copy of this application and plans can be accessed on the Departments website via the following link: <http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetland-applications.htm>.

The lead people to contact for this project are Jennifer Reczek, Bureau of Bridge Design (271-1613 or Jennifer.E.Reczek@dot.nh.gov) or Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment (271-3226 or Andrew.M.OSullivan@dot.nh.gov).

A payment voucher has been processed for this application (Voucher # 714179) in the amount of \$3,750.00

If and when this application meets with the approval of the Bureau, please send the permit directly to Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment.

JRB;  
cc:  
BOE Original  
Towns of Seabrook & Hampton (4 copies via certified mail)  
David Trubey, NH Division of Historic Resources (Cultural Review Within)  
John Magee, NH Fish & Game (via electronic notification)  
Maria Tur, US Fish & Wildlife (via electronic notification)  
Jeanie Brochi, US Environmental Protection Agency (via electronic notification)  
Michael Hicks & Rick Kristoff, US Army Corp of Engineers (via electronic notification)  
Kevin Nyhan, BOE (via electronic notification)

S:\Environment\PROJECTS\SEABROOK\15904\Wetlands\Shoreland\Shoreland Submission Docs\WETAPP - Coverletter.doc

# Shoreland Permit Application



New Hampshire Department of Transportation  
Seabrook-Hampton 15904  
Seabrook and Hampton, New Hampshire  
X-A001(026)  
March 2023



**SEABROOK-HAMPTON 15904**  
**SHORELAND PERMIT APPLICATION**

**TABLE OF CONTENTS**

Shoreland Permit Application Form (NHDES-W-06-037)

Supplemental Narrative

Attachments

1-Pease Letter

2-Figures

3-Shoreland Permit Plans

4-Photographs

5-Agency Correspondence

6-Agency Site Walk Minutes

7-Recorded Deeds



## SHORELAND PERMIT APPLICATION

### Water Division/ Land Resources Management Shoreland Program



[Check the Status of your Application](#)

**RSA/Rule:** RSA 483-B, Env-Wq 1400

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

This is an application for a permit to excavate, fill, construct new structures, or remove structures within the protected shoreland as regulated under RSA 483-B.

<b>SECTION 1 - PROJECT DESCRIPTION (Env-Wq 1406.07)</b>			
Provide a concise description of the proposed project: The Seabrook-Hampton Bridge Replacement Project involves the replacement of the Neil R. Underwood Bridge (Bridge No. 235/025) that carries NH Route 1A over the Hampton River at the inlet to Hampton Harbor.			
<b>SECTION 2 - PROJECT LOCATION (Env-Wq 1406.07)</b>			
ADDRESS: NH Route 1A Bridge Over the Hampton Harbor Inlet	TOWN/CITY: Hampton and Seabrook	STATE: NH	ZIP CODE: <input style="width: 40px;" type="text"/>
WATERBODY NAME: Hampton River/Browns River	TAX MAP/ BLOCK/LOT NUMBER : State Pier: 299-022-000 and NHDOT ROW		
<b>SECTION 3 - PROPERTY OWNER &amp; DEED INFORMATION (Env-Wq 1406.07)</b>			
The legal name of each property owner must be as it appears on the deed of record. If the owner is a trust or a company, then the name of the trust or company should be written as the owner's name.			
LAST NAME, FIRST NAME, M.I.: New Hampshire Department of Transportation			
MAILING ADDRESS: 7 Hazen Drive	TOWN/CITY: Concord	STATE: NH	ZIP CODE: 03301
PHONE: (603) 271-3401	EMAIL (if available): jennifer.e.reczek@dot.nh.gov		
REGISTRY OF DEED COUNTY Rockland, BOOK NUMBER 894, PAGE NUMBER 44			
<b>SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER), IF DIFFERENT THAN OWNER (Env-Wq 1406.07)</b>			
If the applicant is a trust or a company, then the name of the trust or company should be written as the applicant's name. If the applicant is the owner, leave blank and check the following box: <input checked="" type="checkbox"/> .			
LAST NAME, FIRST NAME, M.I.: <input style="width: 40px;" type="text"/>			
MAILING ADDRESS: <input style="width: 40px;" type="text"/>	TOWN/CITY: <input style="width: 40px;" type="text"/>	STATE: <input style="width: 20px;" type="text"/>	ZIP CODE: <input style="width: 40px;" type="text"/>

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

NHDES Shoreland Program, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

<http://www.des.nh.gov>

### **Section 3 – Property Owner & Deed Information**

Hampton State Pier (1 Ocean Boulevard, Hampton, NH)

Name: Pease Development Authority; Contact: Geno Marconi, Director of Ports and Harbors

Mailing Address: 555 Market Street

Town/City/State: Portsmouth, NH

ZIP Code: 03801

Phone: (603) 436-8500

Email: G.Marconi@peasedev.org

Registry of Deed County/Book Number/Page Number: Rockland/894/44

### **Use of State Pier Property**

NHDOT has coordinated with the Pease Development Authority regarding the short-term use of 12,792 sf of the Hampton State Pier for access during construction, and the permanent acquisition of 2,707 sf of the Hampton State Pier for the new bridge. A temporary easement and an acquisition agreement are under development and will be finalized prior to the initiation of construction.

Since the Hampton State Pier received funding through the Land and Water Conservation Fund (LWCF), the acquisition of the 2,707 sf is considered a conversion under Section 6(f). As replacement, 2,767 sf of the right-of-way on the east side of NH Route 1A north of the bridge would be transferred to the Department of Natural and Cultural Resources (DNCR) for recreational use as part of Hampton Beach State Park. The property to be acquired at the Hampton State Pier is paved parking. The property to be transferred to DNCR is lawn. A letter from Pease acknowledging the planned acquisition and conversion and stating their support for the Shoreland Application is included as Attachment 1.

PHONE: [REDACTED]	EMAIL (if available): [REDACTED]
-------------------	----------------------------------

**SECTION 5 - CONTRACTOR OR AGENT (OPTIONAL)**

LAST NAME, FIRST NAME, M.I.: [REDACTED]

ADDRESS: [REDACTED]	TOWN/CITY: [REDACTED]	STATE: [REDACTED]	ZIP CODE: [REDACTED]
---------------------	-----------------------	-------------------	----------------------

PHONE: [REDACTED]	EMAIL (if available): [REDACTED]
-------------------	----------------------------------

**SECTION 6 - CRITERIA (Env-Wq 1406.07)**

**Please check at least one of the following criteria:**

- This shoreland permit application requires neither a proposal to make the property more nearly conforming nor a request for a waiver of a minimum standard.
- This shoreland permit application includes a proposal to make the structures and/or the property [more nearly conforming](#) in accordance with RSA 483-B:11.
- This shoreland permit application includes a [request for a waiver](#) of the following minimum standard(s): RSA 483-B:9, V [REDACTED].

**SECTION 7 - RELATED NHDES LAND RESOURCES MANAGEMENT PERMIT APPLICATIONS ASSOCIATED WITH THIS PROJECT (Env-Wq 1406.14)**

Please indicate if any of the following permits are required and, if required, the status of the application.

Permit Type	Permit Required	File Number	Permit Application Status
Alteration of Terrain Permit per RSA 485-A:17	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <small>NHDOT Self-Certification</small>	[REDACTED]	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Individual Sewerage Disposal per RSA 485-A:29	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	[REDACTED]	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Subdivision Approval per RSA 485-A:29	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	[REDACTED]	<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Wetlands Permit per RSA 482-A	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	[REDACTED]	<input type="checkbox"/> APPROVED <input checked="" type="checkbox"/> PENDING <input type="checkbox"/> DENIED

**SECTION 8 - REFERENCE LINE ELEVATION (Env-Wq 1406.07)**

Required for projects located on the protected shoreland of lakes or ponds. The reference line elevations for most lakes, ponds, and artificial impoundments greater than 10 acres in size are listed in the Consolidated List of Waterbodies Subject to the Shoreland Water Quality Protection Act. Please see RSA 483-B:4, XVII for the definition of reference line.

REFERENCE LINE ELEVATION:  feet above sea level.

**SECTION 9 - APPLICATION FEE & SUBMITTAL (RSA 483-B:5-b, I(b); RSA 483-B:5-b, X)**

A non-refundable permit application fee of \$200 plus \$0.20 per total square feet of impact for restoration of water quality improvement projects, or \$400 plus \$0.20 per total square feet of impact for all other projects is required at the time the application is submitted. **Applications for projects solely funded by municipal, county, state, or federal entities shall incur a permitting fee no greater than \$3,750.**

Please mail or hand deliver this application and all required attachments to the NHDES Wetlands Bureau, PO Box 95, Concord, NH 03302-0095. Missing information will delay processing your application and may result in denial of a shoreland permit application. **Please make checks payable to the Treasurer, State of NH.**

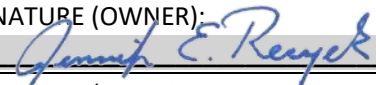
[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147

NHDES Shoreland Program, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

<http://www.des.nh.gov>

This page intentionally left blank



<b>SECTION 10 - CALCULATING TOTAL IMPACT AREA/ PERMIT APPLICATION FEE (RSA 483-B:5-b, I(b); RSA 483-B:5-b, X)</b>		
Total impact area is calculated by determining the sum of all areas disturbed by regrading, excavating, filling, construction, or structure removal. Impacts often include, but are not limited to: constructing new driveways, constructing new structures, areas disturbed when installing septic systems and foundations, creating temporary access roads to drill a new well, and regrading associated with landscaping activities.		
TOTAL AREA IMPACTED WITHIN THE PROTECTED SHORELAND = 51,155 (A) square feet		
<ul style="list-style-type: none"> <li>• <b>For restoration of water quality improvement projects:</b> Multiply line (A) by \$0.20 and add \$200. [(A) × \$0.20 + \$200] = \$ [ ] Permit fee<sup>1</sup></li> <li>• <b>For all other projects:</b> Multiply line (A) by \$0.20 and add \$400. [(A) × \$0.20 + \$400] = \$ 3,750 Permit fee<sup>1</sup></li> </ul>		
<b>SECTION 11 - REQUIRED CERTIFICATIONS (Env-Wq 1406.08; Env-Wq 1406.10(a))</b>		
By initialing within the blank before each of the following statements, and signing below, you are certifying that:		
Initials: JER	The information provided is true, complete, and not misleading to the knowledge and belief of the signer.	
Initials: JER	I understand that: <ul style="list-style-type: none"> <li>• Any permit or waiver granted based on false, incomplete, or misleading information shall be subject to revocation.</li> <li>• I am subject to the applicable penalties in RSA 641, Falsification in Official Matters. And</li> <li>• Obtaining a shoreland permit shall not exempt the work proposed from other state, local, or federal approvals.</li> </ul>	
Initials: JER	I have notified the governing body of the municipality or municipalities in which the property is located by certified mail, in accordance with Env-Wq 1406.13.	
Initials: JER	I have notified all abutters <sup>2</sup> of the proposed impacts via certified mail, in accordance with Env-Wq 1406.13.	
Initials: JER	<input type="checkbox"/> This project is within ¼ mile of a designated river and I have notified the Local River Management Advisory Committee (LAC) by providing the LAC with a copy of the complete application, including all supporting materials, via certified mail, in accordance with Env-Wq 1406.13. <input checked="" type="checkbox"/> This project is <b>not</b> within ¼ mile of a designated river.	
Initials: JER	For any project proposing that the impervious area be at least 15% but not more than 20% within the protected shoreland, I certify that the impervious area is not more than 20%. <input type="checkbox"/> N/A	
<b>SECTION 12 - REQUIRED SIGNATURES (Env-Wq 1406.08)</b>		
Both the property owner and applicant must sign the application.		
SIGNATURE (OWNER): 	PRINT NAME LEGIBLY: JENNIFER E. RECZEK, PE	DATE: 3/28/2023
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER): [ ]	PRINT NAME LEGIBLY: [ ]	DATE: [ ]

<sup>1</sup> Applications for projects solely funded by municipal, county, state, or federal entities shall incur a permitting fee no greater than \$3,750.

<sup>2</sup> "Abutter" means any person who owns property that is immediately contiguous to the property on which the proposed work will take place, or who owns flowage rights on such property. The term does not include those properties separated by a public road or more than ¼ mile from the limits of the proposed work. If contiguous properties are owned by the person who is proposing the work, then the term includes the person owning the next contiguous property, subject to the ¼ mile limitation.

## NHDOT Right-of-Way SHORELAND APPLICATION WORKSHEET

This worksheet *must* be submitted to the NHDES Wetlands Bureau with every Shoreland Permit Application. **A separate shoreland application worksheet must be submitted for each individual lot of record where impacts are proposed.**

For the purposes of this worksheet, “**pre-construction**” impervious surface area<sup>3</sup> means all human made impervious surfaces<sup>4</sup> currently present within the protected shoreland of a lot, whether to be removed or to remain after the project is completed. “**Post-construction**” impervious area means all impervious surfaces that will exist within the protected shoreland of a lot upon completion of the project, including both new and any remaining pre-construction impervious surfaces. All answers shall be given in square feet.

### Calculating the Impervious Area of a Lot

CALCULATING THE IMPERVIOUS AREA OF A LOT WITHIN 250 FEET OF THE REFERENCE LINE (Env-Wq 1406.12)			
	STRUCTURE DESCRIPTION	PRE-CONSTRUCTION IMPERVIOUS AREAS	POST-CONSTRUCTION IMPERVIOUS AREAS
<b>PRIMARY STRUCTURE(S)</b> House and all <b>attached</b> decks and porches.	Roadway	28,710 FT <sup>2</sup>	25,110 FT <sup>2</sup>
<b>ACCESSORY STRUCTURES</b> All other impervious surfaces excluding lawn furniture, well heads, and fences. Common accessory structures include, but are not limited to: driveways, walkways, patios, and sheds.	Sidewalk	1,810 FT <sup>2</sup>	5,020 FT <sup>2</sup>
	Retaining Wall	0 FT <sup>2</sup>	420 FT <sup>2</sup>
	Driveway/Parking	2,420 FT <sup>2</sup>	0 FT <sup>2</sup>
	[ ]	[ ] FT <sup>2</sup>	[ ] FT <sup>2</sup>
	[ ]	[ ] FT <sup>2</sup>	[ ] FT <sup>2</sup>
	[ ]	[ ] FT <sup>2</sup>	[ ] FT <sup>2</sup>
<b>TOTAL:</b>		<b>(A) 32,940 FT<sup>2</sup></b>	<b>(B) 30,550 FT<sup>2</sup></b>
Area of the lot located within 250 feet of reference line:			<b>(C) 47,920 FT<sup>2</sup></b>
Percentage of lot covered by pre-construction impervious area within 250 feet of the reference line: <i>[divide (A) by (C) x 100]</i>			<b>(D) 68.7 %</b>
Percentage of lot to be covered by post-construction impervious area within 250 feet of the reference line upon completion of the project: <i>[divide (B) by (C) x 100]</i>			<b>(E) 63.8 %</b>

<sup>3</sup> “**Impervious surface area**” as defined in Env-Wq 1402.13 means, for purposes of the impervious surface limitation specified in RSA 483-B:9, V(g), the sum total of the footprint of each impervious surface that is located within the protected shoreland.

<sup>4</sup> “**Impervious Surface**” as defined in RSA 483-B:4, VII-b means any modified surface that cannot effectively absorb or infiltrate water. Examples of impervious surfaces include, but are not limited to, roofs, and unless designed to effectively absorb or infiltrate water, decks, patios, and paved, gravel, or crushed stone driveways, parking areas, and walkways.

### Stormwater Management Requirements

THE IMPERVIOUS AREA THRESHOLDS (RSA 483-B:9, V(g))
<input checked="" type="checkbox"/> A net decrease or no net increase in impervious area is proposed (If <b>line E</b> is less than or equal to <b>line D</b> ).
<input type="checkbox"/> The percentage of post-construction impervious area ( <b>line E</b> ) is less than or equal to 20%. This project <b>does not</b> require a stormwater management plan and <b>does not</b> require a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score.
<input type="checkbox"/> A net increase in impervious area is proposed and the percentage of post-construction impervious area ( <b>line E</b> ) is greater than 20%, but less than 30%. This project <b>requires</b> a stormwater management but, <b>does not</b> require a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score. <i>See details on the Application Checklist</i>
<input type="checkbox"/> A net increase in impervious area is proposed and the percentage of post-construction impervious area ( <b>line E</b> ) is greater than 30%. This project <b>requires</b> a stormwater management plan designed and certified by a professional engineer <b>and requires</b> plans demonstrating that each waterfront buffer grid segment meets at least the minimum required tree and sapling point score. <i>See details on the Application Checklist</i>

### Natural Woodland Area Requirement

DETERMINING THE AREA TO REMAIN AS NATURAL WOODLAND	
Total area of the lot between 50 feet and 150 feet of the reference line within which the vegetation currently exists as natural woodland <sup>5</sup> ( <b>see definition below</b> ).	<b>(F)</b> N/A FT <sup>2</sup>
Total area of the lot between 50 feet and 150 feet from the reference line.	<b>(G)</b> N/A FT <sup>2</sup>
At least 25% of area <b>(G)</b> must remain in as natural woodland. $[0.25 \times G]$	<b>(H)</b> N/A FT <sup>2</sup>
Place the lesser of area <b>(F)</b> and calculation <b>(H)</b> on this line. In order to remain compliant with the <b>natural woodland area requirement</b> , this is the minimum area that must remain as natural woodland between 50 feet and 150 feet from the reference line. This area <b>must</b> be represented on all plans and this area, exclusive of existing lawn, must remain in an unaltered state <sup>6</sup> .	<b>(I)</b> N/A FT <sup>2</sup>
Name of person who prepared this worksheet: Nicholas Caron, HDR	
Name and date of the plan this worksheet is based upon: 02/15/23	

<sup>5</sup> **“Natural Woodland”** means a forested area consisting of various species of trees, saplings, shrubs, and ground covers in any combination and at any stage of growth (483-B:4, XI).

<sup>6</sup> **“Unaltered State”** means native vegetation allowed to grow without cutting, limbing, trimming, pruning, mowing, or other similar activities except as needed for renewal or to maintain or improve plant health (483-B:4, XXIV-b).

## Hampton State Pier Property

### SHORELAND APPLICATION WORKSHEET

This worksheet *must* be submitted to the NHDES Wetlands Bureau with every Shoreland Permit Application. **A separate shoreland application worksheet must be submitted for each individual lot of record where impacts are proposed.**

For the purposes of this worksheet, “**pre-construction**” impervious surface area<sup>3</sup> means all human made impervious surfaces<sup>4</sup> currently present within the protected shoreland of a lot, whether to be removed or to remain after the project is completed. “**Post-construction**” impervious area means all impervious surfaces that will exist within the protected shoreland of a lot upon completion of the project, including both new and any remaining pre-construction impervious surfaces. All answers shall be given in square feet.

#### Calculating the Impervious Area of a Lot

CALCULATING THE IMPERVIOUS AREA OF A LOT WITHIN 250 FEET OF THE REFERENCE LINE (Env-Wq 1406.12)			
	STRUCTURE DESCRIPTION	PRE-CONSTRUCTION IMPERVIOUS AREAS	POST-CONSTRUCTION IMPERVIOUS AREAS
<b>PRIMARY STRUCTURE(S)</b> House and all <b>attached</b> decks and porches.	Roadway	0 FT <sup>2</sup>	0 FT <sup>2</sup>
<b>ACCESSORY STRUCTURES</b> All other impervious surfaces excluding lawn furniture, well heads, and fences. Common accessory structures include, but are not limited to: driveways, walkways, patios, and sheds.	Sidewalk	0 FT <sup>2</sup>	1,220 FT <sup>2</sup>
	Building	2,330 FT <sup>2</sup>	2,330 FT <sup>2</sup>
	Driveway/Parking	52,150 FT <sup>2</sup>	52,210 FT <sup>2</sup>
	[ ]	[ ] FT <sup>2</sup>	[ ] FT <sup>2</sup>
	[ ]	[ ] FT <sup>2</sup>	[ ] FT <sup>2</sup>
	[ ]	[ ] FT <sup>2</sup>	[ ] FT <sup>2</sup>
<b>TOTAL:</b>		<b>(A)</b> 54,480 FT <sup>2</sup>	<b>(B)</b> 55,760 FT <sup>2</sup>
Area of the lot located within 250 feet of reference line:			<b>(C)</b> 75,950 FT <sup>2</sup>
Percentage of lot covered by pre-construction impervious area within 250 feet of the reference line: <i>[divide (A) by (C) x 100]</i>			<b>(D)</b> 71.7 %
Percentage of lot to be covered by post-construction impervious area within 250 feet of the reference line upon completion of the project: <i>[divide (B) by (C) x 100]</i>			<b>(E)</b> 73.4 %

<sup>3</sup> “**Impervious surface area**” as defined in Env-Wq 1402.13 means, for purposes of the impervious surface limitation specified in RSA 483-B:9, V(g), the sum total of the footprint of each impervious surface that is located within the protected shoreland.

<sup>4</sup> “**Impervious Surface**” as defined in RSA 483-B:4, VII-b means any modified surface that cannot effectively absorb or infiltrate water. Examples of impervious surfaces include, but are not limited to, roofs, and unless designed to effectively absorb or infiltrate water, decks, patios, and paved, gravel, or crushed stone driveways, parking areas, and walkways.

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

NHDES Shoreland Program, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

<http://www.des.nh.gov>

### Stormwater Management Requirements

THE IMPERVIOUS AREA THRESHOLDS (RSA 483-B:9, V(g))
<input type="checkbox"/> A net decrease or no net increase in impervious area is proposed (If <b>line E</b> is less than or equal to <b>line D</b> ).
<input type="checkbox"/> The percentage of post-construction impervious area ( <b>line E</b> ) is less than or equal to 20%. This project <b>does not</b> require a stormwater management plan and <b>does not</b> require a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score.
<input type="checkbox"/> A net increase in impervious area is proposed and the percentage of post-construction impervious area ( <b>line E</b> ) is greater than 20%, but less than 30%. This project <b>requires</b> a stormwater management but, <b>does not</b> require a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score. <i>See details on the Application Checklist</i>
<input checked="" type="checkbox"/> A net increase in impervious area is proposed and the percentage of post-construction impervious area ( <b>line E</b> ) is greater than 30%. This project <b>requires</b> a stormwater management plan designed and certified by a professional engineer <b>and requires</b> plans demonstrating that each waterfront buffer grid segment meets at least the minimum required tree and sapling point score. <i>See details on the Application Checklist</i>

### Natural Woodland Area Requirement

DETERMINING THE AREA TO REMAIN AS NATURAL WOODLAND	
Total area of the lot between 50 feet and 150 feet of the reference line within which the vegetation currently exists as natural woodland <sup>5</sup> ( <b>see definition below</b> ).	(F) N/A FT <sup>2</sup>
Total area of the lot between 50 feet and 150 feet from the reference line.	(G) N/A FT <sup>2</sup>
At least 25% of area (G) must remain in as natural woodland. $[0.25 \times G]$	(H) N/A FT <sup>2</sup>
Place the lesser of area (F) and calculation (H) on this line. In order to remain compliant with the <b>natural woodland area requirement</b> , this is the minimum area that must remain as natural woodland between 50 feet and 150 feet from the reference line. This area <b>must</b> be represented on all plans and this area, exclusive of existing lawn, must remain in an unaltered state <sup>6</sup> .	(I) N/A FT <sup>2</sup>
Name of person who prepared this worksheet: Nicholas Caron, HDR	
Name and date of the plan this worksheet is based upon: 02/15/23	

<sup>5</sup> **“Natural Woodland”** means a forested area consisting of various species of trees, saplings, shrubs, and ground covers in any combination and at any stage of growth (483-B:4, XI).

<sup>6</sup> **“Unaltered State”** means native vegetation allowed to grow without cutting, limbing, trimming, pruning, mowing, or other similar activities except as needed for renewal or to maintain or improve plant health (483-B:4, XXIV-b).

# Shoreland Permit Application

## Seabrook-Hampton 15904

### SUPPLEMENTAL NARRATIVES

#### Section 1-Project Description (Continued)

The Neil R. Underwood Bridge is a vital transportation link between the Towns of Hampton and Seabrook, NH (see Attachment 2-Project Location). The existing bascule bridge will be replaced with a 1,300 foot long, seven span, structural steel, fixed bridge located along a 10,592-foot horizontal radius curve on normal crown located approximately 75 feet west of the existing bascule bridge (see Attachment 3-Shoreland Permit Plans). The realignment to the west will require the acquisition of 2,707 sf of the Hampton State Pier northwest of the bridge. The proposed bridge consists of six piers and two abutments with the end spans measuring approximately 162 feet in length and the five central spans measuring approximately 195 feet in length. The proposed roadway typical section consists of two 11-foot travel lanes with eight-foot shoulders flanked by six-foot sidewalks on each side with four pedestrian bump-outs on the bridge located at Piers 2 and 5.

The proposed bridge will provide a 150-foot navigational channel opening (inclusive of bridge fenders) and a vertical waterway clearance of 48 feet. The two abutments will consist of concrete cantilever types with U-back concrete cantilever wings. The six piers will consist of reinforced concrete hammerhead pier caps over a concrete column. Mechanically stabilized earth (MSE), gravity, or cantilevered retaining walls will extend northward from the north abutment wingwalls to limit slope impacts. The approach roadway reconstruction will begin approximately 900 feet south of the new bridge and end approximately 800 feet north of the new bridge at a point approximately 200 feet northerly of the State Park Road.

During construction, temporary access will be required for the new bridge construction. As part of this, temporary work trestles will be constructed adjacent to, and west of, the proposed bridge alignment from both the north and south shores, but not across the navigation channel. Access to the northwest trestle will be provided through the Hampton State Pier Property and access to the southwest trestle will be provided from the right-of-way (ROW) adjacent to the Dunes Wildlife Management Area (WMA). During the demolition of the existing bridge, temporary trestles will be built adjacent to, and east of, the existing bridge from both the north and south shores, but not across the navigation channel. They will be accessed through the state roadway ROW. An abandoned water pumphouse located northwest of the bridge will require removal in order to provide construction access.

The Hampton River at the inlet to Hampton Harbor is a tidal water, and as such is subject to the Comprehensive Shoreland Protection Act (CSPA) (see Attachment 2-Protected Shoreland, South and North). The CSPA regulates activities from the HOTL landward 250 feet. However, based on coordination with the New Hampshire Department of Environmental Services (NHDES) (9-30-22 Site Walk), it was determined that all work between the HOTL and the TBZ, and all work within the Priority Resource Area (PRA) Dune Habitat, would be reviewed under the Dredge and Fill Application by NHDES. Therefore, the only areas of impact reviewed under this Shoreland Application consists of work areas outside the TBZ and PRA Dune Habitat. Since there are no woodland areas within the project, no Natural Woodland Buffer Zone (TBZ-150 feet from HOTL) has been shown on the plans and no impacts calculated. The areas of work activity being reviewed under the Shoreland Application are entirely developed, including roadway,

sidewalk, and adjoining landscaped and ruderal vegetation (as described below). In the northwest quadrant, there is a surface parking lot associated with the Hampton State Pier. In the northeast quadrant, there is a landscaped area associated with the Hampton Beach State Park Campground.

The project is located in the Gulf of Maine Coastal Plain Lowland Ecoregional Subsection of the state, according to the New Hampshire Wildlife Action Plan (NHWAP). The bridge approach to the north is dominated by ruderal vegetation, or vegetation on waste ground habitat. In the northwest quadrant of the bridge, maintained turf dominates vegetation outside the TBZ, with some weed species adjacent to the roadway edge. Vegetation in the northeast quadrant is maintained turf with several ornamental tree plantings. There are a few trees located within the project limits, although all of these trees are located outside the area of review for this Shoreland Application (i.e., within the TBZ and Dune Habitat PRA). Austrian pine (*Pinus nigra*) and blue spruce (*Picea pungens*) are located outside the project area adjacent to houses in the southeast portion of the project area as landscaping trees. A single red maple (*Acer rubrum*) and several red cedar (*Juniperus virginiana*) are located in the TBZ north of the bridge.

**Section 10 - Shoreland Impacts (Continued)**

The area of impact within the review area of this application consists of roadway, sidewalks, and landscaped areas and small vegetated strips between the roadway and adjacent properties (e.g., Hampton Beach State Park in the northeast quadrant, Hampton State Pier in the northwest quadrant, the Dunes WMA in the southwest quadrant, and residential properties in the southeast quadrant). Impacts within the review area total 52,460 SF. This does not include the protected PRA Dune habitat, the TBZ or wetlands, which will be reviewed under the NHDES Standard Dredge and Fill Permit; no trees will be removed within the review area. The activities impacting regulated shoreland include the approach roadway, sidewalks, and retaining walls on either side of the bridge, and a stormwater treatment swale in the northeast bridge quadrant. Shoreland impacts are presented in Table 1 below and depicted on Shoreland Impact Plans (Sheets 18-20) in Attachment 3-Shoreland Permit Plans. Representative photographs of impact areas within 50 feet of protected shoreland are included as Attachment 4.

**Table 1 – Summary of Shoreland Impacts**

Shoreland Impact Sheet #	Location	Area (SF) of Protected Shoreland Impact	Disturbance Activity
18, 19 & 20	Seabrook and Hampton ROW	47,975	Roadway approach, sidewalk, retaining wall, stormwater treatment swale (northeast bridge quadrant)
19 & 20	Hampton State Pier	3,180	Roadway approach, retaining wall
<b>Total</b>		51,155	

**Stormwater Management Requirements**

Although the project will result in a net decrease in impervious area overall and within the NHDOT ROW, a net increase in impervious area is proposed at the Hampton State Pier lot. Further, the percentage of post-construction impervious area is greater than 30%. Therefore, this project requires a stormwater

management plan designed and certified by a professional engineer. A description of the proposed stormwater management for the project is provided below and depicted on plans (see Attachment 3- Shoreland Permit Plans). As required, the post development volume and peak flow rate based on the 10-year, 24-hour storm event will not exceed the pre-development volume and peak flow rate for flow off the property within the Protected Shoreland. Sheet 23 of the Shoreland Permit Plans includes details on NHDOT Erosion and Sedimentation Control Strategies for the construction period. The project has been designed in accordance with the *NH Stormwater Manual, Volume 3, Erosion and Sediment Control During Construction*, December 2008.

Stormwater run-off from the new bridge will be contained between the roadway curbs and be captured by catch basins on the bridge approaches, eliminating direct discharge into the Hampton Harbor inlet. Drainage discharges will instead be routed through new stormwater treatment BMPs within the existing ROW at the northern and southern approaches before discharging into the Hampton Harbor inlet. A 280-foot-long treatment swale is proposed north of the bridge between the roadway and the State Park (NE project quadrant). This stormwater treatment practice was designed to capture and treat the water quality flow from the northern half of the bridge and approximately 300 feet of approach roadway and sidewalk. An underground infiltration system, consisting of plastic chambers surrounded by stone, is proposed south of the bridge between Route 1A and Eisenhower Street (SE project quadrant). This stormwater treatment practice was designed to capture and treat the water quality volume from the southern half of the bridge and approximately 450 feet of the approach roadway and sidewalk. The project will result in a higher level of treatment than under current conditions and will be in compliance with US EPA stormwater requirements and the NHDOT's MS4 permit. The project will be in compliance with NHDOT's MS4 Permit.

### **Agency Coordination**

Six state listed plant species and three vertebrate species were identified by the New Hampshire Natural Heritage Bureau (NHNHB) in correspondence dated 8/3/22 as potentially occurring in the vicinity of the project (see Attachment 5). Field survey has confirmed the presence of the six state listed plant species, however they are located outside the review area of this Shoreland Application (i.e., within the TBZ and PRA Dune Habitat). Impacts to these vegetation species and the natural communities identified – Beach grass grassland, Intertidal flat, and subtidal system – are being reviewed (separately) under a Standard Dredge and Fill Permit application being submitted to NHDES. A Mitigation Plan is also being developed in coordination with NHNHB. The NHDOT has undertaken coordination with the U.S. Fish and Wildlife Service and New Hampshire Fish and Game regarding federal and state listed avian species identified in the NHNHB DataCheck (see Attachment 5 – Agency Correspondence). Minutes from agency site walks undertaken on August 24, 2018 and September 30, 2022 are included as Attachment 6.



## Attachment 1: Pease Letter

January 26, 2023

Jennifer E. Reczek, PE  
NHDOT Bridge Consultant Design Chief and Project Manager  
PO Box 483  
7 Hazen Dr.  
Concord, NH 03301

Re: Statement of Temporary Use and Permanent Acquisition of State Property  
SEABROOK-HAMPTON 15904  
X-A001(026)  
NH 1A over Hampton Harbor

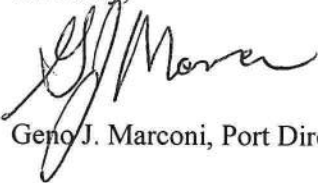
Dear Ms. Reczek,

Thank you for your recent letter, dated January 18, 2023, regarding the Shoreland Permit Application for the replacement of the Neil R. Underwood Bridge (the "Project"), which outlines temporary and permanent impacts the Project will have on the State Pier property.

The Port Authority has reviewed the proposed impacted areas, both temporary and permanent, and is aware that approximately 12,792 square feet (sf) will be impacted for approximately 2 years and approximately 2707 sf will be permanently impacted due to conversion for transportation use, and further understands that a portion of these areas lie within Protected Shoreland.

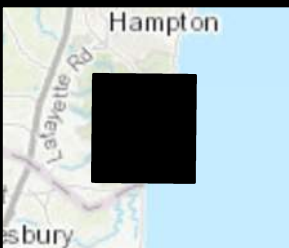
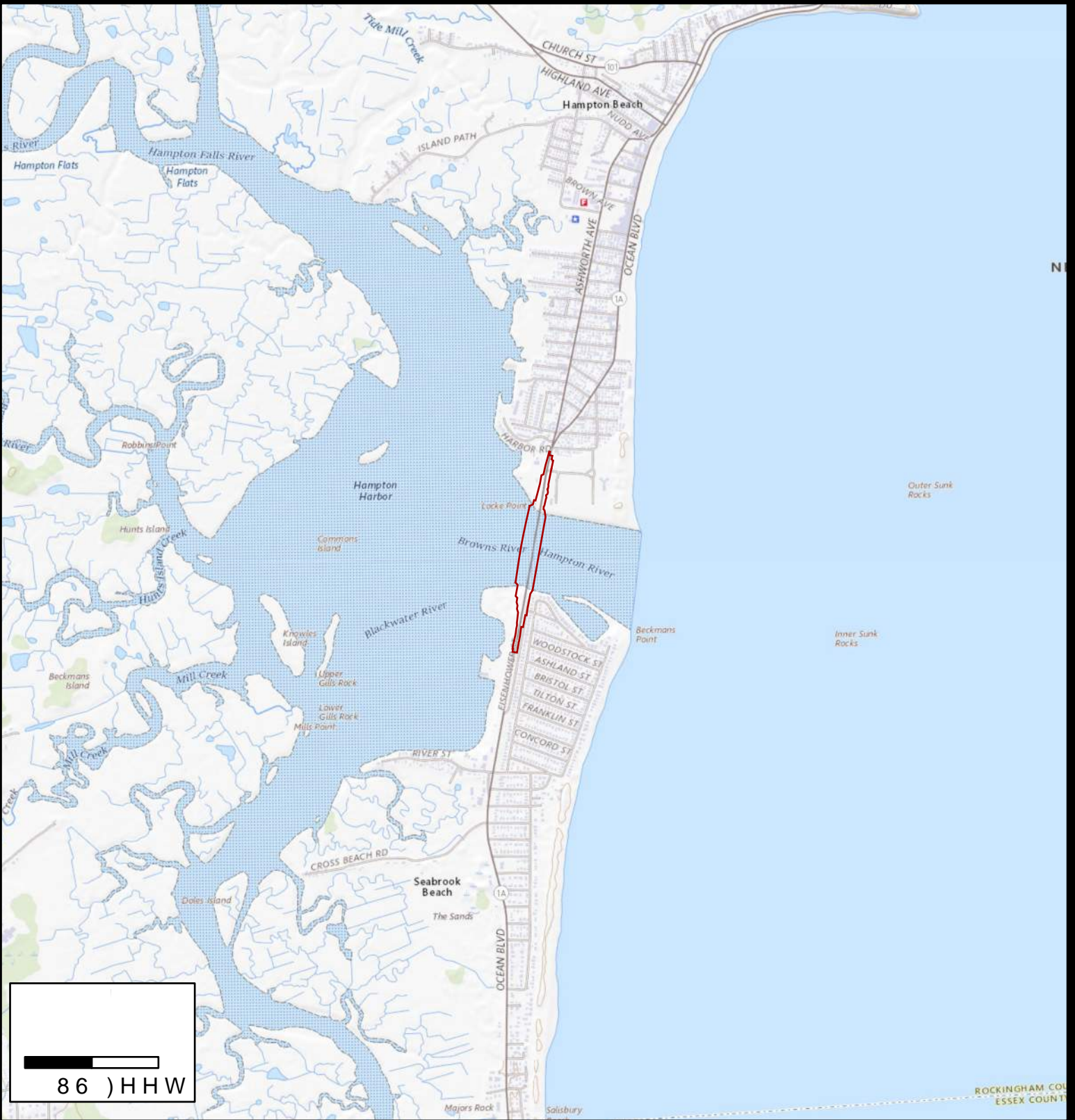
The Pease Development Authority Division of Ports and Harbors (Port Authority) has worked cooperatively with New Hampshire Department of Transportation (NHDOT) during the planning phase of the replacement of the Neil R. Underwood Bridge, please be assured of the continuing support of the Port Authority for this important project and it's Shoreland Permit application.

Sincerely,



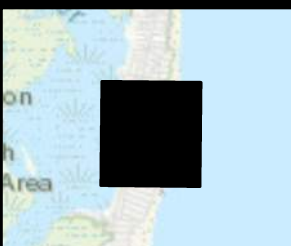
Geno J. Marconi, Port Director

## Attachment 2: Figures



'XQH  
:0\$

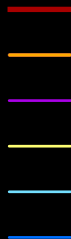
k  
)HHW



+DPSWRQ  
3LHU

+DPSWRQ %HD  
3DUN

k  
)HHW

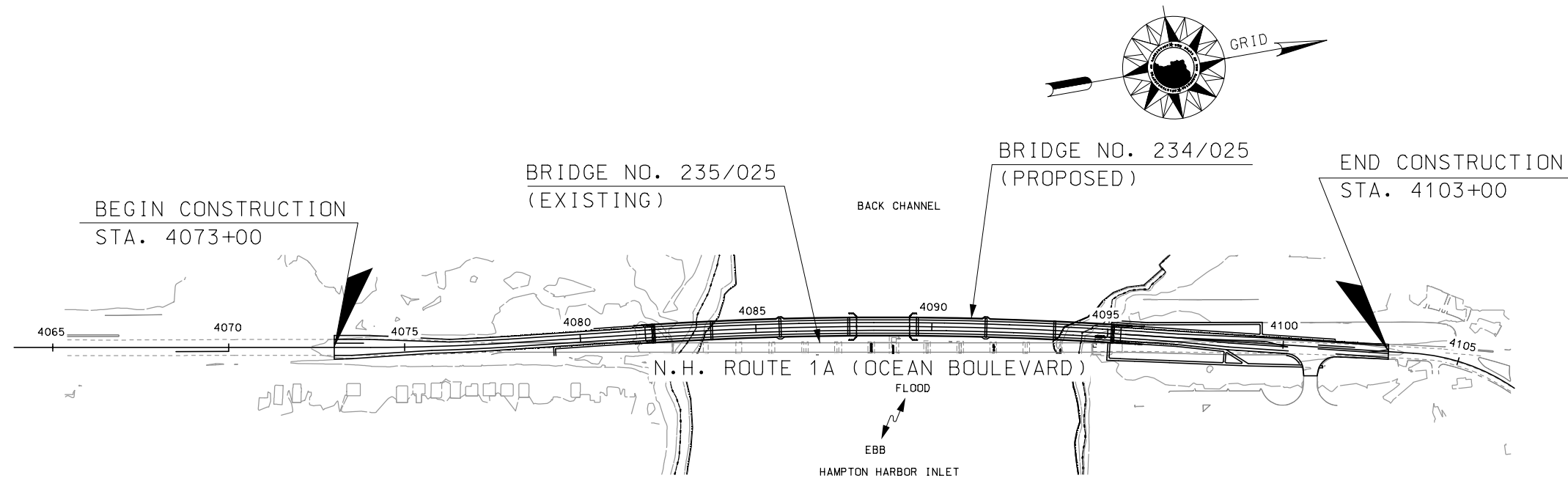
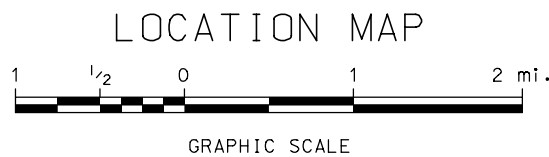
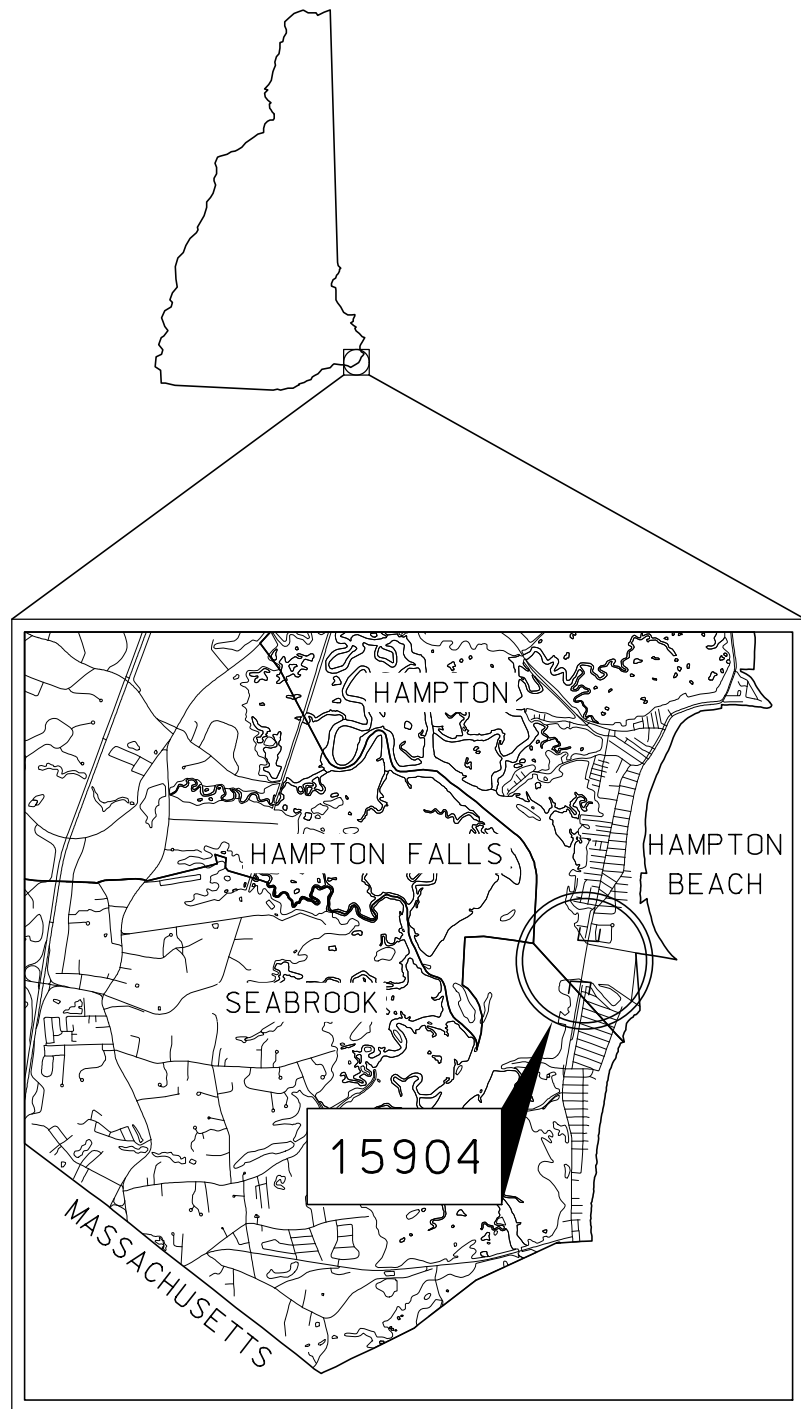


## Attachment 3: Shoreland Permit Plans

STATE OF NEW HAMPSHIRE  
 DEPARTMENT OF TRANSPORTATION  
**SHORELAND PERMIT PLANS**  
**FEDERAL AID PROJECT**

FEDERAL PROJECT NO. X-A001(026)  
 N.H. PROJECT NO. 15904  
 NH ROUTE 1A (OCEAN BOULEVARD)

DESIGN DATA	
AVERAGE DAILY TRAFFIC 20_20	9300
AVERAGE DAILY TRAFFIC 20_42	13764
PERCENT OF TRUCKS	7%
DESIGN SPEED	40 MPH
LENGTH OF PROJECT	3000 FT.

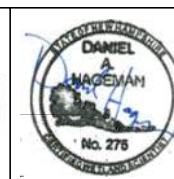
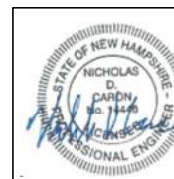


DATE 08/2022  
 DATE  
 DRAWN BY LHS  
 CHECKED BY

**TOWNS OF SEABROOK & HAMPTON**  
 COUNTY OF ROCKINGHAM

SCALE: 1" = 200'

THESE PLANS HAVE BEEN REDUCED  
 PHOTOGRAPHICALLY TO  
 APPROXIMATELY HALF SCALE



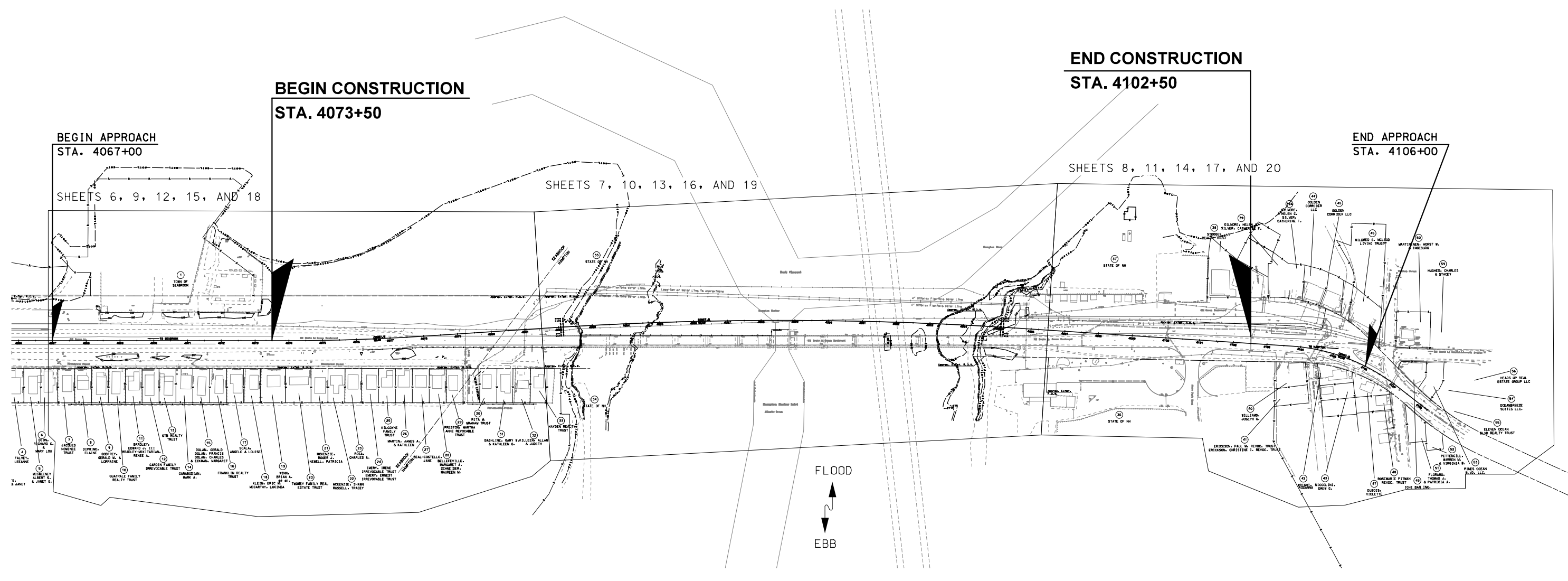
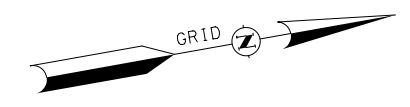
**NHDOT** THE STATE OF  
 NEW HAMPSHIRE  
 DEPARTMENT OF  
 TRANSPORTATION

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A001(026)	15904	1	23





SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	09/2022
AS BUILT DETAILS		DATE	



**END CONSTRUCTION  
STA. 4102+50**

**BEGIN CONSTRUCTION  
STA. 4073+50**

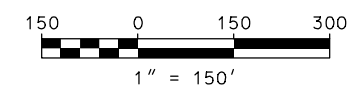
**BEGIN APPROACH  
STA. 4067+00**

**END APPROACH  
STA. 4106+00**

SHEETS 6, 9, 12, 15, AND 18

SHEETS 7, 10, 13, 16, AND 19

SHEETS 8, 11, 14, 17, AND 20

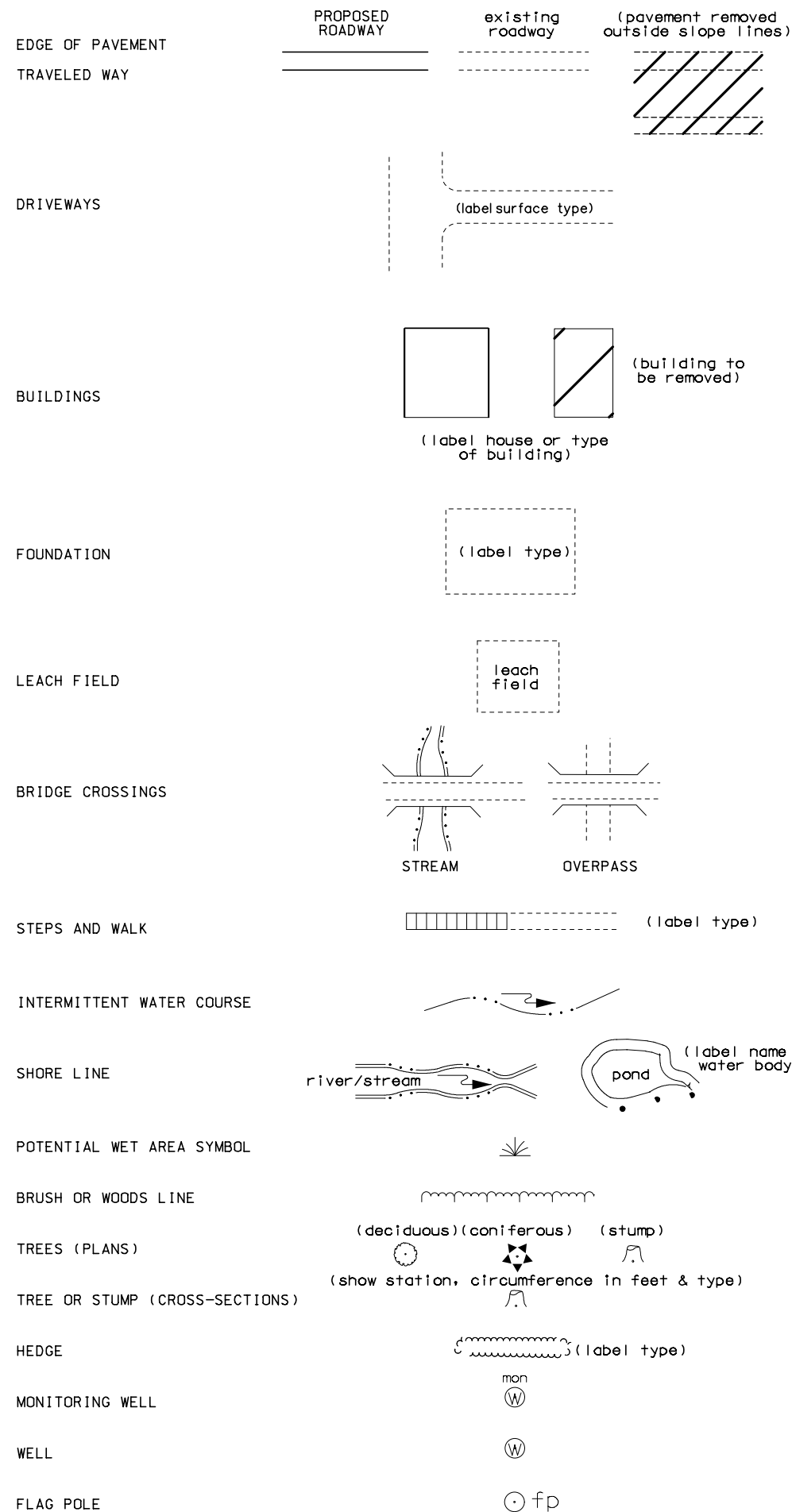


FLOOD  
↑  
↓  
EBB

STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>KEY PLAN</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
KEY001	15904SHR_Loc	15904	3	23



# GENERAL



ORIGINAL GROUND (TYPICALS)

ROCK OUTCROP

ROCK LINE (TYPICALS & SECTIONS ONLY)

GUARDRAIL (label type)

JERSEY BARRIER

CURB (LABEL TYPE)

STONE WALL

RETAINING WALL (LABEL TYPE)

FENCE (LABEL TYPE)

SIGNS

GAS PUMP

FUEL TANK (ABOVE GROUND)

STORAGE TANK FILLER CAP

SEPTIC TANK

GRAVE

MAILBOX

VENT PIPE

SATELLITE DISH ANTENNA

PHONE

GROUND LIGHT/LAMP POST

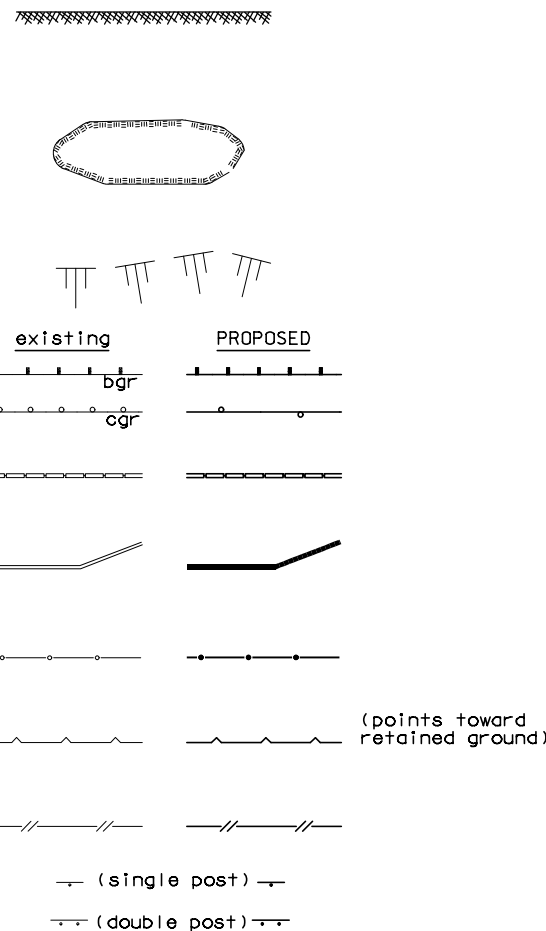
BORING LOCATION

TEST PIT

INTERSTATE NUMBERED HIGHWAY

UNITED STATES NUMBERED HIGHWAY

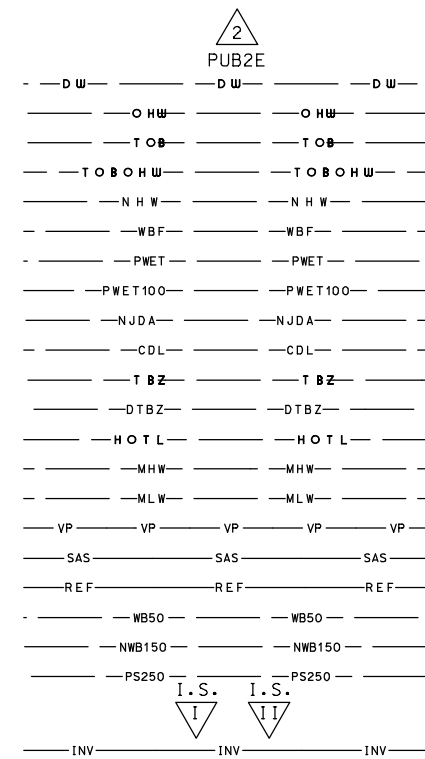
STATE NUMBERED HIGHWAY



# SHORELAND - WETLAND

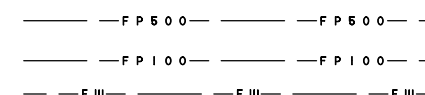
WETLAND DESIGNATION AND TYPE

DELINEATED WETLAND  
 ORDINARY HIGH WATER  
 TOP OF BANK  
 TOP OF BANK & ORDINARY HIGH WATER  
 NORMAL HIGH WATER  
 WIDTH AT BANK FULL  
 PRIME WETLAND  
 PRIME WETLAND 100' BUFFER  
 NON-JURISDICTIONAL DRAINAGE AREA  
 COWARDIN DISTINCTION LINE  
 TIDAL BUFFER ZONE  
 DEVELOPED TIDAL BUFFER ZONE  
 HIGHEST OBSERVABLE TIDE LINE  
 MEAN HIGH WATER  
 MEAN LOW WATER  
 VERNAL POOL  
 SPECIAL AQUATIC SITE  
 REFERENCE LINE  
 WATER FRONT BUFFER  
 NATURAL WOODLAND BUFFER  
 PROTECTED SHORELAND  
 INVASIVE SPECIES LABEL  
 INVASIVE SPECIES



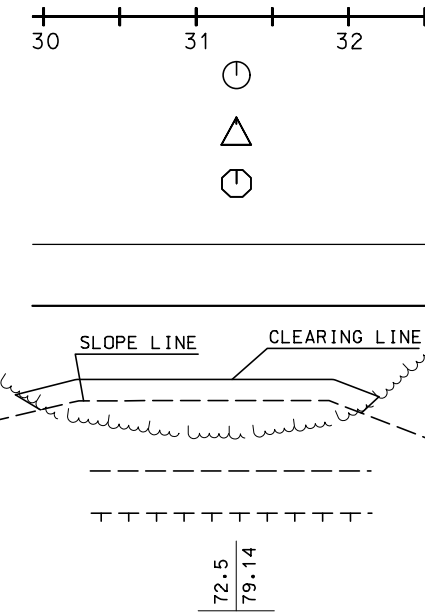
# FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY  
 100 YEAR FLOODPLAIN BOUNDARY  
 FLOODWAY



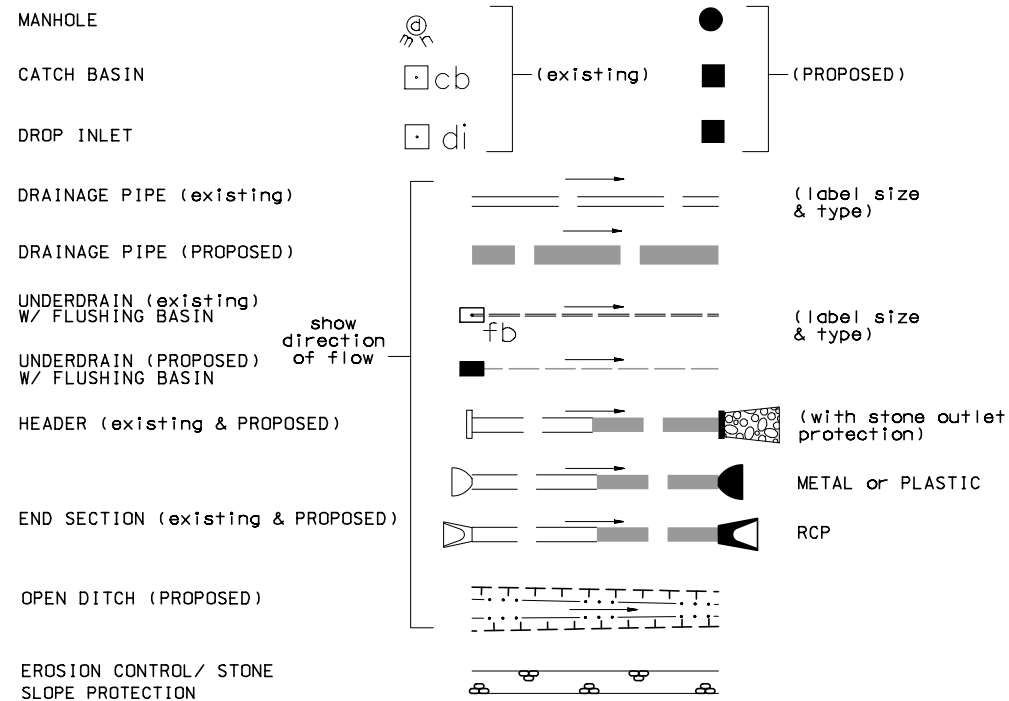
# ENGINEERING

CONSTRUCTION BASELINE  
 PC, PT, POT (ON CONST BASELINE)  
 PI (IN CONSTRUCTION BASELINES)  
 INTERSECTION OR EQUATION OF TWO LINES  
 ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)  
 PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)  
 CLEARING LINE  
 SLOPE LINE  
 SLOPE LINE (FILL)  
 SLOPE LINE (CUT)  
 PROFILES AND CROSS SECTIONS:  
 ORIGINAL GROUND ELEVATION (LEFT)  
 FINISHED GRADE ELEVATION (RIGHT)

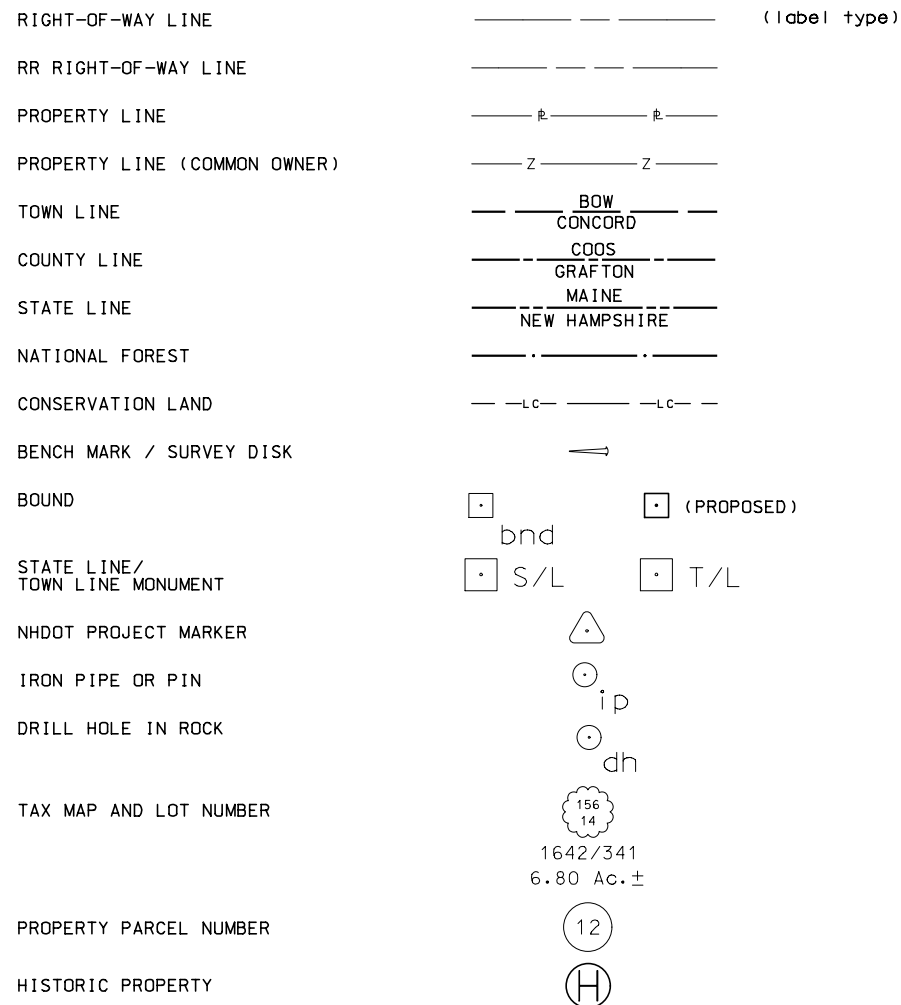


REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
11-21-2014	stdsyml-2	15904	4	23

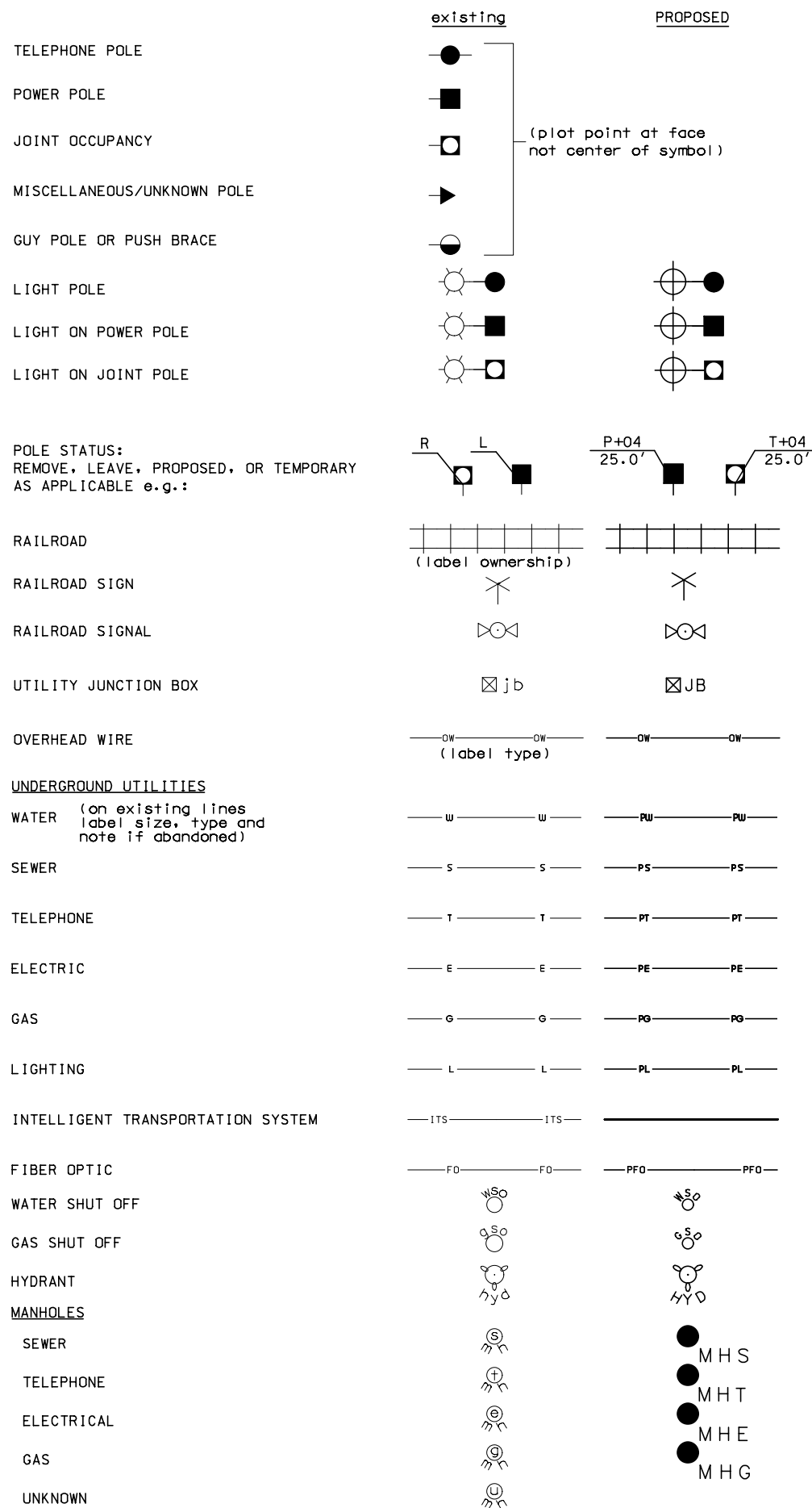
## DRAINAGE



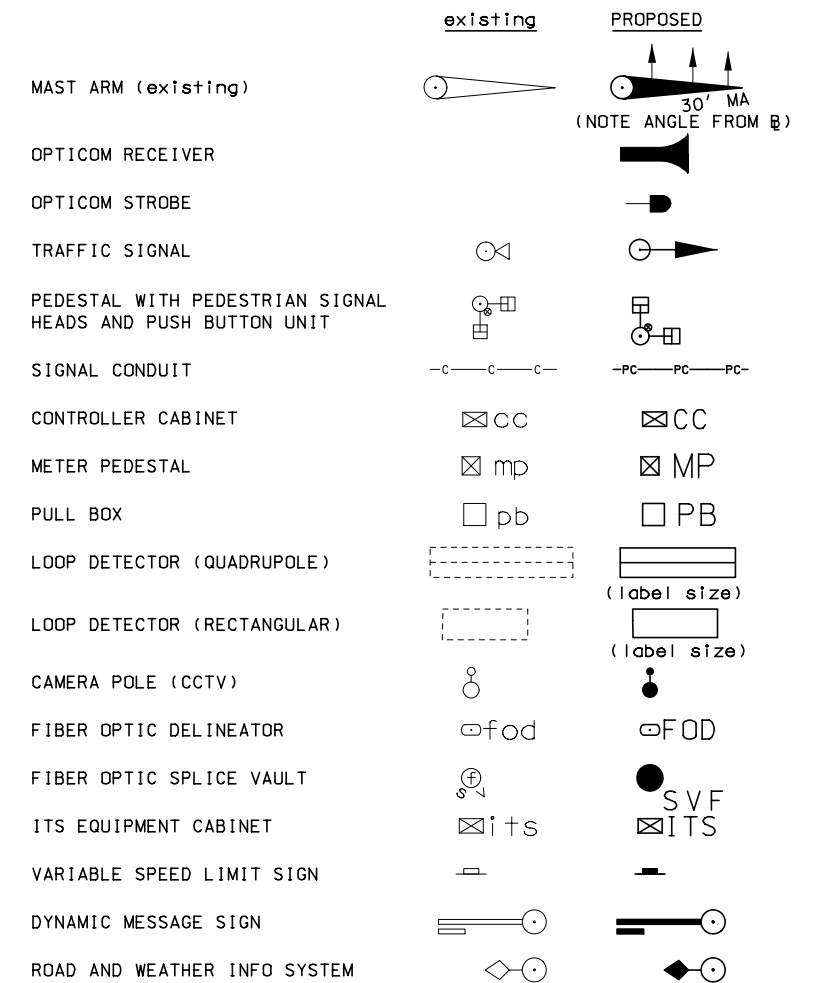
## BOUNDARIES / RIGHT-OF-WAY



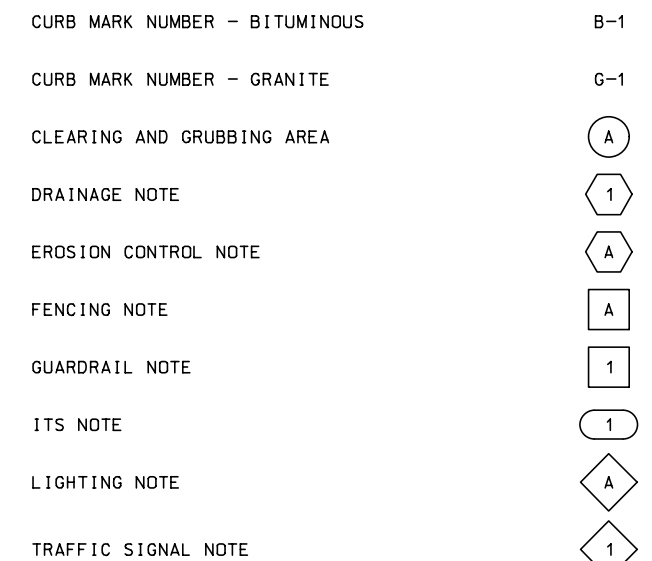
## UTILITIES



## TRAFFIC SIGNALS / ITS



## CONSTRUCTION NOTES



SHEET 2 OF 2

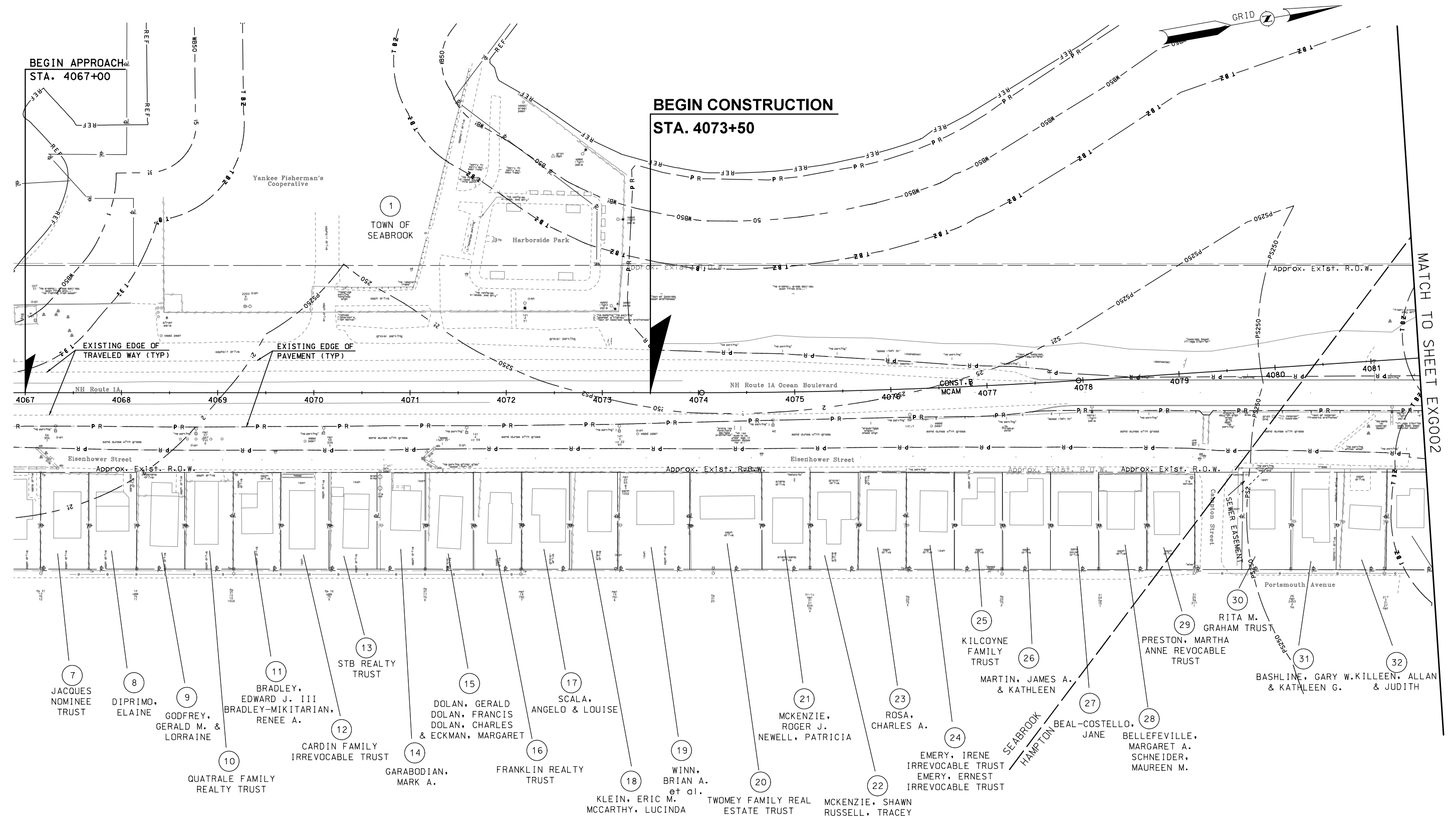
STATE OF NEW HAMPSHIRE  
SEABROOK-HAMPTON  
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

## STANDARD SYMBOLS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-1-2016	stdsymbol-2	15904	5	23

SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	
AS BUILT DETAILS		DATE	

REVISIONS AFTER PROPOSAL	STATION	DATE	DESCRIPTION

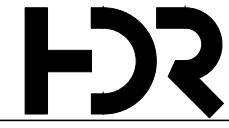


**BEGIN CONSTRUCTION**  
STA. 4073+50

**BEGIN APPROACH**  
STA. 4067+00

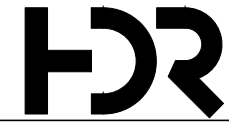
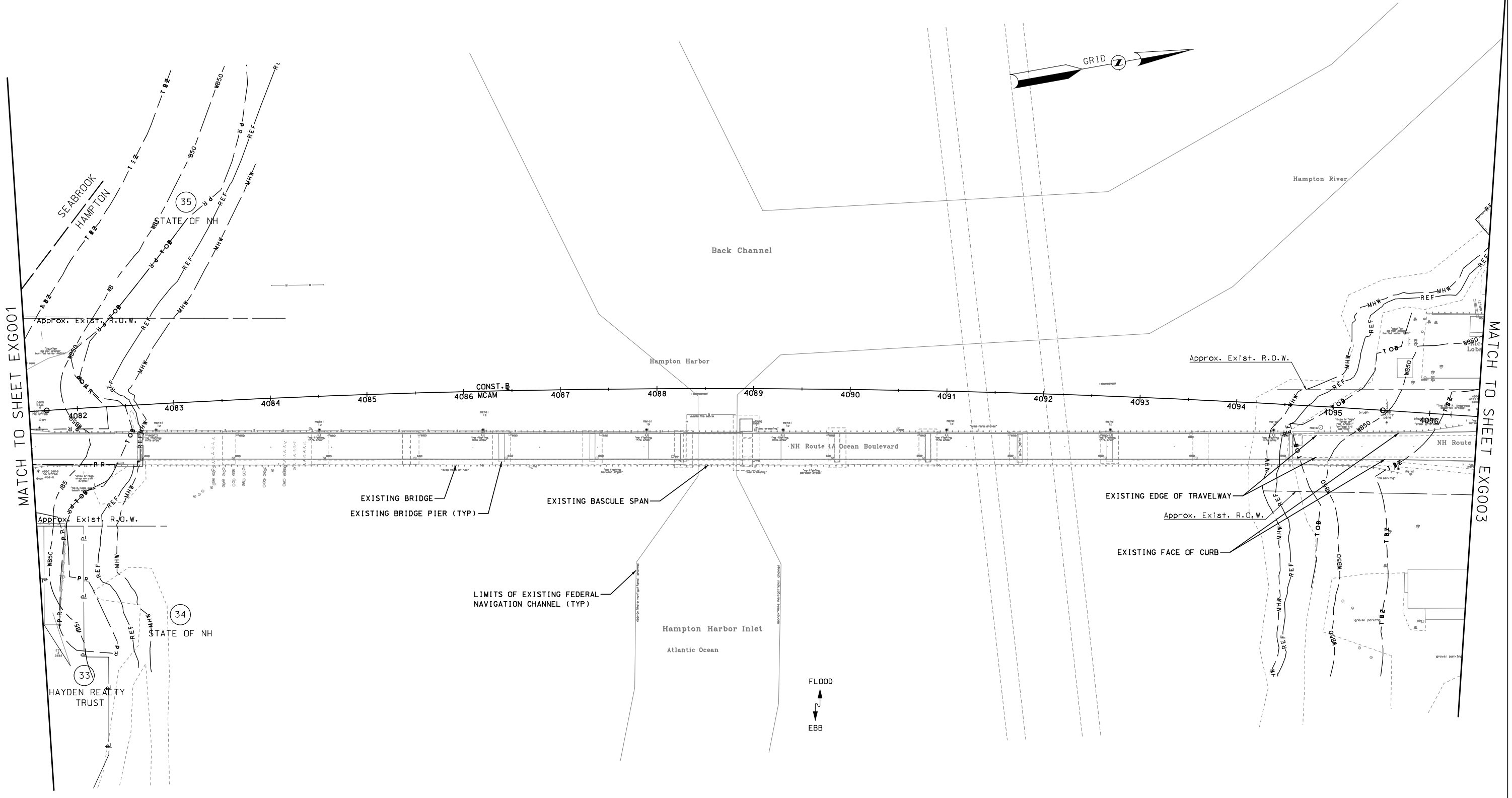
MATCH TO SHEET EXG002

- 7 JACQUES NOMINEE TRUST
- 8 DIPRIMO, ELAINE
- 9 GODFREY, GERALD M. & LORRAINE
- 10 QUATRALE FAMILY REALTY TRUST
- 11 BRADLEY, EDWARD J. III BRADLEY-MIKITARIAN, RENEE A.
- 12 CARDIN FAMILY IRREVOCABLE TRUST
- 13 STB REALTY TRUST
- 14 GARABODIAN, MARK A.
- 15 DOLAN, GERALD DOLAN, FRANCIS DOLAN, CHARLES & ECKMAN, MARGARET
- 16 FRANKLIN REALTY TRUST
- 17 SCALA, ANGELO & LOUISE
- 18 KLEIN, ERIC M. MCCARTHY, LUCINDA
- 19 WINN, BRIAN A. et al.
- 20 TWOMEY FAMILY REAL ESTATE TRUST
- 21 MCKENZIE, ROGER J. NEWELL, PATRICIA
- 22 MCKENZIE, SHAWN RUSSELL, TRACEY
- 23 ROSA, CHARLES A.
- 24 EMERY, IRENE IRREVOCABLE TRUST EMERY, ERNEST IRREVOCABLE TRUST
- 25 KILCOYNE FAMILY TRUST
- 26 MARTIN, JAMES A. & KATHLEEN
- 27 BEAL-COSTELLO, JANE
- 28 BELLEFEVILLE, MARGARET A. SCHNEIDER, MAUREEN M.
- 29 PRESTON, MARTHA ANNE REVOCABLE TRUST
- 30 RITA M. GRAHAM TRUST
- 31 BASHLINE, GARY W. KILLEEN, ALLAN & KATHLEEN G.
- 32



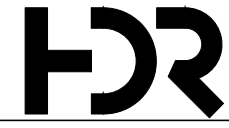
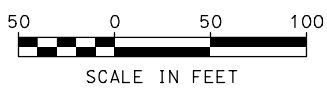
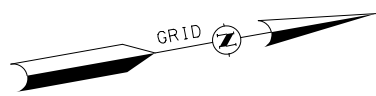
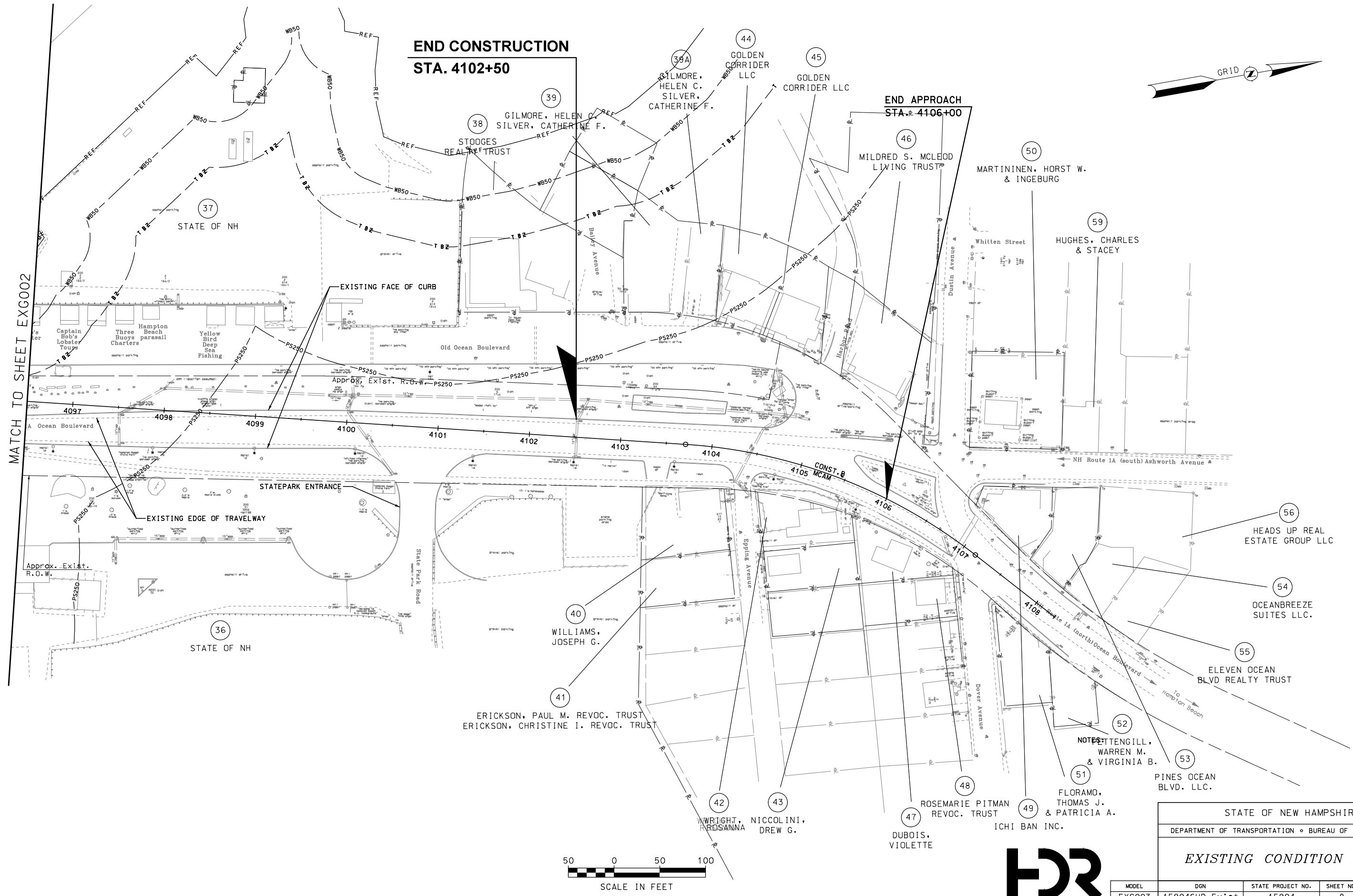
STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>EXISTING CONDITION PLANS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
EXG001	15904SHR_Exist	15904	6	23

SDR PROCESSED	NHDDT	DATE	09/2022	REVISIONS AFTER PROPOSAL	STATION
NEW DESIGN	HAB	DATE	09/2022	DESCRIPTION	
SHEET CHECKED	PJL	DATE	09/2022		
AS BUILT DETAILS		DATE			



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>EXISTING CONDITION PLANS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
EXG002	15904SHR_Exist	15904	7	23

SDR PROCESSED	NHDDT	DATE	DATE	REVISIONS AFTER PROPOSAL	DESCRIPTION
NEW DESIGN	HAB	09/2022	09/2022		
SHEET CHECKED	PUL	09/2022			
AS BUILT DETAILS					

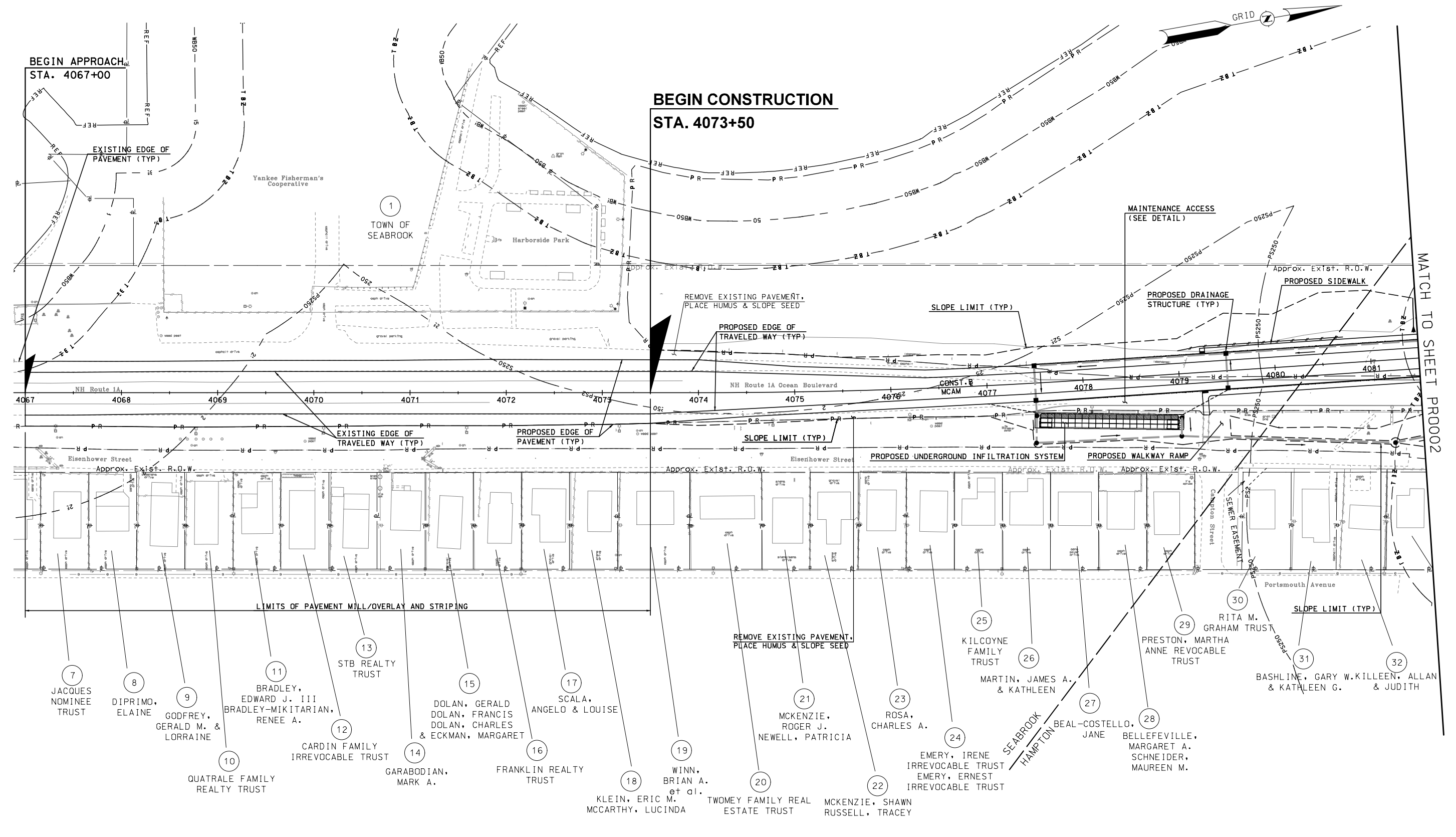


STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>EXISTING CONDITION PLANS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
EXG003	15904SHR_Exist	15904	8	23

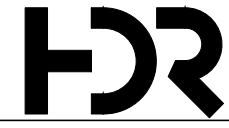
MATCH TO SHEET EXG002

SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	
AS BUILT DETAILS		DATE	

REVISIONS AFTER PROPOSAL	DESCRIPTION
STATION	
STATION	
DATE	
NUMBER	



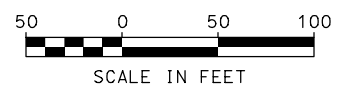
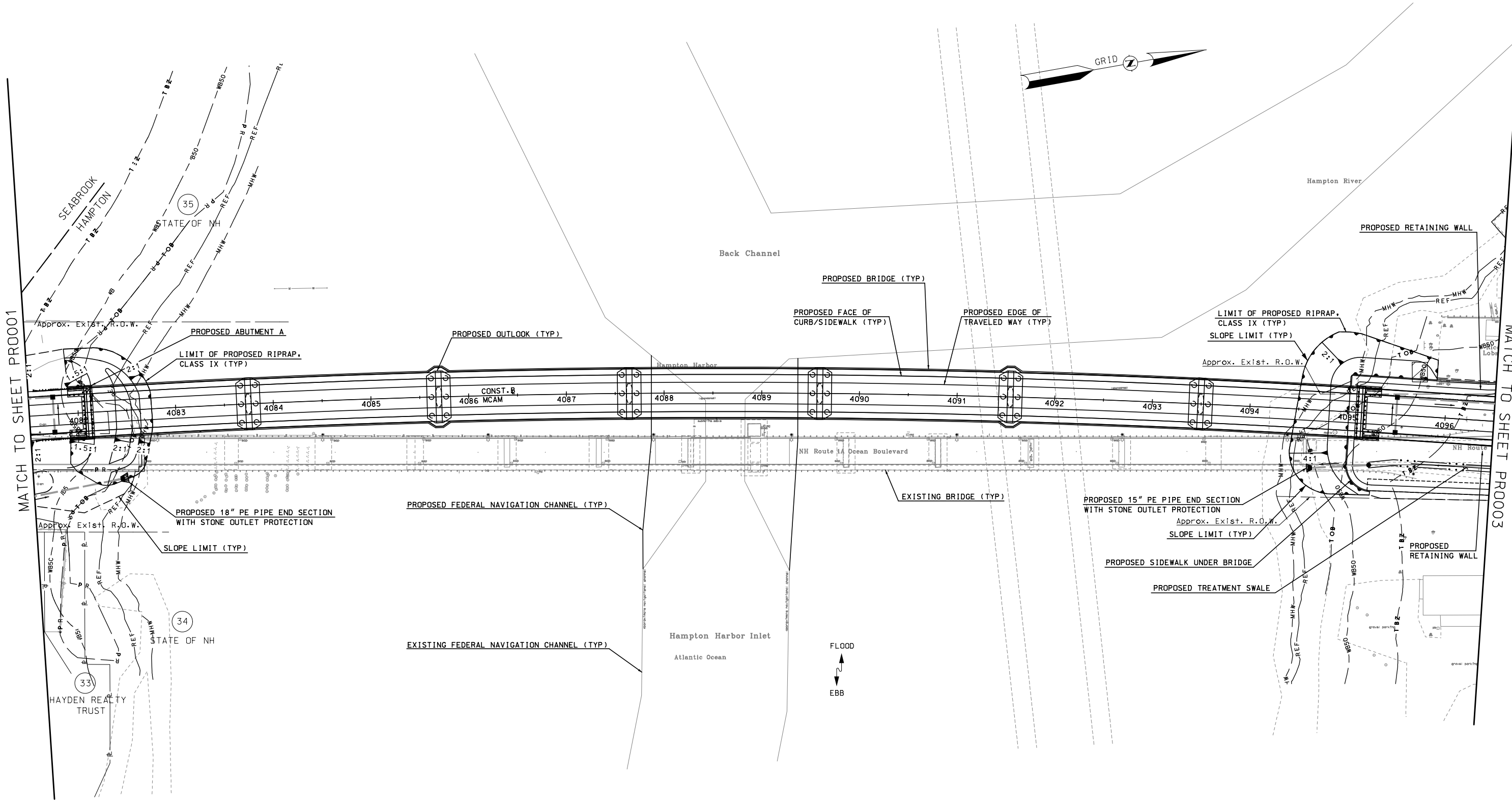
MATCH TO SHEET PRO002



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>PROPOSED CONDITION SHEETS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
PR0001	15904SHR_Prop	15904	9	23

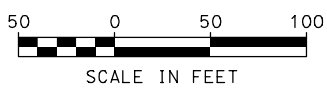
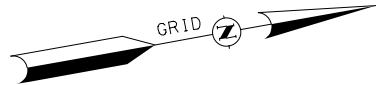
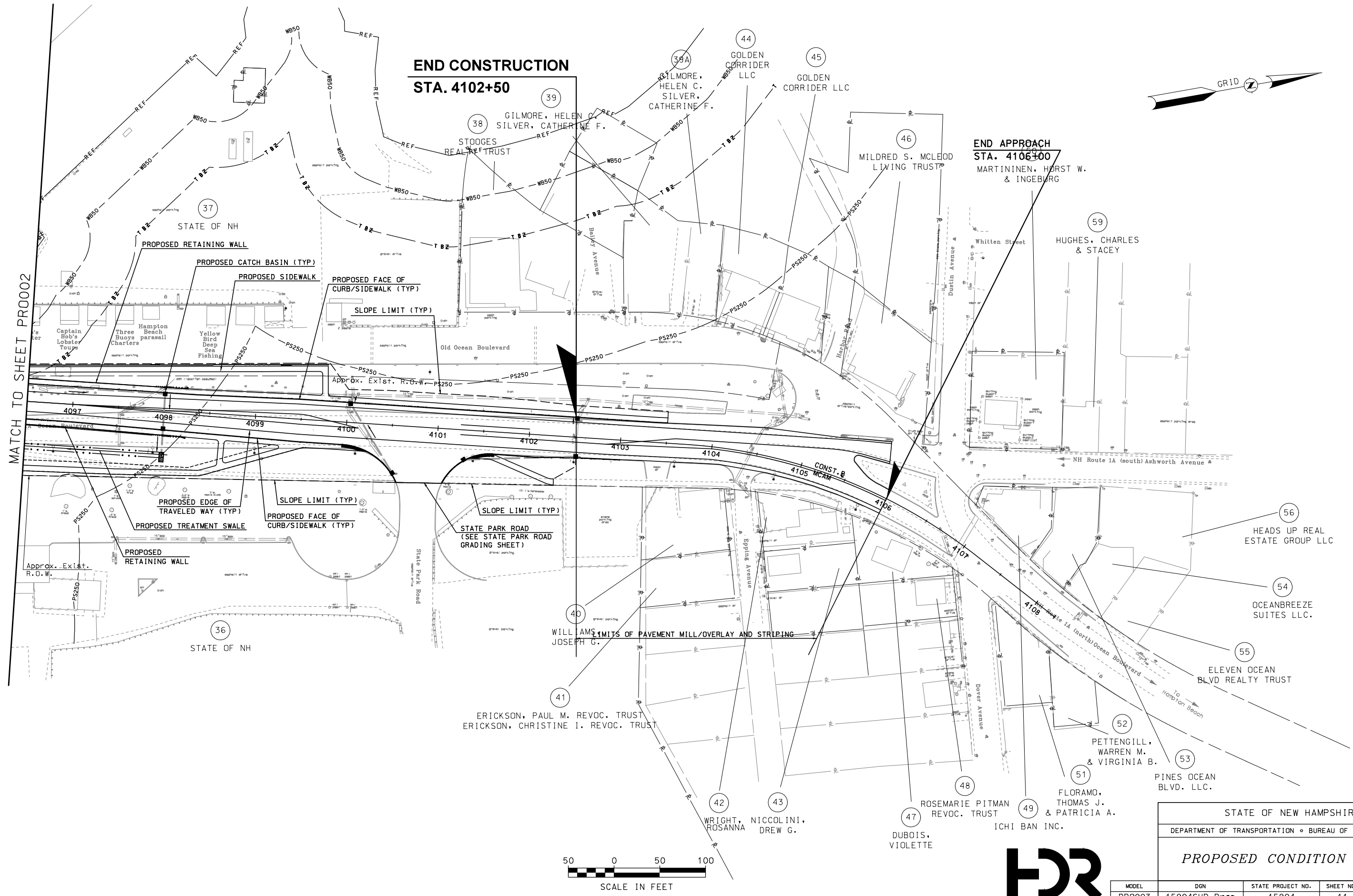


SDR PROCESSED	NHDDOT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	09/2022
AS BUILT DETAILS		DATE	



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<i>PROPOSED CONDITION SHEETS</i>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
PR0002	15904SHR_Prop	15904	10	23

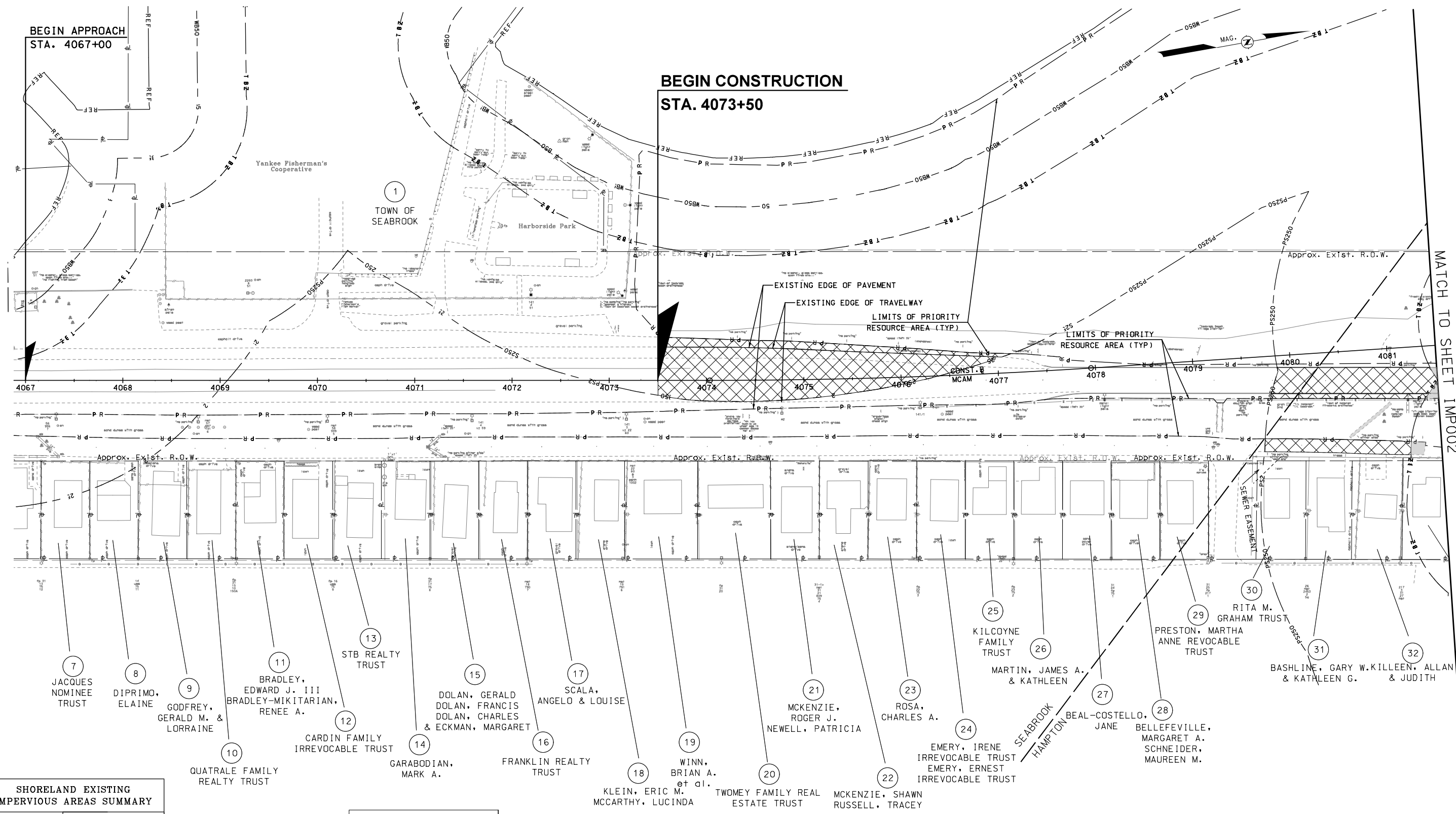
SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	09/2022
AS BUILT DETAILS		DATE	



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>PROPOSED CONDITION PLANS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
PRO003	15904SHR_Prop	15904	11	23

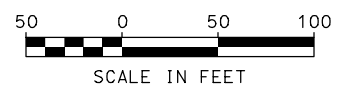
SDR PROCESSED	NHDDT	DATE	09/2022
	HAB	DATE	09/2022
NEW DESIGN	PJL	DATE	
	CHECKED	DATE	
AS BUILT DETAILS			

REVISIONS AFTER PROPOSAL	DESCRIPTION
STATION	
STATION	
DATE	
NUMBER	



SHORELAND EXISTING IMPERVIOUS AREAS SUMMARY		
LOCATION	AREAS (SF)	
	NHDOT ROW	STATE PIER
SHEET 12	23830	0
SHEET 13	2130	0
SHEET 14	6980	54480
TOTAL	32940	54480

KEY	
NHDES WETLANDS BUREAU JURISDICTION	
EXISTING IMPERVIOUS AREAS	



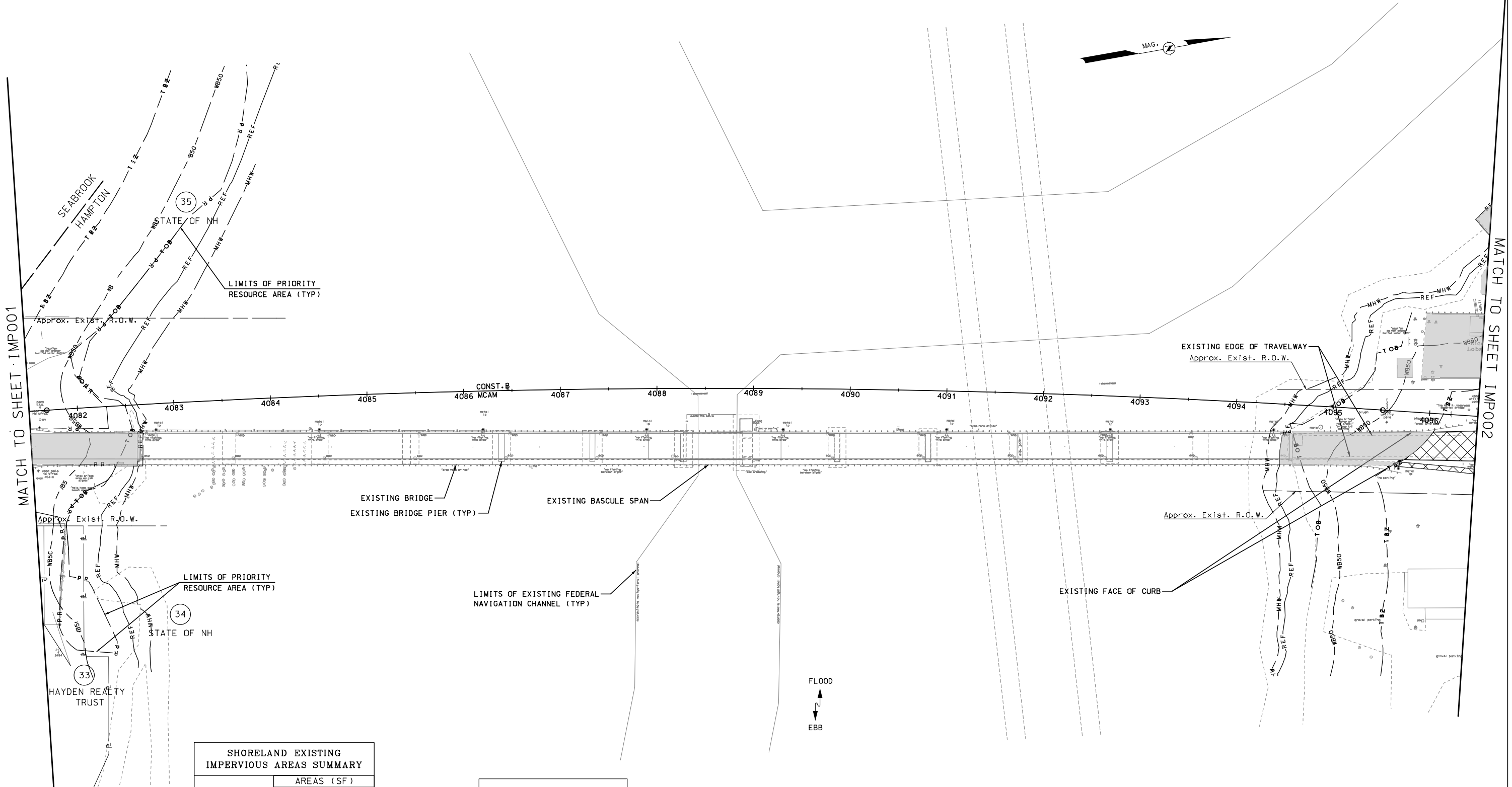
TOTAL EXISTING IMPERVIOUS AREA  
TBZ TO PS250 = 87420 SF



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>EXISTING IMPERVIOUS AREA SHEETS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
IMPO0115904SHR_Imperv_Ext	st	15904	12	23

MATCH TO SHEET 1MPO02

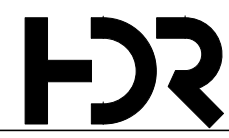
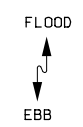
SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	09/2022
AS BUILT DETAILS		DATE	



SHORELAND EXISTING IMPERVIOUS AREAS SUMMARY		
LOCATION	AREAS (SF)	
	NHDDT ROW	STATE PIER
SHEET 12	23830	0
SHEET 13	2130	0
SHEET 14	6980	54480
TOTAL	32940	54480

TOTAL EXISTING IMPERVIOUS AREA  
TBZ TO PS250 = 87420 SF

KEY	
NHDES WETLANDS BUREAU JURISDICTION	
EXISTING IMPERVIOUS AREAS	



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>EXISTING IMPERVIOUS AREA SHEETS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
IMP0025904SHR_Imperv_Ext	st	15904	13	23

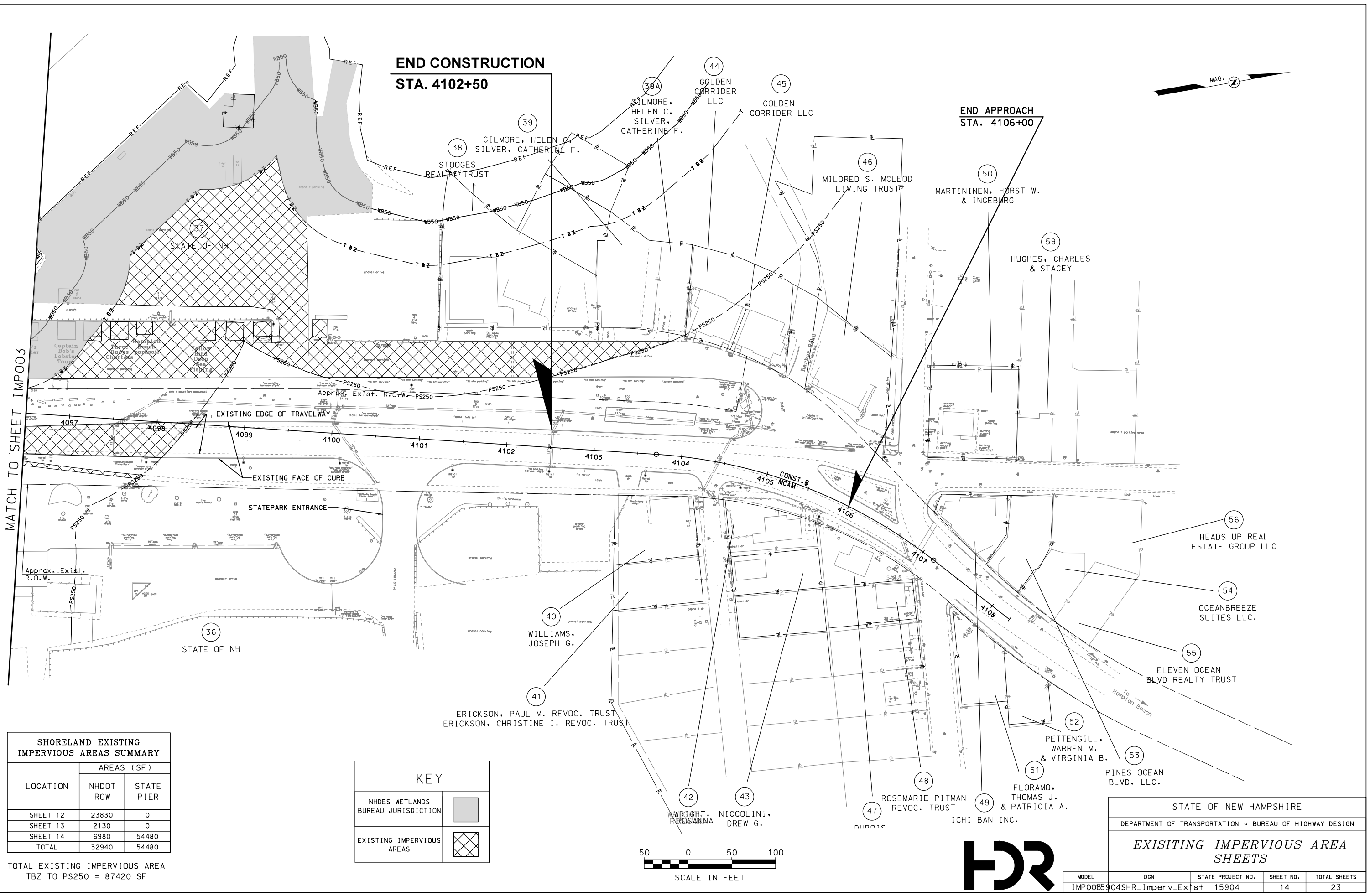
REVISIONS AFTER PROPOSAL	DESCRIPTION

STATION	STATION	DATE	NUMBER

MATCH TO SHEET IMP001

MATCH TO SHEET IMP002

SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	
AS BUILT DETAILS		DATE	



**END CONSTRUCTION  
STA. 4102+50**

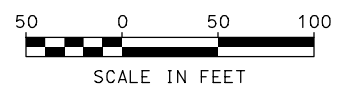
**END APPROACH  
STA. 4106+00**

MATCH TO SHEET IMPO03

SHORELAND EXISTING IMPERVIOUS AREAS SUMMARY		
LOCATION	AREAS (SF)	
	NHDOT ROW	STATE PIER
SHEET 12	23830	0
SHEET 13	2130	0
SHEET 14	6980	54480
<b>TOTAL</b>	<b>32940</b>	<b>54480</b>

TOTAL EXISTING IMPERVIOUS AREA  
TBZ TO PS250 = 87420 SF

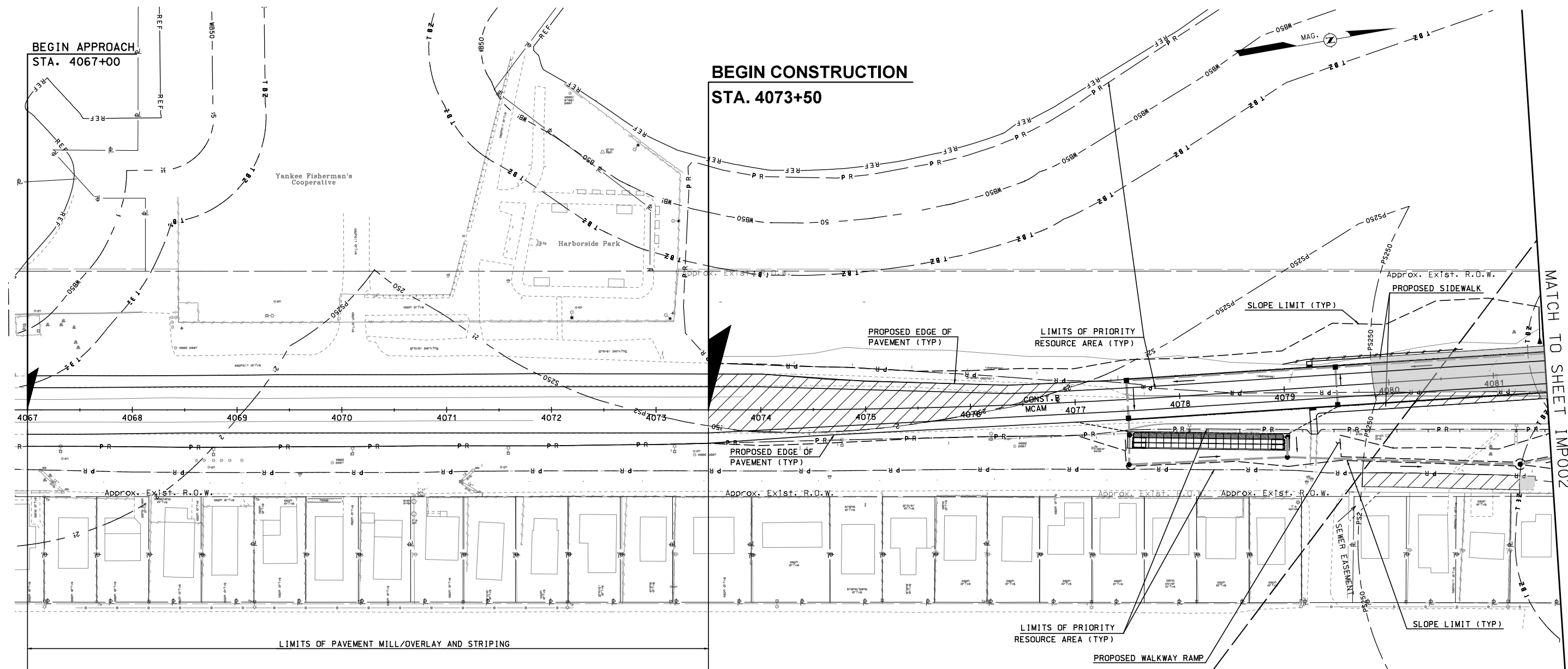
KEY	
NHDES WETLANDS BUREAU JURISDICTION	
EXISTING IMPERVIOUS AREAS	



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>EXISTING IMPERVIOUS AREA SHEETS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
IMPO05904SHR_Imperv_Ext		15904	14	23

SDR PROCESSED		NHDDT	DATE	09/2022
NEW DESIGN		HAB	DATE	09/2022
SHEET CHECKED		PJL	DATE	09/2022
AS BUILT DETAILS			DATE	

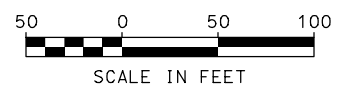
REVISIONS AFTER PROPOSAL	DESCRIPTION
STATION	
NUMBER	
DATE	



SHORELAND PROPOSED IMPERVIOUS AREAS SUMMARY		
LOCATION	AREAS (SF)	
	NHDOT ROW	STATE PIER
SHEET 15	17250	0
SHEET 16	2490	0
SHEET 17	10810	55760
TOTAL	30550	55760

TOTAL PROPOSED IMPERVIOUS AREA  
TBZ TO PS250 = 86310 SF

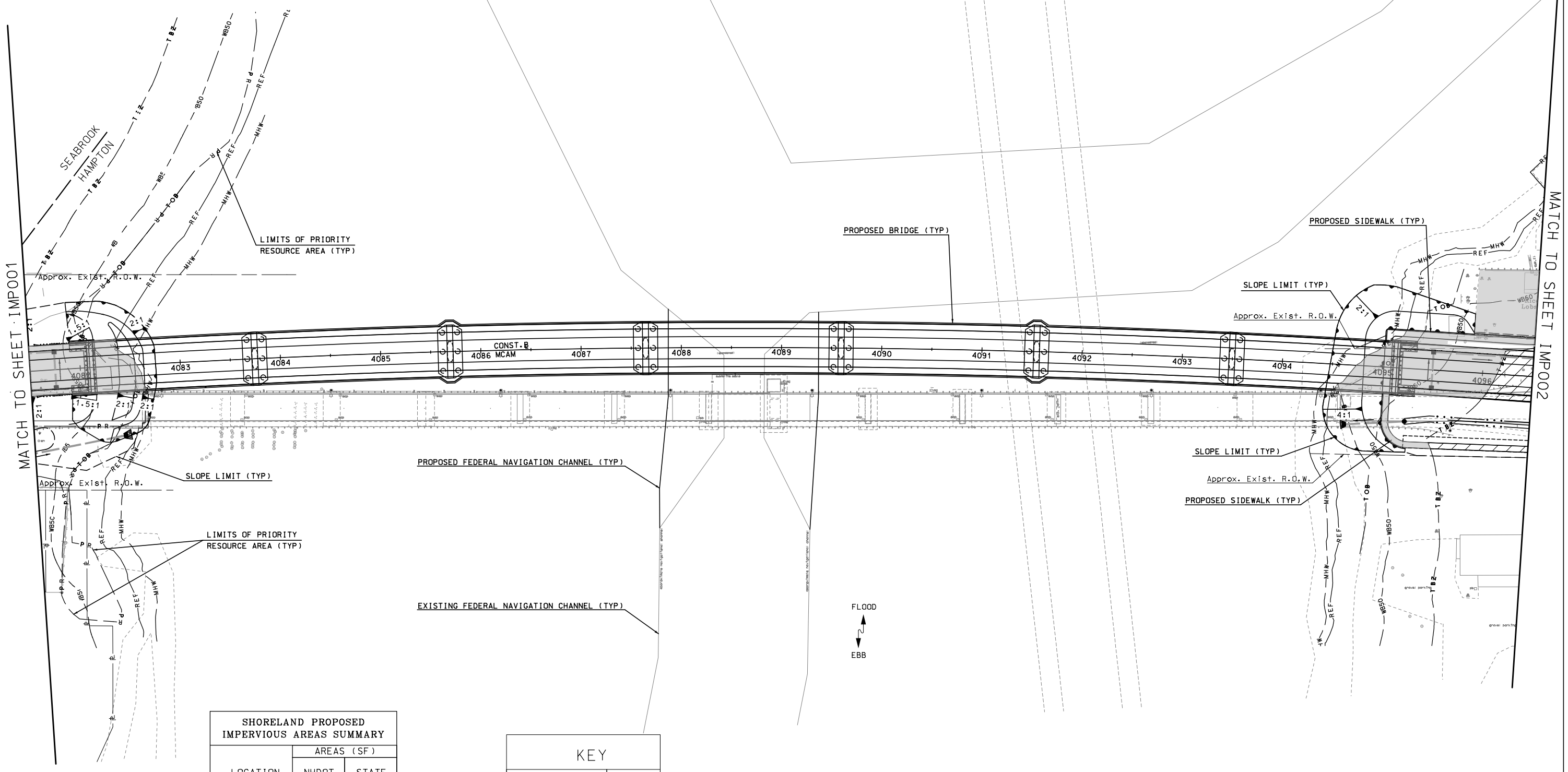
KEY	
NHDES WETLANDS BUREAU JURISDICTION	
PROPOSED IMPERVIOUS AREAS	



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>PROPOSED IMPERVIOUS AREA SHEETS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
IMP0015904SHR_Imper_v_Prop		15904	15	23

MATCH TO SHEET IMP002

SDR PROCESSED	NHDDT	DATE	09/2022	REVISIONS AFTER PROPOSAL	DESCRIPTION
NEW DESIGN	HAB	DATE	09/2022	STATION	
SHEET CHECKED	PJL	DATE	09/2022	STATION	
AS BUILT DETAILS		DATE		DATE	



**SHORELAND PROPOSED IMPERVIOUS AREAS SUMMARY**

LOCATION	AREAS (SF)	
	NHDOT ROW	STATE PIER
SHEET 15	17250	0
SHEET 16	2490	0
SHEET 17	10810	55760
TOTAL	30550	55760

TOTAL PROPOSED IMPERVIOUS AREA  
TBZ TO PS250 = 86310 SF

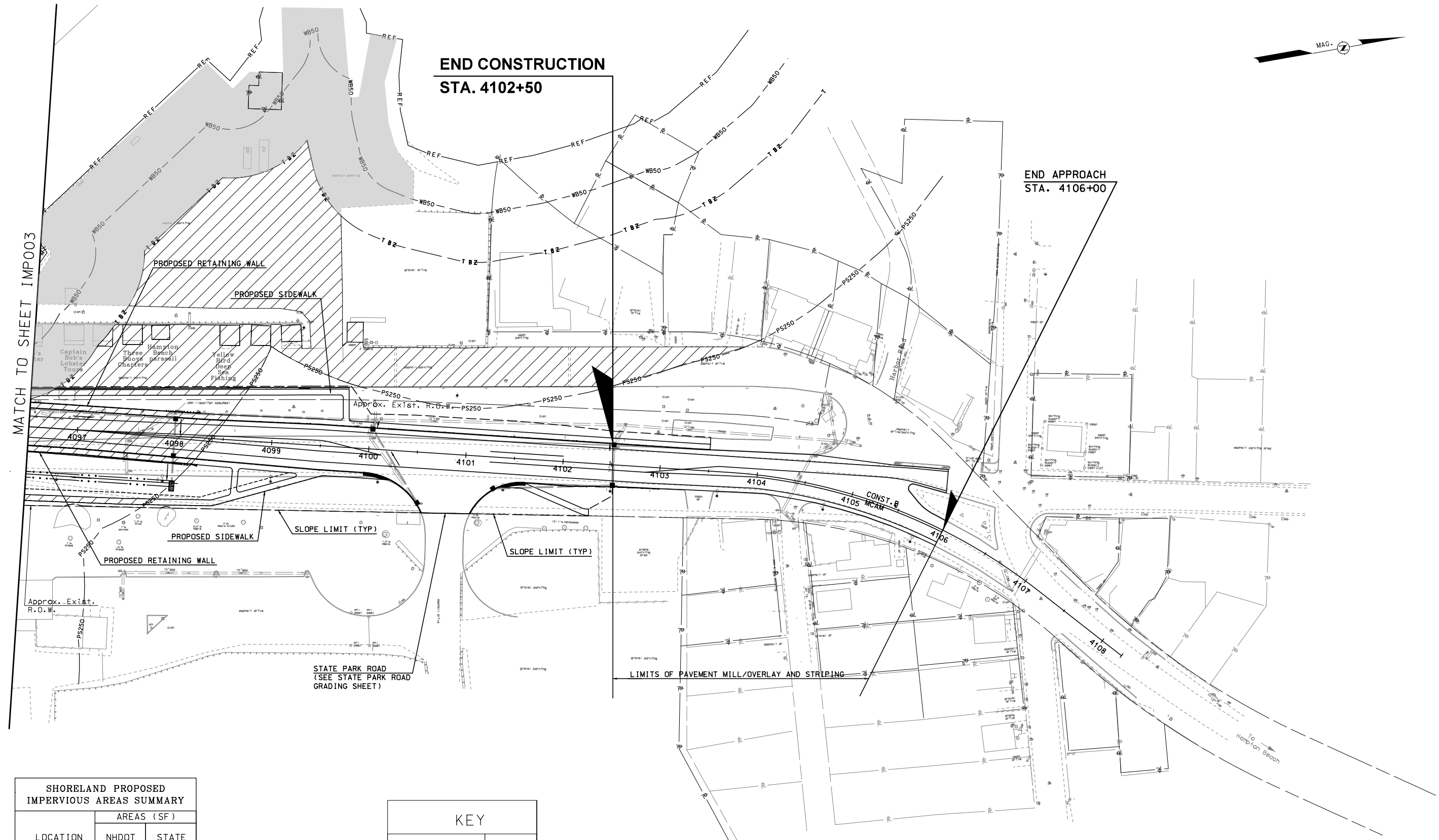
**KEY**

NHDES WETLANDS BUREAU JURISDICTION	
PROPOSED IMPERVIOUS AREAS	



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>PROPOSED IMPERVIOUS AREA SHEETS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
IMP0025B04SHR_Imperv_Prop		15904	16	23

SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	09/2022
AS BUILT DETAILS		DATE	



**SHORELAND PROPOSED IMPERVIOUS AREAS SUMMARY**

LOCATION	AREAS (SF)	
	NHDDT ROW	STATE PIER
SHEET 15	17250	0
SHEET 16	2490	0
SHEET 17	10810	55760
TOTAL	30550	55760

TOTAL PROPOSED IMPERVIOUS AREA  
TBZ TO PS250 = 86310 SF

**KEY**

NHDES WETLANDS BUREAU JURISDICTION	
PROPOSED IMPERVIOUS AREAS	

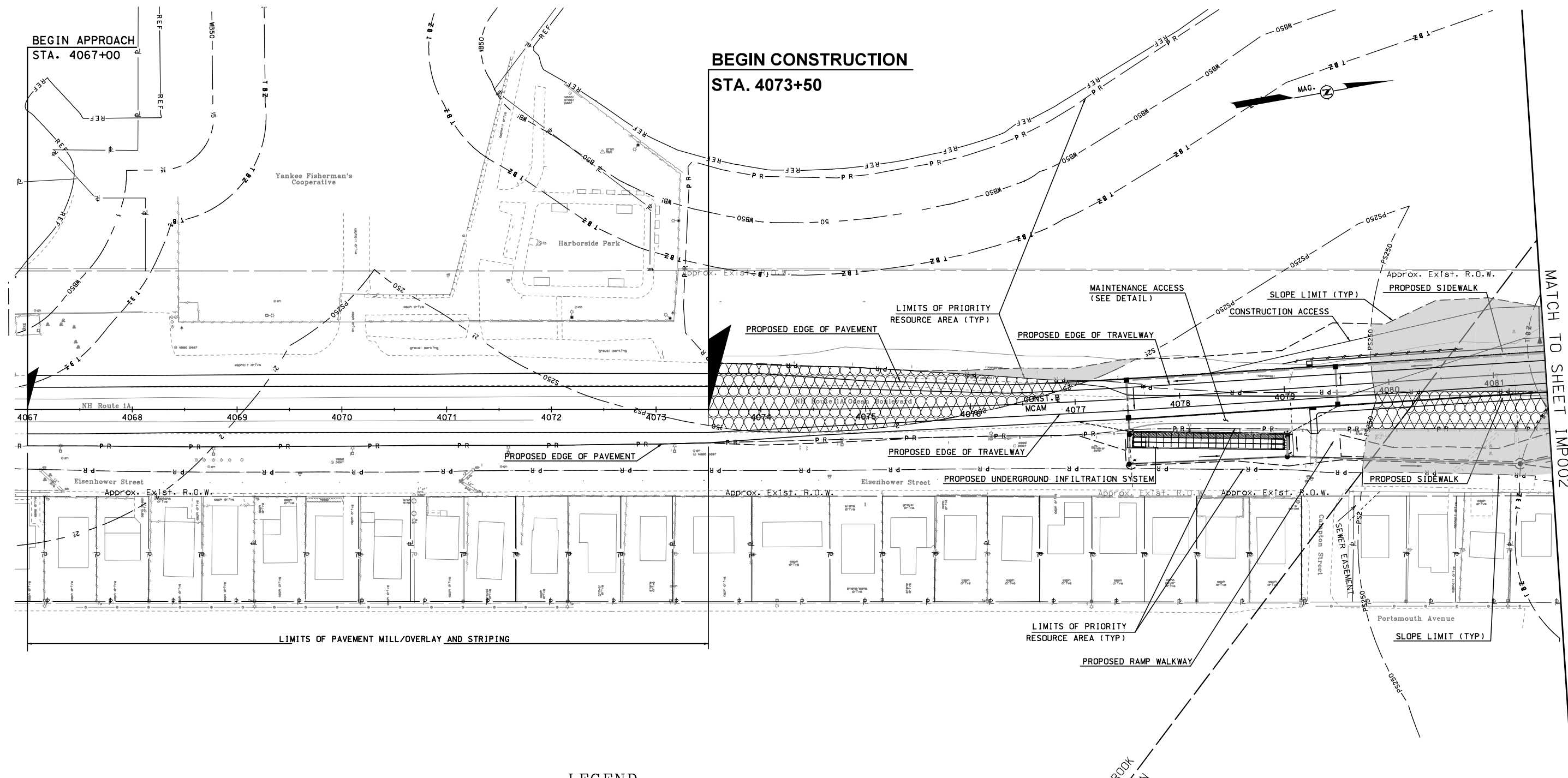


STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>PROPOSED IMPERVIOUS AREA SHEETS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
IMP0025B04SHR_Imperv_Prop	15904	17	23	



SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	09/2022
AS BUILT DETAILS		DATE	

REVISIONS AFTER PROPOSAL	DESCRIPTION
STATION	
STATION	
DATE	
NUMBER	

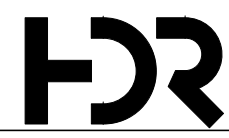
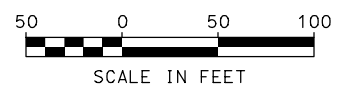


SHORELAND IMPACT SUMMARY (TBZ to PS250)		
AREAS (SF)		
LOCATION	NHDOT ROW	STATE PIER
SHEET 18	22310	0
SHEET 19	6430	0
SHEET 20	19235	3180
<b>TOTAL</b>	<b>47975</b>	<b>3180</b>

TOTAL IMPACTS TBZ TO PS250 = 51155 SF

**LEGEND**

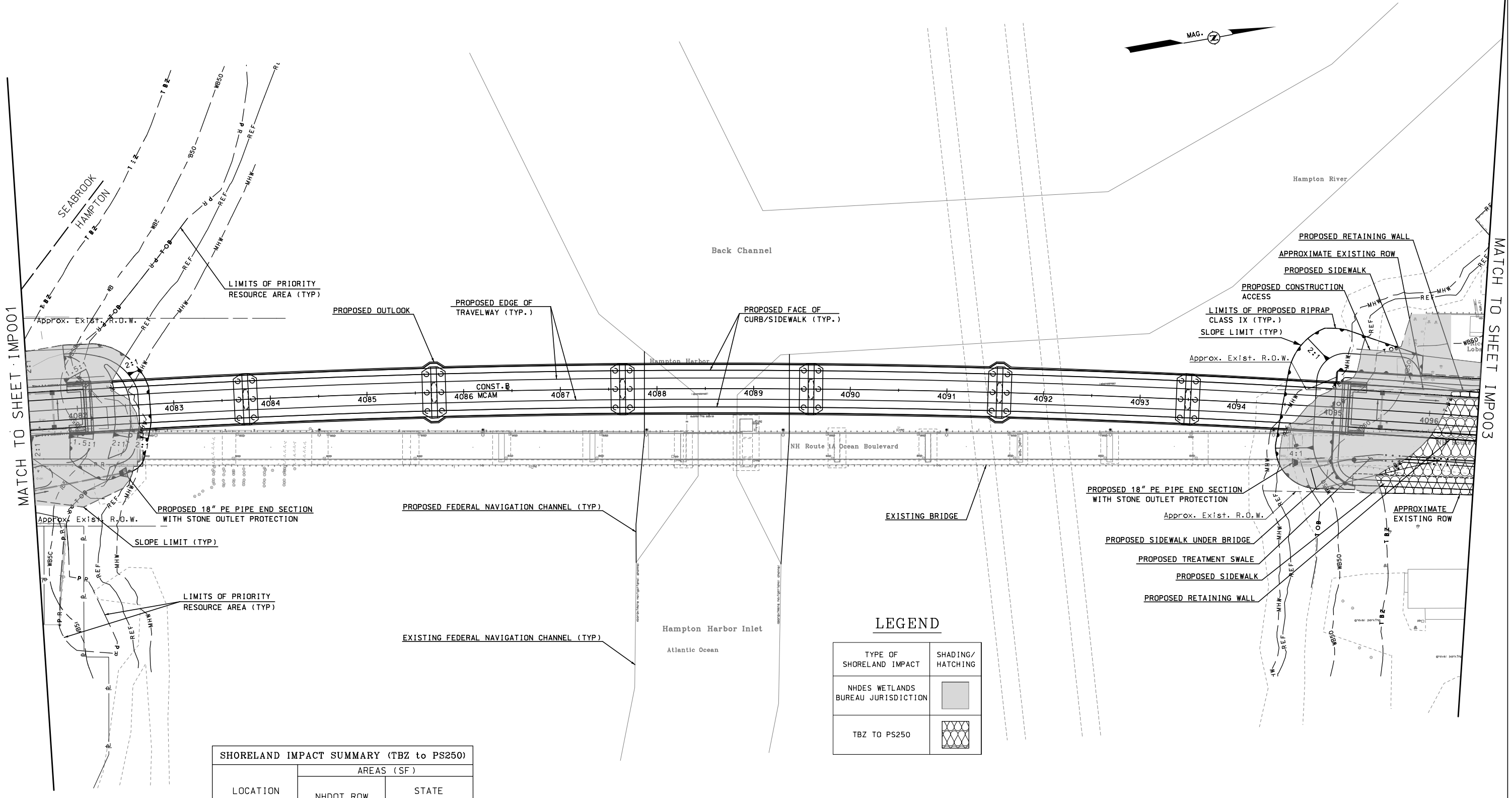
TYPE OF SHORELAND IMPACT	SHADING/HATCHING
NHDES WETLANDS BUREAU JURISDICTION	
TBZ TO PS250	



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>SHORELAND IMPACT SHEETS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
IMP001	15904SHR_Impact	15904	18	23

MATCH TO SHEET IMP002

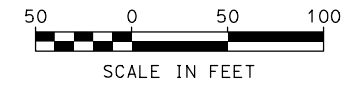
SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	09/2022
AS BUILT DETAILS		DATE	



**SHORELAND IMPACT SUMMARY (TBZ to PS250)**

LOCATION	AREAS (SF)	
	NHDOT ROW	STATE PIER
SHEET 18	22310	0
SHEET 19	6430	0
SHEET 20	19235	3180
TOTAL	47975	3180

TOTAL IMPACTS TBZ TO PS250 = 51155 SF



**LEGEND**

TYPE OF SHORELAND IMPACT	SHADING/HATCHING
NHDES WETLANDS BUREAU JURISDICTION	
TBZ TO PS250	



MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
IMP002	15904SHR_Impact	15904	19	23

STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN  
**SHORELAND IMPACT SHEETS**

REVISIONS AFTER PROPOSAL	DESCRIPTION

STATION	

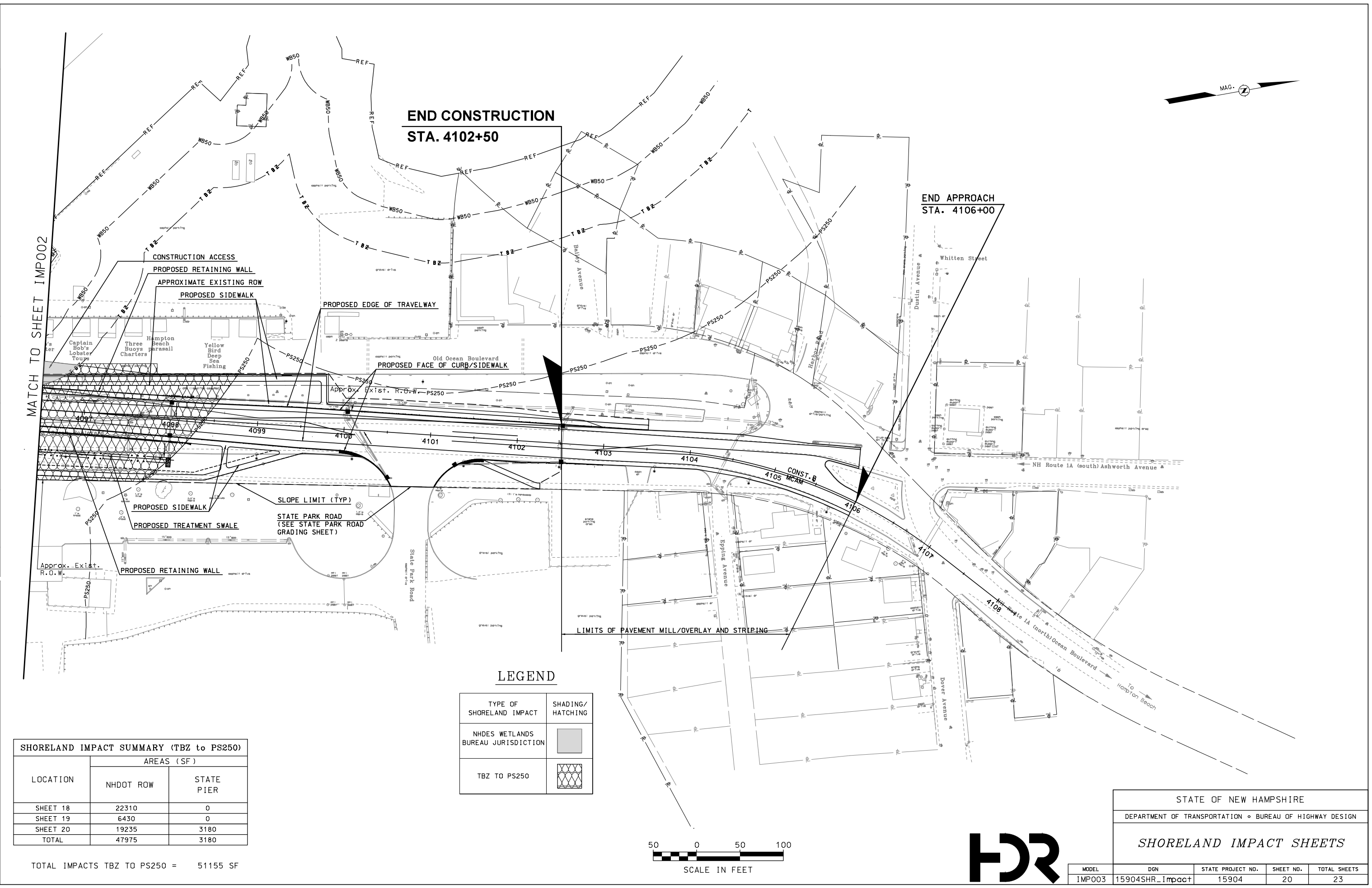
NUMBER	DATE



MATCH TO SHEET IMP001

MATCH TO SHEET IMP003

SDR PROCESSED	NHDDT	DATE	09/2022
NEW DESIGN	HAB	DATE	09/2022
SHEET CHECKED	PJL	DATE	09/2022
AS BUILT DETAILS		DATE	



MATCH TO SHEET IMP002

**END CONSTRUCTION  
STA. 4102+50**

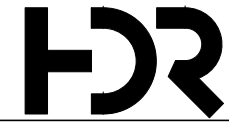
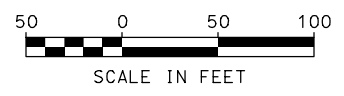
**END APPROACH  
STA. 4106+00**

**LEGEND**

TYPE OF SHORELAND IMPACT	SHADING/HATCHING
NHDES WETLANDS BUREAU JURISDICTION	
TBZ TO PS250	

SHORELAND IMPACT SUMMARY (TBZ to PS250)		
AREAS (SF)		
LOCATION	NHDOT ROW	STATE PIER
SHEET 18	22310	0
SHEET 19	6430	0
SHEET 20	19235	3180
<b>TOTAL</b>	<b>47975</b>	<b>3180</b>

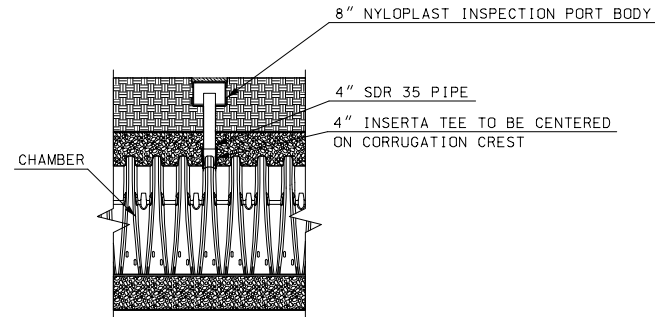
TOTAL IMPACTS TBZ TO PS250 = 51155 SF



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>SHORELAND IMPACT SHEETS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
IMP003	15904SHR_Impact	15904	20	23

SDR PROCESSED	NHDOT	DATE	03/2019
NEW DESIGN	K. HOWE	DATE	09/2022
SHEET CHECKED	A. BEAULAC	DATE	09/2022
AS BUILT DETAILS		DATE	

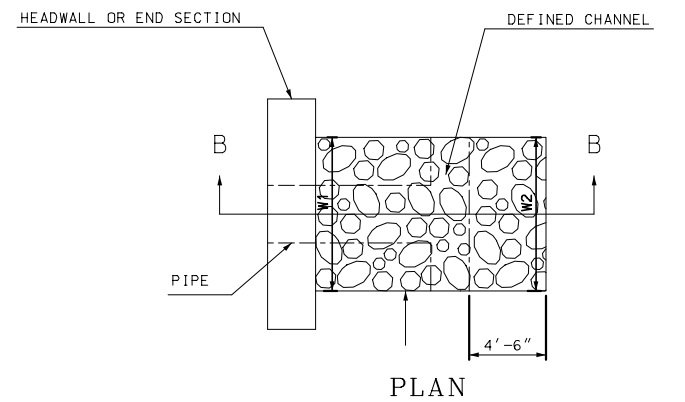
OUTLET PROTECTION SUMMARY						
DRAIN NOTE	LENGTH(FT)	W1(FT)	W2(FT)	DEPTH(FT)	STONE CLASS	NOTES
1	7.5	4.5	10	1.5	CLASS C	BLEND WITH BRIDGE STONE
11	5	10.5	10.5	1.5	CLASS C	LENGTH IS ALONG SWALE
15	5	3.75	8	1.5	CLASS C	BLEND WITH BRIDGE STONE



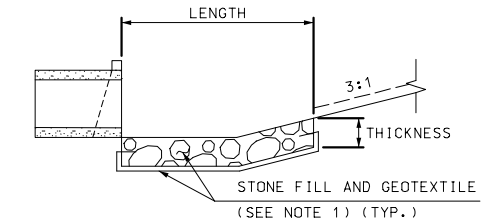
- NOTES:  
 1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.  
 2. INSPECTION PORT IS SUBSIDIARY TO ITEM 603.8051.

**4" PVC INSPECTION PORT DETAIL**

NOT TO SCALE



PLAN

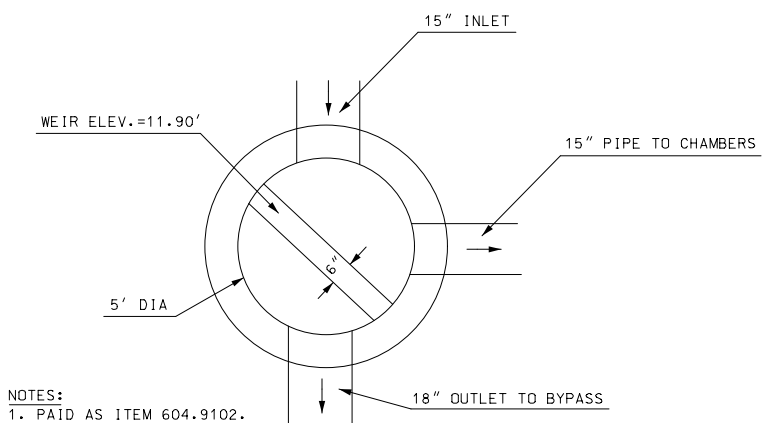


SECTION B-B

- NOTES:  
 1. ITEM 593.421 - GEOTEXTILE: PERM. CONTROL CL. 2; NON-WOVEN TO BE PLACED BETWEEN ITEM 585.3 - STONE FILL, CLASS C AND SOIL.  
 2. SEE LAYOUT INFORMATION FOR SITE SPECIFIC OUTLET PROTECTION DIMENSIONS.

**PIPE OUTLET**

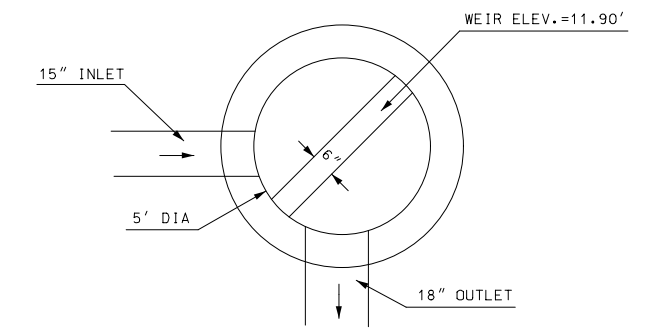
NOT TO SCALE



- NOTES:  
 1. PAID AS ITEM 604.9102.

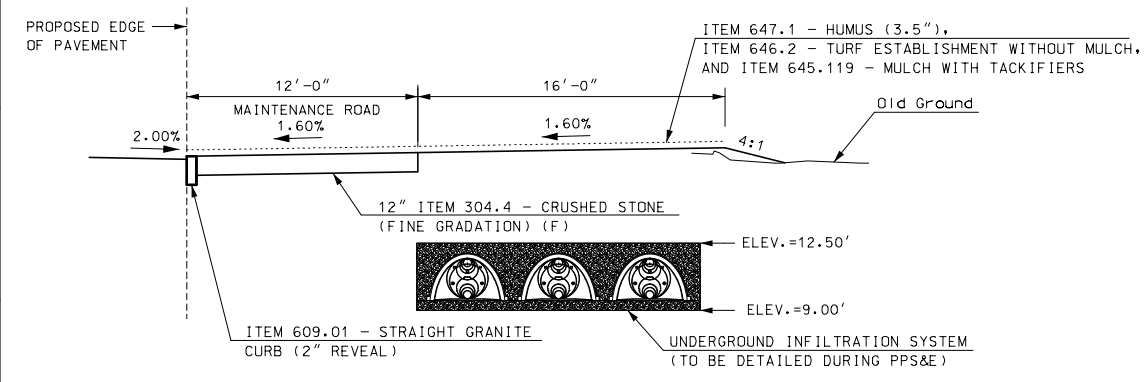
**INLET CONTROL STRUCTURE PLAN VIEW**

NOT TO SCALE



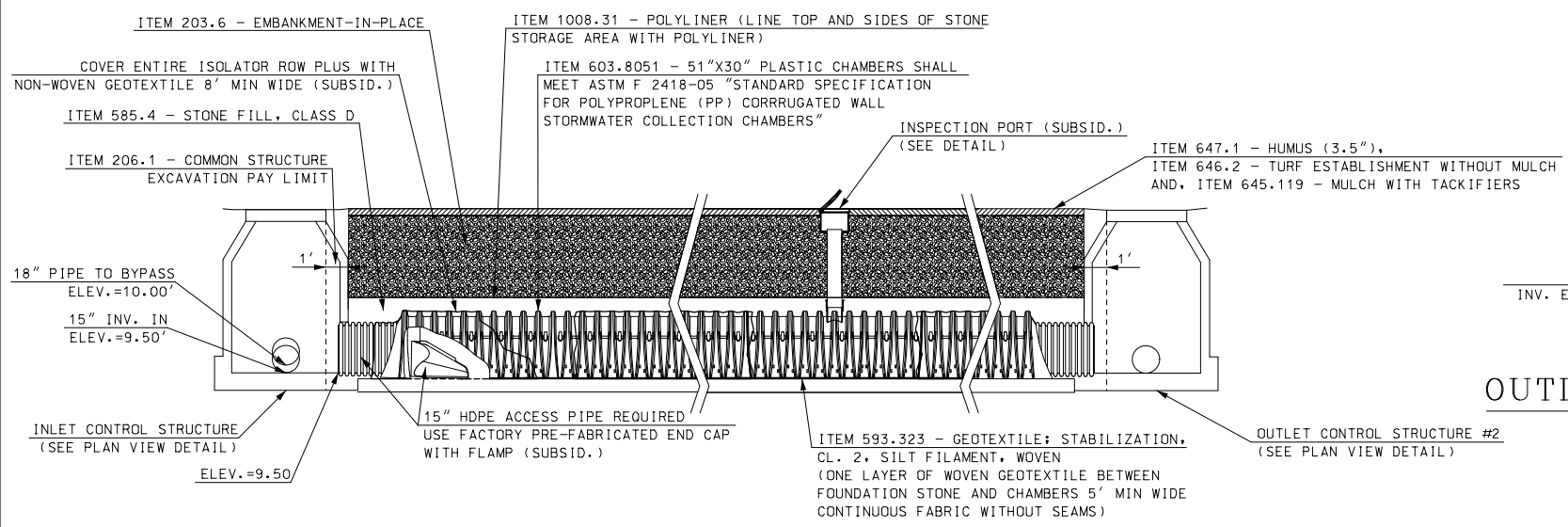
**OUTLET CONTROL STRUCTURE #2 PLAN VIEW**

NOT TO SCALE



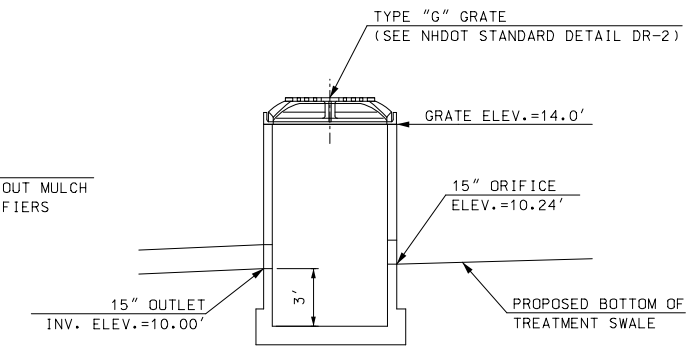
**UNDERGROUND INFILTRATION SYSTEM DETAIL**

NOT TO SCALE



**ISOLATOR ROW PLUS DETAIL**

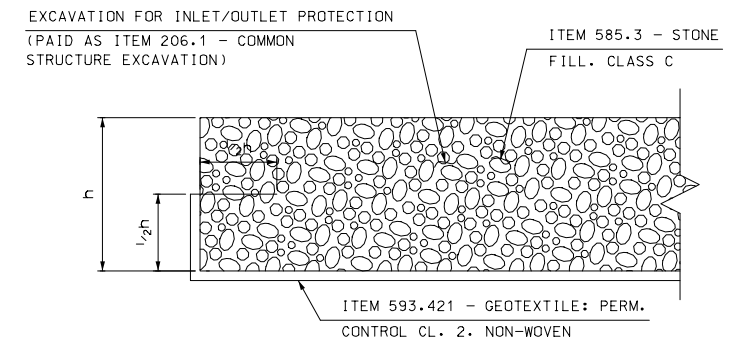
NOT TO SCALE



**OUTLET CONTROL STRUCTURE #1**

NOT TO SCALE

- NOTES:  
 1. PAID AS ITEM 604.9103.



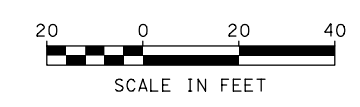
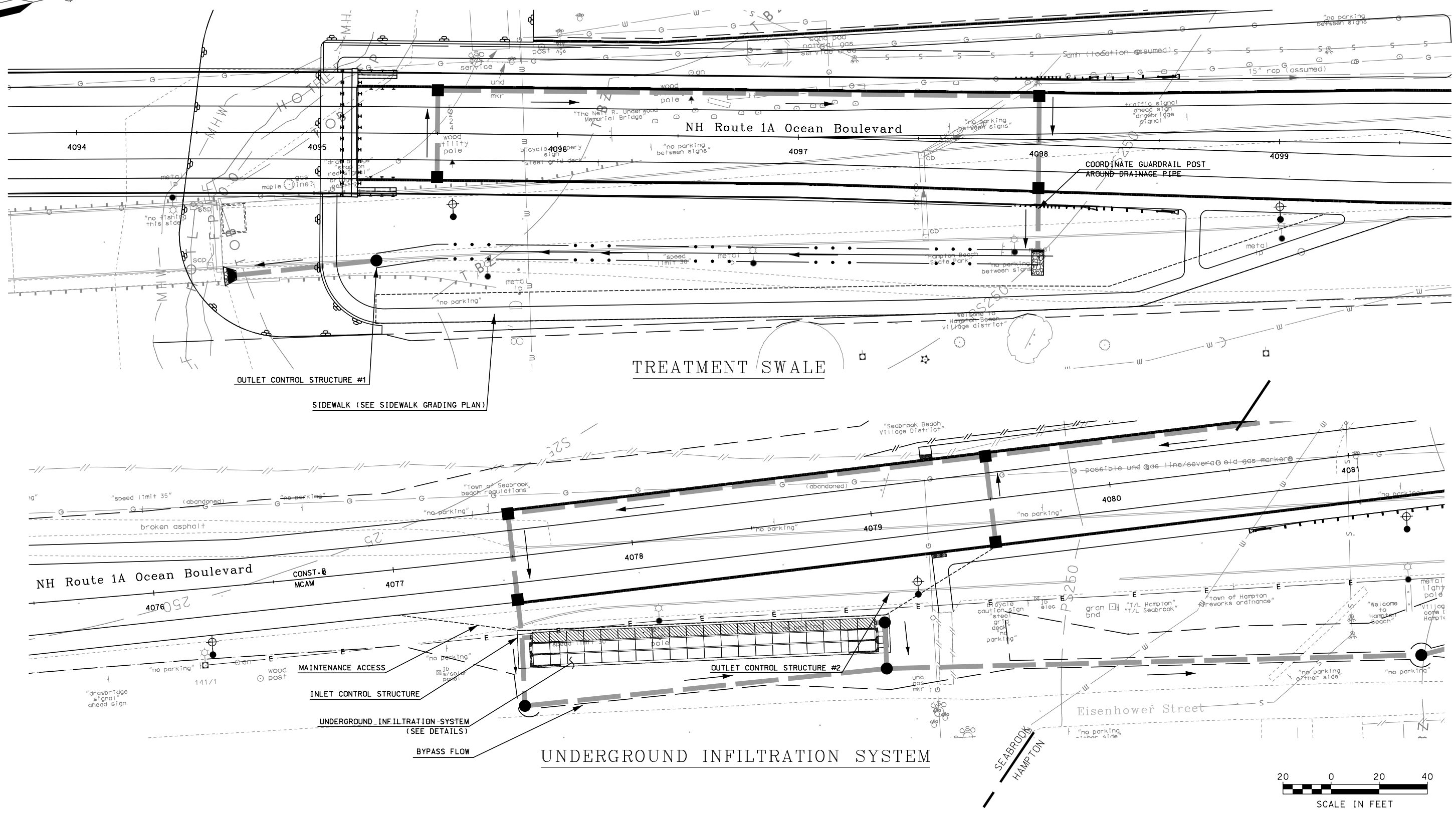
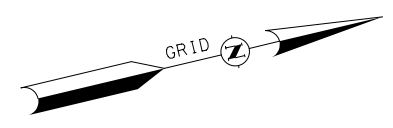
**GEOTEXTILE WRAP DETAIL**

NOT TO SCALE



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>BMP DETAILS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
DTL001	15904d+1s	15904	21	23

SDR PROCESSED	NHDOT	DATE	03/2019
NEW DESIGN	K. HOWE	DATE	09/2022
SHEET CHECKED	A. BEAULAC	DATE	09/2022
AS BUILT DETAILS		DATE	



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
<b>BMP DETAILS</b>				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
DTL003	15904d+1s	15904	22	23



REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION

## EROSION CONTROL STRATEGIES

1. ENVIRONMENTAL COMMITMENTS:
    - 1.1. THESE GUIDELINES DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH ANY CONTRACT PROVISIONS, OR APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
    - 1.2. THIS PROJECT WILL BE SUBJECT TO THE US EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER CONSTRUCTION GENERAL PERMIT AS ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THIS PROJECT IS SUBJECT TO REQUIREMENTS IN THE MOST RECENT CONSTRUCTION GENERAL PERMIT (CGP).
    - 1.3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE NHDES WETLAND PERMIT, THE US ARMY CORPS OF ENGINEERS PERMIT, WATER QUALITY CERTIFICATION AND THE SPECIAL ATTENTION ITEMS INCLUDED IN THE CONTRACT DOCUMENTS.
    - 1.4. ALL STORM WATER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION (DECEMBER 2008) (BMP MANUAL) AVAILABLE FROM THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES).
    - 1.5. THE CONTRACTOR SHALL COMPLY WITH RSA 485-A:17, AND ALL, PUBLISHED NHDES ALTERATION OF TERRAIN ENV-WQ 1500 REQUIREMENTS ([HTTP://DES.NH.GOV/ORGANIZATION/COMMISSIONER/LEGAL/RULES/INDEX.HTM](http://DES.NH.GOV/ORGANIZATION/COMMISSIONER/LEGAL/RULES/INDEX.HTM))
    - 1.6. THE CONTRACTOR IS DIRECTED TO REVIEW AND COMPLY WITH SECTION 107.1 OF THE CONTRACT AS IT REFERS TO SPILLAGE, AND ALSO WITH REGARDS TO EROSION, POLLUTION, AND TURBIDITY PRECAUTIONS.
  
  2. STANDARD EROSION CONTROL SEQUENCING APPLICABLE TO ALL CONSTRUCTION PROJECTS:
    - 2.1. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH DISTURBING ACTIVITIES. PERIMETER CONTROLS AND STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AS SHOWN IN THE BMP MANUAL AND AS DIRECTED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARER.
    - 2.2. EROSION, SEDIMENTATION CONTROL MEASURES AND INFILTRATION BASINS SHALL BE CLEANED, REPLACED AND AUGMENTED AS NECESSARY TO PREVENT SEDIMENTATION BEYOND PROJECT LIMITS THROUGHOUT THE PROJECT DURATION.
    - 2.3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT AND SECTION 645 OF THE NHDOT SPECIFICATIONS FOR ROAD AND BRIDGES CONSTRUCTION.
    - 2.4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
      - (A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
      - (B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
      - (C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED;
      - (D) TEMPORARY SLOPE STABILIZATION CONFORMING TO TABLE 1 HAS BEEN PROPERLY INSTALLED
    - 2.5. ALL STOCKPILES SHALL BE CONTAINED WITH A PERIMETER CONTROL. IF THE STOCKPILE IS TO REMAIN UNDISTURBED FOR MORE THAN 14 DAYS, MULCHING WILL BE REQUIRED.
    - 2.6. A WATER TRUCK SHALL BE AVAILABLE TO CONTROL EXCESSIVE DUST AT THE DIRECTION OF THE CONTRACT ADMINISTRATOR.
    - 2.7. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN UNTIL THE AREA HAS BEEN PERMANENTLY STABILIZED.
    - 2.8. CONSTRUCTION PERFORMED ANY TIME BETWEEN NOVEMBER 30<sup>th</sup> AND MAY 1<sup>st</sup> OF ANY YEAR SHALL BE CONSIDERED WINTER CONSTRUCTION AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.
      - (A) ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15<sup>th</sup>, OR WHICH ARE DISTURBED AFTER OCTOBER 15<sup>th</sup>, SHALL BE STABILIZED IN ACCORDANCE WITH TABLE 1.
      - (B) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15<sup>th</sup>, OR WHICH ARE DISTURBED AFTER OCTOBER 15<sup>th</sup>, SHALL BE STABILIZED TEMPORARILY WITH STONE OR IN ACCORDANCE WITH TABLE 1.
      - (C) AFTER NOVEMBER 30<sup>th</sup> INCOMPLETE ROAD SURFACES, WHERE WORK HAS STOPPED FOR THE SEASON, SHALL BE PROTECTED IN ACCORDANCE WITH TABLE 1.
      - (D) WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE PROJECT IS WITHOUT STABILIZATION AT ONE TIME, UNLESS A WINTER CONSTRUCTION PLAN HAS BEEN APPROVED BY NHDOT THAT MEETS THE REQUIREMENTS OF ENV-WQ 1505.02 AND ENV-WQ 1505.05.
      - (E) A SWPPP AMENDMENT SHALL BE SUBMITTED TO THE DEPARTMENT, FOR APPROVAL, ADDRESSING COLD WEATHER STABILIZATION (ENV-WQ 1505.05) AND INCLUDING THE REQUIREMENTS OF NO LESS THAN 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK SCHEDULED AFTER NOVEMBER 30<sup>th</sup>.
- GENERAL CONSTRUCTION PLANNING AND SELECTION OF STRATEGIES TO CONTROL EROSION AND SEDIMENT ON HIGHWAY CONSTRUCTION PROJECTS**
3. PLAN ACTIVITIES TO ACCOUNT FOR SENSITIVE SITE CONDITIONS:
    - 3.1. CLEARLY FLAG AREAS TO BE PROTECTED IN THE FIELD AND PROVIDE CONSTRUCTION BARRIERS TO PREVENT TRAFFICKING OUTSIDE OF WORK AREAS.
    - 3.2. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS.
    - 3.3. PROTECT AND MAXIMIZE EXISTING NATIVE VEGETATION AND NATURAL FOREST BUFFERS BETWEEN CONSTRUCTION ACTIVITY AND SENSITIVE AREAS.
    - 3.4. WHEN WORK IS PERFORMED IN AND NEAR WATER COURSES, STREAM FLOW DIVERSION METHODS SHALL BE IMPLEMENTED PRIOR TO ANY EXCAVATION OR FILLING.
    - 3.5. WHEN WORK IS PERFORMED WITHIN 50 FEET OF SURFACE WATERS (WETLAND, OPEN WATER OR FLOWING WATER), PERIMETER CONTROL SHALL BE ENHANCED CONSISTENT WITH SECTION 2.1.2.1. OF THE 2012 NPDES CONSTRUCTION GENERAL PERMIT.
  
  4. MINIMIZE THE AMOUNT OF EXPOSED SOIL:
    - 4.1. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS. MINIMIZE THE AREA OF EXPOSED SOIL AT ANY ONE TIME. PHASING SHALL BE USED TO REDUCE THE AMOUNT AND DURATION OF SOIL EXPOSED TO THE ELEMENTS AND VEHICLE TRACKING.
    - 4.2. UTILIZE TEMPORARY MULCHING OR PROVIDE ALTERNATE TEMPORARY STABILIZATION ON EXPOSED SOILS IN ACCORDANCE WITH TABLE 1.
    - 4.3. THE MAXIMUM AMOUNT OF DISTURBED EARTH SHALL NOT EXCEED A TOTAL OF 5 ACRES FROM MAY 1<sup>st</sup> THROUGH NOVEMBER 30<sup>th</sup>, OR EXCEED ONE ACRE DURING WINTER MONTHS, UNLESS THE CONTRACTOR DEMONSTRATES TO THE DEPARTMENT THAT THE ADDITIONAL AREA OF DISTURBANCE IS NECESSARY TO MEET THE CONTRACTORS CRITICAL PATH METHOD SCHEDULE (CPM), AND THE CONTRACTOR HAS ADEQUATE RESOURCES AVAILABLE TO ENSURE THAT ENVIRONMENTAL COMMITMENTS WILL BE MET.
  
  5. CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT:
    - 5.1. DIVERT OFF SITE RUNOFF OR CLEAN WATER AWAY FROM THE CONSTRUCTION ACTIVITY TO REDUCE THE VOLUME THAT NEEDS TO BE TREATED ON SITE.
    - 5.2. DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM DISTURBED AREAS, SLOPES, AND AROUND ACTIVE WORK AREAS AND TO A STABILIZED OUTLET LOCATION.
    - 5.3. CONSTRUCT IMPERMEABLE BARRIERS AS NECESSARY TO COLLECT OR DIVERT CONCENTRATED FLOWS FROM WORK OR DISTURBED AREAS.
    - 5.4. STABILIZE, TO APPROPRIATE ANTICIPATED VELOCITIES, CONVEYANCE CHANNELS OR PUMPING SYSTEMS NEEDED TO CONVEY CONSTRUCTION STORMWATER TO BASINS AND DISCHARGE LOCATIONS PRIOR TO USE.
    - 5.5. DIVERT OFF-SITE WATER THROUGH THE PROJECT IN AN APPROPRIATE MANNER SO NOT TO DISTURB THE UPSTREAM OR DOWNSTREAM SOILS, VEGETATION OR HYDROLOGY BEYOND THE PERMITTED AREA.
  
  6. PROTECT SLOPES:
    - 6.1. INTERCEPT AND DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM UNPROTECTED AND NEWLY ESTABLISHED AREAS AND SLOPES TO A STABILIZED OUTLET OR CONVEYANCE.
    - 6.2. CONSIDER HOW GROUNDWATER SEEPAGE ON CUT SLOPES MAY IMPACT SLOPE STABILITY AND INCORPORATE APPROPRIATE MEASURES TO MINIMIZE EROSION.
    - 6.3. CONVEY STORMWATER DOWN THE SLOPE IN A STABILIZED CHANNEL OR SLOPE DRAIN.
    - 6.4. THE OUTER FACE OF THE FILL SLOPE SHOULD BE IN A LOOSE RUFFLED CONDITION PRIOR TO TURF ESTABLISHMENT. TOPSOIL OR HUMUS LAYERS SHALL BE TRACKED UP AND DOWN THE SLOPE, DISKED, HARROWED, DRAGGED WITH A CHAIN OR MAT, MACHINE-RAKED, OR HAND-WORKED TO PRODUCE A RUFFLED SURFACE.
  
  7. ESTABLISH STABILIZED CONSTRUCTION EXITS:
    - 7.1. INSTALL AND MAINTAIN CONSTRUCTION EXITS, ANYWHERE TRAFFIC LEAVES A CONSTRUCTION SITE ONTO A PUBLIC RIGHT-OF-WAY.
    - 7.2. SWEEP ALL CONSTRUCTION RELATED DEBRIS AND SOIL FROM THE ADJACENT PAVED ROADWAYS AS NECESSARY.
  
  8. PROTECT STORM DRAIN INLETS:
    - 8.1. DIVERT SEDIMENT LADEN WATER AWAY FROM INLET STRUCTURES TO THE EXTENT POSSIBLE.
    - 8.2. INSTALL SEDIMENT BARRIERS AND SEDIMENT TRAPS AT INLETS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
    - 8.3. CLEAN CATCH BASINS, DRAINAGE PIPES, AND CULVERTS IF SIGNIFICANT SEDIMENT IS DEPOSITED.
    - 8.4. DROP INLET SEDIMENT BARRIERS SHOULD NEVER BE USED AS THE PRIMARY MEANS OF SEDIMENT CONTROL AND SHOULD ONLY BE USED TO PROVIDE AN ADDITIONAL LEVEL OF PROTECTION TO STRUCTURES AND DOWN-GRADIENT SENSITIVE RECEPTORS.
  
  9. SOIL STABILIZATION:
    - 9.1. WITHIN THREE DAYS OF THE LAST ACTIVITY IN AN AREA, ALL EXPOSED SOIL AREAS, WHERE CONSTRUCTION ACTIVITIES ARE COMPLETE, SHALL BE STABILIZED.
    - 9.2. IN ALL AREAS, TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED IN ACCORDANCE WITH THE STABILIZATION REQUIREMENTS (SECTION 2.2) OF THE 2012 CGP. (SEE TABLE 1 FOR GUIDANCE ON THE SELECTION OF TEMPORARY SOIL STABILIZATION MEASURES.)
    - 9.3. EROSION CONTROL SEED MIX SHALL BE SOWN IN ALL INACTIVE CONSTRUCTION AREAS THAT WILL NOT BE PERMANENTLY SEEDED WITHIN TWO WEEKS OF DISTURBANCE AND PRIOR TO SEPTEMBER 15, OF ANY GIVEN YEAR, IN ORDER TO ACHIEVE VEGETATIVE STABILIZATION PRIOR TO THE END OF THE GROWING SEASON.
    - 9.4. SOIL TACKIFIERS MAY BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND REAPPLIED AS NECESSARY TO MINIMIZE SOIL AND MULCH LOSS UNTIL PERMANENT VEGETATION IS ESTABLISHED.
  
  10. RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES:
    - 10.1. TEMPORARY SEDIMENT BASINS (CGP-SECTION 2.1.3.2) OR SEDIMENT TRAPS (ENV-WQ 1506.10) SHALL BE SIZED TO RETAIN, ON SITE, THE VOLUME OF A 2-YEAR 24-HOUR STORM EVENT FOR ANY AREA OF DISTURBANCE OR 3,600 CUBIC FEET OF STORMWATER RUNOFF PER ACRE OF DISTURBANCE, WHICHEVER IS GREATER. TEMPORARY SEDIMENT BASINS USED TO TREAT STORMWATER RUNOFF FROM AREAS GREATER THAN 5-ACRES OF DISTURBANCE SHALL BE SIZED TO ALSO CONTROL STORMWATER RUNOFF FROM A 10-YEAR 24 HOUR STORM EVENT. ON-SITE RETENTION OF THE 10-YEAR 24-HOUR EVENT IS NOT REQUIRED.
    - 10.2. CONSTRUCT AND STABILIZE DEWATERING INFILTRATION BASINS PRIOR TO ANY EXCAVATION THAT MAY REQUIRE DEWATERING.
    - 10.3. TEMPORARY SEDIMENT BASINS OR TRAPS SHALL BE PLACED AND STABILIZED AT LOCATIONS WHERE CONCENTRATED FLOW (CHANNELS AND PIPES) DISCHARGE TO THE SURROUNDING ENVIRONMENT FROM AREAS OF UNSTABILIZED EARTH DISTURBING ACTIVITIES.

11. ADDITIONAL EROSION AND SEDIMENT CONTROL GENERAL PRACTICES:
  - 11.1. USE TEMPORARY MULCHING, PERMANENT MULCHING, TEMPORARY VEGETATIVE COVER, AND PERMANENT VEGETATIVE COVER TO REDUCE THE NEED FOR DUST CONTROL. USE MECHANICAL SWEEPERS ON PAVED SURFACES WHERE NECESSARY TO PREVENT DUST BUILDUP. APPLY WATER, OR OTHER DUST INHIBITING AGENTS OR TACKIFIERS, AS APPROVED BY THE NHDES.
  - 11.2. ALL STOCKPILES SHALL BE CONTAINED WITH TEMPORARY PERIMETER CONTROLS. INACTIVE SOIL STOCKPILES SHOULD BE PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY EROSION CONTROL SEED MIX AND MULCH, SOIL BINDER) OR COVERED WITH ANCHORED TARPS.
  - 11.3. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH SECTION 645 OF NHDOT SPECIFICATIONS, WEEKLY AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 IN. OF RAIN PER 24-HOUR PERIOD. EROSION AND SEDIMENT CONTROL MEASURES WILL ALSO BE INSPECTED IN ACCORDANCE WITH THE GUIDANCE MEMO FROM THE NHDES CONTAINED WITHIN THE CONTRACT PROPOSAL AND THE EPA CONSTRUCTION GENERAL PERMIT.
  - 11.4. THE CONTRACTOR SHOULD UTILIZE STORM DRAIN INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING A STORM DRAINAGE SYSTEM PRIOR TO THE PERMANENT STABILIZATION OF THE CONTRIBUTING DISTURBED AREA.
  - 11.5. PERMANENT STABILIZATION MEASURES WILL BE CONSTRUCTED AND MAINTAINED IN LOCATIONS AS SHOWN ON THE CONSTRUCTION PLANS TO STABILIZE AREAS. VEGETATIVE STABILIZATION SHALL NOT BE CONSIDERED PERMANENTLY STABILIZED UNTIL VEGETATIVE GROWTH COVERS AT LEAST 85% OF THE DISTURBED AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL FOR ONE YEAR AFTER PROJECT COMPLETION.
  - 11.6. CATCH BASINS: CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT ENTER ANY EXISTING CATCH BASINS DURING CONSTRUCTION. THE CONTRACTOR SHALL PLACE TEMPORARY STONE INLET PROTECTION OVER INLETS IN AREAS OF SOIL DISTURBANCE THAT ARE SUBJECT TO SEDIMENT CONTAMINATION.
  - 11.7. TEMPORARY AND PERMANENT DITCHES SHALL BE CONSTRUCTED, STABILIZED AND MAINTAINED IN A MANNER THAT WILL MINIMIZE SCOUR. TEMPORARY AND PERMANENT DITCHES SHALL BE DIRECTED TO DRAIN TO SEDIMENT BASINS OR STORM WATER COLLECTION AREAS.
  - 11.8. WINTER EXCAVATION AND EARTHWORK ACTIVITIES NEED TO BE LIMITED IN EXTENT AND DURATION, TO MINIMIZE POTENTIAL EROSION AND SEDIMENTATION IMPACTS. THE AREA OF EXPOSED SOIL SHALL BE LIMITED TO ONE ACRE, OR THAT WHICH CAN BE STABILIZED AT THE END OF EACH DAY UNLESS A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY THE DEPARTMENT.
  - 11.9. CHANNEL PROTECTION MEASURES SHALL BE SUPPLEMENTED WITH PERIMETER CONTROL MEASURES WHEN THE DITCH LINES OCCUR AT THE BOTTOM OF LONG FILL SLOPES. THE PERIMETER CONTROLS SHALL BE INSTALLED ON THE FILL SLOPE TO MINIMIZE THE POTENTIAL FOR FILL SLOPE SEDIMENT DEPOSITS IN THE DITCH LINE.

### BEST MANAGEMENT PRACTICES (BMP) BASED ON AMOUNT OF OPEN CONSTRUCTION AREA

12. STRATEGIES SPECIFIC TO OPEN AREAS LESS THAN 5 ACRES:
  - 12.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500; ALTERATION OF TERRAIN FOR CONSTRUCTION AND USE ALL CONVENTIONAL BMP STRATEGIES.
  - 12.2. SLOPES STEEPER THAN 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING.
  - 12.3. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT ALONE.
  - 12.4. AREAS WHERE HAUL ROADS ARE CONSTRUCTED AND STORMWATER CANNOT BE TREATED THE DEPARTMENT WILL CONSIDER INFILTRATION.
  - 12.5. FOR HAUL ROADS ADJACENT TO SENSITIVE ENVIRONMENTAL AREAS OR STEEPER THAN 5%, THE DEPARTMENT WILL CONSIDER USING EROSION STONE, CRUSHED GRAVEL, OR CRUSHED STONE BASE TO HELP MINIMIZE EROSION ISSUES.
  - 12.6. ALL AREAS THAT CAN BE STABILIZED SHALL BE STABILIZED PRIOR TO OPENING UP NEW TERRITORY.
  - 12.7. DETENTION BASINS SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE A 2 YEAR STORM EVENT.
  
13. STRATEGIES SPECIFIC TO OPEN AREAS BETWEEN 5 AND 10 ACRES:
  - 13.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES WILL BE UTILIZED.
  - 13.2. DETENTION BASINS WILL BE CONSTRUCTED TO ACCOMMODATE THE 2-YEAR 24-HOUR STORM EVENT AND CONTROL A 10-YEAR 24-HOUR STORM EVENT.
  - 13.3. SLOPES STEEPER THAN A 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS. OTHER ALTERNATIVE MEASURES, SUCH AS BONDED FIBER MATRIXES (BFMS) OR FLEXIBLE GROWTH MEDIUMS (FGMS) MAY BE UTILIZED, IF MEETING THE NHDES APPROVALS AND REGULATIONS.
  - 13.4. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS.
  
14. STRATEGIES SPECIFIC TO OPEN AREAS OVER 10 ACRES:
  - 14.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES AND BETWEEN 5 AND 10 ACRES WILL BE UTILIZED.
  - 14.2. THE DEPARTMENT ANTICIPATES THAT SOIL BINDERS WILL BE NEEDED ON ALL SLOPES STEEPER THAN 3:1, IN ORDER TO MINIMIZE EROSION AND REDUCE THE AMOUNT OF SEDIMENT IN THE STORMWATER TREATMENT BASINS.
  - 14.3. THE CONTRACTOR WILL BE REQUIRED TO HAVE AN APPROVED DESIGN IN ACCORDANCE WITH ENV-WQ 1506.12 FOR AN ACTIVE FLOCCULANT TREATMENT SYSTEM TO TREAT AND RELEASE WATER CAPTURED IN STORM WATER BASINS. THE CONTRACTOR SHALL ALSO RETAIN THE SERVICES OF AN ENVIRONMENTAL CONSULTANT WHO HAS DEMONSTRATED EXPERIENCE IN THE DESIGN OF FLOCCULANT TREATMENT SYSTEMS. THE CONSULTANT WILL ALSO BE RESPONSIBLE FOR THE IMPLEMENTATION AND MONITORING OF THE SYSTEM.

**TABLE 1  
GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES**

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES <sup>2</sup>				ROLLED EROSION CONTROL BLANKETS <sup>3</sup>			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DN SB	DN SCB	DNCB
SLOPES <sup>1</sup>												
STEEPER THAN 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES <sup>1</sup>	YES <sup>1</sup>	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
3:1 SLOPE	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO
4:1 SLOPE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
WINTER STABILIZATION	4T/AC	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
CHANNELS												
LOW FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
HIGH FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DN SB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DN SCB	2 NET STRAW-COCONUT BLANKET
CB	COMPOST BLANKET	FRM	FIBER REINFORCED MEDIUM	DNCB	2 NET COCONUT BLANKET

- NOTES:
1. ALL SLOPE STABILIZATION OPTIONS ASSUME A SLOPE LENGTH  $\leq 10$  TIMES THE HORIZONTAL DISTANCE COMPONENT OF THE SLOPE, IN FEET.
  2. PRODUCTS CONTAINING POLYACRYLAMIDE (PAM) SHALL NOT BE APPLIED DIRECTLY TO OR WITHIN 100 FEET OF ANY SURFACE WATER WITHOUT PRIOR WRITTEN APPROVAL FROM THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES.
  3. ALL EROSION CONTROL BLANKETS SHALL BE MADE WITH WILDLIFE FRIENDLY BIODEGRADABLE NETTING.

STATE OF NEW HAMPSHIRE  
SEABROOK-HAMPTON  
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

## *EROSION CONTROL STRATEGIES*

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
12-21-2015	erosstrat	15904	23	23

## Attachment 4: Photographs

# Attachment 4

## REPRESENTATIVE PHOTOGRAPHS

[NOTE: ALL PHOTOS WITHIN 50 FT OF PROTECTED SHORELAND]

### Northeast Bridge Quadrant



State of New Hampshire Right-of-Way, adjacent to Hampton Beach State Park Campground. Facing south. Approximately 25 feet north of Protected Shoreland. Trees and shrubs in foreground will not be disturbed.



## Northwest Bridge Quadrant



Facing north from within TBZ northwest of bridge, approximately 40 feet from Protected Shoreland.

## Southeast Bridge Quadrant



State of New Hampshire Right-of-Way. Facing south. Adjacent to Protected Shoreland.

## Southwest Bridge Quadrant



State of New Hampshire Right-of-Way. Facing northeast. Adjacent to Protected Shoreland.

## Attachment 5: Agency Correspondence

**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:** Stephanie Dyer-Carroll, FHI Studio  
416 Asylum Street  
Hartford, CT 06103

**From:** NHB Review, NH Natural Heritage Bureau

**Date:** 8/3/2022 (valid until 08/03/2023)

**Re:** Review by NH Natural Heritage Bureau

**Permits:** NHDES - Shoreland Standard Permit, NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit, USCEQ - Federal: NEPA Review, USEPA - Stormwater Pollution Prevention

**NHB ID:** NHB22-2450

**Town:** Hampton and Seabrook

**Location:** New Hampshire Route 1A Bridge Over the Hampton River (Neil R. Underwood Bridge)

**Description:** The project entails the replacement of the Neil R. Underwood Bridge and associated roadway improvements (NHDOT No. 235/025). An environmental assessment has been prepared for the project and permits are underway. The last DataCheck for the project was submitted in December 2020 (NHB20-3664); resubmitting due to the passage of time.

**cc:** NHFG Review

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

**Comments** **NHB: Please continue to coordinate with NHB to address rare species and exemplary natural community impacts.**  
**F&G: Please refer to NHFG consultation requirements below.**

Natural Community	State <sup>1</sup>	Federal	Notes
Beach grass grassland	--	--	Dune communities are sensitive to trampling or recreational use that harms the vegetation, since plants growing in the sand serve a critical function in anchoring it in place.
Intertidal flat*	--	--	
Subtidal system	--	--	Threats to these communities are primarily alterations to the hydrology of the wetland (such as alterations that might affect the sheet flow of tidal waters across the intertidal

# 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.

flat) and increased input of nutrients and pollutants in storm runoff.

Plant species	State <sup>1</sup>	Federal	Notes
field wormwood ( <i>Artemisia campestris ssp. caudata</i> )	E	--	This species grows in dry dune systems and is sensitive to disturbances that eliminate its habitat or disturb the natural dynamics of the dune area.
Gray's umbrella sedge ( <i>Cyperus grayi</i> )	E	--	This species grows in sandplains and disturbed openings, and is sensitive to disturbances that eliminate its habitat.
hairy hudsonia ( <i>Hudsonia tomentosa</i> )	T	--	This species requires periodic disturbance to its habitat (disturbed openings, river and streambanks). However, existing plants are very sensitive to trampling when growing on open sand.
long-spined sandbur ( <i>Cenchrus longispinus</i> )	E	--	This species grows in sandplains and disturbed openings, and is sensitive to disturbances that eliminate its habitat.
sand dropseed ( <i>Sporobolus cryptandrus</i> )*	E	--	This species grows in dry dune systems and is sensitive to disturbances that eliminate its habitat or disturb the natural dynamics of the dune area.
seaside threeawn ( <i>Aristida tuberculosa</i> )	E	--	This species grows in dry dune systems and is sensitive to disturbances that eliminate its habitat or disturb the natural dynamics of the dune area.

Vertebrate species	State <sup>1</sup>	Federal	Notes
Least Tern ( <i>Sterna antillarum</i> )	E	--	Contact the NH Fish & Game Dept (see below).
Piping Plover ( <i>Charadrius melodus</i> )	E	T	Contact the NH Fish & Game Dept and the US Fish & Wildlife Service (see below).
Purple Martin ( <i>Progne subis</i> )	T	--	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.

For all animal reviews, refer to 'IMPORTANT: NHFG Consultation' section below.

---

Disclaimer: 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.

---

### **IMPORTANT: NHFG Consultation**

If this NHB Datacheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH

## 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.

Fish and Game Department pursuant to Fis 1004 is required.

If this NHB Datacheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to <https://wildlife.state.nh.us/wildlife/environmental-review.html>. All requests for consultation and submittals should be sent via email to [NHFGreview@wildlife.nh.gov](mailto:NHFGreview@wildlife.nh.gov) or can be sent by mail, and **must include the NHB Datacheck results letter number and “Fis 1004 consultation request” in the subject line.**

If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule*), coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where additional coordination with NH Fish and Game is requested, please email: Kim Tuttle [kim.tuttle@wildlife.nh.gov](mailto:kim.tuttle@wildlife.nh.gov) with a copy to [NHFGreview@wildlife.nh.gov](mailto:NHFGreview@wildlife.nh.gov), and include the NHB Datacheck results letter number and “review request” in the email subject line.

Contact NH Fish & Game at (603) 271-0467 with questions.

## TELECON

Call From: Kim Tuttle, NHFG                      Project:            Seabrook-Hampton Bridge Project  
Call To:        Daniel Hageman                      Voice/Fax:  
Date:            7/20/18                                      Time:                9:30 AM  
Subject:        Response to coordination letter

I received a phone call from Kim Tuttle with New Hampshire Fish and Game (NHFG) regarding the coordination letter recently sent to her office for the Hampton Harbor Bridge project. Ms. Tuttle confirmed she does not need a separate copy of the New Hampshire Natural Heritage Bureau (NHNHB) response, as she is copied internally on this correspondence by NHNHB. Ms. Tuttle had some additional insights to share on the project, as follows:

1. We should contact F&G Marine Fisheries Division separately (Mike Dionne and Cheri Patterson). She said they are already aware of the project.
2. Carol Henderson should be copied on all F&G correspondence – she is the Environmental Coordinator for the department.
3. Check the Wildlife Action Plan on the NHFG website, which will have information on habitats and species in our project area (good for NEPA document level).
4. Ms. Tuttle shared informal comments that their only concerns will be the Piping Plover and the Least Tern, which both are known to nest in the general area.
5. Brendan Clifford will be conducting the review of impact to these two species later on in the project, when impact areas and time of year of construction are better known (we should coordinate through Kim to reach him).
6. Kim Tuttle's phone number is (603)271-6544.



**From:** [Laurin, Marc](#)  
**To:** [Stephanie Dyer-Carroll](#); [Dan Hageman](#); [Murdzia, Daniel](#)  
**Cc:** [Reczek, Jennifer](#); [Martin, Rebecca](#)  
**Subject:** FW: Seabrook-Hampton, 15904 - Piping Plover Information  
**Date:** Monday, July 18, 2022 7:20:10 AM  
**Attachments:** [2020 NHFG Plover&Tern Report FINAL.pdf](#)

---

---

**From:** Clifford, Brendan <[Brendan.J.Clifford@wildlife.nh.gov](mailto:Brendan.J.Clifford@wildlife.nh.gov)>  
**Sent:** Thursday, July 14, 2022 1:01 PM  
**To:** Laurin, Marc <[marc.g.laurin@dot.nh.gov](mailto:marc.g.laurin@dot.nh.gov)>  
**Subject:** RE: Seabrook-Hampton, 15904 - Piping Plover Information

Hi Marc,

I apologize but your email was buried in my inbox. I have attached the 2020 report. We did not have a 2021 report but I can tell you that the numbers and locations were similar. We did not have any birds nesting near the bridge site in either year, and none again this year.

Brendan

---

**From:** Laurin, Marc <[marc.g.laurin@dot.nh.gov](mailto:marc.g.laurin@dot.nh.gov)>  
**Sent:** Tuesday, July 5, 2022 1:24 PM  
**To:** Clifford, Brendan <[Brendan.J.Clifford@wildlife.nh.gov](mailto:Brendan.J.Clifford@wildlife.nh.gov)>  
**Subject:** Seabrook-Hampton, 15904 - Piping Plover Information

Brendan,

Our consultants are working on the final design of the project, the replacement of NH Rte. 1A bridge over the Hampton Harbor Inlet in Hampton. You were able to provide us with the Piping Plover and Least Tern reports for 2018 and 2019 seasons. Our environmental consultants are asking if you would have similar reports for 2020 and 2021 season. This information would be good to have as they develop the construction schedule and measures to provide to the contractor regarding our commitments to protect the species during construction.

Thanks,

Marc

**From:** [Laurin, Marc](#)  
**To:** [Dionne, Michael](#); [Newton, Kevin](#)  
**Cc:** [Martin, Rebecca](#); [Stephanie Dyer-Carroll](#); [Dan Hageman](#); [Brown, Joshua](#); [OSullivan, Andrew](#); [Reczek, Jennifer](#); [Clifford, Brendan](#)  
**Subject:** RE: Seabrook-Hampton, 15904 - NHB 22-2450  
**Date:** Wednesday, December 21, 2022 9:04:10 AM  
**Attachments:** [15904 Ex Prop Plans 20221216.pdf](#)

---

Mike and Kevin,

We submitted an updated DataCheck (NHB22-2450) to your office in October. As requested by Kim Snyder last July, we're now transmitting updated plans for the Seabrook-Hampton Bridge Project (15904). Note that these plans are still in draft form. We will submit the final plan set to you when the Dredge and Fill Permit is submitted to NHDES (anticipated in February 2023).

We also wanted to make you aware of a refinement in the design. During Part A, at the request of the USFWS, we prepared estimates of the volume of excavated material associated with the widening of the channel and the leveling of the channel bottom. At that time, it was estimated to be 5,000 cubic yards (CY). Based on an updated bathymetric survey completed this year as part of the Final Design, the revised volume is just 160 CY. The USFWS had suggested in their Biological Opinion that the excavated material could be used to enhance Piping Plover habitat, if feasible. However, the volume is too small to use it for these purposes. Instead, and consistent with the Essential Fish Habitat Assessment, the material will be used to fill in voids in the channel bottom created by the removal of the existing piers. Using these native materials will facilitate the timely reestablishment of benthic organisms within these voids. This approach was presented at the NHDOT Natural Resources Coordination Meeting last month.

Regarding your suggestion during last month's meeting regarding potentially relocating blue mussels from the impact areas. DOT has concluded that relocation of the mussels would not be feasible as the areas to the east of the mussel bed would be within the work zone to remove the existing bridge, and to the west of the work area there is sand deposition encroachment and the shore gets steep. DOT has proposed that during removal of the existing northernmost pier, the structure will be removed to the appropriate elevation to create a precursor condition so the mussels could reestablish themselves in this location.

Should you have any questions about the project plans, please let me know. We look forward to ongoing coordination with your office on this project.

Thanks,

Marc

---

**From:** Snyder, Kimberly <Kimberly.C.Snyder@wildlife.nh.gov>  
**Sent:** Friday, November 4, 2022 11:45 AM  
**To:** Laurin, Marc <marc.g.laurin@dot.nh.gov>; Winters, Melissa <Melissa.J.Winters@wildlife.nh.gov>; Clifford, Brendan <Brendan.J.Clifford@wildlife.nh.gov>; Patterson, Cheri <Cheri.A.Patterson@wildlife.nh.gov>; Magee, John <john.a.magee@wildlife.nh.gov>; Dionne, Michael <Michael.A.Dionne@wildlife.nh.gov>

**Cc:** FGC: NHFG review <NHFGreview@wildlife.nh.gov>; Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>; Stephanie Dyer-Carroll <sdyer-carroll@fhistudio.com>; Dan Hageman <dhageman@fhistudio.com>; Brown, Joshua <Joshua.R.Brown@dot.nh.gov>; OSullivan, Andrew <Andrew.M.OSullivan@dot.nh.gov>; Reczek, Jennifer <Jennifer.E.Reczek@dot.nh.gov>; Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>  
**Subject:** RE: Seabrook-Hampton, 15904 - NHB 18-2036

Marc,

Thank you, please continue to coordinate with Mike Dionne and Kevin Newton under the new NHB number (NHB22-2450) for the Seabrook-Hampton 15904 permit.

Kim S.

---

**From:** Laurin, Marc <[marc.g.laurin@dot.nh.gov](mailto:marc.g.laurin@dot.nh.gov)>  
**Sent:** Friday, October 28, 2022 9:05 AM  
**To:** Snyder, Kimberly <[Kimberly.C.Snyder@wildlife.nh.gov](mailto:Kimberly.C.Snyder@wildlife.nh.gov)>; Winters, Melissa <[Melissa.J.Winters@wildlife.nh.gov](mailto:Melissa.J.Winters@wildlife.nh.gov)>; Clifford, Brendan <[Brendan.J.Clifford@wildlife.nh.gov](mailto:Brendan.J.Clifford@wildlife.nh.gov)>; Patterson, Cheri <[Cheri.A.Patterson@wildlife.nh.gov](mailto:Cheri.A.Patterson@wildlife.nh.gov)>; Magee, John <[john.a.magee@wildlife.nh.gov](mailto:john.a.magee@wildlife.nh.gov)>  
**Cc:** FGC: NHFG review <[NHFGreview@wildlife.nh.gov](mailto:NHFGreview@wildlife.nh.gov)>; Martin, Rebecca <[Rebecca.A.Martin@dot.nh.gov](mailto:Rebecca.A.Martin@dot.nh.gov)>; Stephanie Dyer-Carroll <[sdyer-carroll@fhistudio.com](mailto:sdyer-carroll@fhistudio.com)>; Dan Hageman <[dhageman@fhistudio.com](mailto:dhageman@fhistudio.com)>; Brown, Joshua <[Joshua.R.Brown@dot.nh.gov](mailto:Joshua.R.Brown@dot.nh.gov)>; OSullivan, Andrew <[Andrew.M.OSullivan@dot.nh.gov](mailto:Andrew.M.OSullivan@dot.nh.gov)>; Reczek, Jennifer <[Jennifer.E.Reczek@dot.nh.gov](mailto:Jennifer.E.Reczek@dot.nh.gov)>  
**Subject:** RE: Seabrook-Hampton, 15904 - NHB 18-2036

Kim,

I'm following up on your request for an updated NHB DataCheck for the Seabrook-Hampton Bridge Project. The attached DataCheck, dated August 3, 2022, identifies three vertebrate species: the Least Tern, the Piping Plover and the Purple Martin.

The Least Tern and the Piping Plover were both identified in the December 2020 NHB DataCheck undertaken during the project's NEPA documentation phase. Coordination was undertaken with NHFG regarding these two species during NEPA. Based on monitoring reports provided by NHFG, the Least Tern has not historically nested on the project site, instead nesting to the north in Hampton Beach State Park and to the south on Seabrook Beach. Since the Piping Plover has historically nested in the Dunes Wildlife Management Area to the west of the project site, NHDOT prepared a Biological Assessment (BA) for the Plover. The BA also addressed the Federally-listed Roseate Tern and Red Knot, which have the potential to occur in the project area. The USFWS issued a corresponding Biological Opinion (BO) in May 2021, which included a series of conservation measures that will be incorporated into the design and construction of the new bridge. The BO is attached for your records.

The Purple Martin was not included in the 2020 NHB DataCheck DOT previously received for the project. However, based on the August 3, 2022 DataCheck, the Purple Martin does not nest within

the project area. There are Purple Martin colonies to the north (approx. 4,800 feet) and to the south (approx. 4,300 feet) of the project area, but none in or immediately adjacent to the project limits. As such, there would be no impact to breeding of this species. In addition, we feel there would be no impact to the feeding activities of Purple Martins, since feeding habitat is generally in open areas, of which there is ample habitat outside the proposed construction area. Purple Martins would likely avoid the construction site and feed in other areas. Please let us know if you concur with our assessment.

Regarding the 2018 permit you reference, is this in regards to the DES Wetlands Permit #2019-01681 that NHDOT received in August 2019, see attached? This permit was for the Bridge Maintenance project (Hampton 42439) to install gabion mattresses to protect the southwest abutment of the existing bridge from further scour. NHDOT coordinated with the NH Sea Grant/UNH Extension to remove and replant the sensitive plant species that were located within the access road into the dune habitat prior to construction.

The proposed Seabrook-Hampton 15904 project is separate from this completed effort. NHDOT will apply for a separate permit for the impacts associated with the construction of the new bridge and removal of the existing bridge. DOT is in the process of completing Preliminary Plans for the project and will provide you with the updated plan set for your review as soon as it's available.

We look forward to ongoing coordination with your office on this project. Let me know if you have any further questions or require more information at this time.

Thanks,

Marc

---

**From:** Snyder, Kimberly <[Kimberly.C.Snyder@wildlife.nh.gov](mailto:Kimberly.C.Snyder@wildlife.nh.gov)>  
**Sent:** Monday, July 18, 2022 3:11 PM  
**To:** Laurin, Marc <[marc.g.laurin@dot.nh.gov](mailto:marc.g.laurin@dot.nh.gov)>; Winters, Melissa <[Melissa.J.Winters@wildlife.nh.gov](mailto:Melissa.J.Winters@wildlife.nh.gov)>; Clifford, Brendan <[Brendan.J.Clifford@wildlife.nh.gov](mailto:Brendan.J.Clifford@wildlife.nh.gov)>; Patterson, Cheri <[Cheri.A.Patterson@wildlife.nh.gov](mailto:Cheri.A.Patterson@wildlife.nh.gov)>; Magee, John <[john.a.magee@wildlife.nh.gov](mailto:john.a.magee@wildlife.nh.gov)>  
**Cc:** FGC: NHFG review <[NHFGreview@wildlife.nh.gov](mailto:NHFGreview@wildlife.nh.gov)>; Martin, Rebecca <[Rebecca.A.Martin@dot.nh.gov](mailto:Rebecca.A.Martin@dot.nh.gov)>; Stephanie Dyer-Carroll <[sdyer-carroll@fhstudio.com](mailto:sdyer-carroll@fhstudio.com)>; Dan Hageman <[dhageman@fhstudio.com](mailto:dhageman@fhstudio.com)>; Brown, Joshua <[Joshua.R.Brown@dot.nh.gov](mailto:Joshua.R.Brown@dot.nh.gov)>; OSullivan, Andrew <[Andrew.M.OSullivan@dot.nh.gov](mailto:Andrew.M.OSullivan@dot.nh.gov)>; Reczek, Jennifer <[Jennifer.E.Reczek@dot.nh.gov](mailto:Jennifer.E.Reczek@dot.nh.gov)>  
**Subject:** RE: Seabrook-Hampton, 15904 - NHB 18-2036

Hello Marc,

You are correct, since we have previously provided comments on this project, it is not subject to formal consultation unless there are major changes in the project design or any new species are indicated on the NHB letter.

Moving forward on this project, in accordance with the MOA, NHF&G requires the following from

you:

- Provide new NHB letter as soon as it is available
- Provide updated site plan sheets and aerials
- Highlight any changes from the 2018 plans on the new site plans/aerials
- Indicated the bmps from the 2018 permit that you are incorporating into the project from our last review

With this, we will evaluate if our previous recommendations are still sufficient and provide new recommendations if applicable.

Thank you!

Kim S.

---

**From:** Laurin, Marc <[marc.g.laurin@dot.nh.gov](mailto:marc.g.laurin@dot.nh.gov)>

**Sent:** Tuesday, July 12, 2022 12:09 PM

**To:** Winters, Melissa <[Melissa.J.Winters@wildlife.nh.gov](mailto:Melissa.J.Winters@wildlife.nh.gov)>; Clifford, Brendan <[Brendan.J.Clifford@wildlife.nh.gov](mailto:Brendan.J.Clifford@wildlife.nh.gov)>; Patterson, Cheri <[cheri.patterson@wildlife.nh.gov](mailto:cheri.patterson@wildlife.nh.gov)>; Magee, John <[john.a.magee@wildlife.nh.gov](mailto:john.a.magee@wildlife.nh.gov)>

**Cc:** FGC: NHFG review <[NHFGreview@wildlife.nh.gov](mailto:NHFGreview@wildlife.nh.gov)>; Martin, Rebecca <[Rebecca.A.Martin@dot.nh.gov](mailto:Rebecca.A.Martin@dot.nh.gov)>; Stephanie Dyer-Carroll <[sdyer-carroll@fhstudio.com](mailto:sdyer-carroll@fhstudio.com)>; Dan Hageman <[dhageman@fhstudio.com](mailto:dhageman@fhstudio.com)>; Brown, Joshua <[Joshua.R.Brown@dot.nh.gov](mailto:Joshua.R.Brown@dot.nh.gov)>; OSullivan, Andrew <[Andrew.M.OSullivan@dot.nh.gov](mailto:Andrew.M.OSullivan@dot.nh.gov)>; Reczek, Jennifer <[Jennifer.E.Reczek@dot.nh.gov](mailto:Jennifer.E.Reczek@dot.nh.gov)>

**Subject:** Seabrook-Hampton, 15904 - NHB 18-2036

Melissa,

The project, the replacement of the NH Route 1A bridge (Neil Underwood Memorial Bridge) over the Hampton Harbor Inlet, has been under environmental review since 2018. Documentation of the anticipated environmental impacts were described in an Environmental Assessment completed by NHDOT on March 2021, with a Public Hearing conducted on April 2021, and a Revised EA completed in February 2022, with a FONSI determination made by FHWA in March 2022. Coordination has occurred with the NH Fish and Game, regarding the Piping Plover, Blue Mussel bed, and potential Softshell Clam habitat located within the project area, throughout this NEPA documentation process.

As such, NHDOT wants to confirm that formal consultation in accordance with the recent MOA between NHDOT and NHF&G is not requires as this project was initiated and prior to the adoption of the FIS 1004 regulations. NHDOT will of course continue to consult with NHF&G and USFWS in regards to the Piping Plover mitigation measures, and any other species of concern that may be identified by NHF&G. NHDOT has also been in contact with the NHNHB and will requesting a up-to-date NHNHB database search in the near future.

Final Design of the project is on-going. NHDOT will be presenting an update on the project during our July 20<sup>th</sup> Monthly Natural Resource Agency meeting. An invitation will be sent out to NHF&G later this week by the Bureau of Environment's Wetland Program. Let me know if there are other NHF&G personnel that should be invited to this presentation.

Thanks,

Marc Laurin  
Senior Environmental Manager  
Bureau of Environment  
NH Department of Transportation  
(603) 271-4044

**From:** [Stephanie Dyer-Carroll](mailto:Stephanie.Dyer-Carroll)  
**To:** [Stephanie Dyer-Carroll](mailto:Stephanie.Dyer-Carroll)  
**Subject:** FW: NH Route 1A bridge over Hampton River - Seabrook-Hampton, 15904  
**Date:** Friday, March 8, 2019 9:19:41 AM

---

**From:** vonOettingen, Susi [[mailto:susi\\_vonoettingen@fws.gov](mailto:susi_vonoettingen@fws.gov)]  
**Sent:** Friday, February 15, 2019 9:43 AM  
**To:** Laurin, Marc  
**Cc:** Clifford, Brendan  
**Subject:** NH Route 1A bridge over Hampton River

Good morning, Marc,

I am writing in response to your January 22, 2019 letter requesting comments and/or information regarding federally listed species that are in the vicinity of the proposed replacement of the Route 1A bridge over the Hampton River in Hampton and Seabrook, New Hampshire (Project). At this time, I understand that the project is in a preliminary design phase and you are asking for general comments regarding listed species.

The New Hampshire Department of Transportation (NHDOT) identified four federally listed species as potentially being present in the vicinity of the project. I agree, that the northern long-eared bat will not be affected based on the information provided in your letter - specifically a lack of foraging or roosting habitat, including the lack of evidence that bats might have been roosting in the bridge. Therefore, no further consultation will be needed for this species if NHDOT (or Federal Highways) concludes that the species will not be affected.

Red knots and roseate terns could forage within the project area, as stated in your letter. Red knots forage on exposed intertidal mud and sand flats, and roost on beach berms, dunes and in salt marshes. To date, there is little evidence that other than lower numbers of migrating red knots are found in the project area. Roseate terns forage in shallow waters when prey is available and have been observed in the project area, either during the breeding season (since Seavey Island is a known breeding colony) or during the staging season.

Piping plovers periodically nest west of the bridge when sufficient nesting habitat is available. This species could be affected by changes to the habitat during construction, or by noise and vibrations from construction activities. In order to avoid adverse effects, we recommend a time of year restriction for construction. Work involving vibrations, noise, mechanical equipment on the beach or other activities that would prevent plovers from establishing territories and nesting, that would disrupt foraging, or otherwise prevent plovers from feeding, breeding or roosting, should occur outside of the plover season, that being April 1 through August 31. There may be instances when construction may occur into April, if a) plovers have not returned to the site or b) are located at a sufficient distance to avoid being disturbed. We can discuss this situation and monitoring and managing requirements as the project design nears finalization.

If you have any questions, please call me at 603-227-6418 or email me. Thank you for your cooperation.

Sincerely,

Susi von Oettingen

\*\*\*\*\*

Susi von Oettingen  
Endangered Species Biologist  
New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301  
(W) 603-227-6418  
(Fax) 603-223-0104

[www.fws.gov/newengland](http://www.fws.gov/newengland)



**Hampton Harbor Bridge Project  
Summary of Meeting  
ESA Section 7 Coordination  
New Hampshire Department of Transportation Offices  
March 21, 2019**

**Attendees:**

Susi von Oettingen (USFWS)  
Brendan Clifford (NHFG)  
Jamie Sikora (FHWA)  
Jennifer Reczek (NTDOT)  
Marc Laurin (NHDOT)  
James Murphy (HDR)  
Stephanie Dyer-Carroll (FHI)  
Anthony Zemba (FHI) via phone  
Daniel Hageman (FHI)

**Introduction**

Jennifer Reczek, NHDOT's Project Manager, opened the meeting by welcoming attendees, facilitating introductions, and outlining the agenda for the meeting. She explained the purpose and need for the project, and said the bridge is Number 1 on the State's Red List, as well as the Rehabilitation and Replacement Priority List. She then explained that the project team first looked at the Rehabilitation Alternative and that they're now examining replacement options, including different potential alignments. She described the different alternatives by flipping through plan sheets for each. She said they've received good input through the outreach process, especially from local property and business owners.

**Summary of Discussion**

- Susi asked if NHDOT would need to take any properties by eminent domain on the southeast quadrant of the bridge. Jennifer said they could potentially use retaining walls but that they might purchase houses anyway due to the proximity of the wall to properties immediately southeast of the bridge. The community expressed a preference for a western alignment and a fixed structure. Jamie added that the fixed bridge would have lower life cycle costs.
- Susi asked if the fixed bridge would be higher. Jamie answered yes. Jennifer said the proposed height of the fixed bridge alternative would allow for at least 90% of all traffic currently using the bridge to pass. This number is the minimum, as survey of vessels could not pass all vessels. The bridge could provide passage for all the vessels NHDOT has been able to identify to date.
- Susi said an eastern alignment would be preferable from a natural resource perspective.
- Susi asked if there would be a long-term shadow effect. Jennifer said a retaining wall could have a shadow effect. Susi said retaining walls may create a "predator line."

- Susi asked if the beach had been nourished in the past. Brendan said it will be nourished underneath and on both sides in the beach area with the upcoming dredging project. Brendan said there is typically one pair of Piping Plover every year near the dune area south of the harbor on the point. He said more nesting habitat may be created with the future beach nourishment from the dredging project and it may support a second pair. Susi said the whole southern shoreline is potential habitat for the Piping Plover, including the intertidal area. Nourishment may allow Plovers more access to the southeast shoreline than they currently have. Susi said she is not sure how they would respond if the habitat changes. The stone revetment may be a barrier. Jim added that the proposed abutment would be constructed further back (further south) from the water and asked if this would be a benefit. Susi said it could potentially be beneficial, as long as there isn't additional scour.
- Jim stated a fixed bridge would be 8-10 feet higher at the abutment. Susi asked if it would let in more light under the bridge, and whether the design team could figure out what the shading might be for the different alternatives. Susi said she is not sure if shadow is currently a barrier, but the team should look at shadowing and its potential habitat effects. Dan asked if there was any applicable literature, and Susi said not that she knows of.
- The team should make in-field observations, if possible, to determine if shadow effects Plover behavior and movements. Brendan said they could include these types of observations under their regular monitoring. Susi suggested making 15-minute observations; considering how much time they spend in the shadow if there are two pairs. Susi said she would find out if there are any other bridges that Plovers nest by, for some potential additional observations.
- Susi said noise is another potential issue for the Plovers. She said they can habituate to ongoing noise. Generally, noise is less of an issue to Plovers if they are outside a 200-meter setback area. If construction is undertaken during the summer, noise must be actively managed. Jamie asked if the set back is for certain activities. Susi answered it is for any noise beyond ambient noise levels. She suggested the team might want to start in the south and work north to avoid noise impacts. Susi said to determine what the ambient noise is in the summer, and then see what activities exceed it. Susi stated the standard work window for a Not Likely to Adversely Affect finding is [April 1 to August 31](#) [September 1-March 31](#). Susi said this is a standard condition for USACE Projects that have beach nourishment as an option. Brendan said the Plovers show up in early April. Susi said she has seen projects where they have worked into May (South Jetty in Newburyport), but it is not advisable since there may be Plover activity during that time. Jim asked if there is guidance on decibel levels. Susi said there is no guidance, because each individual Plover may react differently to stressors, such as noise. Susi said if the noise increases slowly, the Plovers may habituate to it. She said a qualified person should monitor ambient noise levels for a baseline. Jennifer suggested they might be able to use the maintenance project as a test case. Susi asked if there is federal involvement in the maintenance project. Jamie said he thought it was just state funds.
- Dan suggested the possibility of using a "soft start" to allow Plovers to acclimate to construction noise, similar to what NOAA requires for some in-water work activities.
- Susi asked if there would be a barge. Jennifer said there could be a barge or a trestle – it has not yet been determined. Susi prefers placement of a barge on the east side.
- Dan asked if the Section 7 coordination could stay informal for this project. Susi said it could if they observe the time of year (TOY) restriction. The team will need to look at potential shadow impacts. The team will also need to show there will be no sediment deposits or erosion caused by the change in bridge dimensions and piers. Susi said that if USFWS has to make a recommendation, it will be a formal process. Jennifer said it will be very challenging,

due to all the TOY restrictions, since the Plover TOY restrictions will overlap the NOAA TOY restrictions. Jim asked if active noise monitoring could be used as a way to work within the TOY restriction. Susi said this would not be practical, since different individual Plovers may react differently to the noise; there is no universal decibel level by which to regulate the noise. Susi said that she is concerned about the abutment area, which is a small area compared to the entire project, so she's hoping there is a way to stage around the TOY restriction. Susi again suggested starting at the abutment outside the TOY restriction, then moving to other areas once in the TOY period.

- Anthony suggested we could reduce some rip-rap in the project as a benefit. Jennifer said there is a small amount around the abutments and wall, but it is needed for protection.
- Anthony said monitoring in Connecticut revealed that Plovers did not show any startle effect from fireworks.
- Brendan said NHFG monitors the Plovers about 30 hours/week from April to August. He could develop a protocol and incorporate shadow studies into the monitoring efforts. Jennifer asked where a wildlife monitor could be found. Susi said they have used MA Audubon and Normandeau in the past. Jim asked if USFWS has ever hired someone to monitor noise. Susi said noise monitoring has been done on Poppeneset Spit every year. Dan asked if Brendan could share any data he obtains regarding the Plovers in or near the project area. Brendan agreed, but said we need to determine what information we want to collect. Jennifer asked if it would be helpful to have a camera on the bridge. It was determined that it would be too difficult to identify the birds and observe behavior.
- Susi asked if Anthony has experience monitoring Plovers. Anthony said yes, and that he used a form for each monitoring session, so no important data was missed. Anthony agreed to try to obtain a copy of the form and send to Brendan.
- Susi said it is very important to stay away from the nest in June and July. It would be good to determine when they show up and how they move in April.
- Susi has no concerns about the Red Knot and Roseate Tern. The Red Knot is primarily feeding during migration and thus the project wouldn't be likely to adversely affect them; the Roseate Tern is not staging or roosting at the project site and thus there's no potential to affect them
- Dan asked if the USACE Plover restriction was in the general permit. Susi said she thought not and would try to track it down.
- Susi asked about the Northern long-eared bat. Dan replied that there is no evidence of bats on the bridge or the pump house located northwest of the bridge. There is no habitat in the vicinity of the project.

**Hampton Harbor Bridge Project  
Summary of Meeting  
ESA Section 7 Coordination  
New Hampshire Department of Transportation Offices  
December 18, 2019**

**Attendees:**

Susi von Oettingen (USFWS)  
Brendan Clifford (NHFG)  
Jamie Sikora (FHWA)  
Jennifer Reczek (NTDOT)  
Marc Laurin (NHDOT)  
John Stockton (HDR)  
Stephanie Dyer-Carroll (FHI)  
Daniel Hageman (FHI)

**Introduction**

Dan Hageman, a member of the HDR consultant team, explained that the purpose of the meeting was to discuss the potential need for formal consultation under Section 7 of the Endangered Species Act due to construction staging and schedule needs. Mr. Hageman shared a graphic showing Piping Plover habitat and the 200-meter setback. In the meeting between the NH Department of Transportation (NHDOT), the US Fish and Wildlife Service (USFWS), and NH Fish and Game (NHFG) last March, Susi von Oettingen (USFWS) had indicated the setback would be necessary to achieve a determination of Not Likely to Adversely Affect.

**Summary of Discussion**

- Ms. von Oettingen stated upfront that there is no Piping Plover habitat on the north side in the immediate vicinity of the bridge, either for nesting or foraging.
- Ms. von Oettingen said the project site is already in a very noisy area and the 200-meter setback could potentially be pulled back in certain areas.
- Ms. von Oettingen said NHDOT should make sure they review the revised regulations, as the “baselining” outline has been expanded.
- Ms. von Oettingen said the Effects Analysis needs to evaluate the duration, intensity and location of the activity. The typical construction scenario should be used as a basis for the effects analysis. The analysis should focus the most effort on the areas of significant habitat. Once the Piping Plovers have chicks, they will not move and will stay within the general area of the nest.
- Ms. von Oettingen said one way to potentially avoid impacts to the Piping Plovers would be to start work in the north during the breeding season, and then move south.
- Ms. von Oettingen said vibration impacts will need to be assessed as part of the effects analysis, but that there is no criteria for vibration impacts. She suggested NHDOT review the National Oceanic and Atmospheric Administration’s (NOAA’s) aquatic criteria to see if those could be adapted. She stated that there are already large trucks and vehicles using the bridge, so this will be a factor. Vibration will likely be *de minimis* if habitat is far enough

away, but the analysis will need to verify this. Mr. Hageman asked if it would be a benefit to stage construction during high tide in the areas close to Piping Plover habitat. Ms. von Oettingen said no, the tide would just push the Piping Plovers up the beach, and not displace them. It might displace recreational users though.

- Ms. von Oettingen said noise impacts will need to be assessed as part of the effects analysis, considering current ambient noise levels. The analysis will also need to look at the duration of the noise. Ms. von Oettingen reiterated that the bridge is already a noisy and busy place, so this will be a factor since the Piping Plovers may already be used to a lot of noise at the site. She said she does not have a noise study or criteria for Piping Plovers; however, she has a report that evaluates the noise from the dredge vessel *Currituck*, and its effects on Piping Plover behavior. She said she will send the report to NHDOT. She said the study shows the *Currituck* has not disturbed the birds in Connecticut. If dredging would occur in the winter, then there would not be an issue for the Piping Plover. She said that any deep channel work would be unlikely to impact the Piping Plover, even if it was undertaken in the 200-meter buffer. She said she didn't think noise would be a big issue. If appropriate, NHDOT can say noise is insignificant and discountable.
- Ms. von Oettingen said shadow impacts will need to be assessed as part of the effects analysis. Generally, short duration shadows are not considered an impact. Ms. von Oettingen stated that the Piping Plovers will not nest next to walls, perhaps due to shadowing. Jennifer Reczek, NHDOT's Project Manager, stated that the current concepts show a slope on either side of the roadway approach which will minimize or eliminate shadow. Ms. von Oettingen said the slope may be considered a conservation measure.
- Ms. von Oettingen stated stormwater and runoff will need to be assessed. Ms. Reczek said that the project will need to be consistent with MS4 stormwater regulations and that there will not be sheet flow. Ms. von Oettingen said she is concerned that runoff that isn't collected might cause erosion along the abutment slope and be detrimental to Piping Plover habitat. She suggested a slope conservation measure to ensure there is no erosion.
- Ms. von Oettingen said boat activity will need to be evaluated to assess the potential for impacts, specifically whether boat activity will be increased under the Preferred Alternative. This could cause additional noise, frequency of trips, and increased wave activity within the Piping Plover habitat. Wake speed would also be an important consideration.
- Ms. von Oettingen said NHDOT will need to discuss the potential impacts of recreational beach users in the Biological Assessment (BA) and whether they will "push" birds towards the bridge construction from the west.
- Ms. von Oettingen said the BA must discuss the potential hydraulic impact to the Piping Plover habitat. Will the hydraulics change? Will this cause more erosion or deposition? Will flooding increase?
- Ms. von Oettingen reviewed the graphic handout showing the Piping Plover habitat and 200-meter buffer area. She acknowledged that the area is very dynamic. Mr. Clifford said some of the areas may not have originally been habitat. Ms. von Oettingen said the graphic should be revised to reduce the buffer area. Ms. von Oettingen and Mr. Clifford said they would revise the graphic if NHDOT sends them the GIS files. NHDOT agreed to do this.
- Ms. von Oettingen said conservation measures should be incorporated into the project as needed. Examples include waste control, avoiding the use of heavy equipment on the beach, and the use of a snow fence.
- Ms. Reczek asked if there would be a benefit to a physical barrier. Ms. von Oettingen said on another project, at Winthrop Beach in Massachusetts, snow fence was installed to keep Piping Plover chicks out of the work area and falling debris. Snow fence is only good for

chicks, since they cannot yet fly. She mentioned that Ann Hecht is the Piping Plover coordinator at USFWS.

- Ms. von Oettingen asked Mr. Clifford if he knew where the Piping Plovers forage. Mr. Clifford said he would need to review the monitoring reports.
- Mr. Hageman asked if mitigation would be required and went on to say that one option for mitigating potential impacts would be to reconstruct habitat in the abandoned alignment of the existing road, or in adjacent locations. Ms. von Oettingen stated that restoration of habitat would not be a good option on the eastern side of the bridge, since there is only poor habitat there now.
- Ms. Reczek asked what the status of the US Army Corps of Engineers (USACE) dredge project is, relative to beach nourishment. Mr. Clifford said the USACE had placed dredge material on the beach area, primarily under the bridge.
- Ms. Reczek stated that the NHDOT is currently leaning towards the fixed bridge alternative due to the analysis provided in the Draft TS&L, but there still needs to be additional evaluation in the Environmental Assessment (EA). Ms. von Oettingen said the EA can reference the BA in many sections to minimize duplication of text.
- Ms. von Oettingen said the formal consultation process would take longer than the informal process. NHDOT should complete the BA and then request formal consultation. Once the request and BA have been submitted to the USFWS, the USFWS will need 90 days to write a Biological Opinion (BO). FHWA/NHDOT will then have 35 days to review the BO and respond, as needed.
- Ms. von Oettingen suggested the NHDOT should not propose mitigation, but instead undertake a detailed evaluation of avoidance and minimization measures coupled with “conservation measures” based on a “normal”, or baseline, construction project. She said they need to look at whether the project would potentially jeopardize the species.
- Ms. von Oettingen said she is open to the NHDOT calling her with any questions as they work through the BA and the effects analysis. She suggested there should be regular check-ins to make sure the process and analysis are on the right track.

Action Items:

1. Ms. von Oettingen will send the noise report to NHDOT
2. NHDOT will send GIS files of Piping Plover habitat and the 200-meter buffer to Ms. von Oettingen and Mr. Clifford.

**Hampton Harbor Bridge Project  
Summary of Meeting  
ESA Section 7 Coordination  
Teams Virtual Meeting  
February 23, 2021**

**Attendees:**

Susi von Oettingen (USFWS)  
Brendan Clifford (NHFG)  
Jamie Sikora (FHWA)  
Jennifer Reczek (NTDOT)  
Marc Laurin (NHDOT)  
Robert Juliano (NHDOT)  
John Stockton (HDR)  
Stephanie Dyer-Carroll (FHI)  
Daniel Hageman (FHI)  
Anthony Zemba (FHI)

**Introduction**

Susi Von Oettingen said she'd reviewed the Biological Assessment (BA) prepared for the project and is in the process of preparing the Biological Opinion. She requested the meeting to discuss the beach nourishment referenced in the BA.

**Summary of Discussion**

- Susi von Oettingen said that disposition of sand from dredge activity needs to be considered as part of the project.
- Ms. von Oettingen said that if the dredge material is put on shore in an area of Piping Plover habitat, a management plan will be required for the area.
- Ms. von Oettingen said that if Piping Plover habitat is nourished and if New Hampshire Fish and Game (NHFG) isn't able to maintain the habitat/monitor the species in the future, NHDOT or FHWA would have to manage it.
- Brendan Clifford said NHFG may not be able to conduct their monitoring efforts indefinitely.
- Jamie Sikora asked if there would be a time limit on the management; he suggested five years was reasonable.
- Ms. von Oettingen said there would be no time limit.
- Ms. von Oettingen asked if the US Army Corps of Engineers would conduct the dredging.
- Jennifer Reczek said the dredging would be completed by a private contractor.
- Ms. von Oettingen asked about the volume of dredge material and said this information is required in order to complete the Biological Opinion.
- John Stockton showed the area that would be dredged but pointed out that the bathymetry suggests much of the area is already below the authorized federal navigation channel depth (eight feet); the dredge effort could just consist of scraping off the high points; it would likely result in less than 10,000 cubic yards of material.

- Ms. von Oettingen said NHDOT will need to test the dredge material to confirm it is suitable for beach nourishment.
- Ms. von Oettingen also said any material should not be placed after April 1, because of potential impacts to the Piping Plover and their habitat.
- Ms. Reczek said the dredging would occur in the winter months due to boat traffic and the in-water work window established in consultation with the National Oceanic and Atmospheric Administration (NOAA)
- Ms. von Oettingen said that if the dredge material is placed on the shore in existing Plover habitat, a design will be required.
- Mr. Clifford said it is such a small amount of dredge spoil that it may make sense to place it off-site, outside of Plover habitat.
- Ms. von Oettingen said NHDOT could use nearshore or upland disposal areas.
- Ms. von Oettingen requested that FHWA and NHDOT prepare a brief letter that outlines the amount of dredge material, where it would potentially be deposited, and the time of year the dredging would occur
- Mr. Sikora said, as the lead federal agency, FHWA would transmit the letter to USFWS.





# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

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

August 13, 2021

Jamison S. Sikora  
Federal Highway Administration  
53 Pleasant Street, Suite 2200  
Concord, NH 03301

Re: NHDOT Project # 15904, NH Route 1A Bridge over Hampton Harbor  
TAILS: 05E1NE00-2021-F-0724

Dear Mr. Sikora:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion (Opinion) based on our review of the Federal Highway Administration's (FHWA) proposed construction of a new bridge conveying NH Route 1A (Neil Underwood Memorial) over Hampton Harbor in Seabrook and Hampton, New Hampshire (Project), and its effects on the federally threatened piping plover (*Charadrius melodus*). We received your request to initiate formal consultation on December 9, 2020. Your request and our response are made in accordance with section 7 of the Endangered Species Act (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA). The FHWA is the lead Federal agency for the Project and is consulting with the Service on behalf of the U.S. Army Corps of Engineers and the Environmental Protection Agency, the additional Federal agencies with approval or permitting authorities for the Project.

This Opinion is based on (1) information provided in the December 9, 2020, letter to initiate formal consultation; (2) the FHWA's January 2021 Biological Assessment (BA); (3) the FHWA's March 9, 2021 letter providing supplemental information regarding project-associated dredging; and (4) electronic correspondence, telephone conversations, meetings, and other sources of information. Pertinent sections of the BA will be incorporated by reference. The consultation history is located in Appendix A. A complete administrative record of this consultation can be made available at the New England Field Office in Concord, New Hampshire.

- As part of the January 21, 2021, BA, the FHWA requested the Service concur with the FHWA's determination that the Project may affect, but is not likely to adversely affect, the federally endangered roseate tern (*Sterna dougallii dougallii*) and threatened rufa red knot (*Calidris canutus rufa*). Detailed information about the species and species' occurrence in the project area are incorporated by reference from the BA. Small numbers of roseate terns occur in the project area from May through September as transient individuals traveling to forage in Hampton Harbor and Hampton Harbor inlet, loafing during the breeding season, and/or staging during pre-migration on sand flats of Hampton

Harbor and Seabrook Beach ([eBird.org](http://eBird.org), accessed February 2, 2021). Small numbers of red knots primarily forage on sand and mud flats nearby the project area in Hampton Harbor, the Hampton Inlet, and sand flats adjacent to the north and south jetties of the Hampton Inlet ([eBird.org](http://eBird.org), accessed February 10, 2021).

We concur with your determination, because either the level of effects is insignificant and/or the likelihood of adverse effects occurring is discountable. We base our concurrence on the following:

- Loafing roseate terns have not been documented in the project action area and are not anticipated to occur in the project area due to the noise from routine traffic crossing the bridge. Loafing areas are generally away from human activity.
- The Project may temporarily impact roseate terns if they move away from the project area while foraging due to disturbance from construction activity. The temporary loss of access to foraging habitat is insignificant relative to the available foraging habitat in Hampton Harbor and Hampton Inlet.
- There are no documented occurrences of red knots foraging in the project action area, most likely due to lack of accessible foraging habitat.
- The project area is far enough from suitable habitat that construction activity associated with the Project would not disturb foraging or roosting red knots. We anticipate that impacts to transient individuals passing through the project action area from disturbance, lights, and/or vibrations would be negligible.

## BIOLOGICAL OPINION

### DESCRIPTION OF PROPOSED ACTION

As defined in the ESA section 7 regulations at 50 CFR 402.02, “action” means “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas.” The following is a summary of the proposed action. A detailed description can be found on pages 8 through 11 of the BA.

The proposed action is the construction of a new 1,300-foot structural steel bridge approximately 75 feet west of the existing bridge. The bridge will have two 11-foot travel lanes, with 8-foot shoulders and 6-foot sidewalks on each side. The bridge abutments on either side will have U-shaped reinforced concrete wingwalls supported on steel bearing piles vibrated to resistance then driven to final position. Riprap will extend from the face of the abutment and wingwalls to below the high tide line, a 250-foot retaining wall will be installed northwest of the bridge, and a 230-foot retaining wall installed northeast of the bridge. A drainage collection and conveyance system will route drainage discharges through new treatment swales at the northern and southern approaches before flowing into Hampton Harbor. Stormwater flow on the southern approach will be similar to existing conditions, with sheet flow off of the pavement and onto vegetated embankments where buffer areas will treat the stormwater.

Four existing utility lines—two water, one sewer, and one gas—are currently buried below the harbor bed and will be temporarily relocated to the west of the anticipated construction trestle and placed on top of the bed in the navigational channel. Final relocation sites have not been determined.

Approximately 5,000 square feet of channel bottom will be dredged to allow for a consistent 150-foot channel width through the proposed bridge as afforded by the longer bridge spans of the fixed bridge design. Several options are being considered for the disposal of the dredge material, including: (1) re-using the material within the existing channel to fill in holes left by removal of the existing bridge piers; (2) disposal in an approved upland location on or off site; (3) disposal in a nearshore dredge material disposal site, or (4) disposal to augment piping plover habitat in coordination with the New Hampshire Fish and Game Department (NHFG). None of the first 3 options for disposal would affect the piping plover or other listed species. The fourth option would have beneficial effects and would not adversely affect the species. Therefore, we do not consider dredge disposal further in this Opinion.

Construction of the new bridge and demolition of the existing bridge would occur over 36 months and begin in the fall of 2023. Construction would occur in three phases:

1. Phase 1 – access road and work trestle construction, sheet pile cofferdam construction, pile caps, drilled shafts, and pier construction within the cofferdams, and initiation of roadway approaches and abutments construction.
2. Phase 2 – construction of the superstructure, including erection of the central bridge spans and partial construction of the southernmost and northernmost spans. North and south roadway approaches will be completed, and removal of western trestles and cofferdams would be initiated within the in-water window of November 15 to March 15.
3. Phase 3 – roadway traffic will be shifted to the partially completed bridge and roadway approaches, remaining portions of the superstructure at the northernmost and southernmost spans completed, a bridge pier protection fender system will be installed, and the navigational channel dredged to widen the existing channel from 40 feet to 150 feet. The western and eastern trestles, superstructure and substructure of the existing bridge, and existing pier piles will be removed. New roadways will be completed and disturbed areas stabilized.

Only in-water work, including dredging, has a time-of-year restriction of November 15 through March 15. Onshore work may occur at any time as conditions allow throughout the year. The equipment types used in each phase are described on page 11 of the BA.

### **Conservation Measures**

The FHWA would implement conservation measures to avoid and minimize adverse effects to piping plovers prior to and during construction. The measures, fully described on page 46 of the BA, are incorporated by reference and summarized below:

1. Information will be provided to construction workers on the potential presence of piping plovers in the work area.
2. Silt fencing or other protective fencing will be erected around suitable plover habitat within the construction zone to prevent nest establishment and piping plover chicks (if present) from accessing construction area.
3. The contractor will ensure the construction zone is maintained free of trash to avoid attracting predators.
4. Speed limits on construction vessels will be required to prevent boat wake from eroding the beach or impacting foraging plovers and chicks.
5. Light shielding during construction will be implemented to avoid disturbing breeding piping plovers.
6. Slope stabilization measures adjacent to the bridge and roadway on the southwest side of the roadway will be designed and implemented to prevent erosion.
7. During the plover breeding season (April 1 to August 30), slow starts when driving cases for drilled shafts will be implemented to avoid disturbing or flushing plovers when present.
8. Dredge spoil will be used to enhance plover nesting habitat if feasible.
9. Stone chinking within the riprap on the south abutment will be used to prevent void spaces from attracting rodents and other potential predators.

### **ACTION AREA**

The action area is defined (50 CFR 402.02) as "...all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." The Service has determined that the action area for this Project consists of the bridge reconstruction footprint and the buffer areas as described and mapped on pages 6 and 7 of the BA. Specifically, the action area includes: a 600-foot buffer to the east side of the bridge footprint to include potential noise impacts from the Project; a 660-foot buffer to the west of the bridge; and docks at the Yankee Fisherman's Co-op, Eastman's Docks, the Hampton State Pier, and the Hampton Marina that may be used for construction staging. The action area contains suitable nesting and foraging habitat for piping plovers at Hampton-Seabrook Dunes State Wildlife Management Area (Hampton-Seabrook Dunes WMA) west of the Route 1A bridge and limited foraging habitat east of the bridge, in the town of Seabrook. Piping plover nesting and foraging habitat does not occur within the action area in the town of Hampton.

## STATUS OF THE SPECIES

Per ESA section 7 regulations (50 CFR 402.14(g)(2)), it is the Service's responsibility to "evaluate the current status of the listed species or critical habitat." The Service listed the Atlantic Coast breeding population of the piping plover as threatened on January 10, 1986 (50 FR 50726). Critical habitat in the breeding range of the Atlantic Coast population has not been designated. A complete species description, life history, population dynamics, threats, and conservation needs can be found in the Atlantic Coast Population Revised Recovery Plan (USFWS 1996), the 2009 5-year review (USFWS 2009), the 2020 5-year review (USFWS 2020c), and the Species Profile for Piping Plover (<https://ecos.fws.gov/ecp/species/6039>, accessed March 16, 2021). Continuing threats to Atlantic Coast piping plovers in the breeding portion of their range identified in the 1996 revised recovery plan include habitat loss and degradation, disturbance by humans and pets, increased predation, and oil spills (USFWS 1996). The 2020 5-year review updated information regarding these threats, as well as potential threats of climate change and wind turbine generators (USFWS 2020c). We considered the information in these documents in the evaluation of this project, and they are incorporated by reference into this Opinion. Information provided below describes the current status of the species. We also summarize information about threats most pertinent to the nature and duration of effects of the proposed action (e.g., breeding site fidelity and dispersal, recreation, predation).

To assess the current status of the species, it is helpful to understand the species' conservation needs. The Service frequently describes conservation needs via the conservation principles collectively known as the three Rs: resiliency,<sup>1</sup> redundancy,<sup>2</sup> and representation<sup>3</sup> (Shaffer et al. 2002; Wolf et al. 2015; Smith et al. 2018). The Service can then apply the appropriate regulatory framework and standards to these principals to address a variety of ESA-related decisions (e.g., listing status, recovery criteria, jeopardy and adverse modification analysis). For section 7(a)(2) purposes, the 3 Rs can be translated into the reproduction, numbers, and distribution (RND) of a species.

### **Recovery criteria and strategy**

The objective of the 1996 Atlantic Coast Population Revised Recovery Plan is to assure the long-term viability of the Atlantic Coast piping plover population in the wild, thereby allowing removal of this population from the Federal List of Endangered and Threatened Wildlife and Plants (50 CFR 17.11 and 17.12). The Atlantic Coast piping plover population may be considered for delisting when the following recovery criteria, established in the recovery plan, have been met:

---

<sup>1</sup> Resiliency is the ability of species/populations to withstand stochastic events, which is measured in metrics such as numbers or growth rates.

<sup>2</sup> Redundancy is the ability of a species to withstand catastrophic events, which is measured in metrics such as number of populations and their distribution.

<sup>3</sup> Representation is the variation/ability of a species to adapt to changing conditions, which may include behavioral, morphological, genetics, or other variation.

- increase and maintain for 5 years a total of 2,000 breeding pairs, distributed among four recovery units;

<b>Recovery Unit</b>	<b>Minimum Subpopulation</b>
Atlantic (Eastern Canada)	400 pairs
New England	625 pairs
New York-New Jersey	575 pairs
Southern (DE-MD-VA-NC)	400 pairs

- verify the adequacy of a 2,000-pair population of piping plovers to maintain heterozygosity and allelic diversity over the long term;
- achieve a 5-year average productivity of 1.5 fledged chicks per pair in each of the four recovery units described in criterion 1, based on data from sites that collectively support at least 90 percent of the recovery unit's population;
- institute long-term agreements to assure protection and management sufficient to maintain the population targets and average productivity in each recovery unit; and
- ensure long-term maintenance of wintering habitat, sufficient in quantity, quality, and distribution to maintain survival rates for a 2,000-pair population.

The subpopulation abundance and distribution targets will ensure representation, redundancy, and resiliency for Atlantic Coast piping plovers in their breeding range (USFWS 2020c). Maintaining geographically well-distributed populations across the four recovery units serves to conserve representation of genetic diversity and adaptations to variable environmental selective pressures as evidenced by the population's genetic structure, variable habitat requirements, differences in vital rates, and morphometric differences (USFWS 2020c). The ability of piping plovers in each recovery unit to rebound from events that depress unit-wide productivity or survival and to colonize newly formed or improved habitat (e.g., after storms or artificial habitat enhancement projects) depends on within-unit redundancy that is measured via progress towards abundance targets. Distribution of robust numbers of breeding pairs across the four recovery units will also provide Atlantic Coast piping plovers with a buffer against stressors (e.g., weather, habitat degradation, disturbance) in their migration and wintering range that may depress survival rates (USFWS 2020c).

### **Population trends since listing under the ESA**

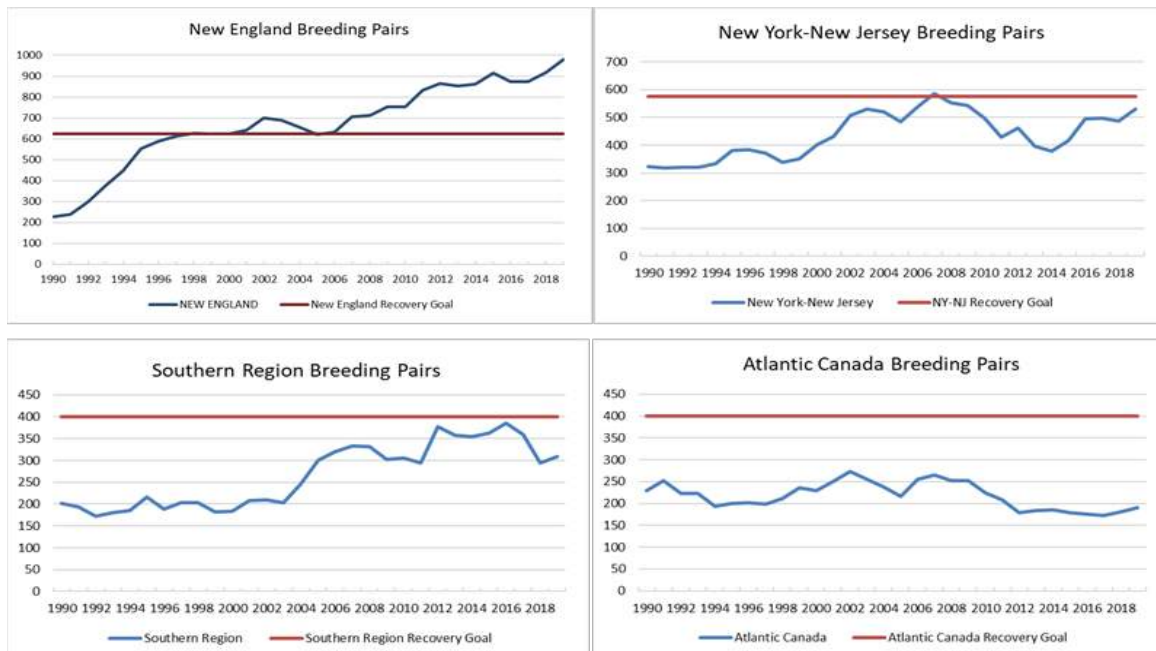
Abundance of Atlantic Coast piping plovers is reported as numbers of breeding pairs (i.e., adult pairs that exhibited sustained (> 2 weeks) territorial or courtship behavior at a site or were observed with nests or unfledged chicks (USFWS 1996)). Annual estimates of breeding pairs of Atlantic Coast piping plovers are based on multiple surveys of almost all breeding habitat, including many currently unoccupied sites. The Service produces annual updates for rangewide abundance and productivity estimates for the Atlantic Coast piping plover. The most current comprehensive update including data through 2018 and final data for 2019 can be found at the Service's Atlantic Coast piping plover website: <https://www.fws.gov/northeast/pipingplover/pdf/Abundance->

[Productivity-2018-Update\\_final-with-tables.pdf](#) and <https://www.fws.gov/northeast/pipingplover/pdf/2019-Update-Final.pdf> (accessed March 31, 2021).

Substantial population growth, from approximately 790 pairs in 1986 to an estimated 2,008 pairs in 2019, has decreased the Atlantic Coast piping plover’s vulnerability to extinction since ESA listing, although only the New England recovery unit has been able to reach and sustain its abundance target. Discounting apparent increases in New York, New Jersey, and North Carolina between 1986 and 1989, which likely were due in part to increased census effort (USFWS 1996), the population doubled between 1989 and 2019, reaching the recovery criterion of a population of 2,000 pairs for the first time since the species was listed.

The security of the Atlantic Coast piping plover is fundamentally dependent on an even distribution of population growth to maintain a sparsely-distributed species with strict biological requirements in the face of environmental variation, buffer it against catastrophes, and conserve adaptive capacity. The New England recovery unit, in which the Seashore is located, has exceeded its subpopulation target for many more than the requisite 5 years, but the numbers of breeding pairs in the other three recovery unit populations remain below targets established in recovery criterion 1 (USFWS 2019; USFWS 2020d) (figure 1).

Figure 1. Abundance of Atlantic Coast piping plover breeding pairs by recovery unit, 1990 – 2019.



Productivity remains an important, albeit partial, predictor of trends in future abundance of piping plovers. Furthermore, because small populations may be vulnerable to extirpation due to variability in productivity and survival rates, productivity needed to assure a secure population (that can withstand, for example, catastrophic and stochastic events) may be higher than the rate sufficient for a stationary population. As abundance increases, the productivity rates required for demographic stability and security are likely to converge. Although the Service continues to monitor plover productivity rates and assess their implications for recovery, abundance of breeding pairs has become a more informative indicator of decreased extinction risk in the New England recovery unit than the annual productivity rate.

Thirty years of population growth, although unsteady in large sections of the range, evidences the general efficacy of the ongoing Atlantic Coast piping plover recovery program. However, all of the major threats (habitat loss and degradation, predation, human disturbance) identified in the 1986 ESA listing and 1996 revised recovery plan remain persistent and pervasive (USFWS 2020c). Two threats, climate change (especially sea level rise) and wind turbines, identified in the 2009 5-year review (USFWS 2009) and discussed in detail in the 2020 5-year review (USFWS 2020c), are likely to affect Atlantic Coast piping plovers throughout their annual cycle. Some aspects of climate change remain uncertain, but ongoing acceleration of sea level rise is well-documented. Further increases in sea level rise rates are foreseeable with a high degree of certainty, and effects of sea level rise on Atlantic Coast piping plovers and their habitat will be partially determined by coastal management activities.

Although threats from wind turbine generators are foreseeable, their magnitude remains poorly understood. Currently, the Bureau of Ocean Energy Management (BOEM) has assumed that approximately 22 gigawatts of Atlantic offshore wind development within the North Atlantic Outer Continental Shelf lease area are reasonably foreseeable to occur along the East Coast from New Hampshire to North Carolina. The potential wind energy development includes 17 active wind energy lease areas that could construct about 2,000 wind turbines over a 10-year period. (BOEM 2020). Although some information has become available that will help assess effects of future proposed projects, collision risk for plovers migrating through offshore wind energy projects remains largely unknown.

#### *Population trends in New Hampshire*

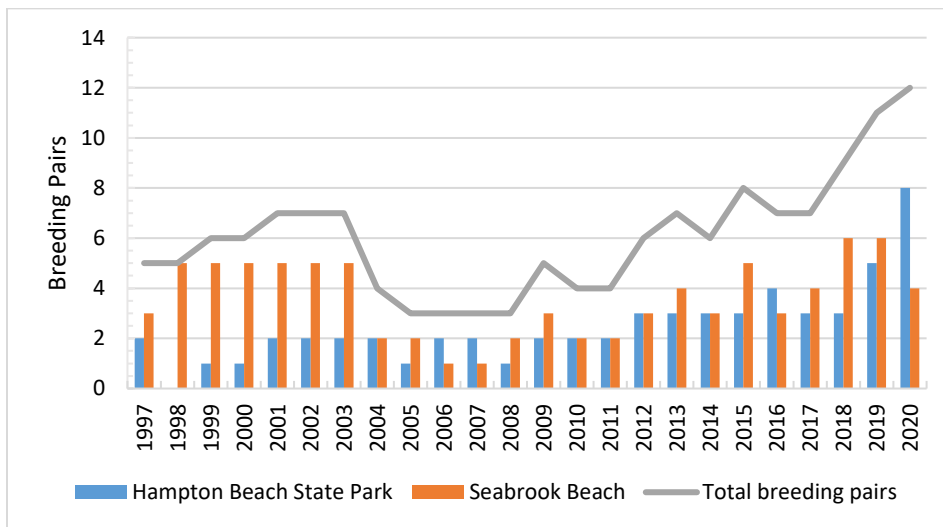
At the time the species was listed in 1986, piping plovers were not known to breed in New Hampshire. Individual piping plovers had been reported from Seabrook and Hampton beaches throughout the 1980s and early 1990s; however, breeding piping plovers were first recorded in the State by the NHFG in 1997 (5 pairs) (NHFG 2020a; NHFG 2020b; eBird.org, accessed April 16, 2021). Currently, piping plovers in New Hampshire are limited to Seabrook Beach (approximately 1.4 miles long), Hampton Beach State Park (approximately 1.4 miles long), and Hampton-Seabrook Dunes WMA (approximately 0.14 miles long). These are the only areas of the coast with sufficient suitable habitat to support breeding piping plovers.



Since 1997, the number of breeding pairs ranged from 3 to 12 pairs and demonstrated an increasing trend in abundance since 2008 (figure 1) (NHFG 2020b; NHFG 2020c). The increase in New Hampshire’s plover population is likely due to a combination of generally high productivity and immigration from Massachusetts and Maine, as populations in those States also increased over the last decade. Seabrook Beach<sup>4</sup> generally has more breeding plovers than Hampton Beach State Park (figure 1).

Despite high variability in productivity between years, productivity for New Hampshire averaged 1.3 chicks fledged per breeding pair of piping plovers, slightly above the 1.2 chicks fledged per breeding pair needed to maintain a stable population. Seabrook Beach (including the Hampton-Seabrook Dunes WMA) generally has higher productivity than pairs nesting at Hampton Beach (figure 2).

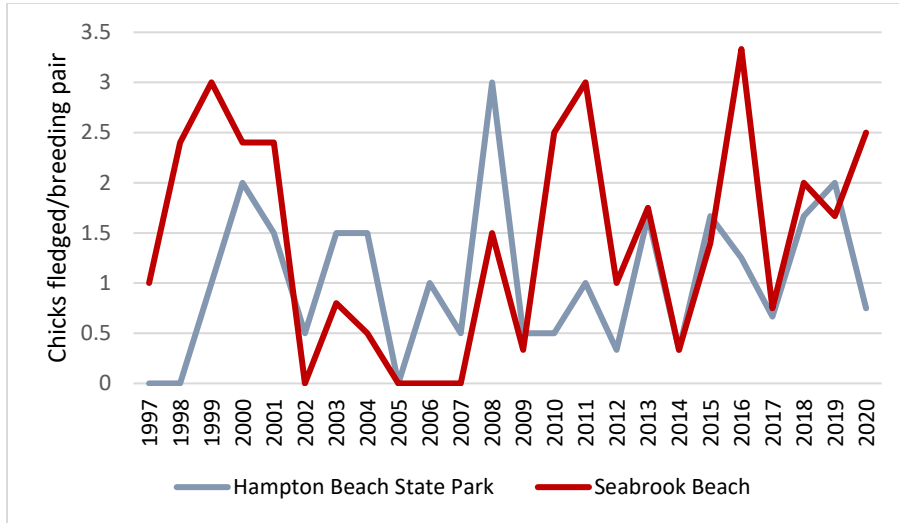
Figure 1. Piping plover abundance in New Hampshire (1997 to 2020).



In addition to climate change and the development of offshore wind energy projects, the following factors may also affect piping plover productivity and abundance rangewide and in New Hampshire.

<sup>4</sup> Includes the single pair nesting in the Hampton-Seabrook Dunes WMA in NHFG annual plover reports.

Figure 2. Annual productivity for Hampton Beach State Park and Seabrook Beach 1997 to 2020.



### Breeding site fidelity and dispersal

Adult piping plovers generally demonstrate nest site fidelity, returning to the same breeding beach or a nearby beach in consecutive years. First-time Atlantic Coast breeders are more likely to disperse from their natal sites, but their fidelity to their natal region is very high.

Although long-distance movements between natal and breeding sites (and even between breeding years) have been documented, they are rare. On the Atlantic Coast, almost all observations of inter-year movements of birds have been within the same or adjacent states. Extensive efforts to re-sight more than 1,400 Atlantic Coast piping plovers color-banded in Virginia, Maryland, Massachusetts, and five Eastern Canadian provinces between 1985 and 2003 resulted in only four records of plovers breeding outside the recovery unit in which they were banded ( $n=86$ , range=0.01 – 217.33 kilometers) (Rioux *et al.* 2011). Studies in New York, Massachusetts, Maryland, Virginia, and Canada documented that, in general, adults returned to their original nesting beaches or beaches nearby, and males demonstrated greater site fidelity than females (USFWS 2020c). More recent studies provide quantitative estimates of dispersal distances depending on the previous year's hatching failure (greater likelihood of dispersal) or success (likely to return to the vicinity of the breeding beach) (USFWS 2020c).

Genetic evidence is consistent with observed dispersal patterns. Miller *et al.* (2010) found strong genetic structure, supported by significant correlations between genetic and geographic distances in both mitochondrial and microsatellite data sets for Atlantic Coast piping plovers. Atlantic birds showed evidence of isolation-by-distance patterns, indicating that dispersal, when it occurs, is generally associated with movement to relatively proximal breeding territories.

In summary, piping plovers demonstrate high fidelity to their natal and breeding regions. Established males make smaller inter-annual movements than females, and first-time breeders disperse more than adults. Notwithstanding rare long-distance movements, population growth and stability are heavily dependent on survival and productivity of local populations (USFWS 2020c).

### **Threats from beach recreation**

Threats to piping plovers from human beach users were cited in the final listing rule and described in detail in the 1996 revised Atlantic Coast recovery plan. Threats to breeding piping plovers from both motorized and non-motorized beach recreation activities are relatively well understood, and recommended management options are described in the Federal guidelines for avoiding adverse effects on piping plovers (Federal guidelines; USFWS 1994). Newer threats include the increasing popularity of “extreme sports,” such as kite-buggies and surf kites (also called “kite boards”), which accidentally land in and near breeding habitat.

Sufficiency of restrictions on dogs in piping plover nesting areas and consistency of enforcement are continuing concerns of biologists monitoring Atlantic Coast piping plovers. Literature on closely related beach-nesting plover species provides additional evidence of adverse effects on breeding activities from both leashed and unleashed dogs (USFWS 2020c).

Management activities to protect habitat, nests, and unfledged chicks from impacts of pedestrian recreation include symbolic fencing of courtship and nesting habitat, leashing or prohibition of pets during the breeding season, buffers between breeding piping plovers and fireworks, informational and interpretive signing, public education, and law enforcement patrols. On sites where ORVs are allowed to operate during the breeding season, protection requires additional closures of the lower beach and intertidal zone during periods when unfledged chicks are present. These management activities are predicated on frequent monitoring of individual breeding pairs during territory establishment and courtship, nesting, and chick-rearing periods (USFWS 2020c). Effectiveness of management measures to avoid or reduce threats is contingent on skilled monitoring and timely employment and enforcement of adequate buffers to protect piping plover courtship, nesting, and brood-rearing. All of these labor-intensive actions require continued implementation to counter threats that are present every year.

### **Threats from predation**

The final listing rule identified predation by pets, feral dogs and cats, skunks, and raccoons as threats on the plover’s Atlantic Coast range. The 1996 revised recovery plan provides a more thorough discussion of predation threats, and recommends specific tasks to be implemented in an integrated approach to predator management that employ a full range of management techniques.

Research and reports indicate that predation poses a continuing (and perhaps intensifying) threat to Atlantic Coast piping plovers (USFWS 2020c). Although predator numbers are undiminished

or increasing, effectiveness of predator exclosures<sup>5</sup> has declined (USFWS 2020c). As effectiveness of exclosures has declined, managers have increased selective predator removal activities at many sites throughout the U.S. Atlantic Coast range (USFWS 2020c). Recent predator removal efforts focused on mammalian predators such as fox, skunks, and coyotes, and avian predators, primarily gulls and crows. Targeted predator management is annually implemented on select Massachusetts beaches because the Massachusetts Division of Fisheries and Wildlife Habitat Conservation Plan For Piping Plover (MADFW 2016) (HCP) requires predator management as the only method of mitigating impacts from activities authorized under the HCP.

Predation is a widespread and continuing threat to breeding Atlantic Coast piping plovers. Implementation of conservation measures for addressing predation threats is time-consuming and costly. Although site-specific predator pressures vary from year to year, predator management is a recurring need in the recovery of piping plovers.

### **Summary**

Thirty-five years of intensive recovery efforts have reduced the near-term extinction risk of the Atlantic Coast piping plover by increasing the population and managing the continuing threats. However, the Atlantic Coast piping plover remains vulnerable to low numbers in three of its four recovery units. Furthermore, the factors that led to the piping plover's 1986 listing remain operative across its Atlantic breeding range, including in New England, and many of these threats have increased. Interruption of labor-intensive efforts to manage these threats would quickly lead to steep population declines.

### **ENVIRONMENTAL BASELINE**

In accordance with 50 CFR 402.02, the environmental baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline.

---

<sup>5</sup> Exclosures are wire cages placed around nests to exclude predators. They were a key management tool in the early years of the recovery program.

**Status of the Species within the Action Area**

One pair of piping plovers nested west of the bridge within the action area at Hampton-Seabrook Wildlife Management Area (WMA) during 7 of the last 11 years. No pairs nested within the action area in 2020 (table 1). Piping plovers nested 3 of the last 4 years less than 500 feet west of the existing bridge. No plovers have ever nested on the Hampton side of the action area as there is no suitable habitat.

Productivity of the single pair within the action area at Hampton-Seabrook Dunes WMA is also highly variable, ranging from zero chicks fledged to four chicks fledged per pair (table 1). Average productivity for this location was 2.14 chicks fledged per breeding pair.

Table 1. Hampton-Seabrook Dunes WMA abundance and productivity 2010 to 2020 (NHFG 2020c).

Year	# Nesting Pairs	# Chicks Fledged	Productivity
2010	0	N/A	N/A
2011	0	N/A	N/A
2012	0	N/A	N/A
2013	1	4	4
2014	1	1	1
2015	1	3	3
2016	1	4	4
2017	1	0	0
2018	1	3	3
2019	1	0	0
2020	0	N/A	N/A

Within the action area, the nesting habitat at Hampton-Seabrook Dunes WMA is State-owned and not heavily visited, primarily by pedestrians walking the shoreline. Consistent predation by feral cats, fox, and avian predators, including crows and gulls, affects productivity at all New Hampshire beaches. Unleashed dogs are also a threat to plovers, particularly flightless chicks and can be pervasive at Hampton Beach State Park and Seabrook Beach, but less so at Hampton-Seabrook WMA. The NHFG implements the Federal guidelines on all beaches. In addition to monitoring and managing plover beaches under the Federal guidelines, the NHFG implements predator management and conducts piping plover outreach to beach visitors.

**EFFECTS OF THE ACTION**

**Regulatory Background**

In accordance with 50 CFR 402.02, effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action

if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (see § 402.17).

The Service established additional requirements for making the determination of reasonably certain to occur, which must be followed after October 28, 2019, the effective date of new regulations under 50 CFR 402. After determining that the “activity is reasonably certain to occur,” based on clear and substantial information,<sup>6</sup> using the best scientific and commercial data available, there must be another conclusion that the consequences of that activity (but not part of the proposed action or activities reviewed under cumulative effects) are reasonably certain to occur. In this context, conclusion of reasonably certain to occur must be based on clear and substantial information, using the best scientific and commercial data available after consideration of three factors in 402.17(b)(1-3).

There is no intent that the 2019 regulatory changes alter how we will analyze the effects of a proposed action or the scope of effects. We will continue to review all relevant effects of a proposed action as we have in past decades, but the Service determined it was not necessary to attach labels to various types of effects through regulatory text. That is, we intend to capture all of those effects (now “consequences”) previously listed in the regulatory definition of effects of the action—direct, indirect, and the effects from interrelated and interdependent activities—in the new definition. These effects are captured in the new regulatory definition by the term “all consequences” to listed species and critical habitat.

The test for determining effects includes the consequences resulting from actions previously referred to as “interrelated or interdependent” activities. In order for consequences of other activities caused by the proposed action, but not part of the proposed action, to be considered effects of the action, both those activities and the consequences of those activities must satisfy the two-part test: they would not occur but for the proposed action and are reasonably certain to occur. As a result, when we discuss effects or effects of the action throughout the Opinion, we are referring only to those effects that satisfy the two-part test. Requiring evaluation of all consequences caused by the proposed action allows the Service to focus on the impact of the proposed action to the listed species and critical habitat, while being less concerned about parsing what label to apply to each consequence.

---

<sup>6</sup> By clear and substantial, we mean that there must be a firm basis to support a conclusion that a consequence of an action is reasonably certain to occur. This term is not intended to require a certain numerical amount of data; rather, it is simply to illustrate that the determination of a consequence to be reasonably certain to occur must be based on solid information. This added term also does not mean the nature of the information must support that a consequence is guaranteed to occur, but must have a degree of certitude.

**Effects of the Action**

The BA described potential effects from the Project in detail (pages 31 to 43 and incorporated by reference). Table 2 summarizes potential effects from project components.

Table 2. Summary of potential stressors and effects to piping plovers.

Project Component	Stressor	Exposure	Response
Bridge construction and relocation	Loss of nesting habitat (approximately 0.42 acre)	Yes	Relocation to less suitable habitat or near another plover’s territory, delayed nesting.
Vibration - construction	Disturbance during foraging	Not likely	Vibrations limited to a very small foraging area near existing bridge and proposed bridge. Not optimal foraging habitat and not near potential nesting habitat. Effects of disturbance to foraging adults so small as to not be measurable. Optimal foraging habitat not affected.
Noise - construction	Construction equipment exceeding ambient noise level.	Yes	Disturbance, preventing plovers from foraging in areas affected by increased noise levels. Sudden onset of increased noise might cause startle reaction, interrupting courtship or feeding.
Noise - dredging	Noise from dredge within 600 feet	Not likely	Noise from dredge would slightly increase average ambient levels by 1 to 2 decibels (dBA). Effects of disturbance to foraging adults so small as to not be measurable.
Noise – new bridge	Noise from vehicle traffic crossing new bridge	Not likely	Noise level not anticipated to exceed traffic noise at existing bridge.
Shadow – new bridge	Shading adjacent plover nesting habitat	Yes	May reduce available nesting habitat because of extended daytime shadows.
Construction vehicles	Precluding access to potential nesting habitat and chick mortality	Not likely	A small area of beach will be made unavailable for nesting. If beach accretion occurs, additional nesting habitat may be available, reducing the impact of a temporary loss of habitat from fencing and construction. Chicks may run into construction zone and be injured or killed by vehicles in the construction zone. Barriers installed around the active construction zone will preclude chicks from entering the construction area.
Lights – night work, new bridge	Disturbance to foraging plovers	Not likely	Limited duration (one week), will occur outside of plover breeding season. Lighting of the new bridge will be similar to that of the existing bridge.

We anticipate adverse effects from the Project would be limited to approximately 0.42-acre loss of suitable nesting habitat and a lesser amount of foraging habitat, and disturbance to territorial, courting, and/or foraging piping plovers from construction noise. The proposed Project may result in the reduction of some or all productivity for one pair of piping plovers at the Hampton-Seabrook

Dunes WMA when construction activity occurs at the south end of the bridge. We do not anticipate adverse effects to foraging plovers nesting on Seabrook Beach, because they may only sporadically forage in the project area. Foraging plovers are occasionally observed east of the bridge and rarely west of the bridge when there is no nesting pair at the Hampton-Seabrook Dunes WMA.

Adverse effects could result when breeding pairs and their territories, nests, and/or broods are disturbed by construction, particularly noise. Should plovers be startled while on the nest and leave, eggs repeatedly exposed on hot days may overheat, killing the embryos (Bergstrom 1991). Excessive cooling may kill embryos or delay their development, thus delaying hatching dates. Chicks and adults may be disturbed during foraging, primarily impacting chicks as they may experience a slower growth rate, prolonged time to fledging, or mortality. However, some disturbance will be ameliorated by the conservation measure requiring a slow start for drilling activities to reduce the likelihood of startling plovers. The disturbance impacts from noise would last only as long as Project construction and occur only during the years when construction is focused at the southern end of the Project. Because the area of suitable habitat that would be affected by noise is small, we expect no more than one pair would occupy this habitat and experience noise effects from the Project.

There is limited suitable nesting habitat at the Hampton-Seabrook Dunes WMA. The permanent reduction of approximately 0.42 acre of suitable habitat could preclude piping plovers from nesting west of the bridge in years when stochastic events (e.g., erosion) cause a significant reduction in available nesting habitat. Adult piping plovers generally return to the same nesting beach, or a nearby beach (see Status of the Species for discussion on dispersal). If less suitable habitat is available for establishing territories and nests, plovers may be forced to seek out different breeding habitat, possibly increasing energetic demands. This is the case especially for birds arriving later in the breeding season as they seek new nesting options farther from their traditional breeding areas. Plovers forced from their traditional nesting locations may encounter later territory establishment and nesting than previous years when sufficient habitat was available. If the piping plover population in a region approaches the available habitat's carrying capacity, some adults that are displaced may not breed at all and potential new recruits may not find territories. Therefore, we expect the reduction in suitable habitat to force one nesting pair to relocate when the overall nesting habitat is reduced due to stochastic events. If the breeding pair cannot nest at Hampton-Seabrook Dunes WMA, the pair may relocate closer to another occupied territory, causing an increase in agonistic behavior between pairs, delayed nesting of either pair, or competition for resources, especially once chicks have hatched and adults are defending their broods.

### **Effects on the New England recovery unit and the Atlantic Coast population**

In 2019 (the last year plovers nested west of the bridge), 11 pairs of piping plovers nested in New Hampshire with an average productivity of 1.8 chicks fledged per piping plover pair. Given that plovers generally return to the same nesting beach or a nearby beach, and there is available unoccupied habitat at Seabrook Beach and potentially Hampton Beach, we do not anticipate that the Hampton-Seabrook Dunes WMA pair of plovers would abandon the State completely. For



example, no pairs nested at Hampton-Seabrook Dunes WMA due to severe erosion of the nesting habitat in 2020, yet the State documented the most plover breeding pairs (12) since 1997, when breeding plovers were first observed.

We anticipate that at most, there may be a 50 percent reduction in productivity for one pair of piping plovers during the Project's construction. The reduction in productivity would not significantly affect the New Hampshire population, because of the short duration of noise effects from the Project and minimal loss of habitat.

Attainment and maintenance of population abundance targets for the four recovery units provide resiliency, redundancy, and representation that are fundamental to the overall security of the Atlantic Coast piping plover population. Based on data through 2019, the New England population has attained (or been within three pairs of) its abundance goal for 18 years, and it currently exceeds its goal by 69 percent. Given that the breeding plovers affected by project activities would not be lost to the New England population, the New England recovery unit would not be measurably affected by the proposed action. Moreover, we do not anticipate the proposed loss of productivity for up to one pair of piping plovers to cause a reduction in the abundance of New England piping plovers.

We anticipate that the loss of a small area of breeding habitat and loss of productivity for one pair of piping plovers in New Hampshire as a result of the Project would have an insignificant effect on the New Hampshire and New England piping plover populations. Any effect on the Atlantic Coast population would not be measurable.

#### CUMULATIVE EFFECTS

Cumulative effects are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area (50 CFR 402.02). We expect historical recreation activities such as walking, jogging, and/or sunbathing will continue at Hampton-Seabrook Dunes WMA. In general, when these activities occur in close proximity to piping plover nesting, it can result in increased disturbance to nesting adults, disruption in foraging, and increased time spent on vigilance or defensive behaviors. However, while plovers may be affected by these recreational activities, the NHFG manages the beach according to the Guidelines, which precludes adverse effects on plovers. We expect these activities to occur at similar levels as in the past, and therefore do not anticipate a change from baseline conditions in the action area or substantial additive effects to the proposed action.

#### JEOPARDY ANALYSIS

Section 7(a)(2) of the ESA requires that Federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat.

### **Jeopardy Analysis Framework**

“Jeopardize the continued existence of” means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR 402.02). In accordance with policy and regulation, the jeopardy analysis in this Opinion relies on four components: (1) Status of the Species, which evaluates the piping plover rangewide condition, the factors responsible for that condition, and its survival and recovery needs; (2) Environmental Baseline, which evaluates the status of the piping plover in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the piping plover; (3) Effects of the Action, which determines impacts of the proposed action; and (4) Cumulative Effects, which evaluates the effects of future, non-Federal activities in the action area on the piping plover. The jeopardy analysis in this Opinion emphasizes the rangewide survival and recovery needs of the listed species and the role of the action area in providing for those needs. It is within this context that we evaluate the significance of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination (see 50 CFR 402.14(g)).

In this section, we add the effects of the action and the cumulative effects to the status of the species and critical habitat and to the environmental baseline to formulate our Opinion as to whether the proposed action is likely to appreciably: (1) reduce the likelihood of both the survival and recovery of a listed species in the wild by reducing the RND of that species; or (2) appreciably diminish the value of critical habitat for both the survival and recovery of a listed species.

Per the Service’s consultation handbook (USFWS and NMFS 1998), survival is defined as “the species’ persistence as listed or as a recovery unit, beyond the conditions leading to its endangerment, with sufficient resilience to allow for the potential recovery from endangerment. Said another way, survival is the condition in which a species continues to exist into the future while retaining the potential for recovery. This condition is characterized by a species with a sufficient population, represented by all necessary age classes, genetic heterogeneity, and number of sexually mature individuals producing viable offspring, which exists in an environment providing all requirements for completion of the species’ entire life cycle, including reproduction, sustenance, and shelter.”

Per the Service’s consultation handbook (USFWS and NMFS 1998), recovery is defined as “improvement in the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the ESA.” The “criteria set out in Section 4(a)(1)” means determining when a species no longer meets the definition of an “endangered species” or a “threatened species” because of any of the following factors:

- (A) present or threatened destruction, modification, or curtailment of habitat or range;
- (B) overutilization for commercial, recreational, scientific, or educational purposes;

- (C) disease or predation;
- (D) inadequate existing regulatory mechanisms; and
- (E) other natural or manmade factors affecting the species' continued existence.

An endangered species is “in danger of extinction throughout all or a significant portion of its range” (see ESA Section 3(6)). A threatened species is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range” (see ESA Section 3(20)).

To conduct this analysis, we begin by assessing whether there are effects to any individuals of the species of interest (as discussed in the effects analysis section above). If all effects are insignificant, discountable, or wholly beneficial, no further consultation is required. In other words, if we conclude that individuals are not likely to experience reductions in reproductive success or survival likelihood, fitness consequences for the species rangewide would not be expected as well. In this case, the agency has ensured that their action is not likely to jeopardize the continued existence of the species and our analysis is completed. Conversely, if we are unable to show that individuals are unlikely to experience reductions in their reproductive success or survival likelihood, we are required to assess how those effects are or are not anticipated to result in an appreciable reduction in the likelihood of both the survival and recovery of the species. We do not assess appreciable reduction of reproduction, numbers or distribution at an individual level because we do not assess appreciable reduction of survival and recovery at an individual level.

Because many species are composed of multiple populations and there may be meaningful differences in those populations (e.g., genetics, morphology, size) to the overall species survival and recovery, it is a logical intermediate step to evaluate the effects of impacts to individuals on the population(s) they are associated with. If our analyses indicate that reductions in the fitness of the population(s) are not likely to occur, there can be no appreciable reductions in reproduction, numbers, or distribution at a species level and we conclude that the agency has ensured that their action is not likely to jeopardize the continued existence of the species. If there are reductions in the fitness of the population(s) impacted, we then assess whether those changes affect the overall species survival and recovery rangewide based on the importance of the population(s) for species level representation, resiliency and redundancy, the level of impact, and the status of the species.

## CONCLUSION

As discussed in the “Effects of the Action” section, the primary consequence of the Project is the 50 percent reduction in productivity for one pair of piping plovers attempting to breed at the Hampton-Seabrook Dunes WMA. The jeopardy analysis in this Opinion assesses whether the proposed action reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both survival and recovery of the Atlantic Coast piping plover by reducing the species' reproduction, numbers, or distribution in the wild.

The action area for this consultation is located in the New England recovery unit. This and three other recovery units were defined in the final recovery plan for this species (USFWS 1996). Recovery units are special units of a listed entity that are geographically or otherwise identifiable and are essential to the recovery of the entire listed entity. Therefore, we start by considering the effects of the proposed action on the piping plover population in New Hampshire. We then consider those effects in the context of the current status of piping plovers in the New England recovery unit and the environmental baseline in the action area, taking into account any cumulative effects. Finally, we determine whether implementation of the proposed action is likely to appreciably reduce the likelihood of both the survival and recovery of the species in the wild.

In formulating this Opinion, we consider the following points discussed earlier in this document:

1. Although a small amount of nesting habitat may be permanently altered, there is sufficient available, unoccupied habitat at nearby Seabrook Beach such that the single pair that usually nests at the Hampton-Seabrook Dunes WMA is unlikely to abandon the area.
2. There is uncertainty that plovers will attempt to nest at Hampton-Seabrook Dunes WMA in the near future because of limited nesting habitat caused by beach erosion.
3. Impacts on foraging habitat are so small as to not be measurable.
4. Conservation measures, including slow starts to drilling, maintaining a clean work environment to discourage predators, and shielded lighting, will reduce the impacts of disturbance to foraging or nesting piping plovers during construction.
5. Protective fencing erected around suitable plover habitat within the project construction zone will preclude nest establishment and piping plover chicks (if present) from accessing the construction area.
6. The predicted reduction in productivity as a result of noise would be limited to 3 years, the anticipated construction duration of the Project.
7. The proposed action will not significantly affect the numbers and distribution of nesting pairs of piping plovers in New Hampshire.
8. We do not anticipate cumulative effects at levels different from baseline conditions.
9. The proposed action will take place in the New England recovery unit, where the piping plover population has exceeded (or been within three pairs of) its 625-pair abundance goal since 1998, reaching 1,058 pairs in 2020 (A. Hecht, U.S. Fish and Wildlife Service, pers. comm. 2020), 69 percent above the recovery unit goal.

After reviewing the status of the species, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, we find that the proposed action is not reasonably expected to reduce appreciably the likelihood of both survival and recovery of piping plovers in the New England recovery unit by reducing their reproduction, numbers, or distribution in the wild. Our analysis indicates that the effects of the covered activities are likely to be minimal and site-specific. Further, the proposed action would have no measurable affect (either negative or positive) on the numbers or distribution of piping plovers in the other recovery units. Therefore,

we conclude that the proposed action is not likely to jeopardize the continued existence of the Atlantic Coast piping plover population as a whole.

#### INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined in section 3 of the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering (50 CFR § 17.3). Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA, provided that such taking is in compliance with the terms and conditions of this incidental take statement (ITS).

The measures described below are nondiscretionary and must be undertaken by the FHWA for the exemption in section 7(o)(2) to apply. The FHWA has a continuing duty to regulate the activity covered by this ITS. If the FHWA fails to assume and implement the terms and conditions, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the FHWA must report the progress of the action and its impact on the species to the Service as specified in the ITS [50 CFR 402.14(i)(3)].

#### AMOUNT OR EXTENT OF TAKE ANTICIPATED

We expect the proposed action would cause take of one pair of piping plovers via harassment and harm, and that the take will result in a 50 percent reduction in productivity for the life of the Project and then subsequent years when stochastic events further reduce available habitat in Hampton-Seabrook Dunes WMA. Take via harassment may occur when noise from nearby construction creates the likelihood of injury to such an extent as to significantly disrupt normal breeding, feeding, and roosting behaviors. Disturbance to nesting plovers may lead to reduced nest attendance by incubating adults if noise or construction activity causes plovers to repeatedly leave the nest. Plover eggs produced by one pair may be killed as a result of cooling, overheating, or predation due to nest abandonment. In a worst-case scenario, take would result in zero productivity for the pair of plovers at Hampton-Seabrook Dunes WMA.

Harm would occur as a reduction in available nesting habitat, which may disrupt normal behavior, including territory establishment, territory abandonment if the plover pair relocates, and a delay or extension of their breeding period if forced to relocate farther away from their preferred nesting habitat or near the territory of another breeding pair.

These take mechanisms may result in sublethal effects to piping plover adults and chicks, and sublethal or lethal effects to eggs. The anticipated impact to piping plovers is a 50 percent reduction in productivity for one breeding pair that attempts to nest at the Hampton-Seabrook Dunes WMA or would have nested there had sufficient habitat been available.

#### REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of piping plovers at Hampton-Seabrook Dunes WMA:

1. the FHWA must use suitable dredge material to enhance piping plover habitat at Hampton-Seabrook Dunes WMA, if feasible;
2. avoid and minimize take of the piping plover to the extent practicable; and
3. monitor breeding piping plovers at Hampton-Seabrook Dunes WMA during construction of the bridge.

#### TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the ESA, the FHWA must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are nondiscretionary.

1. Coordinate disposal of suitable dredged material with the NHFG to determine the best location for piping plover nesting habitat enhancement.
2. Coordinate installation of fencing around the active construction area at the south end of the bridge with the NHFG to preclude plovers from nesting in the area and chicks from entering the construction zone.
3. Starting 7 days prior to construction activities or March 24, whichever comes first, a qualified monitor should survey the Hampton-Seabrook Dunes WMA daily for plover presence in April and May. If plovers are absent, monitoring may be discontinued after June 15.
4. If a pair of plovers nests at Hampton-Seabrook Dunes WMA, continue daily monitoring to document response to construction activities and productivity until fledging has been verified.
5. The FHWA must employ qualified individuals to monitor piping plovers. Individuals trained and/or approved by NHFG do not need additional approval from the Service. Alternatively, the FHWA can request Service approval of an individual's qualifications to monitor piping plovers. Requests for approval should be sent to [newengland@fws.gov](mailto:newengland@fws.gov) and arrive at least 30

days before the activities would occur. Requests should include a resume or other explanation of the individual's qualifications and experience with the piping plover. Experience with a species similar to the piping plover may substitute for direct experience with the piping plover.

## MONITORING AND REPORTING REQUIREMENTS

The FHWA shall provide the New England Field Office an annual report by December 31 for the duration of the Project construction describing:

1. the number of nesting piping plover pairs present at Hampton-Seabrook Dunes WMA;
2. productivity of piping plovers nesting at Hampton-Seabrook Dunes WMA;
3. the fate of the nest(s) and/or brood(s) at Hampton-Seabrook Dunes WMA;
4. predator activity noted in the construction zone; and
5. the conservation measures implemented to avoid or minimize adverse impacts.

The contact for these reporting requirements is:

Audrey Mayer  
Field Supervisor  
New England Field Office  
U.S. Fish and Wildlife Service  
70 Commercial Street, Suite 300  
Concord, NH 03301  
Telephone number: 603-496-5181

Care must be taken in handling any dead specimens of listed species to preserve biological material in the best possible state. In conjunction with the preservation of any dead specimens, the finder has the responsibility to ensure that evidence intrinsic to determining the cause of death of the specimen is not unnecessarily disturbed. The finding of dead specimens does not imply enforcement proceedings pursuant to the ESA. The reporting of dead specimens is required to enable the Service to determine if take is reached or exceeded and to ensure that the terms and conditions are appropriate and effective. Upon locating a dead specimen, notify the Service's New England District Office of Law Enforcement at 617-889-6616 and the New England Field Office at 603-223-2541.

## REINITIATION NOTICE

This concludes formal consultation on the proposed action. As provided in 50 CFR 402.16, reinitiation of consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of taking specified in the ITS is exceeded; (2) new information reveals effects of the action that may affect

Jamison Sikora  
August 13, 2021

24

listed species or critical habitat in a manner or to an extent not considered in this Opinion; (3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this Opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the exemption issued pursuant to section 7(o)(2) may have lapsed and any further take could be a violation of section 4(d) or 9. Consequently, we recommend that any operations causing such take cease pending reinitiation.

If you have any questions regarding this Opinion, please contact Ms. Susi von Oettingen of this office at 603-227-6418, or by e-mail at [susi\\_vonoettingen@fws.gov](mailto:susi_vonoettingen@fws.gov).

Sincerely yours,

**AUDREY  
MAYER**

Audrey Mayer  
Supervisor  
New England Field Office

Digitally signed by  
AUDREY MAYER  
Date: 2021.08.13 08:03:50  
-04'00'

Attachment  
Appendix A

cc: Reading file  
Jamie Sikora/FHWA via email [jamie.sikora@dot.gov](mailto:jamie.sikora@dot.gov)  
Marc Laurin/NHDOT via email [marc.laurin@dot.nh.gov](mailto:marc.laurin@dot.nh.gov)  
Jennifer Reczek/NHDOT via email [Jennifer.E.Reczek@dot.nh.gov](mailto:Jennifer.E.Reczek@dot.nh.gov)  
Robert Juliano/NHDOT via email [Robert.A.Juliano@dot.nh.gov](mailto:Robert.A.Juliano@dot.nh.gov)  
Brendan Clifford/NHFG via email [Brendan.J.Clifford@wildlife.nh.gov](mailto:Brendan.J.Clifford@wildlife.nh.gov)  
Mike Marchand/NHFG via email [michael.n.marchand@wildlife.nh.gov](mailto:michael.n.marchand@wildlife.nh.gov)  
ES: SvonOettingen:jd:8-13-21:603-227-6418



LITERATURE CITED

- Bergstrom, P.W. 1991. Incubation temperatures of Wilson's plovers and killdeers. *Condor*. 91: 634–641.
- Bureau of Ocean Energy Management [BOE]. 2020. Vineyard Wind 1 Offshore Wind Energy Project Supplement to the Draft Environmental Impact Statement. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. Sterling, Virginia. 420 pp.
- [MADFW] Massachusetts Division of Fisheries & Wildlife. 2016. Massachusetts Division of Fisheries & Wildlife (DFW) habitat conservation plan for piping plover. Prepared by MADFW and ICF International. 152 pp.
- Miller, M. P., S. M. Haig, C. L. Gratto-Trevor and T. D. Mullins. 2010. Subspecies status and population genetic structure in piping plover (*Charadrius melodus*). *Auk* 127:57-71.
- [NHFG] New Hampshire Fish and Game Department. 2020a. Piping Plover Project – Nongame and Endangered Wildlife Program. Concord, NH. Retrieved from <https://www.wildlife.state.nh.us/nongame/project-plover.html>.
- NHFG. 2020b. New Hampshire 2020 Piping Plover (*Charadrius melodus*) & Least Tern (*Sterna antillarum*) Annual Report.
- NHFG. 2020c. *in litt.*
- Shaffer, M.L., L.H. Watchman, W.J. Snape and I.K. Latchis. 2002. Population viability analysis and conservation policy. Pp. 123-142 in *Population Viability Analysis*, S.R. Beissinger and D.R. McCullough, editors. University of Chicago Press, Chicago.
- Smith D.R., N.L. Allan, C.P. McGowan, J.A. Szymanski, S.R. Oetker and H.M. Bell. 2018. Development of a species status assessment process for decisions under the U.S. Endangered Species Act. *Journal of Fish and Wildlife Management* 9(1):xx–xx; e1944-687X. doi:10.3996/052017-JFWM-041
- [USFWS] U.S. Fish and Wildlife Service. 1994. Guidelines for managing recreational activities in piping plover breeding habitat on the U. S. Atlantic Coast to avoid take under section 9 of the Endangered Species Act. Northeast Region, Hadley, MA.
- USFWS. 1996. Piping Plover (*Charadrius melodus*), Atlantic Coast population, revised recovery plan. Northeast Region, Hadley, MA.

- USFWS. 2009. Piping plover (*Charadrius melodus*) 5-year review: summary and evaluation. Northeast Region, Hadley, MA and the Midwest Region's East Lansing Field Office, MI.
- USFWS. 2019. Abundance and productivity estimates – 2018 update: Atlantic Coast piping plover population. Hadley, Massachusetts. [https://www.fws.gov/northeast/pipingplover/pdf/Abundance-Productivity-2018-Update\\_final-with-tables.pdf](https://www.fws.gov/northeast/pipingplover/pdf/Abundance-Productivity-2018-Update_final-with-tables.pdf)
- USFWS. 2020a. Piping plover (*Charadrius melodus*) 5-year review: summary and evaluation. Michigan Field Office, East Lansing, MI and Northeast Region, Hadley, MA.
- USFWS. 2020b. 2019 Atlantic Coast piping plover abundance and productivity estimates. Hadley, Massachusetts. <https://www.fws.gov/northeast/pipingplover/pdf/2019-Update-Final.pdf>
- [USFWS and NMFS] U.S. Fish and Wildlife Service and National Marine Fisheries Service. 1998. Endangered Species Consultation Handbook Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act. 51 pp. [https://www.fws.gov/endangered/esa-library/pdf/esa\\_section7\\_handbook.pdf](https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf).
- Wolf, S., B. Hartl, C. Carroll, M.C. Neel and D.N. Greenwald. 2015. Beyond PVA: Why recovery under the Endangered Species Act is more than population viability. *Bioscience* 65:200-207.

## Appendix A

### CONSULTATION HISTORY

March 11, 2019 – Electronic transmission to NEFO from Fitzgerald and Halliday (consultants) providing background information for the proposed bridge project.

March 21, 2019 – Meeting with NHDOT, FHWA, NEFO and consultants to discuss proposed project and potential Federal- and State-listed species that may be affected by the construction of a new bridge.

December 18, 2019 – Meeting with FHWA, NHDOT, NHFG, NEFO, and consultants to discuss formal consultation on the project.

February 12, 2020 – NEFO electronic transmission to NHDOT and FHWA with information relevant to potential disturbance to piping plovers from construction activities.

April through July 2020 – Electronic transmissions between NEFO, NHFG, and NHDOT, providing information and plover data for BA.

December 9, 2020 – NEFO received the request to initiate formal consultation from the FHWA via electronic transmission.

December 16, 2020 – Virtual meeting with FHWA, NEFO, NH State agencies, and consultants to discuss the proposed project.

January 13, 2021 – NEFO received updated information about the size and location of the project action area from NHDOT via electronic transmission.

January 21, 2021 – NEFO received additional information regarding the FHWA determination of not likely to adversely affect roseate terns and rufa red knots, and an updated BA via electronic transmission.

January 25, 2021 – NEFO acknowledgement of receipt to initiate formal consultation with FHWA.

February 19, 2021 – Electronic transmission between FHWA, NHFG, and NEFO clarifying dredge material disposition and Federal agency lead.

March 9, 2021 – FHWA supplemental letter describing the estimated quantity of dredge material and options for disposal provided in an electronic transmission to NEFO.



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**New Hampshire Division**

December 28, 2022

53 Pleasant Street, Suite 2200  
Concord, NH 03301  
(603) 228-0417

In Reply Refer To:  
HDA-NH

Mr. Thomas R. Chapman, Supervisor  
U.S Fish and Wildlife Service  
New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087

Attn: Ms. Susi von Oettingen, Endangered Species Biologist

**Subject: Seabrook-Hampton, NH  
NHDOT Project # 15904, Federal-aid # X-A001 (026)  
NH Route 1A (Neil Underwood Memorial) Bridge over Hampton Harbor)**

Dear Mr. Chapman:

In 2021, FHWA prepared and submitted a Biological Assessment to your office as part of the Section 7 consultation for the subject Bridge Project (NHDOT No. 15904). USFWS issued a Biological Opinion for the project in August of 2021. In the preparation of the Biological Assessment, the construction duration was assumed to be approximately three years. As NHDOT has advanced the design, it has become apparent that the construction duration will need to extend to four years, due primarily to the time-of-year restriction for turbidity producing activities agreed to with NOAA to minimize impacts to federally-listed and federally-managed aquatic species.

In addition, we also wanted to provide your office with an update on the estimated volume of excavated material that will be produced from the channel widening and the plans for its disposition. At the time the BA was prepared, the volume of excavated material was estimated to be 5,000 cubic yards (CY) based on a channel condition bathymetric survey conducted by the US Army Corps of Engineers (USACE) in August of 2017. Updated bathymetric survey was collected this year as part of the NHDOT's Final Design for the bridge project to capture the channel bottom elevations after the 2020 USACE channel maintenance project. Based upon the updated data, the estimated excavation volume is now estimated to be just 160 CY. In the BO, the USFWS recommended that the excavated material be used to enhance Piping Plover habitat, if feasible. Due to the limited volume now anticipated, and the project commitment with NOAA to restore the channel bottom condition after the removal of the existing piers, NHDOT now intends to use the excavated materials to fill the voids created by the removal of the existing piers. Using existing channel materials will facilitate the timely reestablishment of benthic organisms within the footprints of the piers. We have notified the New Hampshire Fish and Game Department of this refinement, both through email and presentation at the November 2022 NHDOT Natural Resources Agency Coordination Meeting.

We believe that these minor changes do not necessitate reinitiating formal Section 7 consultation but are providing you the information for your awareness and project records.

If you have any questions or require further information, you or your staff may contact me at (603) 410-4870 or [Jamie.Sikora@gov.dot](mailto:Jamie.Sikora@gov.dot).

Sincerely yours,

**JAMISON S  
SIKORA**

Digitally signed by  
JAMISON S SIKORA  
Date: 2022.12.28  
11:48:59 -05'00'

Jamison S. Sikora

Environmental Programs Manager

ecc: M. Laurin, NHDOT

J. Reczek, NHDOT

File: 15904

## Attachment 6: Agency Site Walk Minutes

**Hampton Harbor Bridge Project  
Summary of Meeting  
Regulatory and Permitting Agency Site Walk  
September 30th, 2022**

**Attendees:**

Chris Williams (NHDES Coastal Program)  
Mike Dionne (NHFG)  
Karl Benedict (NHDES)  
Amy Lamb (NHNHB)  
Lori Sommer (NHDES)  
Jean Brochi (USEPA)  
Marc Laurin (NHDOT)  
Andy O'Sullivan (NHDOT)  
Nick Caron (HDR)  
Daniel Hageman (FHI Studio)  
David Winslow (FHI Studio)

**Introduction**

The purpose of the meeting was to orient the regulatory agency representatives to the project site, the existing regulated resources, and the proposed activity within those resources. The meeting was held at the approximate low tide period, so resources could better be seen. Nick Caron, HDR's Project Manager, opened the meeting by welcoming attendees and facilitating introductions. Nick gave an overview of the project including the major elements and construction methodology, with reference to the design and impact plans. Nick explained what work would be occurring, as well as whether the impacts would be temporary or permanent. Nick stated that work trestles would be constructed both west of the proposed bridge and east of the old bridge to facilitate construction of the new bridge. Foundations and pier footings would be isolated from the water column with driven sheet piles or drilled shaft casings depending on the pier. Water from the sealed work areas would be pumped to sedimentation treatment BMPs to construct the new foundations. Barges, if needed, would utilize spuds for anchoring and to keep the barge from resting on the harbor bottom. He further explained that during construction boat traffic would be accommodated, and the channel would only be closed briefly when the existing bascule span is removed. Nick stated the stormwater from the new bridge would be collected and treated prior to discharge to the harbor, which is an improvement over the existing system which does not treat bridge runoff and is drained directly to the harbor through bridge deck scuppers.

**Summary of Discussion**

- Nick stated the impacts from the construction trestle would be temporary. Karl asked about the timespan of the trestle and stated that the USACE considers any structure in place for over 1 year a permanent impact. Lori added that this guideline was in place because additional shading during the growing season could cause a habitat conversion. Since the western trestles would be in place for over a year, NHDES anticipates these impacts would be classified as permanent. Dan questioned whether these impacts would be permanent, since the trestles are unlikely to convert any habitat over the span of 1.5-2 years. There is

no eel grass or tidal vegetation within the project area, thus the shade would not be impacting photosynthetic organisms. An example was given by Lori that if access mats are left in greater than 1 year, they must be classified as permanent and thus require mitigation. Any discussion about classification of the western trestles as temporary vs. permanent will need to be undertaken with the USACE for a final determination; NHDES would like to be involved in this discussion as well.

- Nick explained how the installation of the new piers would be undertaken in a confined work area through the use of sheet piles. Water would be pumped out of the work space to create dry working conditions, and the water treated as needed. Karl stated that the method of sheet installation makes a big difference in terms of how tight the sheets are; it is important to have a tight seal to reduce/minimize water inflow and associated pumping. Karl provided a comparison of the Newington-Dover and Lebanon bridge projects; he said at Lebanon the sheet pile installation was not done well. He made the point that the way sheets are driven makes a difference in whether they are properly sealed, and if not properly sealed, there could be an excessive amount of seepage water and potential water quality issues.
- Karl stated that the contractor has to ensure that any water pumped out for drilling purposes to upland and treated; it cannot be immediately discharged to the river. He further clarified that any upland discharge site would need to be in a non-jurisdictional area, with the understanding that the site could change, as long as it is still within a non-jurisdictional area. The discharge site must be outside the tidal buffer zone (TBZ) as well.
- Nick stated that appropriate measures to discharge the water would be evaluated as the construction design details are finalized.
- Karl asked about erosion and sedimentation control measures, and he explained that erosion control plans submitted to NHDES are usually generic, with the knowledge that NHDES will get more detail with the construction plans. Karl also asked if a water quality monitoring plan was going to be instituted. With further discussion between NHDOT, HDR, and FHI Studio, Karl agreed that having a boat sampling water using the mixing zone method on a regular schedule was likely a good option, but still questioned how water quality would be maintained and monitored. Discussion around water quality also raised the issue that monitoring may especially be necessary when pulling the sheets, and that a mixing zone is a good idea considering the velocities of the harbor would not be compatible with a turbidity curtain.
- Andy stated that appropriate monitoring would be evaluated by BOE's Water Quality Program Manager.
- Mike asked to see the mussel density next to the existing piers to determine what will be affected. After reviewing the mussel bed, Dan explained that the current plan is to leave a rough surface where the existing northern pier will be removed by scarring the concrete material, or possibly with some existing rip rap around the pier, in order to create precursor conditions for establishment of blue mussel habitat. Mike agreed that this was a good solution.
- It was stated that the dune needs to be called out on the plans, and that the jurisdiction of the dunes should be under the wetland permit, not the shoreland permit. However, it was stated that the dunes do need to be in both sets of permit plans, but can simply be called out and reference the area being permitted under the wetland permit. The dune is a Priority Resource Area (PRA) and would be mitigated by the ARM Fund fee.
- Amy explained that the state botanist confirmed it is likely the state-listed wormwood species is present at the site.



- Chris stated that the coastal program would want NHDOT to undertake mitigation/restoration work within the estuary itself if mitigation options are available. He further explained that he could facilitate communication with local non-profits and other organizations to help find potential mitigation options. This would also place the onus on the coastal program for ideas and connecting funding.
- Chris suggested the state garden, located at the state park, could be a potential site for placing valuable dune vegetation during the construction phase. The group agreed that preserving the vegetation is the best option, as it is high quality vegetation, and it would be wasteful to dispose of it. Subsequently, Amy reviewed the garden area and stated that there is not any available replanting area available as the garden is well vegetated. Karl and Amy both agreed saving the beach grass, stockpiling it, and re-using it to stabilize road banks in the southern portion of the project is a good option if possible.
- Mike raised the issue that the Piping Plover nesting may present issues. Discussion around this included that the plovers had not nested in the area since it was washed out by storms, and beach nourishment placed. NHDOT stated they had a USFWS Biological Opinion for the project, and that as long as plovers did not start nesting again, it was not an issue. Additionally, the mitigation measures developed by the USFWS and outlined in the BO to minimize impacts to the Plover would be in place, as appropriate. Dan stated the BO assumed a take of plovers. Once Mike saw the location of the washout to the southwest of the bridge abutment, he noted that it was re-vegetating well and would not be suitable for Piping Plover nesting.
- It was stated that when putting the project out for bid, the contractors need to be made aware of the need for movement of the utility lines. The water lines running across the Hampton River are on top of the harbor bottom and can move with the currents. Nick stated that once the trestle piles are in place, the pipes will simply hit against them, and not be an issue. Nick also stated that several utilities would now be placing their lines across the new bridge.

**Hampton Harbor Bridge Project  
Summary of Site Walk  
August 24, 2018**

Attendees

James Murphy (HDR)  
Mike Hick (USACE)  
Amy Lamb (NHNHB)  
Brendan Clifford (NHFG)  
Cheri Patterson (NHFG)  
Eric Feldbaum (NH Parks)  
Mike Johnson (NMFS)  
Marc Laurin (NHDOT)  
Anthony Zemba (FHI)  
Daniel Hageman (FHI)

Jim Murphy with HDR began the field walk with an overview of the project. Dan Hageman with FHI presented information regarding the existing natural resources within the project area.

Mike Johnson (NMFS) commented that the NHDOT should consider sea level rise (SLR), storm surge, and scour in the design of the bridge. Mr. Johnson said current SLR projections estimate a rise of 6-8 feet by the year 2100. NMFS is requesting these analyses be conducted as part of the NEPA documentation and include extreme SLR scenarios. He was concerned about the elevation of the bridge deck during an extreme weather event in the future with the expectant SLR. He mentioned that Portsmouth, NH may be the closest tide gauge for use in any analyses.

Cheri Patterson (NHFG) informed the group that the sand bar in the shellfish graphic that is not indicated as Softshell Clam habitat, does provide habitat for this shellfish species (due to recent shifting sandbar habitat) and advised FHI to revise the map. Ms. Patterson said that a typical window allowed for in-water work occurs from end of November to the end of January. She also asked if there were any other bridge projects within the next 25 years in the greater Hampton Harbor area. She is concerned that other bridge projects could affect the hydrology of the Hampton Bridge project and hydraulic modeling. She commented that the US Army Corps of Engineers (USACE) currently has trouble getting maintenance equipment through the bridge opening; this should be considered in the evaluation and design of the bridge. She also advised that NHDOT consult with the local municipalities on other pending road/traffic projects so that the bridge replacement timing and effects do not conflict with other planned road projects that might occur to the north or south. For instance, the Village District Commission and Hampton Bridge Commission were involved with a planning study for Ocean Boulevard.

Ms. Patterson also advised that a navigational survey be conducted to understand the needs of vessels passing through the channel. There are large fishing boats and a need for unique vessels to get in to maintain the harbor. Ms. Patterson also advised that in-water work restrictions may be required due to fish species of conservation concern known or expected to occur in the area.

Mr. Johnson stated that access to the Seabrook Nuclear Plant should be considered in the evaluation of bridge type. Mr. Johnson stated that the USACE Vicksburg has undertaken extensive hydraulic modeling of the Hampton Harbor system and may have a lot of useful information and data to

augment the current study. He stated that the system is very complex and will likely be difficult to model, noting that a change in the abutment in water can change the dynamics of erosion, scour, and other sediment dynamics.

Eric Feldbaum (NH State Parks) was concerned about the length of time for construction if the State Park property was to be used as a construction staging or laydown area. The state owns both sides of the bridge north of the channel the east side is the state park and the west side is the state pier. Mr. Feldbaum was concerned to hear that the construction period is expected to last through “multiple seasons,” with the possibility of it extending for three years. He stated that if staging occurs on 6(f) lands for more than 6 months, then a conversion would be required.

Mike Hicks (USACE) asked if there would be any blasting or hoe ramming required for the project. If so, this would have additional implications for in-water work impacts and time-of-year restrictions. Mr. Murphy said that no blasting was anticipated.

The group then walked south over the bridge, stopping to discuss design and condition aspects of the existing bridge. Once to the southern portion of the bridge, Amy Lamb (NHNHB) and Dan Hageman began searching for listed plant species. Others walked down to the harbor, below the bridge.

Brendan Clifford (NHFG) informed the group that the nesting Piping Plover location observed by FHI earlier in the season was a locality known to the NHFG. Piping Plovers have nested here every year since 2013 and have mostly been successful in rearing young, despite the regular threat of human presence during the nesting season. The nest site is protected by an enclosure and a seasonal employee is assigned to monitor the nest. An active predator trapping program is also provided by NHFG. Mr. Clifford said that the plovers return in April and begin establishing territories soon thereafter. Nesting season extends through until early to mid – August. Mr. Clifford said that if active construction was planned during the breeding season, then Susi von Oettingen at the United States Fish and Wildlife Service would need to be consulted ([Susi\\_vonOettingen@fws.gov](mailto:Susi_vonOettingen@fws.gov), 603-227-6418). Mr. Clifford said no Least Terns to date have attempted to nest at that location. Common and Roseate Terns are known to forage in the bay but nest on off-shore islands rather than on the mainland. Mr. Clifford said that NHFG does not have any reports of Peregrine Falcons nesting or attempting to nest under the bridge.

Mr. Johnson mentioned that Winter Flounder likely do not spawn in the channel where in-water work would potentially occur because the channel’s water velocity is too high. Regardless, this species will still need to be addressed in an Essential Fish Habitat Assessment along with the other federally managed species designated for the area. Sturgeon may also be present.

During the investigation of the plant community, Ms. Lamb and Mr. Hageman observed seaside sandmat (*Euphorbia polygonifolia*), which is a NH listed species not previously documented for the site. Also observed were seaside three-awn (*Aristida tuberculosa*), Gray’s umbrella sedge (*Cyperus grayi*), sand dropseed (*Sporobolus cryptandrus*), hairy hudsonia (*Hudsonia tomentosa*), and what was thought to be field wormwood (*Artemisia campestris ssp. caudata*). Ms. Lamb said she would check several of the plants with Bill Nichols, State Botanist, to ensure they are the listed species of concern. Since some of the suspected listed species were seemingly ubiquitous throughout the dunes (primarily seaside three-awn, Gray’s umbrella sedge, and field wormwood), any impacts to the dunes will have impacts to these species, however, if areas of dense populations occur, these should be documented. Listed plant densities appeared to be less in the northeast and southeast quadrants of the bridge. No listed plants were observed in the northwest quadrant. The highest

densities appeared to occur in the southwest quadrant of the bridge, although densities here also varied throughout. NHDOT and NHHNB will need to discuss methods for documenting impacts to listed species and associated mitigation.

Ms. Lamb stressed that any work on the bridge should be designed to avoid and minimize impacts to the dune habitat on the southern end of the bridge to the extent practicable. Ms. Lamb said possible alternatives to consider for mitigation of listed plant species impacts could include pre-construction transplanting of plants to a suitable location and use of any abandoned road ROW for post-construction creation of suitable dune habitat.

## Attachment 7: Recorded Deeds

# Recorded Deed

(Hampton State Pier)

## KNOW ALL MEN BY THESE PRESENTS.

THAT, the Town of Hampton, a body corporate and politic, County of Rockingham, State of New Hampshire, in accordance with Chapter 159, Session Laws of 1933 and pursuant to a resolution passed in a duly authorized Town Meeting on the 25th day of July, 1933, for and in consideration of the sum of one dollar and other valuable consideration to it in hand before the delivery thereof, well and truly paid by the State of New Hampshire, have remised, released and forever Quitclaimed, and by these presents, do remise, release and forever quitclaim unto the said State of New Hampshire, it and its successors and assigns forever:

Certain beach and highway land lying in said Town of Hampton, County and State as aforesaid, and shown on a Plan recorded as Plat No. 23, Page 1 in the records of the Rockingham County Registry of Deeds, and recorded as Plan No. 3,431 in the Records of the New Hampshire State Highway Department, described as follows:

Beginning at a concrete bound situated on the westerly side of the Ocean Road, so-called, said bound being on a course N. 47° 08' 10" W. and distant 90.92 feet from the southwest corner of property of the United States, known as the Hampton Beach Coast Guard Station; thence S. 20° 43' 20" W. a distance of 778.02 feet across High Street, so-called, and by property of the Town of Hampton to a concrete bound; thence S. 15° 56' 40" W. a distance of 1,724.50 feet by property of the Town of Hampton to a concrete bound; thence S. 13° 56' 20" W., a distance of 802.29 feet by property of the Town of Hampton to a concrete bound; thence S. 12° 13' 50" W. a distance of 723.31 feet by property of the Town of Hampton to a concrete bound; thence S. 9° 07' 40" W. a distance of 1,364.47 feet by property of the Town of Hampton to a concrete bound; thence S. 12° 20' 10" W., a distance of 523.91 feet by property of the Town of Hampton, through the Winnicomet Road, so-called, and by property now or formerly of Marvin Ranlett, A. A. Lamoreaux, and others to a concrete bound; thence S. 0° 44' 00" E. a distance of 381.14 feet by property now or formerly of A. A. Lamoreaux, Jennie R. French, Celia F. Shields, Harry Welch, E. Cloch, J. Bowen, Celia F. Shields, Hannah Lehan and others to a concrete bound; thence S. 4° 56' 20" E. a distance of 439.97 feet by property now or formerly of Exeter Co-operative Bank, Mrs. Nellie L. Johnson, Mrs. Arthur Wheat, Mary Day, Estate of Lizzie N. Day and others to a concrete bound; thence S. 7° 46' 40" E. a distance of 460.44 feet by property now or formerly of Estate of Lizzie N. Day, S. D. Prince, Fannie Giddings, Mrs. Arthur Wheat, John F. Kelleher, George C. Healy, John P. Proctor and others to a concrete bound with steel bolt in center; thence S. 6° 21' 40" E. a distance of 345.15 feet by the property now or formerly of John P. Proctor, Minnie G. Andrews, William J. and Patrick O'Connell, Estate of Joseph F. Williams and others to a concrete bound; thence curving to the right with the arc of a circle having a radius of 685.0 feet, a distance of 316.02 feet by property now or formerly of Estate of Joseph F. Williams, George S. Ryan and others to a concrete bound; thence S. 20° 04' 20" W. a distance of 551.72 feet by property now or formerly of Richard F. Englehardt, Alice Marsden, Charles L. Gillis, Mary Travers, L. C. Ring, Estate of Joseph Nudd, Eugene Nudd, and others to a concrete bound; thence S. 29° 25' 30" W. a distance of 217.19 feet by property now or formerly of Mabel Guyon and others to a concrete bound; thence curving to the right with the arc of a circle having a radius of 206.0 feet, a distance of 198.71 feet by property now or formerly of Mabel Guyon and others to a concrete bound; thence S. 84° 41' 40" W., a distance of 526.11 feet by property now or formerly of Mabel Guyon, Carol J. and Lida Tilton, Basil M. Comeau, Estate of Edward G. Towle,

Nellie Thurston, Moses W. Brown, Catherine E. Wrinn, Alberta Smithson, Catherine E. Minehan, and others to a concrete bound; thence S.  $74^{\circ} 50' 20''$  W. a distance of 325.52 feet by property now or formerly of Catherine E. Minehan, Power River National Bank, Hannah A. Savage, William Kennedy, Dr. A. D. Golding, Susannah Watson and others to a concrete bound; thence S.  $70^{\circ} 14' 10''$  W. a distance of 520.37 feet by property now or formerly of Susannah Watson, William Keefe, J. Everett Towle, Charles Boardman, J. J. Mahoney and Peter McCalligat, Estate of John H. Moran, Ella M. and Lillian S. Horne, John A. Janvrin and others, across Janvrin Avenue, so-called; and by property now or formerly of Fred R. Pillsbury and others to a concrete bound; thence curving to the left with the arc of a circle having a radius of 550.0 feet, a distance of 372.69 feet by property now or formerly of Fred R. Pillsbury, Ethel B. Woodbury, J. F. James, National Mechanic and Traders Bank, William H. Sleeper, Sarah H. Gookin, Frank Fellows and others, to a concrete bound; thence S.  $31^{\circ} 24' 40''$  W., a distance of 124.92 feet by property now or formerly of Frank Fellows, Estate of Ashton Lee and others to a concrete bound; thence S.  $22^{\circ} 47' 30''$  W., a distance of 216.18 feet by property now or formerly of Estate of Ashton Lee, William D. Fitzgerald and others, to a concrete bound; thence S.  $20^{\circ} 19' 30''$  W., a distance of 80.41 feet by property now or formerly of William D. Fitzgerald and others, across Glade Path, so-called, and by property now or formerly of J. J. O'Donnell and others to a concrete bound; thence curving to the right with the arc of a circle having a radius of 1.145 feet, a distance of 206.0 feet by property now or formerly of J. J. O'Donnell, Estate of Irving Beach, John S. Mason and others to a concrete bound; thence S.  $30^{\circ} 38' 00''$  W., a distance of 284.12 feet by property now or formerly of Estate of Irving Beach, Patrick J. Dorgan, Heirs of Patrick Kearns, Frank H. P. Clement, Charles E. Austin, Blanche A. Richardson, and others to a concrete bound, thence S.  $31^{\circ} 23' 50''$  W., a distance of 269.30 feet by property now or formerly of Charles E. Austin, Blanche A. Richardson, Nora K. Jones, Bessie F. Jones and others, across Ross Avenue, so-called, and by property now or formerly of Kenneth N. Ross, Mrs. C. W. Ross and others, to a concrete bound, thence S.  $35^{\circ} 49' 50''$  W., a distance of 231.41 feet by property now or formerly of Mrs. C. W. Ross, Raymond L. Geding, Edith L. Gilman and others, across Highland Avenue, so-called, and by property now or formerly of James S. DeLaney and others, to a concrete bound; thence S.  $34^{\circ} 42' 50''$  W. a distance of 120.29 feet by property now or formerly of James S. DeLaney, George Ashworth and others to a concrete bound; thence S.  $36^{\circ} 25' 00''$  W., a distance of 64.62 feet by property now or formerly of George Ashworth and across a portion of Nudd Avenue, so-called, to a concrete bound; thence S.  $15^{\circ} 14' 10''$  W., a distance of 95.35 feet across the remaining portion of Nudd Avenue and across Marsh Avenue, so-called, and by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S.  $18^{\circ} 48' 40''$  W., a distance of 403.29 feet by property now or formerly of the Hampton Beach Improvement Company and across A Street, so-called, to a concrete bound; thence S.  $15^{\circ} 10' 40''$  W., a distance of 138.99 feet by property now or formerly of the Hampton Beach Improvement Company and across a portion of B Street, so-called, to a concrete bound; thence S.  $12^{\circ} 48' 50''$  W., a distance of 439.37 feet across the remaining portion of B Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across C Street, so-called, and by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S.  $11^{\circ} 29' 20''$  W., a distance of 520.79 feet across D Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, and across F Street, so-called, to a concrete bound; thence S.  $10^{\circ} 44' 50''$  W. a distance of 548.06 feet by property now or formerly of Hampton Beach Improvement Company, across G Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across H Street, so-called, and by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S.  $5^{\circ} 55' 50''$  W., a distance of 758.89 feet by property now or formerly of the Hampton Beach Improvement Company, across I Street, so-called, by property of

the Hampton Beach Improvement Company, across J Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across K Street, so-called, and by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 5° 09' 10" W., a distance of 333.10 feet by property now or formerly of the Hampton Beach Improvement Company, across L Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, and across a portion of M Street, so-called, to a concrete bound; thence S. 6° 17' 40" W. a distance of 181.72 feet across the remaining portion of M Street, so-called, by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 9° 52' 30" W. a distance of 58.33 feet by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 34° 03' 40" W., a distance of 243.67 feet across N Street, so-called, by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 35° 10' 00" W., a distance of 724.93 feet by property now or formerly of the Hampton Beach Improvement Company, across O Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across P Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across Q Street, so-called, and by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence curving to the right with the arc of a circle having a radius of 790.0 feet, a distance of 291.35 feet by property now or formerly of the Hampton Beach Improvement Company and the Town of Hampton to a concrete bound; thence S. 56° 17' 50" W. a distance of 184.73 feet by property now or formerly of the Town of Hampton, across Marsh Avenue, so-called, by property now or formerly of E. W. Bailey and others to a concrete bound; thence curving to the left with the arc of a circle having a radius of 390 feet, a distance of 310.57 feet by property now or formerly of E. W. Bailey, A. N. Gagnon, Frank Locke, E. W. Bailey and others to a concrete bound; thence S. 10° 40' 15" W., a distance of 144.40 feet by property now or formerly of E. W. Bailey and others to a bound, said bound being a T rail set in concrete; thence S. 10° 40' 15" W. by property now or formerly of E. W. Bailey and others to the extreme low water line of the Hampton River; thence in an easterly and southeasterly direction along the said extreme low water line of the Hampton River and thence in a northerly direction with the extreme low water line of the Atlantic Ocean as it is now, or at any future time may run, to a point in a line bearing S. 47° 08' 10" E. from the first mentioned concrete bound; thence N. 47° 08' 10" W. by property now or formerly of the Town of Hampton and the property of the United States, known as the Hampton Beach Coast Guard Station, and across the Ocean Road, so-called, to the bound first mentioned.

Saving and reserving from the above all of that portion of the head land known as Great Bear's Head which lies easterly or southeasterly from the following described line:

Beginning at a concrete bound at the northeasterly corner of the parcel designated as Parcel B on the plan referred to above; and running thence S. 20° 04' 20" W. 557.12 feet to a concrete bound; thence S. 29° 25' 30" W. 222.59 feet to a concrete bound, said bound being at the southeasterly corner of the aforesaid Parcel B; thence continuing with the course last mentioned to the extreme low water line of the Atlantic Ocean; thence running easterly, northerly and northwesterly with the extreme low water line of the Atlantic Ocean to a point in a line bearing N. 26° 59' 50" E. from a concrete bound; thence S. 26° 59' 50" W. to said concrete bound; thence N. 63° 00' 10" W. 165.16 feet to a concrete bound; thence S. 64° 07' 20" W. 136.77 feet to a concrete bound; thence S. 20° 04' 20" W. 43.84 feet to the concrete bound begun at.



Saving and reserving such other land, if any, lying within the limits of the tract shown as Parcel B on said plan, as may be held by certain individuals under private ownership.

Saving and reserving from the above all of the land shown as White Island on said plan; and being bounded northerly by Parcel C, westerly by Parcel D, southerly and southeasterly by Parcel E, and easterly by the Atlantic Ocean, according to the following description:

Beginning at a concrete bound at the northeasterly corner of the parcel designated as Parcel D on the plan referred to above, said concrete bound being on a line running N. 84° 11' 20" E, a distance of 85.71 feet from the southwest corner of the parcel designated as Parcel C on plan referred to aforesaid; thence running S. 35° 10' 00" W. 1024.76 feet by land of the Town of Hampton to a concrete bound; thence curving to the right with the arc of a circle having a radius of 850 feet a distance of 271.69 feet by land of the Town of Hampton to a concrete bound; thence curving to the left with the arc of a circle having a radius of 480 feet a distance of 349.51 feet by land of the Town of Hampton to a concrete bound; thence S. 11° 45' 40" W. 72.14 feet by land of the Town of Hampton to a concrete bound in a line running N. 81° 04' 40" W; thence running S. 78° 14' 20" E. 237.09 feet by land of the Town of Hampton to a concrete bound; thence running N. 72° 18' 55" E. 512.37 feet by land of the Town of Hampton to a concrete bound; thence running N. 52° 52' 45" E. to the extreme low water line of the Atlantic Ocean; thence in a northerly direction with the extreme low water line of the Atlantic Ocean as it now or at any future time may run to a point in a line bearing N. 84° 48' 50" W; thence along said line bearing N. 84° 48' 50" W. by land of the Town of Hampton to the concrete bound first begun at. The courses mentioned above relate to the True Meridian; the distances being given in feet and decimals thereof. The extreme low water line hereinbefore mentioned in this instrument is intended to be a line which lies Easterly from the Westerly line of the Ocean Boulevard as described herein.

Saving and reserving such other land, if any, lying within the limits of the parcel shown as Parcel D on said plan, as may be held by certain individuals under private ownership.

"Meaning and intending hereby convey

(1) All the right, title and interest of the Town of Hampton in and to land in said Hampton included within the layout of the state highway and situated between the main traveled portion of said highway and the Atlantic Ocean, and extending from the Coast Guard Station to Great Boar's Head and from Great Boar's Head to Haverhill Avenue, so-called, as provided by vote of the Town of Hampton at a meeting duly called for the purpose, held on .....1933, and in accordance with and subject to the provisions of Chapter 159 of the Laws of ~~1931~~, 1933, as to maintenance by the state and the Town of Hampton and otherwise.

(2) All the right, title and interest in such land, rights or easements of the Town of Hampton in the Town of Hampton as may be necessary for the construction and maintenance of jetties, sea walls or other structures as authorized by vote of the Town of Hampton at a meeting duly called for the purpose, held ..... 1933, and in accordance with and subject to the provisions of Chapter 159 of the Laws of 1933.

It is hereby understood that this conveyance does not release the Town of Hampton from its obligation to convey other land, rights or easements than that hereinabove specifically described for jetties, sea walls or other structures if the necessities of the situation require, for an additional purchase price or upon eminent domain procedure as provided by Chapter 159 of the Laws of 1933; but that the land specifically conveyed for that purpose is in accordance with plans prepared by engineers of the federal government and approved by the governor and council.

It is hereby made a condition to this instrument that the land described above shall not be subject to the provisions of Chapter 105, Laws of 1931, and shall be held by the state for public highway, park and recreational purposes forever, and that no concession shall be granted thereon, provided, however, that the Town of Hampton, so long as the Governor and Council shall approve, may maintain the band stand, comfort station, chamber of commerce building or similar structures, and the parking place and play grounds now thereon; and as this deed is given for the purpose of complying with the provisions of Chapter 159, Laws of 1933 this deed is given conditional to the construction within reasonable time of such jetties, sea walls or other structures as may be deemed necessary or desirable by the Governor and Council, otherwise this deed is void and of no effect.

TO HAVE AND TO HOLD the said premises, with all the privileges and appurtenances thereunto belonging, to it the said State of New Hampshire, it and its successors and assigns forever; and the said Town of Hampton does hereby covenant with the said State of New Hampshire that the said Town of Hampton will warrant and defend the said premises to it the said State of New Hampshire, it and its successors and assigns, against the lawful claims and demands of any person or persons claiming by, from or under the Town of Hampton.

IN WITNESS WHEREOF the said Town of Hampton has caused its corporate seal to be hereto affixed and these presents to be signed, acknowledged and delivered in its name and behalf by Harry D. Munsey, Edwin L. Batchelder, and Elroy G. Shaw, Selectmen of the Town of Hampton, duly authorized, this 26th day of October, in the year of our Lord, one thousand nine hundred and thirty-three.

Signed, sealed and delivered  
in the presence of us:

s/ Frederic E. Everett  
as to all

s/ Harry D. Munsey      SELECTMEN  
s/ Edwin L. Batchelder      TOWN OF HAMPTON  
s/ Elroy G. Shaw      DULY AUTHORIZED

STATE OF NEW HAMPSHIRE,

Rockingham

SS. October 26th, A. D. 1933

Personally appeared the above named Harry D. Munsey, Edwin L. Batchelder and Elroy G. Shaw, Selectmen of the Town of Hampton and acknowledged the foregoing instrument to be their voluntary act and deed. Before me:

s/ John W. Perkins  
Justice of the Peace

Quitclaim Deed - Town of Hampton to State of New Hampshire  
Recorded Rockingham County Records  
Received November 3, 1933, 10 Hour 10 Minute A. M.  
Recorded Lib. 894, Fol. 44

Examined by: s/ John W. A. Green, Register

GRANTOR Town of Hampton, New Hampshire  
 DATE OF DEED October 26, 1933  
 DATE OF RECORD November 3, 1933

GRANTEE State of New Hampshire  
 CHARACTER Quitclaim

BOOK 894 PAGE 44

CONSIDERATION \$1.00  
 COUNTY Rockingham

DESCRIPTION *TREAS. OFFICE, Vol. 7, Page 22*

KNOW ALL MEN BY THESE PRESENTS

THAT, the Town of Hampton, a body corporate and politic, County of Rockingham, State of New Hampshire, in accordance with Chapter 159, Session Laws of 1933, and pursuant to a resolution passed in a duly authorized Town Meeting on the 29th day of July 1933, for and in consideration of the sum of one dollar and other valuable consideration to it in hand before the delivery thereof, well and truly paid by the State of New Hampshire, have remised, released and forever quitclaimed, and by these presents do remise, release and forever quitclaim unto the said State of New Hampshire it and its successors and assigns forever:

Certain beach and highway land lying in said Town of Hampton, County and State aforesaid, and shown on a plan recorded as Plat No. 23, Page 1, in the records of the Rockingham County Registry of Deeds, and recorded as Plan No. 3431 in the records of the New Hampshire State Highway Department, described as follows:

Beginning at a concrete bound situated on the westerly side of the Ocean Road, so-called, said bound being on a course N. 47° 08' 10" W. and distant 90.92 feet from the southwest corner of property of the United States known as Hampton Beach Coast Guard Station; thence S. 20° 43' 20" W. a distance of 778.02 feet across High Street, so-called, and by property of the Town of Hampton to a concrete bound; thence S. 15° 56' 40" W. a distance of 1,784.50 feet by property of the Town of Hampton to a concrete bound; thence S. 13° 56' 20" W. a distance of 802.29 feet by property of the Town of Hampton to a concrete bound; thence S. 12° 13' 50" W. a distance of 723.81 feet by property of the Town of Hampton to a concrete bound; thence S. 8° 07' 40" W. a distance of 1,364.47 feet by property of the Town of Hampton to a concrete bound; thence S. 12° 20' 10" W. a distance of 523.91 feet by property of the Town of Hampton, through the Winnicunnet Road, so-called, and by property now or formerly of Marvin Banlett, A. A. Lamoreaux and others to a concrete bound; thence S. 0° 44' 00" E. a distance of 381.14 feet by property now or formerly of A. A. Lamoreaux, Jennie R. French, Celia F. Shields, Harry Welch, E. Cloch, J. Bowen, Celia F. Shields, Hannah Lehan and others to a concrete bound; thence S. 4° 56' 20" E. a distance of 439.97 feet by property now or formerly of Exeter Co-operative Bank, Mrs. Nellie L. Johnson, Mrs. Arthur Wheat, Mary Day, Estate of Lizzie N. Day and others to a concrete bound; thence S. 7° 46' 40" E. a distance of 460.44 feet by property now or formerly of Estate of Lizzie N. Day, S. D. Prince, Fannie Giddings, Mrs. Arthur Wheat, John F. Kelleher, George C. Nealy, John P. Proctor and others to a concrete bound with a steel bolt in the center; thence S. 6° 21' 40" E. a distance of 345.15 feet by the property now or formerly of John P. Proctor, Minnie G. Andrews, William J. and Patrick O'Connell, Estate of Joseph F. Williams and others to a concrete bound; thence curving to the right with the arc of a circle having a

Tract No. ~~110~~ Card 1

GRANTOR Town of Hampton

DATE OF DEED October 26, 1932

DATE OF RECORD November 3, 1932

GRANTEE State of New Hampshire

CHARACTER Outclaim

BOOK 894 PAGE 44

CONSIDERATION \$700

COUNTY Rockingham

DESCRIPTION

radius of 685.0 feet, a distance of 316.02 feet by property now or formerly of Estate of Joseph F. Williams, George S. Ryan and others to a concrete bound; thence S. 20° 04' 20" W. a distance of 551.72 feet by property now or formerly of Richard F. Anglehardt, Alice Marsden, Charles L. Gillis, Mary Travers, L. C. Ring, Estate of Joseph Nudd, Eugene Nudd and others to a concrete bound; thence S. 29° 25' 30" W. a distance of 217.19 feet by property now or formerly of Mabel Guyon and others to a concrete bound; thence curving to the right with the arc of a circle having a radius of 206.0 feet, a distance of 198.71 feet by property now or formerly of Mable Guyon and others to a concrete bound; thence S. 34° 41' 40" W. a distance of 526.11 feet by property now or formerly of Mable Guyon, Carol J. and Lida Tilton, Basil M. Comeau, Estate of Edward G. Towle, Nellie Thurston, Moses W. Brown, Catherine L. Brinn, Alberta Smithson, Catherine A. Minahan and others to a concrete bound; thence S. 74° 50' 20" W. a distance of 325.52 feet by property now or formerly of Catherine E. Linehan, Power River National Bank, Hannah A. Savage, William Kennedy, Dr. A. D. Golding, Susannah Watson and others to a concrete bound; thence S. 70° 14' 10" W. a distance of 520.37 feet by property now or formerly of Susannah Watson, William Keefe, J. Everett Towle, Charles Boardman, J. J. Mahoney and Peter McGalligat Estate of John M. Moran, Ella M. and Lillian S. Horne, John A. Janvrin and others across Janvrin Avenue, so-called, and by property now or formerly of Fred R. Pillsbury and others to a concrete bound; thence curving to the left with the arc of a circle having a radius of 550.0 feet to a distance of 372.6 feet by property now or formerly of Fred R. Pillsbury, Ethel B. Woodbury, J. F. James, National Mechanic and Traders Bank, William H. Sleeper, Sarah H. Cookin, Frank Fellows and others, to a concrete bound; thence S. 31° 24' 40" W. a distance of 124.92 feet by property now or formerly of Frank Fellows, Estate of Ashton Lee and others to a concrete bound; thence S. 22° 47' 30" W. a distance of 216.18 feet by property now or formerly of Estate of Ashton Lee, William D. Fitzgerald and others, to a concrete bound; thence S. 20° 19' 30" W. a distance of 80.41 feet by property now or formerly of William D. Fitzgerald and others, across Glade Path, so-called, and by property now or formerly of J. J. O'Connell and others to a concrete bound; thence curving to the right with the arc of a circle having a radius of 1,145 feet, a distance of 206.0 feet by property now or formerly of J. J. O'Connell, Estate of Irving Beach, John S. Mason and others to a concrete bound; thence S. 30° 38' 00" W. a distance of 284.12 feet by property now or formerly of Estate of Irving Beach, Patrick J. Dorgan, Heirs of Patrick Kearns, Frank H. F. Clement, Charles E. Austin, Blance A. Richardson and others to a concrete bound; thence S. 31° 23' 50" W. a distance of 269.30 feet by property now or formerly of Charles E. Austin, Blance A. Richardson, Nora E. Jones, Bessie F. Jones and others, across Ross Avenue, so-called, and by property now or formerly of Kenneth M. Ross, Mrs. C. W. Ross and others, to a concrete bound; thence S. 35° 49' 50" W. a distance of 231.41 feet by property now or formerly of Mrs. C. W. Ross, Raymond L. Goding, Edith L. Gilman and others, across Highland Avenue, so-called, and by property now or formerly of James S. De Lancy and others, to a concrete bound; thence S. 34° 42' 50" W. a distance

HAMPTON BEACH  
STATE LAND RECORD

Page Card 3 99

Tract No. ~~116~~ Card 1

GRANTOR *Town of Hampton*

DATE OF DEED *October 26, 1933*

DATE OF RECORD *November 3, 1933*

GRANTEE *State of New Hampshire*

CHARACTER *Quitclaim*

BOOK *894* PAGE *44*

CONSIDERATION *\$ 1.00*

COUNTY *Rockingham*

DESCRIPTION

of 120.29 feet by property now or formerly of James S. DeLancy, George Ashworth and others to a concrete bound; thence S. 36° 25' 00" W. a distance of 64.62 feet by property now or formerly of George Ashworth and across a portion of Nudd Avenue, so-called, to a concrete bound; thence S. 15° 14' 10" W. a distance of 95.35 feet across the remaining portion of Nudd Avenue and across Marsh Avenue, so-called, and by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 18° 48' 40" W. a distance of 403.29 feet by property now or formerly of the Hampton Beach Improvement Company and across A. Street, so-called, to a concrete bound; thence S. 15° 10' 40" W. a distance of 138.99 feet by property now or formerly of the Hampton Beach Improvement Company and across a portion of B. Street, so-called, to a concrete bound; thence S. 12° 43' ~~50~~<sup>50</sup>" W. a distance of 439.37 feet across the remaining portion of B. Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across C. Street, so-called, and by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 11° 29' 20" W. a distance of 520.79 feet across D. Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, and across F. Street, so-called, to a concrete bound; thence S. 10° 44' 50" W. a distance of 548.06 feet by property now or formerly of Hampton Beach Improvement Company, across G. Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across H. Street, so-called and by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 5° 55' 50" W. a distance of 758.89 feet by property now or formerly of the Hampton Beach Improvement Company, across I. Street, so-called, by property of the Hampton Beach Improvement Company, across J. Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across ~~A~~<sup>A</sup> Street so-called, and by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 5° 09' 10" W. a distance of 333.10 feet by property now or formerly of the Hampton Beach Improvement Company, across L. Street, so-called, by property now or formerly of the Hampton Beach Improvement Company and across a portion of M. Street, so-called to a concrete bound; thence S. 6° 17' 40" W. a distance of 181.72 feet, across the remaining portion of M. Street, so-called, by property now or formerly by the Hampton Beach Improvement Company to a concrete bound; thence S. 9° 52' 30" W. a distance of 58.33 feet by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 34° 03' 40" W. a distance of 243.67 feet, across N. Street so-called, by property now or formerly of the Hampton Beach Improvement Company to a concrete bound; thence S. 35° 10' 00" W. a distance of 724.93 feet by property now or formerly of the Hampton Beach Improvement Company, across O. Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across P. Street, so-called, by property now or formerly of the Hampton Beach Improvement Company, across Q. street, so-called, and by property now or formerly of the Hampton Beach Improvement

STATE LAND RECORD

Tract No. 110 Card 1

GRANTOR Town of Hampton

DATE OF DEED October 26, 1933

DATE OF RECORD November 3, 1933

GRANTEE State of New Hampshire

CHARACTER Quitclaim

BOOK 890 PAGE 44

CONSIDERATION \$100

COUNTY Rockingham

## DESCRIPTION

Company to a concrete bound; thence curving to the right with the arc of a circle having a radius of 790.0 feet, a distance of 291.35 feet by property now or formerly of the Hampton Beach Improvement Company and the Town of Hampton to a concrete bound; thence S. 56° 17' 50" W. a distance of 184.73 feet by property now or formerly of the Town of Hampton, across Marsh Ave. so-called, by property now or formerly of E. W. Bailey and others to a concrete bound; thence curving to the left with the arc of a circle having a radius of 390 feet, a distance of 310.57 feet by property now or formerly of E. W. Bailey, A. N. Gagnon, Frank Locke, E. W. Bailey and others to a concrete bound; thence S. 10° 40' 15" W. a distance of 14.40 feet by property now or formerly of E. W. Bailey and others to a bound; said bound being a T-rail set in concrete; thence S. 10° 40' 15" W. by property now or formerly of E. W. Bailey and others to the extreme low water line of Hampton River; thence in an easterly and southeasterly direction along the said extreme low water line to the Hampton River and thence in a northerly direction with the extreme low water line of the Atlantic Ocean as it is now, or at any future time may run, to a point in a line bearing S. 47° 08' 10" E. from the first mentioned concrete bound; thence N. 47° 08' 10" W. by property now or formerly of the Town of Hampton and the property of the United States, known as the Hampton Beach Coast Guard Station, and across the Ocean Road, so-called to the bound first mentioned.

Saving and reserving from the above all of that portion of the head land known as Great Boar's Head which lies easterly and southeasterly from the following described line:

Beginning at a concrete bound at the northeasterly corner of the parcel designated as Parcel B. on the Plan referred to above; and running thence S. 20° 4' 20" W. 557.12 feet to a concrete bound; thence S. 29° 25' 30" W. 222.59 feet to a concrete bound, said bound being at the southeasterly corner of the aforesaid Parcel B; thence continuing with the course last mentioned to the extreme low water line of the Atlantic Ocean; thence running easterly, northerly and northwesterly with the extreme low water line of the Atlantic Ocean to a point in a line bearing N. 26° 59' 50" E. from a concrete bound; thence S. 26° 59' 50" W. to said concrete bound; thence N. 63° 00' 10" W. 165.16 feet to a concrete bound; thence S. 64° 07' 20" W. 136.77 feet to a concrete bound; thence S. 20° 04' 20" W. 43.84 feet to the concrete bound begun at.

Saving and reserving such other land, if any, lying within the limits of the tract shown as Parcel B. on said Plan, as may be held by certain individuals under private ownership.

Saving and reserving from the above all of the land shown as White Island on said plan; and being bounded northerly by Parcel C; westerly by Parcel D. southerly and southeasterly by Parcel E. and easterly by the Atlantic

STATE LAND RECORDTract No. ~~110~~ Card 1

GRANTOR Town of Hampton

DATE OF DEED October 26, 1933

GRANTEE State of New Hampshire

DATE OF RECORD November 3, 1933

CHARACTER Quitclaim

CONSIDERATION \$1.00

BOOK 894 PAGE 44

COUNTY Rockingham

## DESCRIPTION

Ocean, according to the following description:

Beginning at a concrete bound at the northeasterly corner of the parcel designated as Parcel D. on the plan referred to above, said concrete bound being on a line running N. 84° 11' 20" E. a distance of 85.71 feet from the southwest corner of the parcel designated as Parcel C. on plan referred to aforesaid; thence running S. 35° 10' 00" W. 1024.76 feet by land of the Town of Hampton to a concrete bound; thence curving to the right with the arc of a circle having a radius of 850 feet, a distance of 271.69 feet by land of the Town of Hampton to a concrete bound; thence curving to the left with the arc of a circle having a radius of 480 feet a distance of 349.51 feet by land of the Town of Hampton to a concrete bound; thence S. 11° 45' 40" W. 72.14 feet by land of the Town of Hampton to a concrete bound in a line running N. 81° 04' 40" W; thence running S. 78° 14' 20" E. 237.09 feet by land of the Town of Hampton to a concrete bound; thence running N. 72° 18' 55" E. 512.37 feet by land of the Town of Hampton to a concrete bound; thence running N. 52° 52' 45" E. to the extreme low water line of the Atlantic Ocean; thence in a northerly direction with the extreme low water line of the Atlantic Ocean as it now or at any future time may run to a point in a line bearing N. 84° 48' 50" W; thence along said line bearing N. 84° 48' 50" W. by land of the Town of Hampton to the concrete bound first began at. The courses mentioned above relate to the True Meridian; the distance being given in feet and decimals thereof. The extreme low water line hereinbefore mentioned in this instrument is intended to be a line which lies Easterly from the westerly line of the Ocean Boulevard as described herein.

Saving and reserving such other land, if any, lying within the limits of the parcel shown as Parcel D. on said plan, as maybe held by certain individuals under private ownership.

"Meaning and intending hereby to convey

(1) All the right, title and interest of the Town of Hampton in and to land in said Hampton included within the layout of the State Highway and situated between the main travelled portion of said highway and the Atlantic Ocean, and extending from the Coast Guard Station to Great Boar's Head and from Great Boar's Head to Haverhill Avenue, so-called, as provided by vote of the Town of Hampton at a meeting duly called for the purpose, held on 1933, and in accordance with and subject to the provision of Chapter 159 of the Laws of 1933, as to maintainance by the State and the Town of Hampton and otherwise.

(2) All the right, title and interest in such land, rights or easements of the Town of Hampton in the Town of Hampton as may be necessary for the construction and maintainance of jetties, sea walls or other structures as authorized by vote of the Town of Hampton at a meeting duly called for the

GRANTOR Town of Hampton

DATE OF DEED October 26, 1933

DATE OF RECORD November 3, 1933

GRANTEE State of New Hampshire

CHARACTER Quitclaim

BOOK 894 PAGE 44

CONSIDERATION

\$100

COUNTY Rockingham

## DESCRIPTION

purpose, held 1933, and in accordance with and subject to the provision of Chapter 159 of the Laws of 1933.

It is hereby understood that this conveyance does not release the Town of Hampton from its obligation to convey other land, rights or easement than that hereinabove specifically designated for jetties, sea walls or other structures if the necessities of the situation require for an addition purchase price or upon eminent domain procedure as provided by Chapter 159 of the Laws of 1933, but that the land specifically conveyed for that purpose is in accordance with plans prepared by engineers of the Federal Government and approved by the Governor and Council.

It is hereby made a provision of this instrument that the land described above shall not be subject to the provision of Chapter 105, Laws of 1931 and shall be held by the State for public highway, park and recreational purposes forever, and that no concession shall be granted thereon, provided however, that the Town of Hampton, so long as the Governor and Council shall approve, may maintain the bandstand, comfort station, Chamber of Commerce building or similar structures, and the parking place and play grounds now thereon; and as this deed is given for the purpose of complying with the provisions of Chapter 159, Laws of 1933 this deed is given conditional to the construction within reasonable time of such jetties, sea walls or other structures as may be deemed necessary or desirable by the Governor and Council, otherwise this deed is void and of no affect.

Harry D. Munsey, Edwin L. Batchelder, and Elroy G. Shaw, Selectmen.



HAMPTON BEACH STATE PARK

CARD  
1A

STATE LAND RECORD

GRANTOR	DATE OF DEED	
	DATE OF RECORD	
GRANTEE	CHARACTER	
	BOOK	PAGE
CONSIDERATION	COUNTY	
	TREAS. BOOK	PAGE

DESCRIPTION

AGREEMENT RELATIVE TO THE TRANSFER OF  
ADMINISTRATION OF CERTAIN STATE LAND  
IN THE TOWN OF HAMPTON

Conformably with authority granted by the Governor and Council assembled in Executive Session on May 29, 1953 there is transferred from the administration of the Department of Public Works and Highways to the Forestry and Recreation Commission the following premises:

All of the land adjacent to the northerly approach of the Hampton River Toll Bridge in the Town of Hampton owned by The State of New Hampshire and heretofore under the administration of the Department of Public Works and Highways which lies westerly of a line described as follows, to wit: commencing at the approximate high tide line as the same appears on Sheet No. 45, Federal Aid Project F 318 (1) at a point which is sixty (60) feet westerly of the center line of construction of Ocean Boulevard as shown on said Sheet No. 45, thence running northeasterly and parallel with said center line of construction a distance of approximately one thousand twenty (1020) feet to its terminus as shown in red on copies of said Sheet No. 45 on file in the office of the Commissioner of the Department of Public Works and Highways and in the office of the Director of Recreation.

Frank D. Merrill, Commissioner  
Department of Public Works and Highways

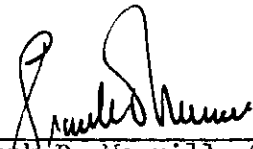
June 9th, 1953

Russell B. Tobey, Director  
Recreation Division  
Forestry & Recreation Commission

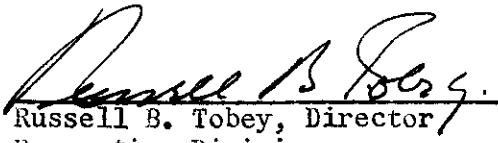
AGREEMENT RELATIVE TO THE TRANSFER OF  
ADMINISTRATION OF CERTAIN STATE LAND  
IN THE TOWN OF HAMPTON.

Conformably with authority granted by the Governor and Council assembled in Executive Session on May 29, 1953 there is transferred from the administration of the Department of Public Works and Highways to the Forestry and Recreation Commission the following premises:

All of the land adjacent to the northerly approach of the Hampton River Toll Bridge in the Town of Hampton owned by The State of New Hampshire and heretofore under the administration of the Department of Public Works and Highways which lies westerly of a line described as follows, to wit: commencing at the approximate high tide line as the same appears on Sheet No. 45, Federal Aid Project F 318(1) at a point which is sixty (60) feet westerly of the center line of construction of Ocean Boulevard as shown on said Sheet No. 45, thence running northeasterly and parallel with said center line of construction a distance of approximately one thousand twenty (1020) feet to its terminus as shown in red on copies of said Sheet No. 45 on file in the office of the Commissioner of the Department of Public Works and Highways and in the office of the Director of Recreation.

  
Frank D. Merrill, Commissioner  
Department of Public Works and Highways

June 9<sup>th</sup> 1953.

  
Russell B. Tobey, Director  
Recreation Division,  
Forestry & Recreation Commission



CHAPTER 55

HB 617-FN-A-LOCAL - FINAL VERSION

5jan00.....2058h

2000 SESSION

99-0423

03/09

HOUSE BILL **617-FN-A-LOCAL**

AN ACT relative to funding and monitoring seacoast harbor issues.

SPONSORS: Rep. Leber, Merr 1; Rep. Vaughn, Rock 35; Rep. Calawa, Hills 17; Rep. Winston McCarty, Hills 38; Rep. Alukonis, Hills 23; Sen. Gordon, Dist 2; Sen. F. King, Dist 1; Sen. D'Allesandro, Dist 20

COMMITTEE: Public Works and Highways

AMENDED ANALYSIS

This bill:

I. Changes the dredging projects fund to the harbor dredging and pier maintenance fund.

II. Establishes a surcharge for boats registered for tidal and coastal waters to be paid into the harbor dredging and pier maintenance fund.

III. Requires the port authority to set slip fees equal to mooring fees.

**IV. Transfers the commercial fish piers in Portsmouth, Rye Harbor, and Hampton Harbor from the department of resources and economic development to the port authority.**

V. Establishes a committee to study unrefunded road bills.

-----  
-----

Explanation: Matter added to current law appears in ***bold italics***.

Matter removed from current law appears [~~in brackets and struckthrough.~~]

Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

5jan00.....2058h

99-0423

03/09

STATE OF NEW HAMPSHIRE

*In the Year of Our Lord Two Thousand*

AN ACT relative to funding and monitoring seacoast harbor issues.

*Be it Enacted by the Senate and House of Representatives in General Court convened:*

55:1 State Treasurer and State Accounts; Application of Receipts; General Revenue Exceptions; Reference Changed. Amend RSA 6:12, I(vvv) to read as follows:

(vvv) Moneys deposited in the **harbor** dredging [~~projects~~] **and pier maintenance** fund established in RSA 271-A:21.

55:2 Department of Resources and Economic Development; Bureau of Marine Services; Exception Added. Amend RSA 12-A:7-a to read as follows:

12-A:7-a Bureau of Marine Services. There is hereby established in the division of parks and recreation of the department of resources and economic development, a bureau of marine services, which shall have the responsibility for and jurisdiction over **recreational activities at** state-owned [~~commercial~~] fishing piers and facilities.

55:3 Navigation; Vessel Registration and Numbering; Registration Required; Application; Tidal and Coastal Waters. Amend the introductory paragraph of RSA 270-E:3, III to read as follows:

III. Application for registration shall be in such form and contain such information as the commissioner shall determine. The fees required by RSA 270-E:5 shall accompany the application. The application shall request the principal use of the vessel **and ask whether the vessel is to be registered for tidal and coastal waters**. The application shall also contain the following statements:

55:4 New Subparagraph; Navigation; Vessel Registration and Numbering; Registration Fees; Surcharge for Vessels Registered for Tidal or Coastal Waters. Amend RSA 270-E:5, II by inserting after subparagraph (d) the following new subparagraph:

(e) \$2 for each registration for tidal or coastal waters. The surcharge collected under this subparagraph shall be paid into the harbor dredging and pier maintenance fund established under RSA 271-A:21.

55:5 Navigation; New Hampshire State Port Authority; Powers and Duties; Fees for Mooring and Slip Permits. Amend RSA 271-A:3, V(a) to read as follows:

(a) Be authorized to set and collect fees for mooring and slip permits and waiting lists for such permits. *The authority shall establish fees for slips in harbors and tidal rivers that are equal to or proportional to the fees for moorings in harbors. Fees shall not be charged for slips at industrial piers along the Piscataqua River or at state-owned piers in harbors. The fees for slips shall be paid into the harbor dredging and pier maintenance fund established under RSA 271-A:21.*

55:6 New Paragraph; Navigation; New Hampshire State Port Authority; Powers and Duties; Piers in Portsmouth, Rye Harbor, and Hampton Harbor. Amend RSA 271-A:3 by inserting after paragraph VI the following new paragraph:

VII. Have the responsibility for and jurisdiction over the state-owned commercial fishing piers and facilities at Portsmouth, Rye Harbor, and Hampton Harbor except as provided in RSA 12-A:7-a.

55:7 Navigation; New Hampshire State Port Authority; Dredging Projects Fund Changed to Harbor Dredging and Pier Maintenance Fund. Amend RSA 271-A:21 to read as follows:

271-A:21 *Harbor* Dredging [~~Projects~~] *and Pier Maintenance* Fund Established.

I. There is hereby established a *harbor* dredging [~~projects~~] *and pier maintenance* fund to be used by the New Hampshire state port authority to meet its obligation to initiate and implement dredging projects to maintain channels and harbors, *and to initiate projects to maintain public piers in safe and efficient condition.*

II. The fund shall be nonlapsing and continually appropriated for the purposes of initiating and implementing *harbor* dredging projects *and maintaining public piers*. The New Hampshire state port authority shall, in each biennium, request annual appropriations to the fund in an amount sufficient to provide for the funding of the authority's periodic *harbor* dredging *and pier maintenance* efforts. The state treasurer shall invest the moneys deposited in the fund as provided by law. Interest earned on moneys deposited in the fund shall be deposited into the fund.

III. The New Hampshire state port authority shall not encumber, obligate, or expend any funds from the *harbor* dredging [~~projects~~] *and pier maintenance* fund without the prior approval of the capital budget overview committee.

55:8 Commercial Fish Piers in Portsmouth, Rye Harbor, and Hampton Harbor; Transfer from Department of Resources and Economic Development to New

Hampshire State Port Authority. The department of resources and economic development shall transfer the commercial fish piers in Portsmouth, Rye Harbor, and Hampton Harbor to the New Hampshire state port authority.

Upon such transfer, the port authority shall have responsibility for and jurisdiction over each such pier and shall assume control of the management, operation, and maintenance of each respective pier. The transfer of the commercial fish pier in Portsmouth shall be completed within 60 days of the effective date of this section and after proper coordination with the city of Portsmouth and the commercial fishing industry lessees of the pier. The transfer of the commercial fish piers in Rye Harbor and Hampton Harbor shall be completed by June 30, 2001 and after a plan is developed by the port authority, the department of resources and economic development, and the long range capital planning and utilization committee to separate the recreational and commercial elements in the use of these facilities. The port authority shall certify to the secretary of state the date that each transfer is completed pursuant to this section.

55:9 Applicability. The provisions of RSA 271-A:3, VII, as inserted by section 6 of this act shall take effect with respect to each of the commercial fish piers in Portsmouth, Rye Harbor, and Hampton Harbor as the New Hampshire state port authority assumes control of the management, operation, and maintenance of each respective pier pursuant to the provisions of section 8 of this act.

55:10 Committee to Study Unrefunded Road Tolls.

I. Committee Established. There is established a committee to study unrefunded road tolls.

II. Membership and Compensation.

(a) The members of the committee shall be as follows:

(1) Three members of the house of representatives, appointed by the speaker of the house of representatives.

(2) Three members of the senate, appointed by the president of the senate.

(b) Members of the committee shall receive mileage at the legislative rate when attending to the duties of the committee.

III. Duties. The committee shall study unrefunded road tolls, including, but not limited to, the calculation, distribution, and uses of unrefunded road toll balances.

IV. Chairperson; Quorum. The members of the study committee shall elect a chairperson from among the members. The first meeting of the committee shall be called by the first-named house member. The first meeting of the committee shall be held within 45 days of the effective date of this section. Four members of the committee shall constitute a

quorum.

V. Report. The committee shall report its findings and any recommendations for proposed legislation to the speaker of the house of representatives, the senate president, the house clerk, the senate clerk, the governor, and the state library on or before November 1, 2000.

55:11 Effective Date.

I. Sections 1 and 4 of this act shall take effect July 1, 2000.

II. Section 10 of this act shall take effect upon its passage.

III. The remainder of this act shall take effect 60 days after its passage.

(Approved: April 17, 2000)

(Effective Date: I. Sections 1 and 4 take effect July 1, 2000.

II. Section 10 takes effect April 17, 2000.

III. Remainder of act takes effect June 16, 2000)

LBAO

99-0423

2/10/99

### HB 617-FN-A-LOCAL - FISCAL NOTE

AN ACT relative to funding and monitoring seacoast harbor issues.

#### FISCAL IMPACT:

The N.H. Port Authority and Department of Resources and Economic Development stated this bill will increase state expenditures, reduce state general fund revenue and increase state restricted revenue by an indeterminable amount in FY 2000 and each year thereafter. There will be no fiscal impact on county and local revenue or expenditures.

#### METHODOLOGY:

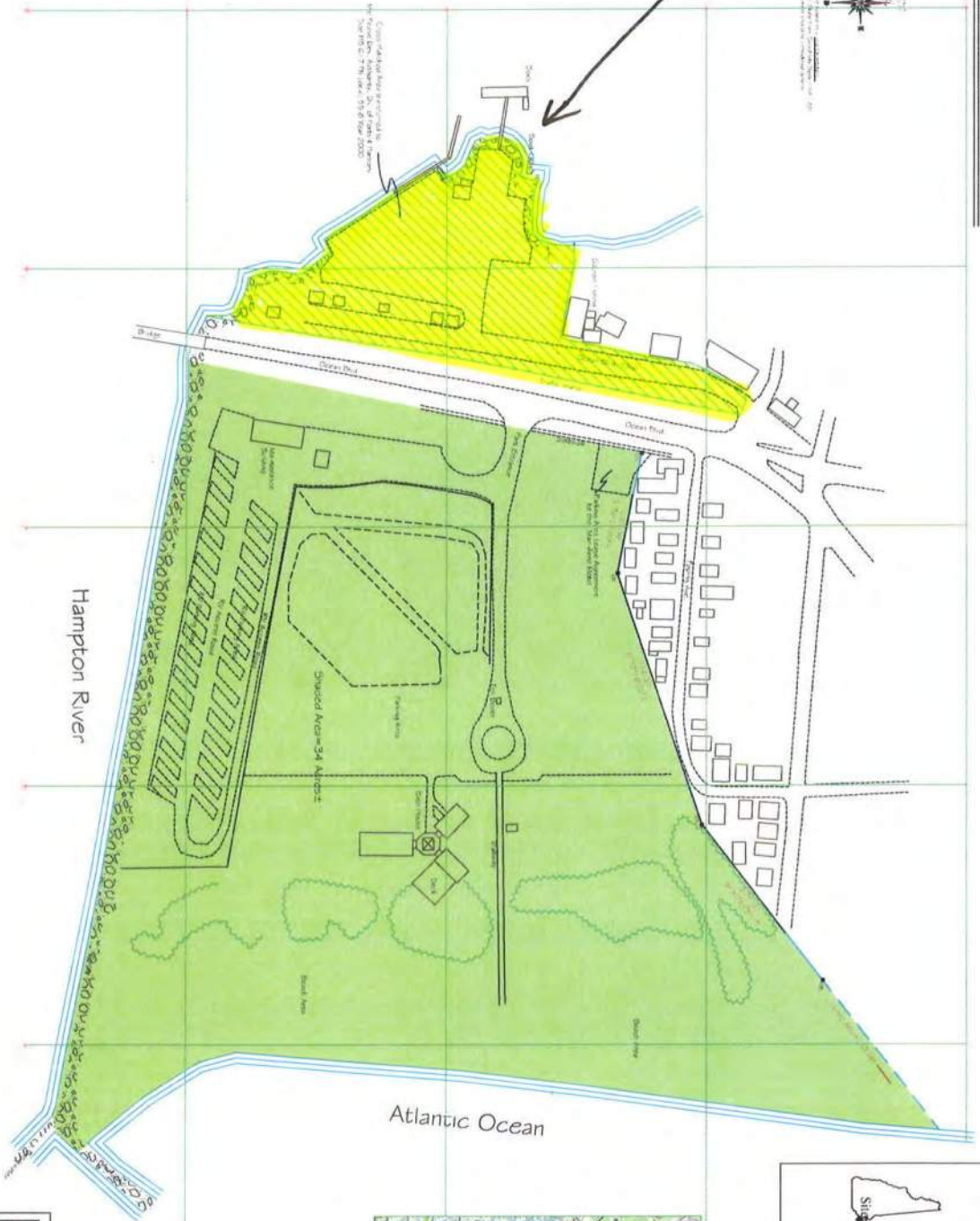
The Authority assumes this bill will take effect July 1, 1999. Section 3 of the bill will cause approximately \$740,000 of unrefunded road toll revenue that is currently deposited into the general fund, to be deposited into the dedicated harbor dredging and pier maintenance fund. Section 4 and 5 of the bill establishes a new surcharge of \$2 on boats registered (3,557) for tidal and coastal waters. This will result in \$7,114 being deposited into the harbor dredging and pier maintenance fund. Section 6 of the bill requires the Authority to establish slip fees equal to mooring fees. The Authority estimates



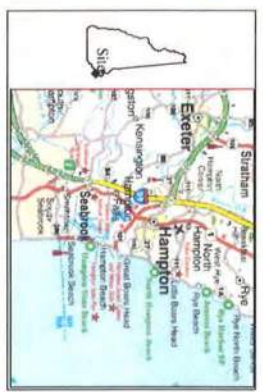
13,000 feet of pier and dock space at \$4 per foot will result in \$52,000 being deposited into the harbor dredging and pier maintenance fund. Section 8 and 10 calls for a complete transfer of the Portsmouth Commercial Fish Pier, and a transfer of commercial fishing operations from Rye and Hampton. Recreational boating operations at Rye and Hampton piers would remain under the jurisdiction of the Department of Resources and Economic Development (DRED). DRED and the Authority stated the net effect of the transfer would result in no fiscal impact on the state. The Authority, however, indicated this bill requires the Authority to assume control of the management, operation and maintenance of each pier. The Authority is unable to determine the fiscal impact of this requirement.



33-00138



Note: Location of Roads/Buildings, etc. taken from aerial photography and should be considered approximate.



LOCATION SKETCH  
NORTH MAP SOURCE: MAP OF NH



Inset Map

**Hampton South Beach  
Hampton, New Hampshire**

Scale: 1" = 100'

Date: 3/28/2007 5/19/2003 7/20/07 8/14/07 11/14/07 1/14/08 3/14/08 5/14/08 7/14/08 9/14/08 11/14/08 1/14/09 3/14/09 5/14/09 7/14/09 9/14/09 11/14/09 1/14/10 3/14/10 5/14/10 7/14/10 9/14/10 11/14/10 1/14/11 3/14/11 5/14/11 7/14/11 9/14/11 11/14/11 1/14/12 3/14/12 5/14/12 7/14/12 9/14/12 11/14/12 1/14/13 3/14/13 5/14/13 7/14/13 9/14/13 11/14/13 1/14/14 3/14/14 5/14/14 7/14/14 9/14/14 11/14/14 1/14/15 3/14/15 5/14/15 7/14/15 9/14/15 11/14/15 1/14/16 3/14/16 5/14/16 7/14/16 9/14/16 11/14/16 1/14/17 3/14/17 5/14/17 7/14/17 9/14/17 11/14/17 1/14/18 3/14/18 5/14/18 7/14/18 9/14/18 11/14/18 1/14/19 3/14/19 5/14/19 7/14/19 9/14/19 11/14/19 1/14/20 3/14/20 5/14/20 7/14/20 9/14/20 11/14/20 1/14/21 3/14/21 5/14/21 7/14/21 9/14/21 11/14/21 1/14/22 3/14/22 5/14/22 7/14/22 9/14/22 11/14/22 1/14/23 3/14/23 5/14/23 7/14/23 9/14/23 11/14/23 1/14/24 3/14/24 5/14/24 7/14/24 9/14/24 11/14/24 1/14/25 3/14/25 5/14/25 7/14/25 9/14/25 11/14/25 1/14/26 3/14/26 5/14/26 7/14/26 9/14/26 11/14/26 1/14/27 3/14/27 5/14/27 7/14/27 9/14/27 11/14/27 1/14/28 3/14/28 5/14/28 7/14/28 9/14/28 11/14/28 1/14/29 3/14/29 5/14/29 7/14/29 9/14/29 11/14/29 1/14/30 3/14/30 5/14/30 7/14/30 9/14/30 11/14/30 1/14/31 3/14/31 5/14/31 7/14/31 9/14/31 11/14/31 1/14/32 3/14/32 5/14/32 7/14/32 9/14/32 11/14/32 1/14/33 3/14/33 5/14/33 7/14/33 9/14/33 11/14/33 1/14/34 3/14/34 5/14/34 7/14/34 9/14/34 11/14/34 1/14/35 3/14/35 5/14/35 7/14/35 9/14/35 11/14/35 1/14/36 3/14/36 5/14/36 7/14/36 9/14/36 11/14/36 1/14/37 3/14/37 5/14/37 7/14/37 9/14/37 11/14/37 1/14/38 3/14/38 5/14/38 7/14/38 9/14/38 11/14/38 1/14/39 3/14/39 5/14/39 7/14/39 9/14/39 11/14/39 1/14/40 3/14/40 5/14/40 7/14/40 9/14/40 11/14/40 1/14/41 3/14/41 5/14/41 7/14/41 9/14/41 11/14/41 1/14/42 3/14/42 5/14/42 7/14/42 9/14/42 11/14/42 1/14/43 3/14/43 5/14/43 7/14/43 9/14/43 11/14/43 1/14/44 3/14/44 5/14/44 7/14/44 9/14/44 11/14/44 1/14/45 3/14/45 5/14/45 7/14/45 9/14/45 11/14/45 1/14/46 3/14/46 5/14/46 7/14/46 9/14/46 11/14/46 1/14/47 3/14/47 5/14/47 7/14/47 9/14/47 11/14/47 1/14/48 3/14/48 5/14/48 7/14/48 9/14/48 11/14/48 1/14/49 3/14/49 5/14/49 7/14/49 9/14/49 11/14/49 1/14/50 3/14/50 5/14/50 7/14/50 9/14/50 11/14/50 1/14/51 3/14/51 5/14/51 7/14/51 9/14/51 11/14/51 1/14/52 3/14/52 5/14/52 7/14/52 9/14/52 11/14/52 1/14/53 3/14/53 5/14/53 7/14/53 9/14/53 11/14/53 1/14/54 3/14/54 5/14/54 7/14/54 9/14/54 11/14/54 1/14/55 3/14/55 5/14/55 7/14/55 9/14/55 11/14/55 1/14/56 3/14/56 5/14/56 7/14/56 9/14/56 11/14/56 1/14/57 3/14/57 5/14/57 7/14/57 9/14/57 11/14/57 1/14/58 3/14/58 5/14/58 7/14/58 9/14/58 11/14/58 1/14/59 3/14/59 5/14/59 7/14/59 9/14/59 11/14/59 1/14/60 3/14/60 5/14/60 7/14/60 9/14/60 11/14/60 1/14/61 3/14/61 5/14/61 7/14/61 9/14/61 11/14/61 1/14/62 3/14/62 5/14/62 7/14/62 9/14/62 11/14/62 1/14/63 3/14/63 5/14/63 7/14/63 9/14/63 11/14/63 1/14/64 3/14/64 5/14/64 7/14/64 9/14/64 11/14/64 1/14/65 3/14/65 5/14/65 7/14/65 9/14/65 11/14/65 1/14/66 3/14/66 5/14/66 7/14/66 9/14/66 11/14/66 1/14/67 3/14/67 5/14/67 7/14/67 9/14/67 11/14/67 1/14/68 3/14/68 5/14/68 7/14/68 9/14/68 11/14/68 1/14/69 3/14/69 5/14/69 7/14/69 9/14/69 11/14/69 1/14/70 3/14/70 5/14/70 7/14/70 9/14/70 11/14/70 1/14/71 3/14/71 5/14/71 7/14/71 9/14/71 11/14/71 1/14/72 3/14/72 5/14/72 7/14/72 9/14/72 11/14/72 1/14/73 3/14/73 5/14/73 7/14/73 9/14/73 11/14/73 1/14/74 3/14/74 5/14/74 7/14/74 9/14/74 11/14/74 1/14/75 3/14/75 5/14/75 7/14/75 9/14/75 11/14/75 1/14/76 3/14/76 5/14/76 7/14/76 9/14/76 11/14/76 1/14/77 3/14/77 5/14/77 7/14/77 9/14/77 11/14/77 1/14/78 3/14/78 5/14/78 7/14/78 9/14/78 11/14/78 1/14/79 3/14/79 5/14/79 7/14/79 9/14/79 11/14/79 1/14/80 3/14/80 5/14/80 7/14/80 9/14/80 11/14/80 1/14/81 3/14/81 5/14/81 7/14/81 9/14/81 11/14/81 1/14/82 3/14/82 5/14/82 7/14/82 9/14/82 11/14/82 1/14/83 3/14/83 5/14/83 7/14/83 9/14/83 11/14/83 1/14/84 3/14/84 5/14/84 7/14/84 9/14/84 11/14/84 1/14/85 3/14/85 5/14/85 7/14/85 9/14/85 11/14/85 1/14/86 3/14/86 5/14/86 7/14/86 9/14/86 11/14/86 1/14/87 3/14/87 5/14/87 7/14/87 9/14/87 11/14/87 1/14/88 3/14/88 5/14/88 7/14/88 9/14/88 11/14/88 1/14/89 3/14/89 5/14/89 7/14/89 9/14/89 11/14/89 1/14/90 3/14/90 5/14/90 7/14/90 9/14/90 11/14/90 1/14/91 3/14/91 5/14/91 7/14/91 9/14/91 11/14/91 1/14/92 3/14/92 5/14/92 7/14/92 9/14/92 11/14/92 1/14/93 3/14/93 5/14/93 7/14/93 9/14/93 11/14/93 1/14/94 3/14/94 5/14/94 7/14/94 9/14/94 11/14/94 1/14/95 3/14/95 5/14/95 7/14/95 9/14/95 11/14/95 1/14/96 3/14/96 5/14/96 7/14/96 9/14/96 11/14/96 1/14/97 3/14/97 5/14/97 7/14/97 9/14/97 11/14/97 1/14/98 3/14/98 5/14/98 7/14/98 9/14/98 11/14/98 1/14/99 3/14/99 5/14/99 7/14/99 9/14/99 11/14/99 1/14/100 3/14/100 5/14/100 7/14/100 9/14/100 11/14/100 1/14/101 3/14/101 5/14/101 7/14/101 9/14/101 11/14/101 1/14/102 3/14/102 5/14/102 7/14/102 9/14/102 11/14/102 1/14/103 3/14/103 5/14/103 7/14/103 9/14/103 11/14/103 1/14/104 3/14/104 5/14/104 7/14/104 9/14/104 11/14/104 1/14/105 3/14/105 5/14/105 7/14/105 9/14/105 11/14/105 1/14/106 3/14/106 5/14/106 7/14/106 9/14/106 11/14/106 1/14/107 3/14/107 5/14/107 7/14/107 9/14/107 11/14/107 1/14/108 3/14/108 5/14/108 7/14/108 9/14/108 11/14/108 1/14/109 3/14/109 5/14/109 7/14/109 9/14/109 11/14/109 1/14/110 3/14/110 5/14/110 7/14/110 9/14/110 11/14/110

Recorded Deed  
(Hampton ROW)

68

Book 0895 Page 0113

113.

*Budge*

ledged the foregoing to be their voluntary act and deed. Before me,

Francis L. Moran

Notary Public ( ————— )

My Commission expires 12/12/37

Received and Recorded December 29, 9 A. M. 1933.

*John W. A. Green Register*

Massachusetts Northeastern Street Railway Company

Certified Vote

Vote

Mass. North-  
St. R.R. Co.

Del. to

McLane, Davis  
& Carleton

Voted, that the vote adopted by the Directors of this Company at its meeting held November 8, 1933, authorizing and directing J. F. McKenna, President and C. A. Dougherty, Assistant Secretary of this Company to execute a confirmatory or other deed or deeds to the State of New Hampshire conveying to it the Hampton River Bridge, its approaches and appurtenances; and the rights, privileges, franchises and immunities connected therewith, be and it hereby is amended to provide that said deed or deeds shall be executed in the name of and on behalf of this Company by J. F. McKenna, President and H. M. Wetherell, Assistant Secretary.

This is to Certify that the undersigned is Assistant Secretary of Massachusetts Northeastern Street Railway Company, a corporation of the State of Massachusetts; that the above and foregoing is a true and correct copy of a certain vote duly and regularly adopted by the Board of Directors of said Company at a meeting thereof duly convened and held on the 26th day of December 1933, at which meeting a quorum was present and voted, and that said vote has not been annulled, revoked or amended in any way whatsoever but is in full force and effect.

Witness the signature of the undersigned as such officer of the Company and its corporate seal hereunto affixed this 26 day of December 1933.

H. M. Wetherell (Corp. Seal)

Assistant Secretary

Received and Recorded December 29, 10:40 A. M. 1933.

*John W. A. Green Register*

DEED 1 1/2

Mass. Northeastern S.R.R.

Whereas by indenture of mortgage or deed of trust dated as of July 1, 1914, and recorded with Rockingham County Records, Volume 696, Page 15 et seq., hereinafter referred to as the mortgage, Massachusetts Northeastern Street Railway Company conveyed the property therein described to American Trust Company, Trustee, to secure an issue of bonds; and Whereas the said mortgage gave a power of sale to the Trustee, and also provided in Division 23 (e) thereof as follows:

Del. to

"(e) That, in the event of any sale of the trust property or of any part thereof under any power or trust herein contained, the Railway Company will, if and when required by the Trustee or the purchaser, execute a formal conveyance or assurance of the trust property so sold, including assignments of all policies of insurance, to the Trustee or as the Trustee may direct"; and

Whereas Old Colony Trust Company, of Boston, Massachusetts, as successor trustee under said mortgage has made a sale of the property hereinafter described to the State of New Hampshire for \$140,000.;

Now, Therefore, in accordance with said Division 23 (e) of the mortgage above quoted, Massachusetts Northeastern Street Railway Company, in consideration of the premises and one dollar and other valuable considerations, including the One Hundred Forty Thousand (140,000) Dollars paid by the State of New Hampshire to Old Colony Trust Company, successor Trustee under the mortgage, hereby gives, grants, bargains, sell, remises,

114.

b8

releases, conveys, confirms and sets over to the State of New Hampshire, its successors and assigns, to its own use and behoof forever;

"The bridge across the Hampton River in New Hampshire formerly owned by Granite State Land Company, together with its approaches and the property appurtenant thereto including, without restricting the generality of the foregoing, the following described parcels of land situated in the town of Seabrook and County of Rockingham in said State, and bounded and described as follows:-

"One parcel bounded and described as follows: Beginning at the Southeast corner of the Hampton River Bridge, thence South 65° 26' East 50 feet; thence South 24° 34' West a distance of 173.67 feet to a point; thence North 65° 26' East a distance of 130 feet; thence North 24° 34' East, a distance of 173.67 feet; this line crossing lot leased to George L. True; thence South 65° 26' East a distance of 50 feet, to the Southwest corner of the Hampton River Bridge; thence continuing in the same line South 65° 26' East a distance of 30 feet to the point first mentioned, meaning and intending hereby to describe such land, owned by the said Granite State Land Company as may lie within 65 feet of the center line of the Hampton River Bridge, prolonged from its Southerly extremity a distance of 173.67 feet;

"Such portions of Lots Numbered 1, 54, 55, 56 and 57 on a plan of Seabrook Beach recorded with the records of Rockingham County, Book 586, Page 482, as may lie within sixteen feet of the westerly line of said lots: excepting and reserving from the operation hereof the land conveyed by the Seabrook & Hampton Beach Street Railway Company and said Granite State Land Company to the State of New Hampshire by their deeds dated January 7, 1908, and recorded with Rockingham County Registry of Deeds, Book 638, Page 297, and Book 638, Page 286, respectively.

"A portion of the parcel first hereinbefore described as formerly owned by said Granite State Land Company is subject to a certain lease from said Granite State Land Company to George L. True <sup>June</sup> dated 16, 1900, and is conveyed subject to said lease."

Together with all rights and privileges in and upon said Bridge, its approaches and property appurtenant thereto, derived under an Act of the State of New Hampshire, approved March 21, 1901, entitled "An act to Authorize the Granite State Land Company to Construct and Maintain a Bridge across Hampton River and for other purposes". In the second paragraph of the above-quoted description, the third course described as "North 65° 26' East a distance of 130 feet" may be in error for North 65° 26' West.

And the recital of Book 638, Page 297 may be in error for Book 638, Page 276. But this deed is intended to convey said property however it should be described.

Without restricting the generality of the foregoing description, it is intended to convey all real estate in the towns of Hampton and Seabrook now owned by the grantor constituting the approaches to said bridge or lying contiguous thereto.

To Have and to Hold the same to the State of New Hampshire, its successors and assigns, to their own use and behoof forever.

Massachusetts Northeastern Street Railway Company admits that Old Colony Trust Company, Trustee, in its above referred to sale to the State of New Hampshire has complied with all the requirements of the mortgage and the Statutes of New Hampshire.

In Witness Whereof Massachusetts Northeastern Street Railway Company has caused this instrument to be executed in its name and on its behalf by J. F. McKenna, its President, and H. M. Wetherell, its Assistant-Secretary, its agents thereunto duly authorized, and its corporate seal to be affixed this 26 day of December 1933.

Signed and sealed in the presence of: Massachusetts Northeastern Street Railway Company By (Corp. Seal) J. F. McKenna President

J. H. Mackenzie  
R. J. Dean

H. M. Wetherell  
Assistant Secretary

State of New York, County of New York SS.

On this 26th day of December 1933, personally appeared the above named J. F. McKenna and H. M. Wetherell, President and Assistant-Secretary of Massachusetts Northeastern Street Railway Company, duly authorized agents of Massachusetts Northeastern Street Railway Company, and acknowledged the foregoing instrument to be the voluntary act and deed of said Massachusetts Northeastern Street Railway Company.

A. P. Ringressy  
Notary Public (N.P.Seal)  
Notary Public  
Kings County Clk's. No.434 Register's No.5113  
New York Co. Clk's No. 227 Reg. No. 5-R-129  
Commission Expires March 30, 1935.

Received and Recorded December 29, 9 A. M. 1933.

*John W. A. Green Register*

\$20.00  
rev.

DEED

Newmarket  
Realty Cor.

Know All Men By These Presents,

That Newmarket Realty Corporation, a corporation organized under the laws of the Commonwealth of Massachusetts and having a principal place of business in Lowell, Middlesex County, Massachusetts, for and in consideration of the sum of one dollar (\$1.00) to it before the delivery hereof well and truly paid by Newmarket Industrial Associates, Inc., a corporation organized under the laws of the State of New Hampshire and having a principal place of business in Newmarket, Rockingham County, New Hampshire, and for other considerations valuable and sufficient it hereto moving, the receipt whereof it does hereby acknowledge, does hereby remise, release, and forever quitclaim unto the said Newmarket Industrial Associates, Inc. all its right, title and interest in a certain parcel of land shown on a plan entitled, "Land in Newmarket, New Hampshire, Newmarket Realty Corp. to Newmarket Industrial Associates, Inc." dated December 1933, by John W. Durgin, C.E. to be filed herewith, being bounded and described according to said plan as follows:

Newmarket Industrial Assoc.  
Del. to  
Grantee  
by mail

Beginning at the northwesterly corner of the building situate on the lot conveyed, known as Mill No. 4 and thence running by the northerly wall thereof S 54° 01' E. 60.35 feet to the northeast corner of said mill building; thence turning and running S. 9° 53' E. 36.2 feet; thence turning and running S. 36° 01' W., 147.1 feet on a line parallel to and 26 feet distant from the line of the easterly wall of said mill; thence turning and running S. 51° 50' W. 58.7 feet; thence turning and running S 36° 01' W, 143.8 feet on a line parallel to and 10 feet distant from said line of the easterly wall of said mill to Mill No. 5; thence turning and running N. 54° 01' W through the center of the brick basement partition wall between Mill No. 4 and Mill No. 5, 71 feet to the westerly sideline of said Mill No. 5; thence turning at rights angles southwesterly 1.6 feet; thence turning and running N54° 01' W on the southwesterly side of the stair tower, and the same line continued 21 feet, more or less, to Main Street; thence turning and running in a northeasterly direction along said Main Street about 328 feet to the sub station lot; thence turning and running S 60° 01' E 20.2 feet; thence N 35° 59' E. 37.7 feet; thence N. 50° 42' W. 29 feet to said Main Street; thence turning and running northeast 40 feet, more or less, by said street to a point at other land of the grantor; thence turning and running S. 69° 43' E on a line parallel to and 10 feet southwesterly from the building known as the office 38 feet, more or less; thence turning and running S 13° 22' W 44.3 feet to the point of beginning, or however otherwise said parcel may be bounded and described.

The Grantor reserves the following rights in respect of the parcel hereby conveyed;

- (1) The right to maintain overhead and underground wires and cables on so much of the parcel of land bounded and described as follows as is included in the land conveyed;